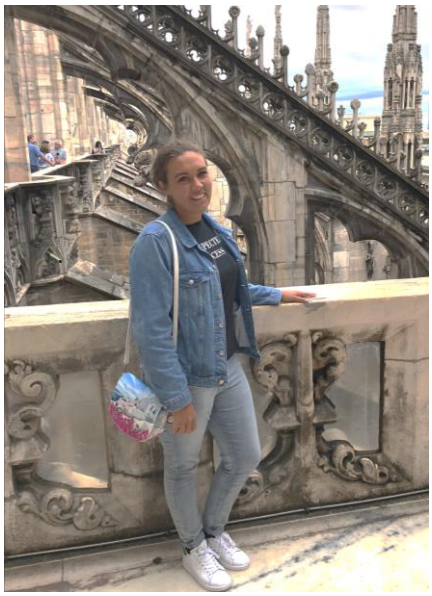
STUDY GUIDE:
UNITED NATIONS DEVELOPMENT PROGRAMME

Topic: Climate Change – Is it too late to save our planet?

CANTERBURY MODEL UNITED NATIONS

Welcome from the Chair

Dear delegates,



I hope this finds you well. It is my pleasure to welcome you to Canterbury Model United Nations but especially the United Nations Development Programme committee. My name is Valeria Minisini and I will be your chair, an experience I am looking forward to and I hope you are too. I would like to use this space to introduce myself as well as give you a few points of guidance during the conference weekend.

At the moment, I am working towards achieving my Master of Arts in International Relations with International Law at the University of Kent and am very passionate about conflict studies and human rights. I am Italian but grew up in Zambia, a country located towards the southern tip of Africa before moving to the United Kingdom in 2014. Even though my studies take up quite a bit of my time, I spend the majority of my free time doing Model United Nations: participating in debates, going to conferences, writing position papers and so on. Besides Model United Nations, I enjoy photography, traveling, reading and anything related to the theatre and music. Through Model United Nations, I have had the opportunity to visit countries I did not think I would ever visit and meet some amazing people, who I am still in contact with today. I have lost track of how many conferences I have participated in as a chair and delegate, but I am delighted to add Canterbury Model United Nations to my Model United Nations conference list.

The topic that we will be discussing over the conference weekend is something that means quite a bit to me having seen the tragic effects of climate change in Africa especially but also in my home country of Italy. I would like to encourage delegates to be creative with their resolutions, have fun and generally, enjoy the weekend. Do not be afraid to ask questions if you have any and I hope that you will use this conference weekend to build new skills and make lasting friendships.

Together, let's make the United Nations Development Programme committee and Canterbury Model United Nations an unforgettable experience.

Best wishes,

Valeria Minisini

Valeria Minisini
Chair – UNDP committee, CanterburyMUN

Introduction to the Committee – United Nations Development Programme[1]

The United Nations Development Programme (UNDP) is the United Nations' global development network. Headquartered in New York City, UNDP advocates for change and connects countries to knowledge, experience and resources to help people build a better life. It provides expert advice, training and grants support to developing countries, with increasing emphasis on assistance to the least developed countries. It promotes technical and investment cooperation among nations.

To accomplish the SDGs and encourage global development, UNDP focuses on poverty reduction, HIV/AIDS, democratic governance, energy and environment, social development, and crisis prevention and recovery. UNDP also encourages the protection of human rights and the empowerment of women in all of its programmes. The UNDP Human Development Report Office also publishes an annual Human Development Report (since 1990) to measure and analyse developmental progress.

UNDP is funded entirely by voluntary contributions from member states. The organisation operates in 177 countries, where it works with local governments to meet development challenges and develop local capacity. Additionally, the UNDP works internationally to help countries achieve the Sustainable Development Goals (SDGs). UNDP was one of the main UN agencies involved in the development of the Post-2015 Development Agenda.

The UNDP was founded on 22 November 1965 with the merging of the Expanded Programme of Technical Assistance (EPTA) and the Special Fund[2]. The EPTA was set up in 1949 to help the economic and political aspects of underdeveloped countries while the Special Fund was to enlarge the scope of UN technical assistance. The Special Fund came from the idea of a Special United Nations Fund for Economic Development (SUNFED). Countries such as the Nordic countries were in favour of such a United Nations controlled fund. However, the fund was opposed by developed countries, especially by the United States who was concerned with 'third world countries' dominating such a funding and preferred it to be under the auspices of the World Bank. The concept of SUNFED was dropped to form the Special Fund[3]. In 1962, the United Nations Economic and Social Council asked the Secretary General to consider the merits and disadvantages of merging UN technical assistance programs and in 1966, the EPTA and the Special Fund merged to form the UNDP.

[1] http://www.undp.org/content/undp/en/home/about-us.html
[2] http://www.undp.org/content/undp/en/home/about-us/faqs.html
[3] http://50.undp.org/en/

Topic: Climate Change

Source: https://news.nationalgeographic.com/2017/11/climate-change-usa-government-science-environment/

Source: https://davidsuzuki.org/what-you-can-do/what-is-climate-change/

Background Information

Changes in the climate have been happening for hundreds of thousands of years, and until recent centuries, most of these changes were naturally occurring – for instance, because of ice-ages and then post-glacial periods. The present-day is not the first time carbon dioxide (CO2) levels in the atmosphere have been high.

Starting with the industrial revolution beginning in the 19th century until today, changes in the climate have been mainly the result of human activity. (This is a 95% certainty according to the Intergovernmental Panel on Climate Change or IPCC.) The industrial revolution meant a shift from human labour to machinery, and kickstarted the era of combustion engines – including the automobile – and, as a result, the excessive burning of fossil fuels.

Over the past century, human activities have released large amounts of carbon dioxide and other heat-retaining greenhouse gases into the atmosphere, which in turn causes the global surface temperature to rise.

Terms:

Fossil fuels (FF) – there are three main types: coal, oil and natural gas. All were formed hundreds of millions of years ago by dead trees and plants that have died, broken down, have become compacted and covered by additional materials over time. Since plants produce and store carbon dioxide during photosynthesis, this gas is released when fossil fuels (which are formed through organic material) are burned.

Greenhouse gas (GHG) – they are gases that absorb and trap heat in the atmosphere. The main GHGs are CO2, methane, nitrous oxide and water vapour.

CO2 – Carbon dioxide is a naturally occurring gas fixed during photosynthesis into organic matter such as trees and plants. This gas is also released when fossil fuels and biomass are burned.

Adaptation – adjustment in natural or human systems in response to actual or expected changes in order to moderate/reduce harm (for example, building a seawall to protect against storm surge and erosion).

Adaptive capacity – the combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities. Developed (or First World) countries have a larger adaptive capacity than developing (or Third World) countries do.

Impacts of Climate Change:

- Rising global temperatures (land, sea)
- Rising sea levels
- Glacier/sea ice melting
- Ocean acidification and coral bleaching
- Erosion
- Increased frequency of extreme weather events (droughts, floods)
- Loss of biodiversity/habit (deforestation in places such as South America, Africa, Asia)

General Consequences:

- Human health: increased spread of disease
- Economy: especially in countries dependent on tourism to grow their economies (destruction of habitats can decrease this), costs of rebuilding after natural disasters
- Transportation: damaged roads, bridges, waterways
- Food security: changes in growing seasons and local growing capabilities
- Water security: salt water intrusion due to floods, storm surge
- Infrastructure: need for changes to buildings to adapt to changing weather patterns

Accomplishments by the United Nations

1. SDG Goal #13: Climate Action

Affordable, scalable solutions are now available to enable countries to leapfrog to cleaner, more resilient economies. The pace of change is quickening as more people are turning to renewable energy and a range of other measures that will reduce emissions and increase adaptation efforts. Climate change, however, is a global challenge that does not respect national borders. It is an issue that requires solutions that need to be coordinated at the international level to help developing countries move toward a low-carbon economy. To strengthen the global response to the threat of climate change, countries adopted the Paris Agreement at the COP21 in Paris, which went into force in November of 2016.

Source: https://sustainabledevelopment.un.org/sdg13

Aims:
Integrate climate change measures into national policies, strategies and planning.
Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
Implement the commitment undertaken by developed countries party to the United Nations Framework Convention on Climate Change to a goal of mobilising jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalisation as soon as possible.
Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states including focusing on women, youth and local/marginalised communities.

2. Kyoto Protocol

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties to reduce greenhouse gas emissions, based on the scientific consensus that (part one) global warming is occurring and (part two) it is extremely likely that human-made CO_2 emissions have predominantly caused it. The Kyoto Protocol was adopted in Kyoto, Japan on 11 December 1997 and entered into force on 16 February 2005. There are currently 192 parties (although Canada withdrew in 2012).

Source: https://slideplayer.com/slide/8399284/

The Protocol is based on the principle of common but differentiated responsibilities: it acknowledges that individual countries have different capabilities in combating climate change, as a result of economic development, and therefore puts the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere.

Negotiations were held in the framework of the yearly UNFCCC Climate Change Conferences on measures to be taken after the second commitment period ends in 2020. This resulted in the 2015 adoption of the Paris Agreement, which is a separate instrument under the UNFCCC rather than an amendment of the Kyoto Protocol.

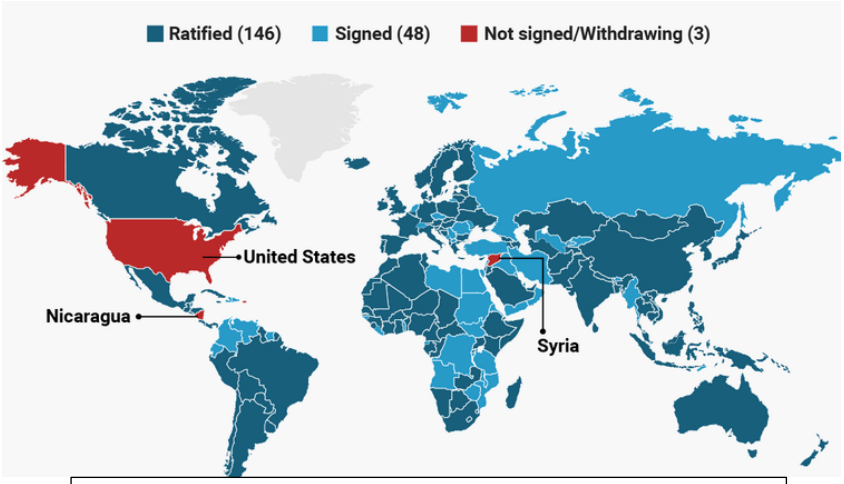
3. United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty adopted on 9 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992. It then entered into force on 21 March 1994, after a sufficient number of countries had ratified it. The UNFCCC objective is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent

dangerous anthropogenic interference with the climate system. The framework sets non-binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms. Instead, the framework outlines how specific international treaties may be negotiated to specify further action towards the objective of the UNFCCC. The parties to the convention have met annually from 1995 in Conferences of the Parties (COP) to assess progress in dealing with climate change.

4. Paris Agreement

The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC), dealing with greenhouse-gas-emissions mitigation, adaptation, and finance, starting in the year 2020. The agreement's language was negotiated by representatives of 196 state parties at the 21st Conference of the Parties of the UNFCCC in Le Bourget, near Paris, France, and adopted by consensus on 12 December 2015. As of November 2018, 195 UNFCCC members have signed the agreement, and 184 have become party to it. The Paris Agreement's long-term goal is to keep the increase in global average temperature to well below 2°C above pre-industrial levels; and to limit the increase to 1.5 °C, since this would substantially reduce the risks and effects of climate change.



Source: https://www.csspmspk.com/shaping-the-future-of-the-paris-agreement/

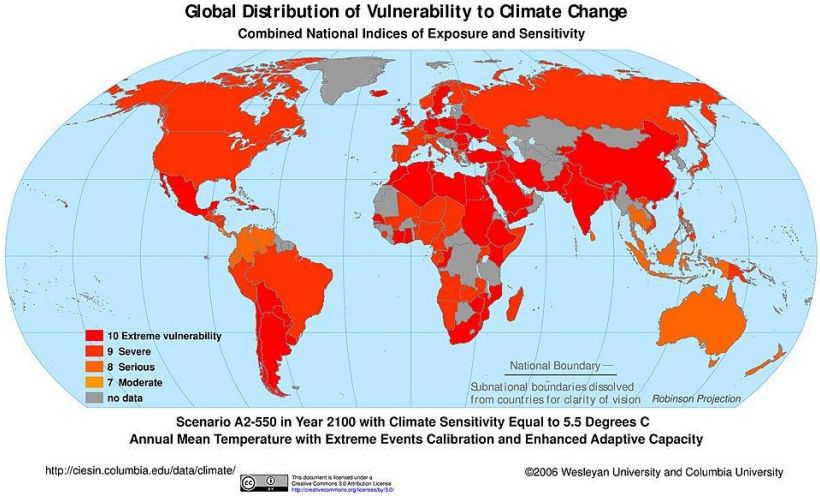
Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. No mechanism forces a country to set a specific target by a specific date, but each target should go beyond previously set targets.

5. United Nations Climate Change Conference

The United Nations Climate Change Conferences are yearly conferences held in the framework of the United Nations Framework Convention on Climate Change (UNFCCC). They serve as the formal meeting of the UNFCCC Parties (Conference of the Parties, COP) to assess progress in dealing with climate change, and beginning in the mid-1990s, to negotiate the Kyoto Protocol to establish legally binding obligations for developed countries to reduce their greenhouse gas emissions. From 2005 the Conferences have also served as the "Conference of the Parties Serving as the Meeting of Parties to the Kyoto Protocol" (CMP); also, parties to the Convention that are not parties to the Protocol can participate in Protocol-related meetings as observers. From 2011 the meetings have also been used to negotiate the Paris Agreement as part of the Durban platform activities until its conclusion in 2015, which created a general path towards climate action. The first UN Climate Change

Conference was held in 1995 in Berlin. To date, there have been 24 Conferences of the Parties with the 25th edition due to be held in Brazil in late-2019.

Global Effects of Climate Change



Africa:

Africa is one of the most vulnerable continents to climate variability and change because of multiple existing stresses and low adaptive capacity. Existing stresses include poverty, political conflicts, and ecosystem degradation. By 2050, between 350 million and 601 million people are projected to experience increased water stress due to climate change. Climate variability and change is projected to severely compromise agricultural production, including access to food, across Africa. It can negatively impact human health.

Arctic/Antarctic:

Climate change in the Arctic will likely reduce the thickness and extent of glaciers and ice sheets. Changes in natural ecosystems will likely have detrimental effects on many organisms including migratory birds, mammals, and higher predators. In the Arctic, climate changes will likely reduce the extent of sea ice and permafrost, which can have mixed effects on human settlements. Negative impacts could include damage to infrastructure and changes to winter activities such as ice fishing and ice road transportation. Positive impacts could include more navigable northern sea routes. Continued permafrost degradation will likely result in unstable infrastructure in Arctic regions, or Alaska before 2100. Terrestrial and marine ecosystems and habitats are projected to be at risk to invasive species, as climatic barriers are lowered in both polar regions.

Asia:

Glaciers in Asia are melting at a faster rate than ever documented in historical records. Melting glaciers increase the risks of flooding and rock avalanches from destabilised slopes. Climate change is projected to decrease freshwater availability in central, south, east and southeast Asia, particularly in large river basins. Increased flooding from the sea and, in some cases, from rivers, threatens coastal areas, especially heavily populated delta regions in south, east, and southeast Asia. By the mid-21st century, crop yields could increase up to 20% in east and southeast Asia. In the same period, yields could decrease up to 30% in central and south Asia. Sickness and

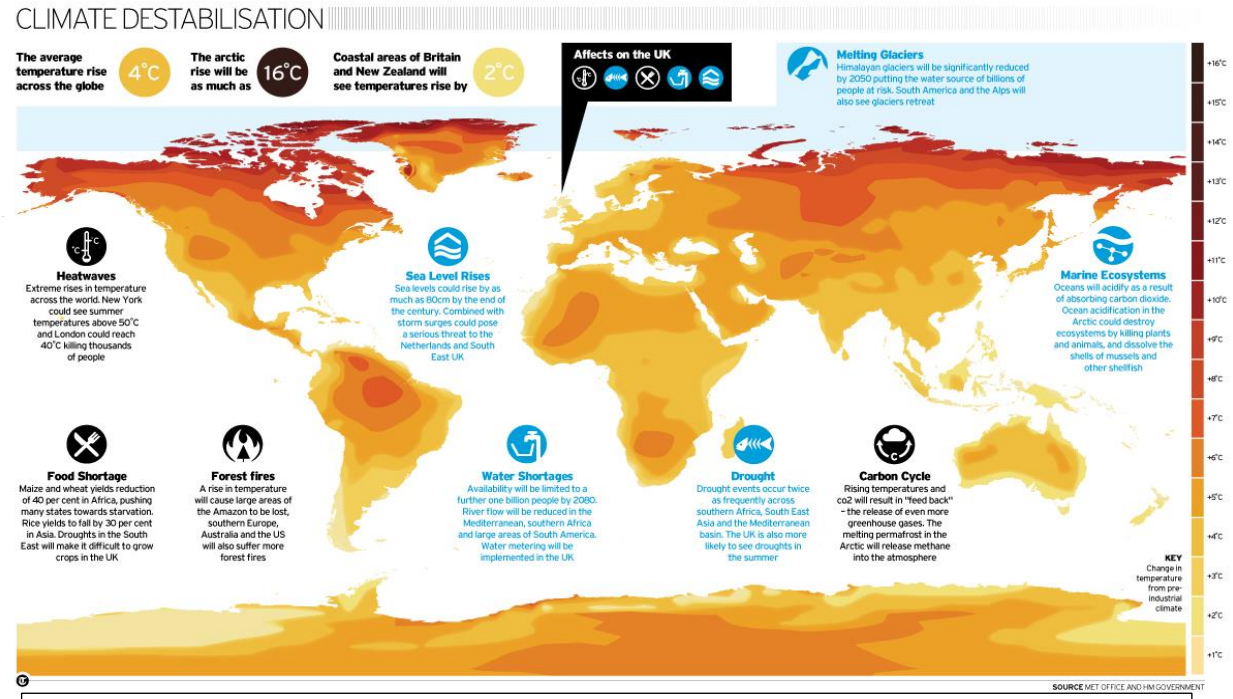
death due to diarrhoeal disease are projected to increase in east, south, and southeast Asia due to projected changes in the hydrological cycle associated with climate change.

Europe:

In southern Europe, higher temperatures and drought may reduce water availability, hydropower potential, summer tourism, and crop productivity. In central and eastern Europe, summer precipitation is projected to decrease. Deforestation and the frequency of forest fires are forecast to increase across the continent. In northern Europe, climate change is initially projected to bring mixed effects, including some benefits such as reduced demand for heating, increased crop yields, and increased forest growth. However, as climate change continues, negative impacts are likely to outweigh benefits. These include more frequent winter floods, endangered ecosystems, and increasing ground instability.

Latin America:

By mid-century, increases in temperature and decreases in soil moisture are projected to cause savanna to gradually replace tropical forest in the eastern Amazon basin. In drier areas, climate change will likely worsen drought, leading to salinisation (increased salt content) and desertification (land degradation) of agricultural land. The productivity of livestock and some important crops such as maize and coffee is projected to decrease, with adverse consequences for food security. In temperate zones, soybean yields are projected to increase. Sea level rise is projected to increase risk of flooding, displacement of people, salinisation of drinking water resources, and coastal erosion in low-lying areas.



Source: https://www.telegraph.co.uk/news/earth/earthnews/6407050/Day-after-tomorrow-map-shows-consequences-of-climate-change.html

North America:

Warming in western mountains is projected to decrease snowpack, increase winter flooding, and reduce summer flows, exacerbating competition for over-allocated water resources. Disturbances

from pests, diseases, and fire are projected to increasingly affect forests, with extended periods of high fire risk and large increases in area burned. Crops that are near the warm end of their suitable range or that depend on highly utilised water resources will likely face major challenges. Increases in the number, intensity, and duration of heat waves during the course of the century are projected to further challenge cities that currently experience heat waves, with potential for adverse health impacts.

Oceania:

Water security problems are projected to intensify by 2030 in southern and eastern Australia, and in the northern and some eastern parts of New Zealand. Significant loss of biodiversity is projected to occur by 2020 in some ecologically rich sites, including the Great Barrier Reef and the Wet Tropics of Queensland. Sea level rise and more severe storms and coastal flooding will likely impact coastal areas. Coastal development and population growth in areas such as Cairns and Southeast Queensland (Australia) and Northland to Bay of Plenty (New Zealand), would place more people and infrastructure at risk.

Small Islands:

Small islands, whether located in the tropics or higher latitudes, are already exposed to extreme weather events and changes in sea level. This existing exposure will likely make these areas sensitive to the effects of climate change. Deterioration in coastal conditions, such as beach erosion and coral bleaching, will likely affect local resources such as fisheries, as well as the value of tourism destinations. Sea level rise is projected to worsen inundation, storm surge, erosion, and other coastal hazards. These impacts would threaten vital infrastructure, settlements, and facilities that support the livelihood of island communities. Invasion by non-native species is projected to increase with higher temperatures, particularly in mid- and high-latitude islands.

Future Issues to Address

Botswana's Proposed Plastic Carrier Bag Ban:

The government of Botswana has indefinitely postponed the ban on plastic products that was supposed to come into effect on November 1, 2018 saying this was being done to allow for more consultations. In a statement, Botswana's Environment, Natural Resources Conservation and Tourism ministry said it will "communicate any further developments regarding the plastic carrier bags and plastic flat bags prohibition as they occur". A country known for its livestock and wildlife, Botswana says animals die from choking when they eat plastic bags "moreover plastics are harmful to livestock when ingested as they disrupt the digestive process causing bloating and ultimately death of the animal, creating losses for farmers." No date has been given thus far as to when the ban will come into effect but for a country of just over a million people, this would be a notable achievement.

Source: https://www.safarisonline.co.uk/kenya-bans-plastic-bags/

‘Sinking’ Cities/Countries:

Venice, Italy - in a place at one with water, locals have come to expect flooding in Piazza San Marco and other parts of the low-lying city—but as ocean levels rise, Venice inches toward more serious inundation. Activists have taken on the challenge, investing in advanced flood gates and other technologies to stymie the impending swells. Artists have also taken a stand; in 2017, Italian artist Lorenzo Quinn created a massive sculpture of hands reaching out of the Grand Canal in an effort to draw attention to the sinking city.

Source: https//www.huffingtonpost.com/john-room/dealing-with-sinking-citi_b_10164264.html

The Maldives - clustered in the Indian Ocean, the Maldives is made up of a series of atolls—ring-shaped islands formed from coral. The Maldives is also the lowest-lying country in the world (sitting an average of only 1.3 meters above sea level), however, and risks vanishing entirely as climbing tides are already displacing locals.

Key West, Florida - Key West is known for its pastel-colored buildings, ideal snorkeling conditions, and a relaxed atmosphere. But even before Hurricane Irma wreaked havoc, the southernmost city in the U.S. was facing environmental challenges: The Army Corps of Engineers estimates that the sea level in the Florida Keys will rise 15 inches over the next 30-odd years. Continual flooding has pushed Key West to undergo a massive, $1 million effort to elevate roads before they become a permanent underwater attraction.

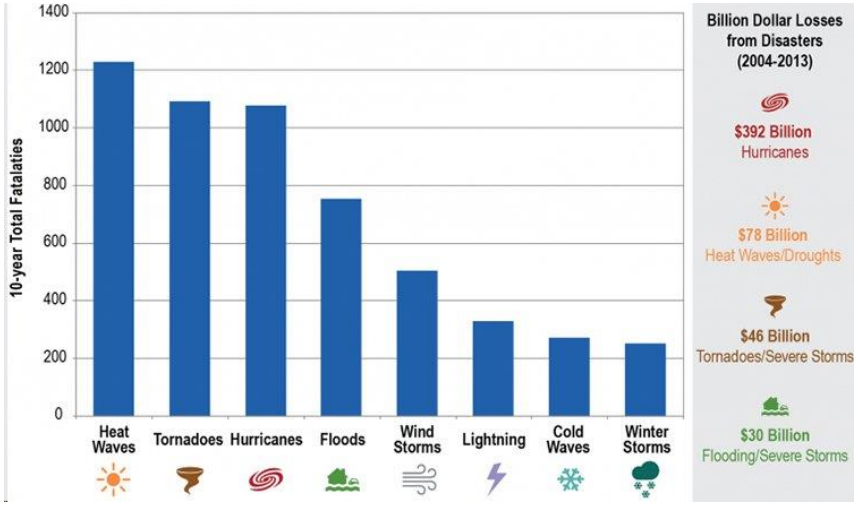
Action vs. Inaction:

In June 2017, U.S. President Donald Trump announced his intention to withdraw his country from the Paris Agreement. Under the agreement, the earliest effective date of withdrawal for the U.S. is November 2020, shortly before the end of President Trump's current term. In practice, changes in United States policy that are contrary to the Paris Agreement have already been put in place.

In July 2017 French Environment Minister Nicolas Hulot announced a plan to ban all petrol and diesel vehicles in France by 2040 as part of the Paris Agreement. Hulot also stated that France would no longer use coal to produce electricity after 2022 and that up to €4 billion will be invested in boosting energy efficiency. To reach the agreement's emission targets, Norway will ban the sale of petrol- and diesel-powered cars by 2025; the Netherlands will do the same by 2030. Electric trains running on the Dutch national rail network are already entirely powered by wind energy. The House of Representatives of the Netherlands passed a bill in June 2018 mandating that by 2050 the Netherlands will cut its 1990 greenhouse-gas emissions level by 95%—exceeding the Paris Agreement goals.

Not an Isolated Challenge:

Climate change is just one of many interlinked factors affecting humans and the environment they live in. Costal environments, to give an example, are being affected not only by GHG-influenced changes such as rising sea levels, fluctuating air and water temperatures, storm patterns and ocean acidification but also by factors like pollution, invasive species, coastal developments (building of resorts etc.) and overfishing. On a large scale, many different issues affect and are affected by climate change – including food production, water supplies, human health, energy production and use as well as economic developments and security – but these are rarely addressed together. These types of interlinkages not only pose difficult challenges but also offer important opportunities for resolving several problems at once. Actions taken to reduce fossil fuels, for example, can offer many benefits for human health (reducing emissions) and for national security (reducing dependence on imported energy sources).



Source: www.frackcheckwv.net/2016/04/20/there-are-many-impacts-of-climate-change-on-human-health---part-2/

Business & Climate Change:

The mega-corporation, Unilever, which makes everything from Dove soap to Magnum ice cream, has pledged serious action on a variety of sustainability initiatives – including sourcing 100% of its energy for production from renewable sources by 2030 (it already cut its carbon emissions by 43% from 2008 to 2016). Other companies are working on similarly ambitious initiatives: Coca-Cola, Ikea and Walmart also have committed to 100% renewable energy.

Further Questions

1. Can climate change be considered as a cause of conflict?
2. The recently-concluded COP24 did not live up to the expectations of many. How can the COP25 learn from the mistakes/shortcomings of its predecessor?
3. Should non-governmental organisations/environmental groups have more of a say in future climate change meetings/conferences?

4. With the loss of biodiversity affecting many countries, what does the future hold for humans and other living creatures without concrete action taken to alleviate the problem?

Further Reading

1. 'Water: Our Thirsty World' - https://www.nationalgeographic.com/magazine/2010/04/
2. 'The Habitable Planet' - http://www.learner.org/courses/envsci/unit/text.php?unit=12&secNum=0
3. 'NASA Climate Maps - https://www.nasa.gov/mission_pages/noaa-n/climate/climate_weather.html
4. 'A Feverish World' - https://www.sciencenewsforstudents.org/node/1288
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