



INTERNATIONAL ALTITUDE MODEL UNITED NATIONS BACKGROUND GUIDE

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)



**Food Insecurity, Climate Change, and the
Energy Crisis**

The Committee

The United Nations Environmental Program

Committee Overview

The United Nations Environmental Program (UNEP) is both a fund and a program of the United Nations (UN) responsible for coordinating responses on a local, regional, and international level. It aims to tackle pressing environmental issues and implement sustainable development goals and policies within the environmental realm.



At the end of the 20th century, a landmark conference known as the United Nations Conference on Human Environment was convened in 1972 to discuss any disasters related to natural and biological change. As a result of this conference, the Stockholm declaration was issued and an environmental management body, UNEP, was established on the 5th of June, 1972. UNEP marks the first time that the international community recognizes the right to a healthy environment and the need to institute environmental global governance.

UNEP works today with 193 member states, representatives, civil societies, and businesses, which make up its main stakeholders. Its governing council, the United Nations Environmental Assembly, consists of 58 elected members by the General Assembly (GA). This council aims to establish an active international network to form joint environmental policies and concentrate efforts on achieving sustainability through stronger legal responses. To put into practice any diplomatic agreement concerning the environment and sustainable development, member states should abide by the set laws both nationally and internationally.



UNEP's Organizational Structure

In terms of the organization's structure, UNEP is made up of a secretariat and an executive manager who chairs a senior management team. As of 2022, the executive manager is Inger Anderson and the governing body is the United Nations Environmental Assembly (UNEA). Additionally, the governing body is made up of

the secretariat which consists of a President, 4 Vice Presidents, and a Rapporteur. The secretariat oversees and coordinates the entirety of UNEP's activities. UNEP has eight divisions which include the science division, the ecosystems division, the policy and programme division, the economy division, the law division, the corporate services division, the communication division, and the governance affairs office. It also reports directly to the GA and the Economic and Social Council (ECOSOC).

UNEP's Mandate

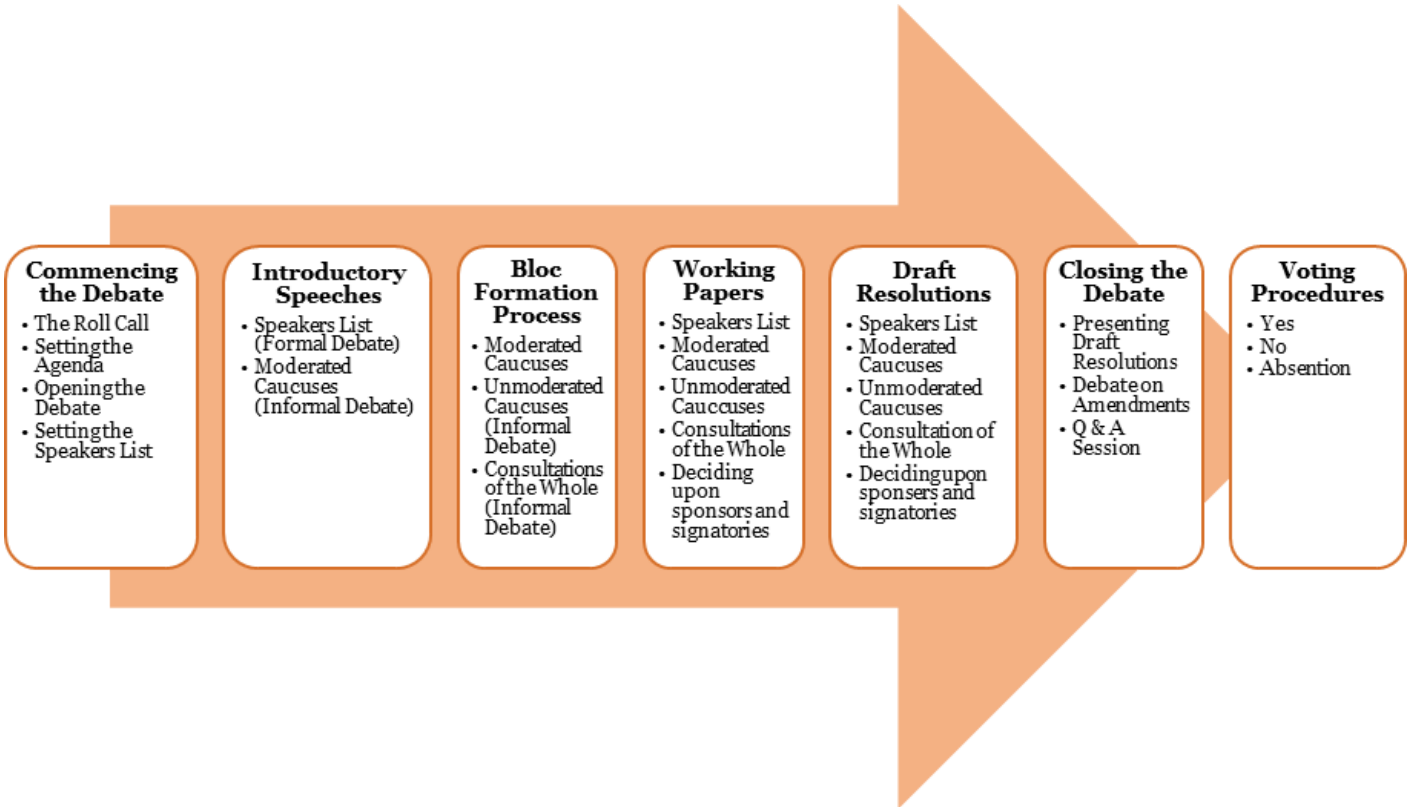
UNEP uses its expertise to strengthen environmental standards and frameworks while aiding countries in implementing environmental obligations at a local, regional, and international level. By providing leadership and encouraging partnership between nations, UNEP aims at improving the quality of life and tackling six important areas requiring joint efforts, which are:

- Climate change
- Post-conflict and disaster management
- Ecosystems management
- Environmental governance
- Harmful substance
- Resource efficiency and sustainable consumption

Being a prominent member of the development group, UNEP works on meeting the Sustainable Development Goals (SDGs) by 2030 by monitoring environmental conditions internationally and gathering information via tools and methods operating under International Environmental Law. Afterwards, through subsidiaries and task forces, UNEP implements environmental policies on a global scale that are passed as resolutions and approved by the GA or ECOSOC.

At a Glance: The Conference

The Flow of Debate



Key Terms and Concepts

- **Quorum:** The total number of member states present at the committee.
- **Absolute Majority:** An absolute majority is 50% of the quorum plus '1'. For instance, assuming that the quorum for a committee is 60, the absolute majority would be 50% plus '1' of 60, which is 31.
- **Two-Thirds Majority:** A two-thirds majority is $\frac{2}{3}$ or 66.7% of the member states present in the conference. For instance, assuming a quorum for a committee is 60, the two-thirds majority would be $\frac{2}{3}$ of 60, which is 40.
- **Decorum:** It is the constant order and respect expected from all members of the committee throughout the conference. A chairperson can call for decorum when the rules of conduct are not respected by member states.
- **Roll Call:** Roll call takes place at the beginning of the conference, during which the name of each participating nation will be called aloud in alphabetical order by the Dais. Delegates can either respond with 'present' or 'present and voting'. A roll call will be taken every time delegates reconvene at the conference following the adjournment of the debate.

- **Present:** When delegates choose to be present during the roll call, it means that they can vote on a resolution with 'yes', 'no', or 'abstention'.
- **Present and Voting:** When delegates choose to be present and voting during the roll call, it means that they have to vote on a resolution with either a 'yes' or 'no', and they cannot abstain.
- **Motion:** Delegates will use motions to move from one part of the debate to another. As such, motions will be used to decide upon the next course of action throughout the conference.
- **Point:** Points are used by member states to inquire about the flow of debate or to express any kind of discomfort. They help facilitate the conference's procedure.
- **Interruptive Points:** Interruptive points are those that can be put forth at any time during the debate process. However, at Altitude MUN, interruptive points cannot be used to interrupt a delegate giving a speech.
- **Non-Interruptive Points:** Unlike interruptive points, non-interruptive points can only be used when a Chairperson explicitly asks if there are any points or motions on the floor.
- **Yields:** If a delegate finishes their Speakers List speech and still has some speaking time to spare, they must yield their time. Delegates can either yield their time to the Chairperson, to questions, or to another delegate. Delegates should note that they only have the option to yield their time during the formal debate (the Speakers List).
- **Working Paper:** The working paper is an informal document where delegates can begin gathering ideas and forming solutions without the need to follow the format of a formal resolution. It is essentially a 'rough draft' of the Draft Resolution that will follow.
- **Draft Resolution:** Once delegates have compiled their ideas in the working paper, they are required to transform them into the official format of a resolution. This formal document is known as a Draft Resolution. The resolution will be considered a "draft" until it gets voted on and passed by member states. At this point, it becomes a resolution. There can be more than one Draft Resolution formed in a committee, but after voting takes place, the one with the most votes becomes the official resolution adopted.
- **Sponsors:** Member states that contribute the most to developing a particular document, particularly the Draft Resolution, may be appointed as "sponsors" to it. Sponsors should agree on all the ideas mentioned in the document and explain them to the quorum.
- **Signatories:** Signatories are member states that wish to see a certain document debated. Unlike sponsors, signatories do not have to agree to all ideas suggested in the document they are signatories to. Moreover, they can be signatories to more than one document as they are allowed to sign documents that are not produced by their own bloc.
- **Friendly Amendment:** Amendments are considered friendly if all of the sponsors of the original Draft Resolution agree to the proposed amendment(s).

- **Unfriendly Amendment:** Amendments are considered unfriendly if at least one of the sponsors of the original Draft Resolution disagrees with it.
-

Rules of Debate

Verbal Motions

These motions can be called for when the committee Chairperson opens the floor for any points or motions. One significant aspect to take into account is that verbal motions need to be seconded (only one second is needed for the motion to be voted on).

- **Commencing the Debate**

“The delegate of (insert full name of country) motions to open the debate to discuss (input the Committee topic).”

Formal Debate

- **The Speakers List**

“The delegate of (insert full name of country) motions to set the Speakers List for a speaker’s time of (insert the suggested length of speaking time per delegate).”

It is important to note that there is no total time for the formal debate. Once the Speaker’s List is exhausted, the debate ends.

To pass, this motion requires an absolute majority.

Informal Debate

- **Moderated Caucus**

*“The delegate of (insert full name of country) motions to suspend the debate and move into a moderated caucus with a **total time** of (insert total duration of the caucus) and a **speaker’s time** of (insert the suggested length of speaking time per delegate) to discuss (insert the desired topic).”*

To pass, this motion requires an absolute majority.

- **Unmoderated Caucus**

*“The delegate of (insert full name of country) motions to suspend the debate and move into an unmoderated caucus for a **total time** of (insert total duration of the caucus) to discuss (insert the desired purpose of unmoderated caucus).”*

To pass, this motion requires an absolute majority.

- **Consultation of the Whole**

*“The delegate of (insert full name of country) motions to suspend the debate and move into a consultation of the whole for a **total time** of (insert total duration of the caucus) to discuss (insert the desired topic of discussion).”*

To pass, this motion requires an absolute majority.

- **Adjournment of Debate**

“The delegate of (insert full name of country) motions to adjourn the meeting for the purpose of (insert the purpose of adjournment).”

To pass, this motion requires an absolute majority.

- **Introducing Draft Resolutions**

“The delegate of (insert full name of country) motions to close the debate and move into the introduction of draft resolutions.”

To pass, this motion requires a two-thirds majority.

- **Debate on Amendments**

“The delegate of (insert full name of country) motions to close the introduction of draft resolutions and commence the debate on amendments.”

To pass, this motion requires a two-thirds majority. However, for amendments to pass, they only require an absolute majority.

- **Voting on Resolutions**

“The delegate of (insert full name of country) motions to close the debate on amendments and move into voting procedures.”

To pass, this motion requires a two-thirds majority.

In order to pass and become the committee’s official Resolution, the Draft should garner the support of at least an absolute majority. If a committee has several Draft Resolutions, the one with the highest number of votes passes.

Written Motions

Instead of voicing them aloud, these motions are written on formal notes and delivered to the Chairperson by way of an Usher.

Format

From: Delegates should insert the full names of their nations here.

To: Chairperson

Purpose:

- **Appeal to the Chairperson's Decision:** This is used when a delegate believes the Chair acted unfairly or has committed a mistake in the flow of debate.

If the delegate wishes to motion for an appeal to the Chairperson's decision, the format should look similar to the following:

"The delegate of (insert full name of country) motions for an appeal to the Chairperson's decision because (insert reasoning behind the appeal)."

- **Right of Reply:** A delegate can invoke a right of reply when another delegate seems to have made a derogatory comment aimed at the country s/he is representing. It is important to note that **there is no Right of Reply to a Right of Reply.**

If the delegate wishes to motion for a right of reply, the format should look similar to the following:

"The delegate of (insert full name of country) motions for a right of reply to (insert full name of target nation) because (insert reasoning behind the right of reply)."

Points

Interruptive Points

- **Point of Personal Privilege:**

This point can be utilized by a delegate whenever they experience a certain personal discomfort that hinders their ability to fully participate in the conference at hand (e.g. needing to use the restroom).

- **Point of Order:**

A point of order is brought up when a delegate feels as though the rules of procedure have been broken. At Altitude MUN, points of order are not allowed when a delegate is giving a speech.

Non-Interruptive Points

- **Point of Parliamentary Inquiry:**

This point can be used whenever a delegate would like to ask the Dais members a question regarding the overall rules of procedure.

- **Point of Information:**

A point of information, also known as a point of inquiry, can be exercised by delegates whenever they would like to ask a question regarding something they do not understand about the issue being addressed.

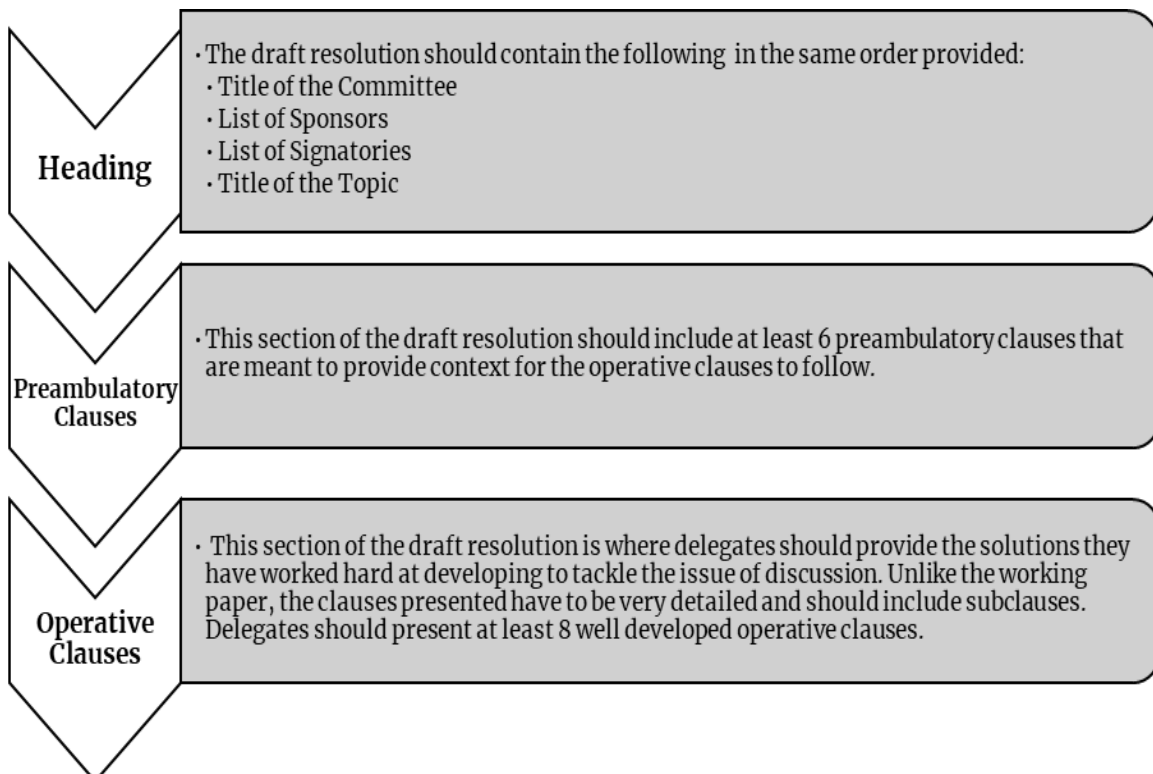
Resolution Formation Process

The sole purpose of an Altitude MUN conference is to reach comprehensive and innovative resolutions that can help in tackling the debated topic. The figure below depicts the procedure guiding the flow of the conference.



Delegates should start with a working paper, which is a rough draft of their ideas and solutions, before transforming it into a formal draft resolution. The draft resolution has a specific format that should be adhered to. Delegates can also suggest amendments after the draft resolution is introduced to the committee. When all amendments are discussed, the committee needs to vote on the presented draft resolution(s). Finally, when the draft resolution gets the needed votes required to pass, it becomes a resolution.

Flow and Structure of a Draft Resolution



The Topic

Food Insecurity, Climate Change, and the Energy Crisis

Topic Overview



An inevitable energy and food crisis is on the rise, causing a state of panic that is met with European governments warning their citizens that it would be a tough winter and urging them to save on fuel due to an increasing energy crisis. On an international scale, the levels of hunger reached new levels with approximately 193 million people lacking access to essential food staples across 53 countries and territories. The struggle for food security may be attributed to different factors including, but not limited to, climate change, soaring energy prices, a substantial expansion in the population, and the unfolding of the war in Ukraine. Currently, many countries are facing lower crop yields due to climate change, and consequently, they are being forced to shift to alternative ways to import supplies to avoid acute food insecurity. The world is slowly recognizing the need for a multi-faceted approach to tackle interconnected global issues simultaneously and with coordinated efforts. Particularly, a failure in addressing climate

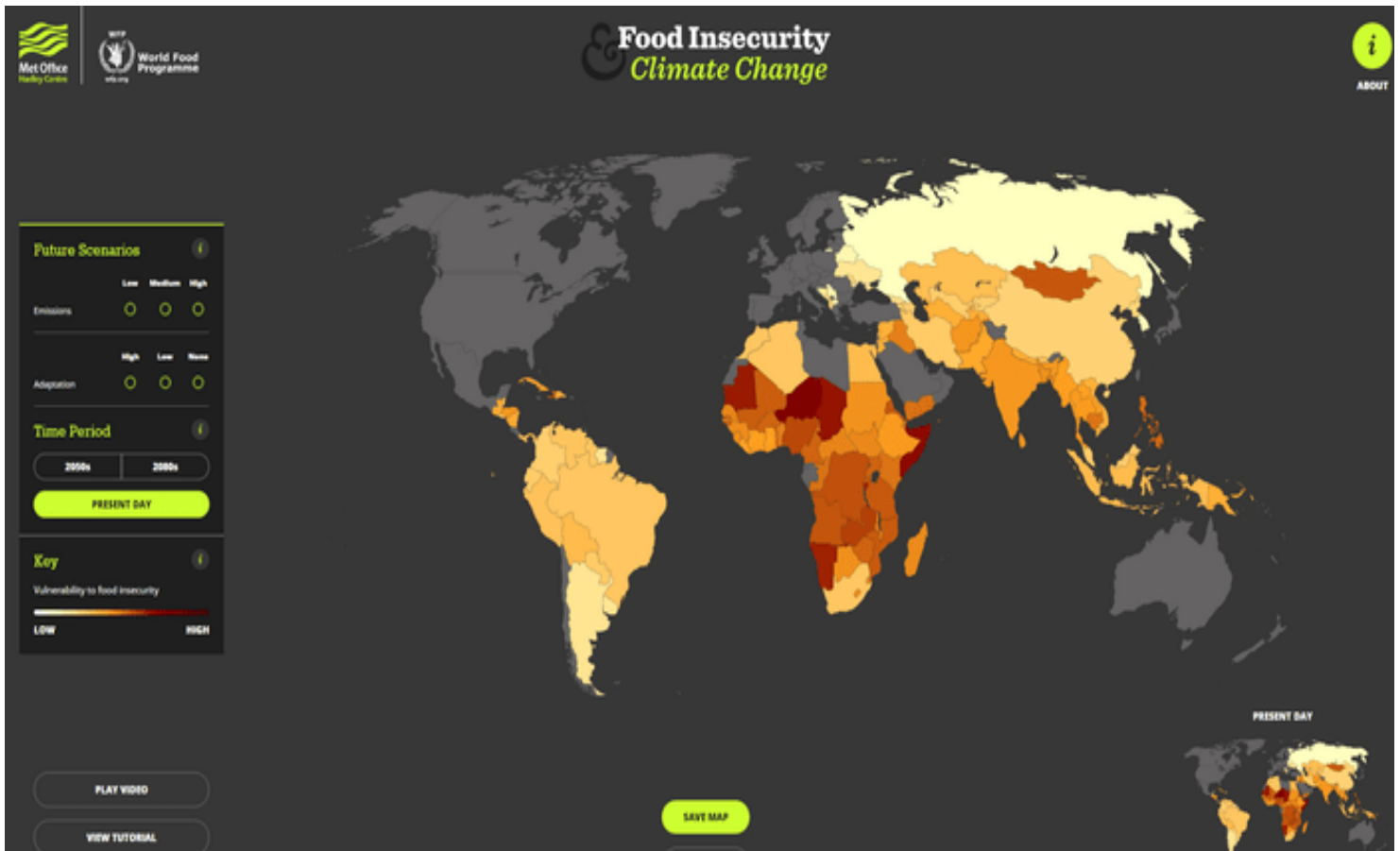
change will only exacerbate food insecurity and increase the strife for energy sources.

Food Insecurity in Relation to Climate Change

Food insecurity is the lack of access to sufficient, safe, and nutritious food that meets the dietary needs for a healthy lifestyle. Food security has four dimensions: availability of food, accessibility, utilization, and stability. Notably, all four dimensions have been drastically affected by climate change. New glaring evidence from several studies proves the saliency of climate change when it comes to its drastic impact on food production in several regions around the world. Around 80% of countries count on imports for food or agricultural inputs. However, droughts, floods, and severe weather conditions are impeding the process of growing crops and producing healthy and nutritious food. Approximately 500 million smallholder farms in the developing world are supporting almost 2 billion people globally. Unfortunately, these areas have been the main target of climate change, resulting in fewer yields on staple nutritional items such as maize and wheat. Elizabeth Wathuti, Founder of the Green Generation Initiative, claimed during the Davos 2022 conference that “over 3 million Kenyans and 20 million Africans are facing extreme hunger due to the effects of climate change” as crop yields have been affected excessively by harsh weather conditions. She continues to call for immediate action against the war in Ukraine which is exacerbating the high levels of food insecurity.

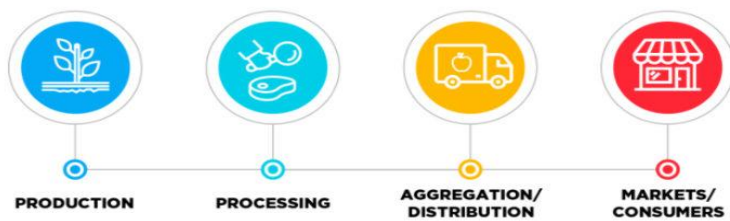
Additionally, as a result of low crop yield, many producing and exporting countries, such as India, have cut down their food exports via trade bans to safeguard their own food security. Furthermore, one of the key reasons for higher carbon emissions has been poor agricultural practices and raising livestock.

There is an urgent need for countries to shift to sustainable and environmentally friendly agricultural practices while ensuring crop yields are not as drastically affected. Food insecurity is not only an issue for public health, but also for geopolitics and security as resource-insecure states strive to invest in agricultural resources abroad.



Food Loss and Food Waste

The triple global crises: climate change, rising energy prices, and food insecurity are mainly caused by our food system and consumption habits. Reducing food losses and waste is integral to any fight against the aforementioned interconnected crises. There are tons of edible food lost or wasted on a daily basis from the moment of harvesting to transport, processing, and distribution.



According to UN sources, between harvest and retail, 14 percent of the food produced on a global scale gets lost while 17 percent gets wasted. The difference is that food loss occurs at the production and processing stages of a food chain, whereas food waste happens after retail when the consumer discards edible food. In 2019, homes, food services, and retail stores wasted 931 million tons of food, or almost 17 percent of the total amount of food available for human consumption, in reference to the UNEP Food Waste Index study. These occurrences undermine the sustainability of our food systems, since all the resources employed for the production of food go to waste. In addition, as the amount recorded for food loss and food waste increases, the cost of food is likely going to rise due to greater demand for food and food scarcity. The devastating numbers led to setting SDG 12.3 which aims at cutting in half retail and consumer food waste globally per person. Food waste also contributes to climate change as disposing of it in landfills results in greater greenhouse emissions (almost 10% globally). Although completely eliminating food waste and loss is a

farfetched option, member states may be able to make the present food systems more resilient. This can be through integrated approaches that are based on innovative and tech-based solutions, including e-commerce platforms for marketing and retractable mobile food processing systems, designed to eradicate food loss and waste. Joint action across the public and private sectors are needed to move ahead with such solutions, reduce food loss and waste, and consequently, build more resilient food systems.

Food Systems and the Sustainable Development Goals

Awareness of the need to improve current food systems has increased over the past few years. For example, there has recently been a growing shift towards plant-based diets. Proponents of plant-based diets differ in their rationale, as some would focus on the consumption angle, while others would attempt to avoid the harmful practices inflicted upon animals and the environment (the food production angle). Additionally, there is an apparent increase in the consumption of local seasonal foods over exotic and durable ones. Such a shift has changed the social, economic, and physical landscapes of many communities and induced greater awareness of the need to adopt sustainable food systems. Current food systems are driven by population increase and have extremely negative consequences on the environment. Hence, alternative food systems that support biodiversity, improve general human health, and have a greater positive influence on the environment are needed. Additionally, there should be a greater emphasis on eradicating socioeconomic inequalities, as the inability to access nutritious food due to poverty is by far the greatest facet of food insecurity. A concerted effort is thus needed to achieve joint policies, in line with the relevant SDGs, to ensure people's right to access nutritious food and natural

resources. The five SDG principles for sustainable food and agriculture systems are:

1. Increase productivity, employment, and value addition in food systems
2. Protect and enhance natural resources
3. Improve livelihoods and foster inclusive economic growth
4. Enhance the resilience of people, communities, and ecosystems
5. Adapt governance to new challenges

Sustainable food and agriculture ensures profitability, socioeconomic equity, and environmental health, which helps in tackling the three interconnected global crises. It also contributes to the four pillars of food security including “availability, access, utilization, and stability”.

The Environment’s Role in Averting Food Crises

The main resources for food production are mostly provided by the environment. If not sustainably addressed, the estimated yields for food production may be less than 25% of what is demanded by 2050 – mainly as a result of climate change, soil degradation, farmland losses, water scarcity, and species infestations. Over the years, optimizing food energy efficiency has always been called for by international organizations and activists alike to replace a state's focus on increasing the supply of food to ensure food security. To elaborate, shifting to more eco-based production and limiting land degradation would minimize the presence of invasive species, protect biodiversity, and boost food production. This has been manifested in the Sustainable Intensification (SI) strategy set forth by the Food and Agricultural Organization (FAO) of the UN. SI combines farmers’ traditional knowledge with innovations in agricultural technology that are tailored to the requirements of small-scale producers. This helps produce more from the

same area of land while preserving natural resources and the environment. Moreover, developing alternatives to animal feed, such as recycling waste and using fish discards, could help sustain energy demands globally. In essence, the ability to reduce energy loss in food from the point of harvesting through processing to consumption helps optimize the food chain while ensuring that the environment is not harmed. Greater awareness of the alternative techniques available to increase food supply is needed so as to help avert further food insecurity.

Energy Crises in Relation to Climate Change

“The energy sector is the source of around three-quarters of global greenhouse gas emissions. Switching to clean forms of energy generation, such as solar, wind, and hydropower – and improving energy efficiency – is vital if we are to thrive in the twenty-first century. Net zero by 2050 is the aim. But we will only get there if we double the supply of low-emissions electricity within the next eight years,” said World Meteorological Organization Secretary-General Professor Petteri Taalas.

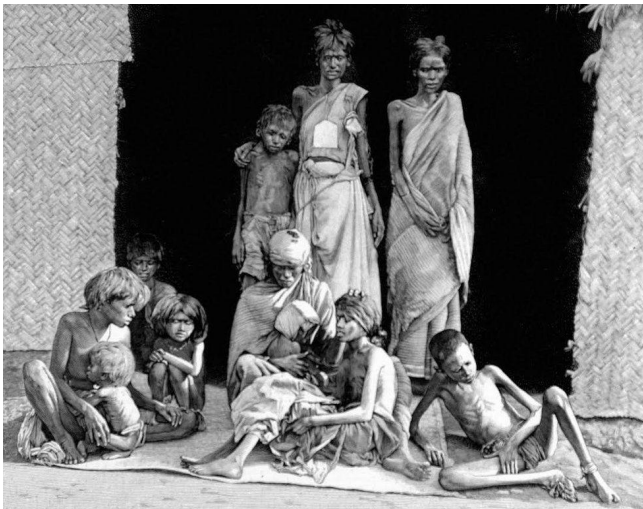
Climate change has a direct impact on the supply of fuel and energy production, as well as the capacity of current and future energy infrastructure. Existing energy production facilities are already pressured by heatwaves, droughts, and the ability of states to get a hold of the required natural resources for them to operate fully. This also means that there should be a concerted effort in reducing fossil fuel emissions to mitigate suffering further consequences. For instance, in January 2022, around 700,000 people in the capital city of Argentina, Buenos Aires, were affected by massive power outages as a result of a historic heatwave. Similarly, two years ago, the Russian Federation and some countries in Eastern Europe faced power outages for several days due to

freezing rain-coated power lines. As such, there is an urgent call by the international community to double the supply of electricity from clean energy sources, especially within the next eight years, to limit the rise in the global temperature of the earth. Otherwise, climate change poses a dangerous risk to energy security.

Many countries have already initiated energy conservation policies. European Union (EU) member states have agreed to reduce their gas demand by 15% in order to save energy for winter. In addition, several countries are looking to invest in alternative programs instead of the legacy fossil fuel projects that will jeopardize the planet and lead to food insecurity and climate change.

Topic in Depth

Akin to wars and epidemics, famines have occurred since the very beginning of agriculture. It was historically a localized phenomenon since staple crops were too heavy to be transported over large distances.



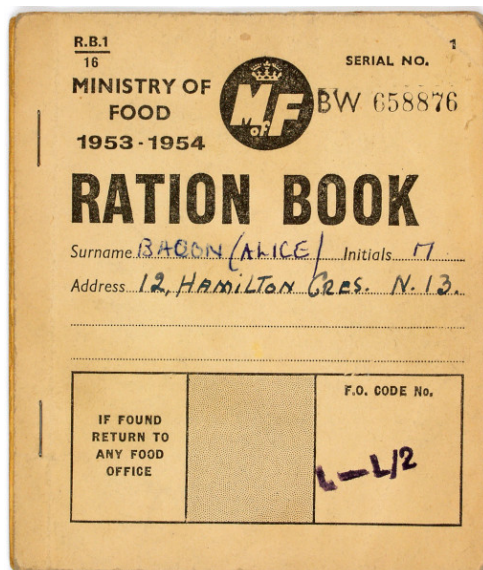
However, with the instigation of the industrial revolution and the inventions of the steamship and railway, a massive upheaval was witnessed as cheap grain from the Americas flooded the European and Asian continents. While the ability to import and export grains provided sustenance for the growing populations, especially in industrial areas, it still negatively affected the livelihoods of rural families in light of the competitive pricing of crops. Also, when crop

failure occurred, the regions which are dominated by agriculture suffered the most as they no longer had the self-sufficiency to satisfy demands. 19th-century famines resulting from crop failure and drought were predominately witnessed in India, Northern China, Ethiopia, and Northeastern Brazil. Historian Mike Davis called them the “late Victorian holocausts” as they were all caused by global climatic factors and subsequent famines that decimated local populations. In addition, the effect of drought in these areas was magnified with the rise of imperialist policies promulgated by the rulers of what is now known as the “developing nations”.

Famines of World War I and II

Wars are often accompanied by the destruction of resources which create even more catastrophic impacts on the livelihoods of people than bombs and bullets. The parties at war may plunder the food supplies of the enemy and intentionally destroy farms, livestock, and resources to threaten their means of survival. During both World War I and II, the world witnessed the worst famines to have ever existed. Although the focus of this background guide is on food insecurity in relation to climate change, the famines of World

War I and II are noteworthy. Famines were recorded in every continent and the countries with the most prominent deaths were the Soviet Union with an estimated 7 to 9 million fatalities, 2.1 million in the Bengal province of India, and 2 million in the Henan province of China. The estimated mortality rates on a global scale were more than 70 million people, which is more than the battlefield death toll of the two world wars combined. This statistic is historically unprecedented and is recorded at a time when developed nations had the logistical and technical capacities to avert the crisis, yet their policies failed to prioritize the well-being of civilians.



The Right to Food As a Human Right

Following the atrocities recorded in the 20th century, one of the primary human rights recognized in the 1948 Universal Declaration of Human Rights, adopted by the UNGA, was the right to an adequate standard of living. This includes the right to adequate food, water, housing, and the continuous enhancement of living conditions. As a result of the increasing awareness of the importance of nutrition for health and the need to integrate technological developments for the improvement of the agricultural sector, the FAO came into force in

1945. The FAO addressed post-war famine and achieved great strides in eradicating poverty and hunger, in addition to improving food security and nutrition. Moreover, one of the major FAO-led initiatives was helping member states modernize agriculture through artificial fertilizers. This led to what came to be known as the Green Revolution, resulting in greater crop yields in the Global South during the 1960s. During the same decade, the United States (US) passed the Agricultural Trade Development and Assistance Act, known as Public Law 480, which allowed food-deficit allies to buy US agricultural commodities in their own currencies, while the US benefited from exporting its surplus grain.

In the early 1970s, however, Asia and North America witnessed two seasons of crop failure, while simultaneously suffering from the higher cost of petroleum-based fertilizers, raising concerns over the efficiency of the FAO strategies. With the high cost of fertilizers and environmental changes affecting crop production, global food supplies fell short, and consequently, food prices doubled in what came to be known as the 1970s food crisis.

The 1970s Food Crises

The world food crisis of 1972 till mid-1975 was characterized by skyrocketing food prices, particularly internationally traded grain, resulting in hunger catastrophes in many African and Asian regions. Due to the demand increase of countries, predominately the Soviet Union, and the emergence of an energy crisis manifested through the oil embargo of 1973, the available food supply fell short and endangered the food security needs of most countries.

During the peak of the crisis in November 1974, a 12-day UN World Food Conference was held in Rome per the request of US Secretary of State Henry Kissinger and the non-aligned countries. The conference led to substantial results, but the

procedure for implementation was unclear and thus rendered the results futile. The industrial countries refused to lower trade barriers and did not commit to price stabilization schemes. Instead, leaders attributed the crisis to high birth rates and poor technology. They focused on providing assistance for small farmers to increase their production via agricultural inputs like high-yielding seeds along with the required fertilizers, pesticides, and irrigation infrastructure. More importantly, this conference led to the concept of food security as we have come to know it nowadays. Additionally, three important subsidiary bodies crystallized: the International Fund for Agricultural Development (the only one that still exists), the Consultative Group for Food Policy and Investment, and the World Food Council, designed to monitor the global food situation and advise member states on national food security policies.

United Nations Conference on New and Renewable Sources of Energy



Talks over renewable energy were first prioritized on the international agenda following the quadrupling of oil prices in 1973 and the rise in food insecurity as a result. The Organization of the Petroleum Exporting Countries (OPEC) was responsible for controlling the prices of oil, which was supplying roughly 50% of the world's total commercial energy. In response, the industrial West, led by the US, established the International Energy Agency (IEA) in 1974 to promote mutual

cooperation and shape energy policies between western member states. In the second half of the 1970s, discussions on energy sources remained an issue that was backdropped by rising oil imports and the indebtedness that this caused for some developing countries. In 1978, the UNGA passed Resolution 33/148 "to convene an international conference on new and renewable sources of energy under the auspices of the UN in 1981".

The need for an international dialogue on "new and renewable sources" was not a result of the harm caused to the environment by traditional resources such as fossil fuels, but rather by the ability of some countries to maneuver the pricing of the "lifeline" for other states. In 1981, the conference was convened and a negotiation phase ensued and ended after 10 days with a consensus on a Programme of Action. Whether this conference yielded actual cooperation on the subject of new and renewable sources or not, it still stands out for its attempt to promote a novel discussion on energy and declare the need for an **energy transition**.

1992 Groundbreaking Rio Earth Summit

In the later half of the 20th century, the international dialogue shifted towards environmental issues but with little mention of climate change. As previously mentioned, the first environmental summit took place in 1972 and eventually led to the crystallization of UNEP. Nevertheless, scientists started warning about the dangerous increase in greenhouse gas emissions leading to the first world climate conference in 1979. It was convened by the World Meteorological Organization (WMO) along with UNEP, FAO, WHO, and other scientific partners. Following the conference, the World Climate Programme (WCP) was established under the supervision of the WMO to promote research on climate variability and climate change.

The Second World Climate Conference happened a decade later in 1990 to review the progress made by the WCP and initiate negotiations for the establishment of a UN Framework Convention on Climate Change (UNFCCC). The review of the WCP was extremely positive as it produced adequate research frameworks on the links between climate change and the challenges to food, water, energy, and urban design.



The first international agreement on climate change was signed at the Rio Earth Summit of 1992. This agreement laid the foundation for all climate conferences to come as it formally recognized the UNFCCC and mandated the need for ratifying members to frequently meet and discuss **climate change as a global concern** – these meetings have come to be known as the Conference of Parties (COP). The agreement aimed to avert human interference in the climate system and acknowledged the factors that are deteriorating the climate such as greenhouse gasses from the burning of fossil fuels. The UNFCCC is a non-binding treaty that requires the reduction of CO₂ emissions and sets climate targets for member states to achieve, and it was a groundbreaking framework that provided a solid foundation for forthcoming climate talks. Notably, as of 2022, almost all member states are parties to the convention, including the US.

World Food Summit 1996

Growing concern about the capacity of agriculture to meet the future food needs of

populations resurfaced in the 1990s. At the 27th session of the FAO conference, member states called for a World Food Summit to be convened immediately in order to address the widespread undernutrition and hunger strikes in many parts of the world. In 1996, the UN launched the World Food Summit including representatives from 185 countries and relevant international and regional organizations.

Afterwards, important milestones were set in place as countries pledged to eradicate hunger. The first decisive initiative was setting the goal to half the number of undernourished people in the world by 2015. Member states also pledged to commit politically to achieve food security for all. In addition, the attendees urged the UN High Commissioner for Human Rights (UNHCR) to work on a better definition of the rights related to food in Article 11 of the covenant on Economic, Social, and Cultural rights under Resolution 2/97. The conference also emphasized the connectedness of climate change to food insecurity and the need to address both of these incidents simultaneously.

2008 Food Crisis



Between 2007 and 2008, global food prices experienced a meteoric rise, plunging 40 million people into hunger in one year only. The unprecedented rise in food prices affected staple food crops such as rice, wheat, corn, and soybeans which had serious repercussions on the most vulnerable. For instance, reports recorded the doubling of wheat prices in one year and that of rice in five months only.

At the forefront of this storm were developing countries, as their import bills witnessed a 56% increase between 2007 and 2008. On the other hand, several countries initiated bans on exports of staple grains to protect their local supply while increasing the pressure on prices on the international market.

The crisis highlighted the lack of agricultural investments in most countries, especially given their high volatility to price changes and inability to be self-dependent when it comes to providing staple food for their people. For instance, China, a major exporter of rice, banned rice exports, rendering several trade partners unable to supply their markets which, in turn, amplified food insecurity locally. Other countries such as Ivory Coast, Haiti, and Cameroon experienced violent demonstrations which led to political instability and resulted in a huge death toll.

2015 Paris Agreement

The Paris Agreement is a legally binding global treaty on climate change. Adopted by 196 Parties at COP21 in Paris, on 12 December 2015, the treaty was set to restrict global warming to well below 2C, ideally to 1.5C. For the first time, a legally binding agreement that binds all nations to undertake ambitious efforts to combat climate change and adapt to its effects had come to be, making the Paris Agreement a landmark in the multilateral climate change process. Member states have agreed to reach global peaking of greenhouse gas emissions as soon as possible to achieve a climate-neutral world by the middle of the century. To track the progress of member states, an Enhanced Transparency Framework (ETF) was developed. Starting in 2024, states will be required to report transparently on the actions and adaptation measures that they have done to mitigate climate change. Afterwards, the information gathered through the ETF will feed into the global stocktake which will assess the

collective progress toward the long-term climate goals.

COVID-19 Implications



The COVID-19 pandemic has caused repercussions across all sectors all around the globe. It has caused economic downturns and slow growth rates that have induced trade shocks, increased food insecurity, and heightened energy prices. It further exacerbated the situation in countries that already had challenges in providing access to sufficient and nutritious food. The FAO predicts that as many as 161 million people have faced acute hunger in 2020 relative to 2019. In addition, 2.25 billion people were estimated to have had inadequate food, which was a sharp increase of 320 million people relative to the preceding year.

Russia's Invasion of Ukraine in 2022

The global trading system has been extremely challenged ever since the eruption of the war in Ukraine. Ukraine is a major exporter of corn, sunflower oil and seeds, wheat, and colza seeds. It is also a major player in the international markets when it comes to supplying neon gas and fertilizers. Almost half of the world's neon gas is shipped through the Odessa and Mariupol maritime routes, currently blocked by Russian shelling. In addition, Russia's blockade of the Black Sea ports has impeded the trade in essential food supplies from Ukraine. As a result, the prices of grains, fertilizers, and energy resources have skyrocketed, disrupting the

supply chain and increasing food insecurity. The Russian Federation, in parallel, suspended its gas exportation to the majority of EU member states as a form of economic coercion, further exacerbating the need for energy sources. According to the World Bank, the current food and energy crises are different from the 1970s incidents as the ability to transition from one source of energy to another was easier back then. Yet, at the present time, the prices of all energy resources have soared. Experts are requesting the immediate action of states to address the situation, with growing concern over stagflation and potential famines. Safe transport channels ought to be established or the food crisis could last up to 2 years with around 276 million people facing acute and severe food insecurity.

Pertinent Features

The Role of Trade in Diffusing the Food Crisis



Trade is increasingly becoming more important to diffuse the food crisis in light of a changing climate. During periods of domestic shortages, international trade helps increase access to food and attenuates price volatility. More generally, the majority of the world's population lives in countries that are dependent, to some extent, on food importation. This has been reinforced by the latest report published by the FAO, which states that the year 2022 recorded an unprecedented increase in food importation equating to approximately USD 2 trillion. Without trade expansion, low-income countries will become

more vulnerable to food insecurity as a result of climate change. Therefore, reducing barriers to trade remains a necessity to strengthen the accessibility of food and the integration of agricultural trade on a global scale. Over the past few years, the international dialogue on trade and agriculture has stalled. However, the climate and food security crisis necessitates the need to revitalize negotiations on agriculture since there are mutual benefits from a coordinated strategy toward achieving global food security and addressing climate change. Countries are encouraged to work on opening trade routes in order to facilitate the transportation of fertilizers, grains, and commodities between nations easily.

Black Sea Grain Initiative

"A 'beacon of optimism' in a world that sorely needs it," stated UN Secretary-General António Guterres at the signing ceremony on July 27 in Istanbul, Türkiye, alluding to the "unique agreement" on the restoration of Ukrainian grain shipments via the Black Sea amid the continuing Ukraine-Russia conflict. The set plan opens up international markets for Russian food and fertilizers, which will aid in stabilizing the world's spiraling food costs and preventing a famine that would affect millions of people. The proposal explicitly permits sizable quantities of commercial food exports from the three important Ukrainian Black Sea ports of Odessa, Chornomorsk, and Yuzhny. More than 9 million metric tons of food have already been moved as



a result of the Black Sea Grain Initiative. This helped ease the strain on the transportation of commodities which was caused by Russia closing off trade routes. Such geopolitical agreements will help alleviate the repercussions of humanly inflicted harm.

Sustainable Food Cold Chains



The UNEP and the FAO recently launched another initiative to address the interconnected risks of climate change and food insecurity on November 12, 2022, at the 27th climate change conference in Sharm El-Sheikh. The initiative, **Sustainable Food Cold Chains**, proposes that food cold chains are a prominent opportunity to feed an additional two billion people by 2050, reduce greenhouse gas emissions, create jobs, and reduce poverty. It also provides a global overview of food cold chains and their usage and explores methods to make them more sustainable. As revealed by the report issued, improving the food cold chain infrastructure of developing countries would possibly allow them to save 144 million tonnes of food per year. Moreover, the eminent effect of food cold chains on climate change were discussed, as food waste emissions, namely methane, reached around one gigatonne in 2017. The report maintains that implementing measures, like installing food cold chains infrastructure with low global warming potential, will reduce the atmospheric concentrations of methane in this decade. Finally, the report

highlighted the progress being made in different countries such as India, where kiwi fruit losses were reduced by 76% upon the implementation of the food cold chain pilot project. Another project in Nigeria oversaw the installation of 54 operational cold hubs, resulting in the preservation of 42,000 tonnes of food. More countries are encouraged to adopt context-specific strategies, inspired by the sustainable food cold chains, to ensure greater food security and positive environmental outcomes.

UN Decade on Ecosystem Restoration

Launched on World Environmental Day in 2021, the **UN Decade on Ecosystem Restoration (2021-2030)** was promulgated pursuant to **Resolution 73/284** of the UNGA. Through revitalizing and protecting destroyed ecosystems, this program aims to alleviate the climate crisis and its ramifications, as well as promote people's livelihoods, by providing water and food security, and enhancing biodiversity. The implementation of the aforementioned goals is led by the UNEP and the FAO, in collaboration with governments, civil society, and the private sector. This initiative calls upon all member states to create and implement policies that ameliorate ecosystem degradation as well as reinforce existing initiatives to amplify the needed practices. It also sets out ten principles that ought to underpin all efforts for ecosystem restoration and creates a common vision for ecosystem revival. The ten principles are global contribution, broad engagement, benefits to nature and people, addressing causes of degradation, knowledge Integration, measurable goals, local and land/seascape contexts, monitoring and management, as well as policy integration. In addition, Resolution 73/284 emphasizes the need for all efforts conducted within the framework of this decade to be in line with the implementation

of the UN 2030 SDGs and other environmental agreements.

The Two Fs in Commodity Markets

Food and fossils are causing a lot of concern to the world population. The risk of food shortages, whether due to climate change, transnational wars, or recessions brought about by inflation, cannot be dismissed, particularly noting the current fragile status of the global economy and the developing world post-COVID-19 pandemic.

1. The Role of Investors and Corporations

“One hundred of all the hundreds of thousands of companies in the world have been responsible for 71% of the global greenhouse gasses emissions that have led to global warming since 1998,” indicated a report recently published by the Carbon Disclosure Project (CDP). Investors and companies are major stakeholders in the current global crises and thus, they ought to collaborate on a common standard for environmental, social, and governance (ESG) frameworks. Such frameworks would guide the corporate world into a new form of environmental capitalism whereby companies would set and commit to net-zero goals while slowly shifting to renewable sources. Therefore, integrating sustainability into the business model and as part of the national and international policies of corporations is crucial in the struggle against climate change.

2. The Use of Renewable Energy

To achieve energy security and decrease the impact of climate change on food insecurity and on humanity as a whole, a pragmatic shift to renewable sources of energy is needed. The UN, along with its partners, has set goals to halve the amount of emissions by 2030 and reach net zero by 2050. To jump-start this transition, renewable energy technology has to become a public good, and governments ought to improve the

accessibility of people to its components and raw materials. There is thus an urgent need to fast-track renewable energy projects, shift energy subsidies from fossil fuels to renewable energy, and triple the investments in renewable energy sources. This shift would help lessen the cloud of greenhouse gasses trapping heat in the earth’s ozone layer and eventually alleviate extreme weather conditions that aid in agriculture and food production.

Global Efforts

Davos 2022: A Net Zero Event

The most recent Davos conference, hosted annually by the World Economic Forum in Switzerland, promoted sustainability thinking and introduced metrics that allow global changemakers to set achievable goals. This year’s Davos meeting was necessary for 2,500 world leaders and experts to discuss Ukraine and the future of the global world order as well as the growing urgency of the climate crisis and its impact on food security and hunger. In this conference, countries not only convened to discuss the three interlinked crises but also to set frameworks and share policies that help address them. Country leaders, particularly from Europe, have pledged to collaborate in response to Russia’s economic coercion to ensure the equitable distribution of resources and that the most vulnerable are not forced to bear the brunt of competing international interests.



The Global Network Against Food Crises

The Global Network Against Food Crises is an alliance of humanitarian and development actors working together to prevent, prepare for, and respond to food crises and support SDG 2 to end hunger. It was founded by the EU, FAO, and World Food Program (WFP) at the 2016 World Humanitarian Summit.

The 3 x 3 approach to addressing food crises



The Network tries to lessen vulnerabilities resulting from acute hunger, achieve improved nutrition and food security, and use a "3x3 approach" to promote sustainable food and agriculture systems. This entails working at the global, regional, and national levels to support partnerships within existing structures and enhance advocacy, decision-making, policy, and programming in three dimensions: "Understanding food crises, Leveraging strategic investments in food security, nutrition, and agriculture, and Going beyond food."

UN Food Systems Summit in 2021

For the purpose of achieving the SDGs by 2030 as part of the Decade of Action, the UN Food Systems Summit was hosted. The Summit had five important objectives which include:

1. Ensuring access to safe and nutritious food for all
2. Shifting to a sustainable consumption pattern
3. Boosting nature-positive production at sufficient scale
4. Advancing equitable livelihoods and value distribution
5. Building resilience to vulnerabilities, shocks, and stress

These objectives were addressed through five important work streams which include:

1. **Action tracks**
Action tracks will offer multi-stakeholder constituencies a space to share and learn, with a view to supercharging their progress by fostering new actions and partnerships and by amplifying existing initiatives.
2. **Food system dialogues**
Governments and people will have the chance to discuss their food systems and decide how they may be reinforced in every region of the world.
3. **Advocacy, communications, and mobilizations**
In order to promote awareness, influence the narrative, and motivate action on food systems in support of the SDGs, activities will involve a wide range of stakeholders.
4. **Knowledge and policy**
The Summit will make efforts to facilitate, gather, and further develop the science that will support its vision, viewpoints, recommendations, and course of action.
5. **A powerful digital platform**
The Summit will offer a platform that is open to all, active, and inclusive, and where the Summit process may be accessed at all times.

COP27

The 27th United Nations Climate Change Conference (COP27) took place in Sharm el Sheikh, Egypt, from November 6 until November 20, 2022. Approximately 35,000 attendees, over 100 Heads of State and Government, and multiple pavilions exhibiting climate action around the globe were present. The conference attempted to shift the 'pledging for assistance' to an 'efficient implementation' strategy. This is in contrast to the COP26 Summit, which focused on ensuring the commitment of member states to certain environmental frameworks.

Among the most prominent outcomes from COP27 were the following:

Agreeing on a fund:

For nearly three decades, developing nations have been requesting financial aid for loss and destruction as a result of climate change. This was a unique achievement on a global scale and a milestone for developing countries.

1.5C:

Two temperature goals were set forward in the 2015 Paris Agreement: to keep the rise in temperatures "well below 2C" and to "pursue efforts" to limit it to 1.5C. Since then, experts have shown that 2C is not safe, and at COP26 in Glasgow, countries decided to concentrate on a 1.5C target.

Gas:

The provision to promote "low-emissions energy" was included in the final version of COP27. That could refer to a variety of things, including wind and solar farms, nuclear reactors, and coal-fired power plants with carbon capture and storage systems.

Learning Outcomes

- Delegates will obtain a comprehensive understanding of the interplay between food insecurity, energy resources, and the climate crisis.
- Delegates will be able to recognize the available international organizations and conferences that are conducted to address the interconnected crises.
- Delegates will be aware of the significance of global cooperation between member states, corporations, civil society groups, and the private sector in this specific topic.

Recommendations

- Delegates must draw on the latest scientific evidence to form strategic plans aimed at closing the gaps in calories available and calories needed by 2030 ensuring food insecurity is kept at a minimum.
- Delegates are advised to put forth effective implementation, mentoring, and evaluation frameworks to preexisting or new projects aiding the shift to renewable energies.
- Delegates should come up with innovative ways to fund food technology and renewable energy projects globally, but with a larger focus on developing countries.
- Delegates should note that the UNEP often collaborates with other UN organizations, nongovernmental agencies, and intergovernmental agencies.
- Delegates should take into consideration any political advancement that may

hinder the food and energy crisis even further.

- Delegates are expected to make use of the previous frameworks set by countries during conventions and conferences, particularly those mentioned in the background guide.

Key Questions

- How is your country impacted by the energy, climate, and food crises?
- Has your country ratified the relevant international treaties for addressing the crises set forth?
- How has your country been affected by the restrictions to free trade caused by geopolitical changes?
- What are the national policies and regulations that have been taken by your country to address the three interconnected crises?
- Is your country currently suffering or is it on the brink of lacking food security as a result of global advancements?

Annexes

Relevant Institutions

- World Meteorological Organization (WMO)
- Green Climate Fund (GCF)
- Intergovernmental Panel on Climate Change (IPCC)
- Food and Agriculture Organizations of the United Nations (FAO)
- United States Department of Agriculture (USDA)
- Organization for Economic Cooperation and Development (OECD)
- European Investment Banks (EIB)
- World Food Programme (WFP)

Relevant Legal Treaties, Frameworks, and Conventions

- United Nations Declaration for Human Rights (UDHR)
- Carbon Disclosure Project (CDP)
- Greenhouse Gas Protocol (GHG)
- Task Force on Climate-related Financial Disclosures (TCFD)
- Framework Convention on Climate Change (UNFCCC)
- Kyoto Protocol
- Paris Agreement

- Vienna Convention for the Protection of the Ozone Layer

Relevant Conferences

- World Conference on Climate Change & Sustainability
 - Bonn Climate Change Conference
 - Sustainable Development Impact Meeting
 - International Conference on Agricultural Engineering and Advanced Food Biosecurity
 - The 4th International Conference on Global Food Security
 - International Conference on Food Security and Nutrition
 - International Ministerial Conference on Nuclear Power
-

Further References

- <https://www.weforum.org/agenda/2022/05/the-story-of-davos-2022>
 - https://www.youtube.com/watch?v=x90QPaku4Hg&feature=emb_logo
 - <https://www.youtube.com/watch?v=oQWaw5S4b3I>
 - <https://www.fao.org/in-focus/en/>
 - <https://commonslibrary.parliament.uk/what-were-the-outcomes-of-cop26/>
 - <https://www.weforum.org/agenda/2022/03/how-to-contain-the-cascading-impacts-of-war-in-europe-s-breadbasket>
-

References

“A Global Food Crisis: World Food Programme.” *UN World Food Programme*, www.wfp.org/global-hunger-crisis.

“Climate Change and the Future of Food.” *Unfoundation.org*, 1 Sept. 2020, www.unfoundation.org/blog/post/climate-change-and-the-future-of-food/#:~:text=In%20short%2C%20climate%20change%20is,to%2030%20percent%20by%202050.

“Climate Change and the Role of Nuclear Power.” *IAEA*, IAEA, 9 Oct. 2020, www.iaea.org/publications/14763/climate-change-and-the-role-of-nuclear-power.

“Feast and Famine: The Global Food Crisis.” *Origins*, www.origins.osu.edu/article/feast-and-famine-global-food-crisis?language_content_entity=en.

“Global Food Crisis Demands Support for People, Open Trade, Bigger Local Harvests.” *IMF*, www.imf.org/en/Blogs/Articles/2022/09/30/global-food-crisis-demands-support-for-people-open-trade-bigger-local-harvests.

“Home: Food and Agriculture Organization of the United Nations.” *FAOHome*, www.fao.org/home/en.

“Member States Commit to Reducing Gas Demand by 15% next Winter.” *Consilium*, 26 July 2022, www.consilium.europa.eu/en/press/press-releases/2022/07/26/member-states-commit-to-reducing-gas-demand-by-15-next-winter/.

Spencer Feingold Digital Editor, and Spencer Feingold. “Ukraine's Food Exports by the Numbers.” *World Economic Forum*, www.weforum.org/agenda/2022/07/ukraine-s-food-exports-by-the-numbers/.

“Tackling Food and Energy Crises: How Trade and Logistics Can Help.” *UNCTAD*, 13 Oct. 2022, www.unctad.org/news/tackling-food-and-energy-crises-how-trade-and-logistics-can-help.

“The European Commission's Priorities.” *European Commission - European Commission*, 14 June 2021, www.ec.europa.eu/info/strategy/priorities-2019-2024_en.

United Nations Conference on Trade and Development.
www.unctad.org/system/files/official-document/unctaddiaeia2011d7_en.pdf.

