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INTERNATIONAL CLIMATE CHANGE LAW IN THE HUMAN RIGHTS CONTEXT

Handbook

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INTRODUCTION

Climate change is one of the most serious problems humanity is facing in the 21st century. During the last 50 years, the global mean temperature has risen more than 1° C comparing to the preindustrial (1850s) levels with the last decade being the warmest one on record. The scientists warn that continuing this trend may lead to an increase in a global mean temperature by several degrees Celsius which may have disastrous consequences for human life on the planet Earth.

The international community recognised the threat posed by climate change as early as 1992 with the adoption of the United Nations Framework Convention on Climate Change, which aimed to stabilize the greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. Thirty years later, however, the situation is much worse than it was, the window of time for an effective response is narrowing, and scientists are sounding the alarm.

The 2015 Paris Agreement and its mitigation objective of holding the increase in the global average temperature to well below 2 °C above pre-industrial levels leaves certain room for hope, but it is not, on its own, a powerful enough instrument to prevent dangerous climate change either, because it relies too heavily on a voluntarily ambitious involvement of States.

However, demand for effective climate protection and adaptation measures is beginning to rise across society. Young people, farmers, representatives of indigenous peoples among others are looking for ways to put pressure on governments to start taking climate change seriously. One increasingly common and universally understood approach is the human rights-based one: the manifestations of climate change, be it hydro-meteorological extremes, deteriorating water availability, melting permafrost or rising sea levels, are already threatening the full enjoyment of human rights in many places and will do so even more in the future. The application of the human rights approach in climate disputes has so far encountered a number of obstacles and national and supranational judicial institutions have been reluctant to adopt it, but it will undoubtedly become important in the future.

The purpose of this teaching aid is to introduce students of the International Climate Law in the Human Rights Context course to the basics of both climate change and related legislation and its human rights implications, and to stimulate reflection and discussion on relevant issues. Given the rapid developments in this area, it is a "living" text that is updated for each new course.

CHAPTER 1
Climate change: scientific basis and general legal context

The roots of climatology go deep into the past, with scientists studying solar and thermal radiation and its absorption by different materials since the 17th century. The first to link rising greenhouse gases concentrations to global temperature was Guy Stewart Callendar, English steam engineer and inventor, who found in 1938 that a doubling of atmospheric carbon dioxide (CO_2) concentration resulted in an increase in the mean global temperature of 2°C, with considerably more warming at the poles, and linked increasing fossil fuel combustion with a rise in CO_2 and its greenhouse effects[1]. Thanks to the work of many other scientists, we know fairly accurately today what is causing the ongoing climate change and what the consequences of this change will or may be. The key scientific institution in this respect is the Intergovernmental Panel on Climate Change.

Earth's climate system, greenhouse gases and greenhouse effect

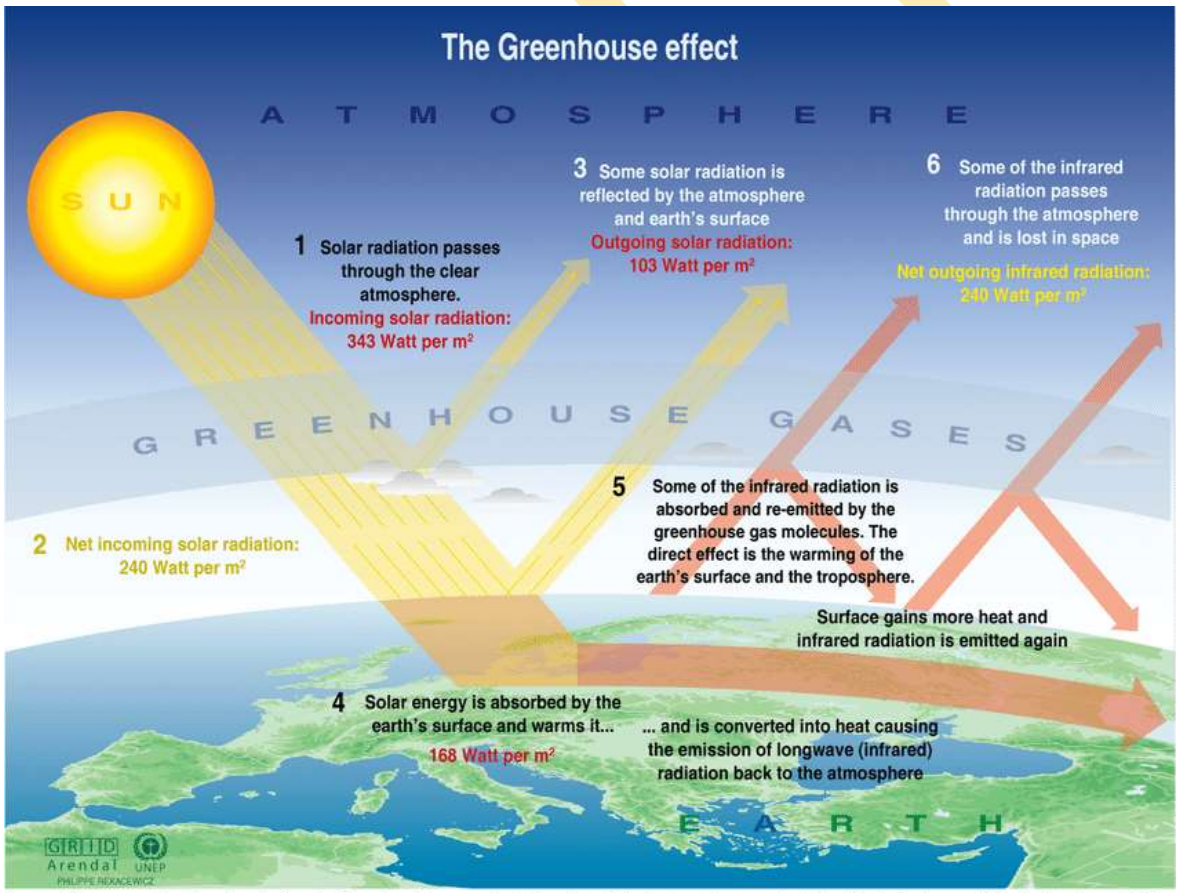
Climate system is an interactive system consisting of five components (atmosphere, hydrosphere, cryosphere, lithosphere, biosphere), forced or influenced by various external forcing mechanisms the most important of which is the Sun. The Sun emits huge amounts of energy that reaches the Earth's surface in the form of solar radiation. A considerable part of this energy is absorbed by the Earth's surface, warms it up and is emitted back to the atmosphere in form of infrared radiation (heat energy).

Greenhouse gases (GHGs) are gases that have the property of absorbing infrared radiation emitted from Earth's surface and re-emitting it back to it. The most important GHGs are water vapour (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3) and fluorinated gases (F-gases). The GHGs can be of both natural and anthropogenic origin (for example, the F-gases are purely man-made). The individual GHGs do not have the same effect on the climate system. The effect of each greenhouse gas depends on three factors: its concentration in the atmosphere, its atmospheric

[1] Le Treut, H., R. Somerville, U. Cubasch, Y. Ding, C. Mauritzen, A. Mokssit, T. Peterson and M. Prather, 2007: Historical Overview of Climate Change. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 105.

lifetime and the amount of heat (infrared radiation) it absorbs.[2] The last two factors are reflected in so-called global warming potential (GWP) of each greenhouse gas which is its ability to trap heat in the atmosphere over a specific time-frame (mostly over 100 years) compared to the same amount of carbon dioxide.[3]

Despite representing only a small fraction of all atmospheric gases – the atmosphere is composed mainly of nitrogen (N_2, 78 %) and oxygen (O_2, 21 %) – the GHGs have a profound effect on the Earth's energy balance. By trapping the heat within the surface troposphere system, they are responsible for so-called **greenhouse effect**, which – in its natural extent – is essential for life on the planet Earth as we know it. Without GHGs, the temperature of the Earth's surface would be about -18 °C instead of the present average of 15 °C.



Sources: Okanagan university college in Canada, Department of geography, University of Oxford, school of geography; United States Environmental Protection Agency (EPA), Washington; Climate change 1995, The science of climate change, contribution of working group 1 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge university press, 1996.

[2] See for example United States Environment Protection Agency. *Overview of Greenhouse Gases* [online]. EPA, 2021. https://www.epa.gov/ghgemissions/overview-greenhouse-gases [accessed 1st December 2021].

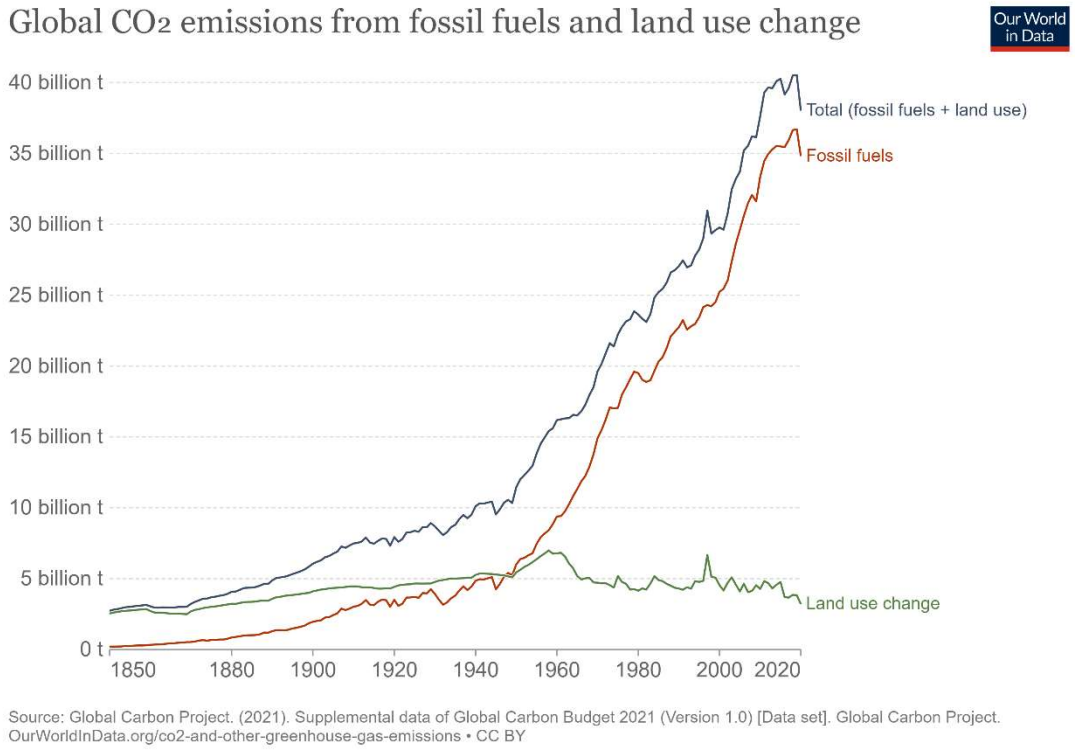
[3] The three most important GHGs emitted by human activities – carbon dioxide, methane and nitrous oxide – have their respective GWP-100 1, 28 and 265 respectively. See IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 714.

Enhanced greenhouse effect and climate change

GHGs are emitted by a number of sources, both natural and anthropogenic. **Natural sources** include animal and plant respiration, decomposition of organic matter, microbial processes in the soil and oceans, forest fires and volcanic eruptions. As far as **anthropogenic sources** are concerned, combustion of fossil fuels, land use change, certain agricultural activities (raising ruminant animals, rice farming, use of nitrogenous fertilizers) and decomposition of waste in landfills are among the most important.[4]

Emissions of GHGs from natural sources are balanced by so-called natural **sinks**, it means processes and reactions that remove them from the atmosphere, often as a part of major biochemical cycles (carbon, nitrogen). The most important sinks (especially for CO_2) include green plants (products of photosynthesis) and certain ocean processes (phytoplankton, dissolution, acid- base reaction, carbonate-forming reactions of certain marine organisms).

However, the natural sinks are not able to remove from the atmosphere GHGs emitted by human activates, so their concentrations gradually increases since the industrial revolution (approx. 1850) with a significant acceleration after 1950.



[4] For more detail see, for example, American Chemical Society. *Greenhouse Gas Sources and Sinks* [online]. ACS, 2021. https://www.acs.org/content/acs/en/climatescience/greenhousegases/sourcesandsinks.html [accessed 1st December 2021].

The measurements show that the current global atmospheric concentrations of the three most important GHGs emitted by human activities – carbon dioxide, methane and nitrous oxide – are at the highest levels in the past 800 000 years. Carbon dioxide concentrations have reached 410 ppm (parts per million) in 2019 comparing to long time annual average of 280 ppm before the industrial revolution while methane concentrations have more than doubled reaching 1866 ppb (parts per billion) during the same period.[5] The increased concentrations of GHGs in the atmosphere result in an **enhanced greenhouse effect** meaning more infrared radiation (heat) is being trapped in the troposphere, which disrupts the Earth's climate equilibrium and brings widespread changes to natural processes all over the world.

The main manifestation of the enhanced greenhouse effect and driver of most of the consecutive changes is **rising temperature of the Earth's surface**. According to the last IPCC Assessment Report, each of the last four decades has been successively warmer than any decade that preceded it since 1850.[6]

The term used by lawyers and policymakers for the disruption of the Earth's climate equilibrium by human induced emissions of GHGs is **climate change**. There is a legal definition of this term included in the United Nations Framework Convention on Climate Change (UNFCCC) adopted 1992.[7] The scientists, however, perceive the term differently.

Discussion:
Compare the legal and the scientific meaning of the term "climate change".

"Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods."
(Art. 1 para. 2 UNFCCC)

"Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use."
(Definition of term "Climate change" in the Glossary to the Special IPCC Report *Global Warming of 1,5 °C* [8])

[5] IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. In Press, A.1.1.
[6] Ibid., A.1.2.
[7] For details of the UNFCCC see Chapter 2.
[8] IPCC, 2018: Annex I: Glossary [Matthews, J.B.R. (ed.)]. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global

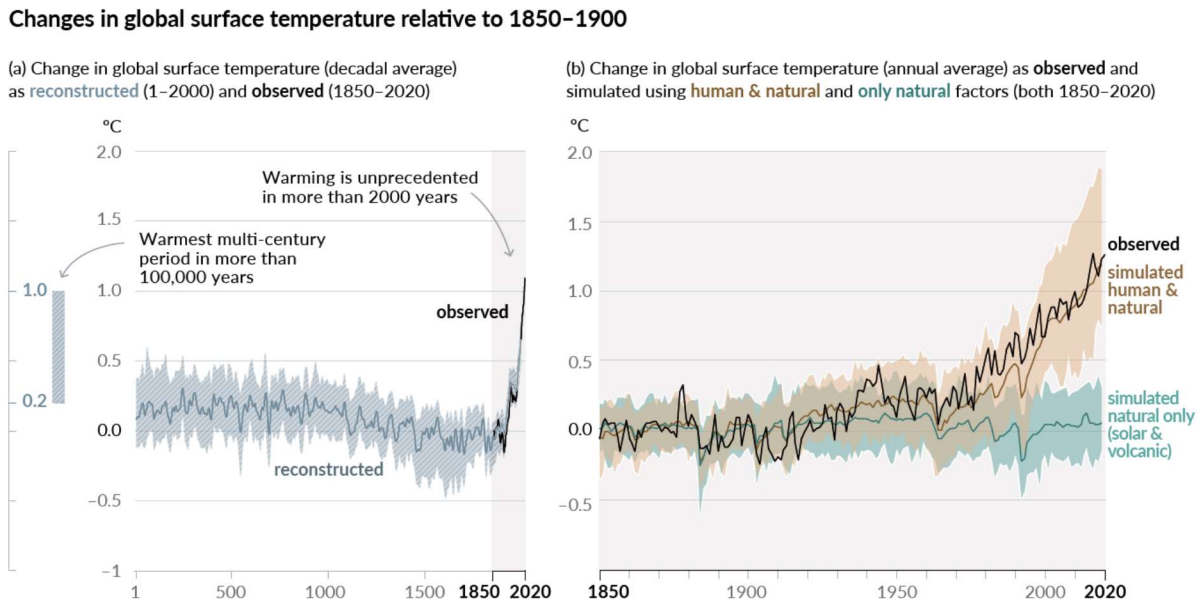


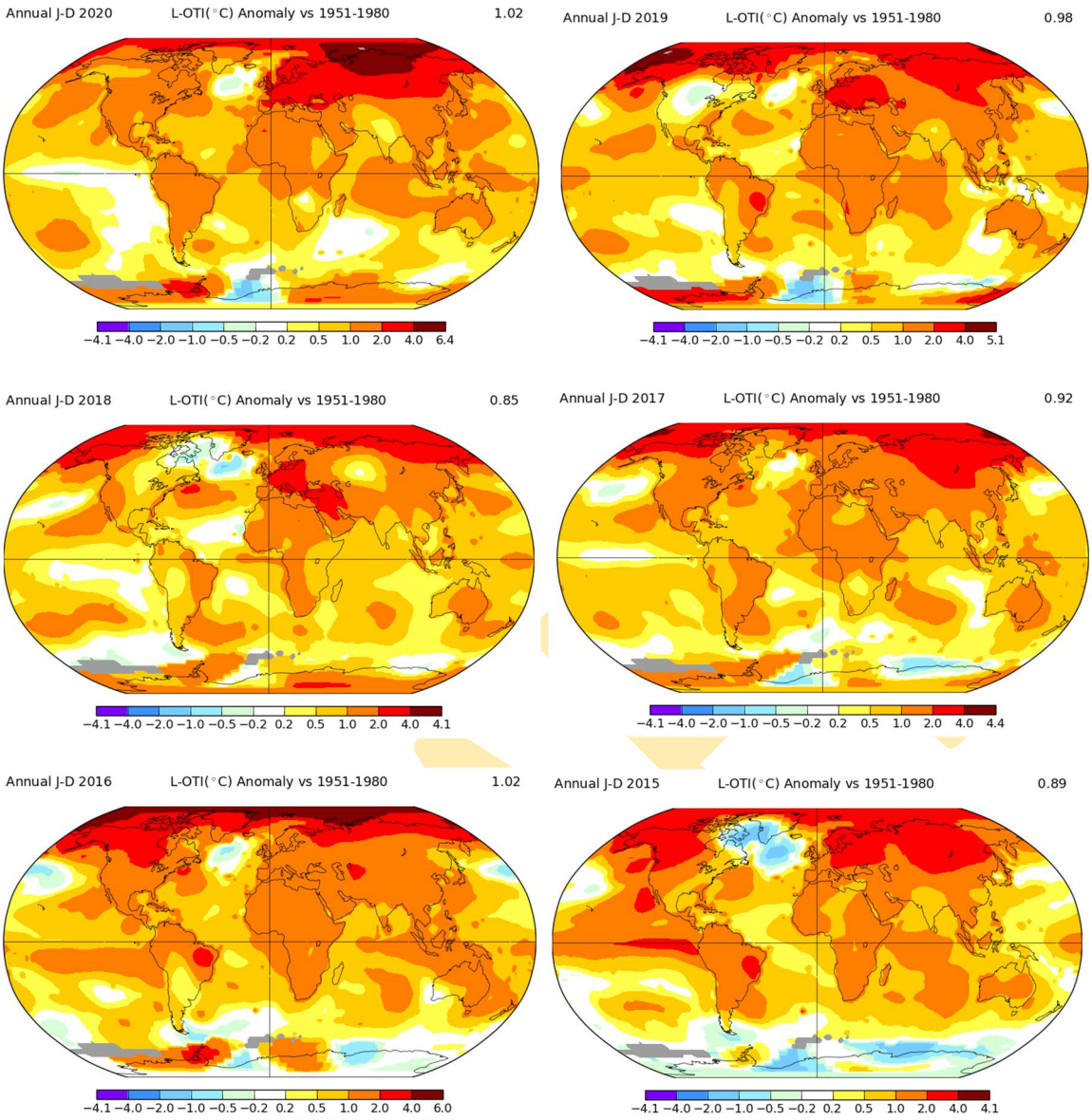
Figure SPM.1 | History of global temperature change and causes of recent warming

Panel (a) Changes in global surface temperature reconstructed from paleoclimate archives (solid grey line, years 1–2000) **and from direct observations** (solid black line, 1850–2020), both relative to 1850–1900 and decadally averaged. The vertical bar on the left shows the estimated temperature (*very likely* range) during the warmest multi-century period in at least the last 100,000 years, which occurred around 6500 years ago during the current interglacial period (Holocene). The Last Interglacial, around 125,000 years ago, is the next most recent candidate for a period of higher temperature. These past warm periods were caused by slow (multi-millennial) orbital variations. The grey shading with white diagonal lines shows the *very likely* ranges for the temperature reconstructions.

Panel (b) Changes in global surface temperature over the past 170 years (black line) relative to 1850–1900 and annually averaged, compared to Coupled Model Intercomparison Project Phase 6 (CMIP6) climate model simulations (see Box SPM.1) of the temperature response to both human and natural drivers (brown) and to only natural drivers (solar and volcanic activity, green). Solid coloured lines show the multi-model average, and coloured shades show the *very likely* range of simulations. (See Figure SPM.2 for the assessed contributions to warming).

Source: IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. In press, p. 6

greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.



Anomalies in the annual global mean temperature in the last six years (2015-2020) comparing to the annual global mean temperature in 1950-1980

Source: NASA Goddard Institute for Space Studies, GISS Surface Temperature Analysis, https://data.giss.nasa.gov/gistemp/maps/

Climate change consequences

Climate change consequences are widespread and affect all regions in the world. They include:

- **Sea level rise.** Sea level rise has two main causes: expansion of the warming seawater and melting of glaciers and ice sheets that adds water to the oceans. Rising sea level poses a risk to coastal and low-lying areas (coastal erosion, flooding, contamination of water and soil).

- **Retreat of world glaciers.** Retreat of world glaciers is caused by melting of their ice more quickly than snowfall can accumulate and form new ice. Most world glaciers currently retreat due to higher temperatures and less snowfall, posing a threat to people who rely on them for water.

- **Changes in the Arctic.** The Arctic warms up more quickly that the rest of the world which causes melting of the sea ice and thawing of the permafrost. According to the IPCC, the Arctic is likely to be practically sea ice-free in September at least once before 2050.[9] The changes in Arctic sea-ice contribute to further warming of the Arctic, affect the whole Arctic ecosystem and could disrupt ocean currents and weather patterns around the world. Thawing of permafrost can further accelerate global warming and threaten human settlement in the area.

- **Weather and climate extremes.** Weather and climate extremes (heatwaves, heavy precipitations, droughts, tropical cyclones) become more frequent and more intense with the rising global mean temperature influencing the availability of water resources and having serious effects on both natural systems and human lives and livelihoods.[10]

- **Changes in ecosystems.** Climate change has significant impacts on both marine and terrestrial ecosystems. Rising temperature and acidity (due to dissolution of carbon dioxide) of seawater endangers the life on many marine species. Weather and climate extremes facilitate emergence and spread of biotic and abiotic disturbances (fire, pests). Seasons and climate zones are shifting causing changes in species distribution and abundance.

Discussion

Discuss the impacts of climate change to human lives and livelihoods. Can climate change have positive impacts?

[9] IPCC, 2021: Summary for Policymakers. Op. cit., B.2.5.
[10] Ibid., p. 18-19.

Climate change impacts in Europe's regions

Climate change is projected to impact the availability of water in Europe, putting additional pressure on southern regions already facing water stress. Other parts of Europe are expected to face more frequent flooding events, while low-lying regions are at risk from storm surges and sea level rise.

Mediterranean region

Large increase in heat extremes
Decrease in precipitation and river flow
Increasing risk of droughts
Increasing risk of biodiversity loss
Increasing risk of forest fires
Increased competition between different water users
Increasing water demand for agriculture
Decrease in crop yields
Increasing risks for livestock production
Increase in mortality from heat waves
Expansion of habitats for southern disease vectors
Decreasing potential for energy production
Increase in energy demand for cooling
Decrease in summer tourism and potential increase in other seasons
Increase in multiple climatic hazards
Most economic sectors negatively affected
High vulnerability to spillover effects of climate change from outside Europe

Boreal region

Increase in heavy precipitation events
Decrease in snow, lake and river ice cover
Increase in precipitation and river flows
Increasing potential for forest growth and increasing risk of forest pests
Increasing damage risk from winter storms
Increase in crop yields
Decrease in energy demand for heating
Increase in hydropower potential
Increase in summer tourism

Continental region

Increase in heat extremes
Decrease in summer precipitation
Increasing risk of river floods
Increasing risk of forest fires
Decrease in economic value of forests
Increase in energy demand for cooling

Atlantic region

Increase in heavy precipitation events
Increase in river flow
Increasing risk of river and coastal flooding
Increasing damage risk from winter storms
Decrease in energy demand for heating
Increase in multiple climatic hazards

Coastal zones and regional seas

Sea level rise
Increase in sea surface temperatures
Increase in ocean acidity
Northward migration of marine species
Risks and some opportunities for fisheries
Changes in phytoplankton communities
Increasing number of marine dead zones
Increasing risk of water-borne diseases

Arctic region

Temperature rise much larger than global average
Decrease in Arctic sea ice coverage
Decrease in Greenland ice sheet
Decrease in permafrost areas
Increasing risk of biodiversity loss
Some new opportunities for the exploitation of natural resources and for sea transportation
Risks to the livelihoods of indigenous peoples

Mountain regions

Temperature rise larger than European average
Decrease in glacier extent and volume
Upward shift of plant and animal species
High risk of species extinctions
Increasing risk of forest pests
Increasing risk from rock falls and landslides
Changes in hydropower potential
Decrease in ski tourism

Source: EEA Report No 01/2017 — *Climate change, impacts and vulnerability in Europe 2016.*

General legal context of climate change

The law plays a crucial role in the fight against climate change by enabling the imposition of binding and enforceable obligations. However, the nature of climate change places certain demands on the relevant legislation.

1. Levels of legal regulation

Climate change is a truly global problem because its impacts are felt all over the world, regardless of where the causes (emissions of GHGs) occur. For this reason, it is essential that the basics of legal regulation are adopted at the international level and binds the majority of the international community and especially the largest GHGs emitters. However, adopting at the international level a legal regulation that would address a problem as complex as climate change in an effective and just way is not an easy task.

Discussion:

What are, in general, the challenges that international legal regulation addressing the climate change must overcome to be effective?

The national – and EU in Europe – levels are of course also important, but they are secondary in the sense that they serve to achieve a common goal set at the international level. In this respect, good international regulation is essential; without it climate change cannot be tackled.

2. Tools used by legal regulation

There are two basic types of tools (approaches) that can be used by legal regulation to tackle an environmental problem: command-and-control and market-based. Command-and-control tools represent a form of a direct regulation that states what is permitted and what is not and provides for penalties in the event of violation of the primary obligation. Such an approach is typical of the law and reflects its nature as a system of rules regulating the behaviour of its actors. However, the command-and-control approach is not always the most efficient one, because it does not motivate the obliged actors, which can lead to attempts to circumvent the obligations imposed. It is therefore appropriate to complement it with a market-based approach that uses tools that are economic in nature and motivate the actors by financially favouring behaviour that is environmentally more friendly and disadvantaging the one that is less.

Discussion:

Imagine the case of a factory whose activities are socially useful, but which emits a certain chemical that is dangerous to human health in higher concentrations. The factory operator could reduce the emissions of this substance, but new technologies are expensive. Give an example of legal instruments that could be used to reduce the emissions of the pollutant from the factory.

3. Principles of legal regulation

Most branches of law are characterised by certain legal principles. These are the general rules (meta-rules) that apply in the given branch, forming the basis for the creation of specific legal norms and their subsequent interpretation. At the international level, they are based on the common will of States, expressed both in binding sources of law, in particular international treaties, and in soft law documents which enjoy general acceptance. As far as the climate change is concerned, several principles of environmental law should be fully applied during the creation of relevant legal norms and their subsequent implementation at the EU and national levels. Following principles are especially concerned:

- principle of prevention
- precautionary principle/approach
- polluter pays principle
- sustainable development principle
- common, but differentiated responsibilities (and respective capabilities) principle
- best available scientific information/best available science principle
- international cooperation

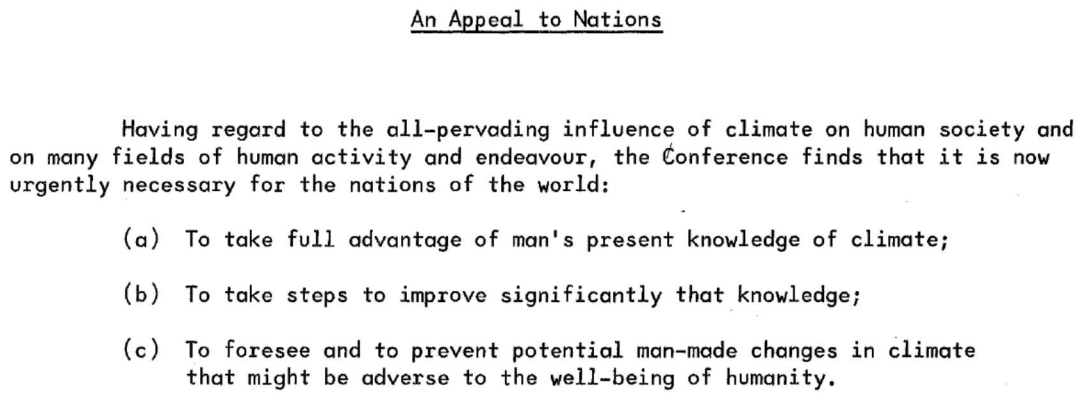
Discussion:

Analyse the above mentioned environmental law principles and discuss why their application is important in the field of international climate law and what challenges posed by the climate change they help to tackle.

CHAPTER 2
UN Framework Convention on Climate Change

Road to an international climate change treaty

The road to an international climate treaty began in February 1979 when World Meteorological Organization (WMO) organized the **First World Climate Conference** in Geneva (Switzerland). The conference was attended by scientists from 53 countries representing a wide range of disciplines, including agriculture, water resources, fisheries, energy, environment, ecology, biology, medicine, sociology and economics.[11] At the end of the conference, the participants adopted the World Climate Conference Declaration that made following appeal to the nations of the world:



An Appeal to Nations

Having regard to the all-pervading influence of climate on human society and on many fields of human activity and endeavour, the Conference finds that it is now urgently necessary for the nations of the world:

(a) To take full advantage of man's present knowledge of climate;

(b) To take steps to improve significantly that knowledge;

(c) To foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity.

Source: WMO. *World Climate Conference. A Conference of Experts on Climate and Mankind.* Declaration and Supporting Documents. Geneva, February 1979, p. 3. Available from: https://library.wmo.int/?lvl=notice_display&id=6054#.YeK6bv7MJPY [accessed 1st December 2021].

Another milestone followed in 1988 when the WMO together with the United Nations Environment Programme (UNEP) established the **Intergovernmental Panel on Climate Change** (IPCC), a scientific body the objective of which is to provide policy-makers with scientific information relating to climate change.

The **Second World Climate Conference** took place, again in Geneva, at the turn of October and November 1990. Compared to the first conference, the number of scientists present and countries represented more than doubled, and the scientific part of the conference was followed by a meeting of political representatives from 137 countries.[12]

[11] For more details on the history of climate activities within the WMO see Zillman, J.W. *A history of climate activities* [online]. WMO Bulletin, Vol. 58 (3), 2009. https://public.wmo.int/en/bulletin/history-climate-activities [accessed 1st December 2021].
[12] Ibid.

The basis for the negotiations was, among others, the IPCC's First assessment report. The conference ended with a Ministerial Declaration, adopted by consensus after lengthy negotiations, that called for cooperative international action to address the climate change. This call was heeded by the UN General Assembly, which in December 1990 adopted Resolution A/RES/45/212, entitled "Protecting the global climate for present and future generations of mankind", which established the Intergovernmental Negotiating Committee and mandated it to lead the process of preparing a framework convention on climate change.

45/212. Protection of global climate for present and future generations of mankind

The General Assembly,

.....

1. *Decides* to establish a single intergovernmental negotiating process under the auspices of the General Assembly, supported by the United Nations Environment Programme and the World Meteorological Organization, for the preparation by an Intergovernmental Negotiating Committee of an effective framework convention on climate change, containing appropriate commitments, and any related instruments as might be agreed upon, taking into account proposals that may be submitted by States participating in the negotiating process, the work of the Intergovernmental Panel on Climate Change and the results achieved at international meetings on the subject, including the Second World Climate Conference;

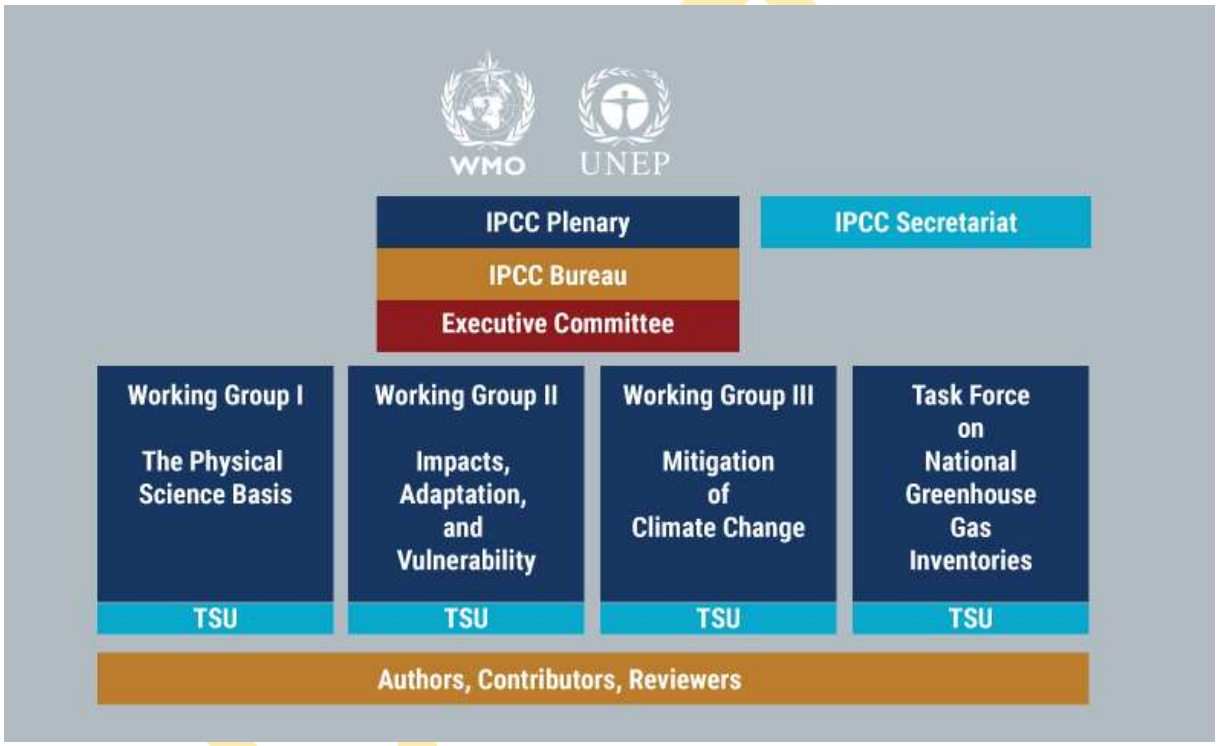
.....

7. *Considers* that the negotiations for the preparation of an effective framework convention on climate change, containing appropriate commitments, and any related legal instruments as might be agreed upon, should be completed prior to the United Nations Conference on Environment and Development in June 1992 and opened for signature during the Conference;

Source: UNGA Resolution A/RES/45/212, available from: https://research.un.org/en/docs/ga/quick/regular/45 [accessed 1st December 2021]

Intergovernmental Panel on Climate Change

The IPCC is a leading scientific body in the field of climate change.[13] It is an organization of governments that are members of the United Nations or the WMO. The IPCC currently has 195 member countries. It has three working groups dealing with different aspects of climate change (I – Physical Science Basis, II – Impacts, Adaptation and Vulnerability, III – Mitigation of Climate Change) and the Task Force on National Greenhouse Gas Inventories. Representatives of IPCC member governments meet at least one time a year in plenary sessions. Another bodies include the Bureau (elected by the Plenary), the Executive Committee (composed of representatives of the Bureau, the three working groups and the Task Force on National Greenhouse Gas Inventories) and the Secretariat.



Source: IPCC. *Structure of the IPCC* [online]. IPCC, 2021. https://www.ipcc.ch/about/structure/ [accessed 1st December 2021]

The IPCC prepares **two types of reports**: **assessments reports and special reports**. The assessment reports are prepared regularly in so-called assessment cycles and provide a comprehensive overview of the state of knowledge on climate change, its causes, potential impacts and response options. The special reports are prepared on specific topics agreed by the IPCC member governments. The 1st Assessment Report was prepared in 1990 and the IPCC currently prepares the 6th Assessment Report. The authors are selected by the Bureau from nominations submitted by governments and IPCC observer organisations and include hundreds of experts in various fields.[14]

[13] For detailed information, see the IPCC´s website at https://www.ipcc.ch/.
[14] For details of the selection process and preparation of the reports see IPCC. *Preparing Reports* [online]. IPCC, 2021. https://www.ipcc.ch/about/preparingreports/ [accessed 1st December 2021].

Basic characteristics of the UNFCCC

The text of the United Nations Framework Convention on Climate Change (UNFCCC)[15] was agreed on 9 May 1992, at the end of an additional negotiating session of the Intergovernmental Negotiating Committee. It was opened for signature a month later at the United Nations Conference on Environment and Development (UNCED, also called the Earth's Summit) held in Rio de Janeiro (Brazil) between 3-14 June 1992, and thereafter at the United Nations Headquarters, from 20 June 1992 to 19 June 1993. It entered into force on 21st March 1994, after being ratified, accepted, approved or acceded to by 50 countries as required by its art. 23 para. 1. It has 197 Parties (196 States and one regional economic integration organization – the EU), which means universal acceptance by the entire international community.

Discussion

Are you familiar with global environmental conferences?

a) Which global environmental conference preceded the UNCED (hint: it agreed to establish the UNEP)?

b) What global environmental conferences have followed UNCED?

c) What other international convention addressing a different global environmental problem was adopted at the UNCED?

d) What principle was popularized at the UNCED and has since become a guiding principle of environmental policy?

1. Climate change as a common concern of humankind

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Convention,

Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind,

Concerned that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind,

[15] See also the website of the UNFCCC at https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change

Discussion

What is the significance of recognizing the climate change and its adverse effects as a common concern of humankind by the UNFCCC? Compare it with the common heritage of mankind rule that applies to the Area (the seabed and its subsoil beyond the limits of national jurisdiction) and its resources according to the United Nations Convention on the Law of the Sea (UNCLOS, 1992).

2. Objective

Article 2

OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

3. Basic principles

The UNFCCC is based on several environmental law principles. Some of them are set out in Article 3, which deals specifically with principles, while others can be derived from other provisions of the UNFCCC, especially in the preamble.

Discussion

Link the provisions of the UNFCCC to the relevant principles and analyse their wording. What is their meaning in the context of UNFCCC?

- principle of prevention
- precautionary principle/approach
- sustainable development principle
- common but differentiated responsibilities (and respective capabilities) principle
- best available scientific information/best available science principle
- principle of international cooperation
- principle of sovereignty over natural resources
- *sic utere tuo ut alienum non laedas* principle

"Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions," (Preamble, para. 6).

"Recalling also that States have [...] *the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,"* (Preamble, para. 8).

"Recognizing that steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas," (Preamble, para. 16).

"The ultimate objective of this Convention [...] *is to achieve* [...] *stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.* [...]" (Art. 2).

"The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating the climate change and the adverse effects thereof." Art. 3 para 1.

"The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration." Art. 3 para. 2.

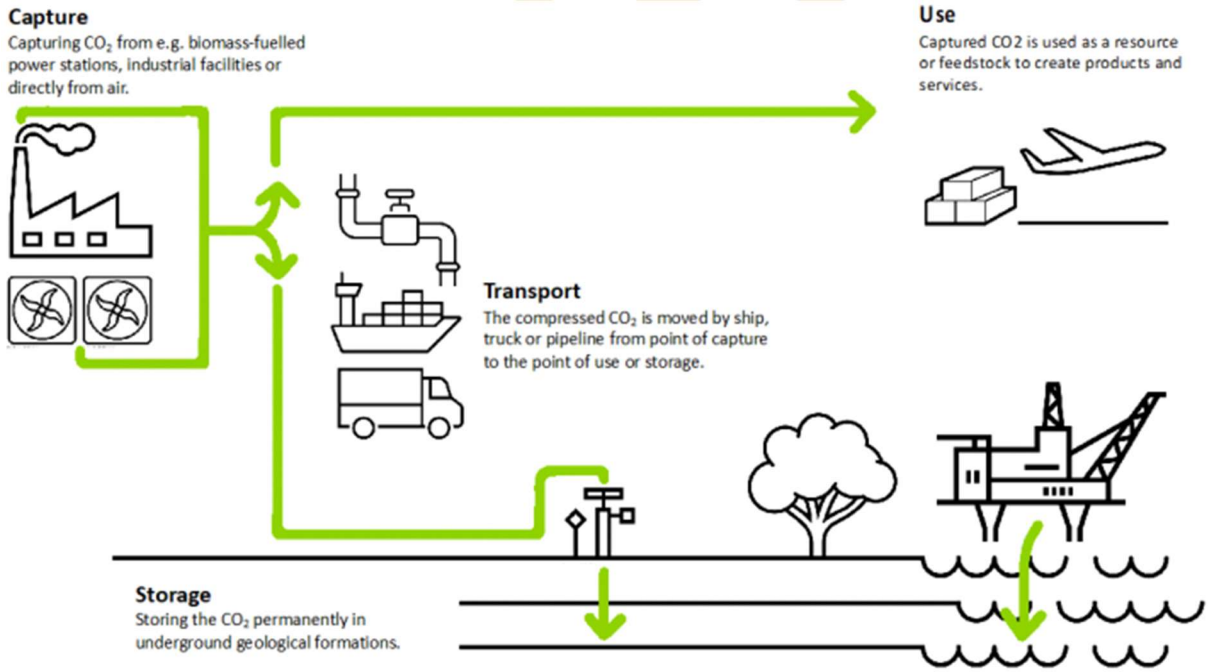
"The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carries out cooperatively by interested Parties." Art. 3 para. 3.

"The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change." Art. 3 para. 4.

4. Mitigation and adaptation

Without explicitly defining them, the Convention distinguishes two approaches (strategies) in tackling climate change and its impacts – mitigation and adaptation.

Mitigation is a human intervention that aims at making the climate change less severe by addressing its main cause – the greenhouse gases and their concentration in the atmosphere. There are two ways to do it. First and foremost, mitigation means reducing the greenhouse gas emissions themselves. This can be achieved through a comprehensive set of measures aimed at reducing the consumption of fossil fuels by replacing them with renewable sources, changing technologies and increasing energy efficiency. Second, mitigation also involves the enhancement of so-called carbon sinks. The UNFCCC defines a sink as *"any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere"* (art. 1 para. 8). In a larger sense, the term sink covers also reservoirs where greenhouse gases are stored.[16] Carbon sinks are mostly natural (soil, ocean, plants), but artificial sinks are also being investigated (processes that either capture carbon dioxide before it is released into the atmosphere or from the atmosphere and then use or store it).



Source: European Commission. *Carbon capture, use and storage* [online]. European Commission, Climate Action. 2021. https://ec.europa.eu/clima/eu-action/carbon-capture-use-and-storage_en [Accessed 1st December 2021]

[16] Note that this larger definition is used by the IPCC, the UNFCCC distinguishes *sinks* and *reservoirs*, the first meaning processes or mechanisms, the second components of the climate system where GHGs are stored (see art. 1 para. 7).

Adaptation is a secondary approach based on the recognition that climate change with all its manifestations can no longer be stopped, but only mitigated. It is certain that the average global temperature of the planet will increase, local weather patterns will change and meteorological extremes will become more frequent and intense. Hence, adaptation means adjustment of human and natural systems to actual or expected climate and its effects in order to moderate harm or even exploit opportunities it offers.[17] It includes changes in water management, agriculture and forestry, construction of buildings and in many other areas of human activity.

Discussion

Discuss mitigation and adaptation as the two approaches of addressing climate change. Should countries invest more energy and resources in mitigation or adaptation? Give specific examples of mitigation and adaptation measures applied in your country. Discuss the benefits and risks of carbon capture and storage (artificial carbon sequestration).

5. Division of the Parties

One of the most important characteristics of the UNFCCC is the differential treatment of developed (industrialized) and developing Parties. The convention recognises the major contribution of developed countries to increasing concentrations of greenhouse gases in the atmosphere and gives them the primary responsibility for mitigating the climate change (in accordance with the principle of common but differentiated responsibilities).

> *Noting* that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs,
>
> Preamble, para. 3 UNFCCC

In order to clarify the status and obligations of each Party, the Convention lists the **Parties that are considered developed in Annex I**. This Annex currently includes 43 Parties: industrialized countries that were members of the Organization for Economic Cooperation and Development (OECD) in 1992, countries with economies in transition (so-called EIT countries, i.e. countries of the former Eastern bloc that after the political changes in the first half of the 1990s switched from centrally controlled economies to market economies) and the EU.

[17] IPCC, 2018: Annex I: Glossary. Op. cit., term *Adaptation.*

Annex I

Australia	Germany	Monaco*
Austria	Greece	Netherlands
Belarus[a]	Hungary[a]	New Zealand
Belgium	Iceland	Norway
Bulgaria[a]	Ireland	Poland[a]
Canada	Italy	Portugal
Croatia[a] *	Japan	Romania[a]
Cyprus***	Latvia[a]	Russian Federation[a]
Czech Republic[a] *	Liechtenstein*	Slovakia[a] *
Denmark	Lithuania[a]	Slovenia[a] *
European Economic Community	Luxembourg	Spain
Estonia[a]	Malta**	Sweden
Finland		Switzerland
France		Turkey
		Ukraine[a]
		United Kingdom of Great Britain and Northern Ireland
		United States of America

[a] Countries that are undergoing the process of transition to a market economy.

* *Publisher's note*: Countries added to Annex I by an amendment that entered into force on 13 August 1998, pursuant to decision 4/CP.3 adopted at COP 3.

** *Publisher's note*: Country added to Annex I by an amendment that entered into force on 26 October 2010, pursuant to decision 3/CP.15 adopted at COP 15.

*** *Publisher's note*: Country added to Annex I by an amendment that entered into force on 9 January 2013, pursuant to decision 10/CP.17 adopted at COP 17.

Countries not included in Annex I are generally referred to as **non-Annex I countries**. Besides many low and middle-income countries, this group includes today some of the richest countries in the world like Singapore, Qatar, United Arab Emirates, Kuwait, Saudi Arabia, Republic of Korea or Israel and some of the biggest GHGs emitters both *per capita* (countries of the Arabian peninsula) and in absolute numbers (China, India, Indonesia, Brazil).

The division of Parties made by the UNFCCC is not an end in itself, but is the **basis for imposing obligations**, particularly in the area of mitigation. While non-Annex I Parties have only a general obligation to formulate and implement *"programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks"*, Annex I Parties have an explicit obligation to limit their emissions.

The differential treatment of Parties introduced by the UNFCCC has proven to be fundamental to the international community's and individual states' approach to climate protection for more than 20 years to come.

Article 4

COMMITMENTS

1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

...

(b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;

...

2. The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following:

(a) Each of these Parties shall adopt national[1] policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph;

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[1] This includes policies and measures adopted by regional economic integration organizations.

Some of the Parties listed in Annex I are also included in **Annex II** (23 OECD member States, but not the EIT countries, and the EU). In addition to the obligations imposed on Annex I Parties, Annex II Parties have obligations concerning the provision of financial resources, assistance and environmentally sound technologies.

Article 4

COMMITMENTS

...

3. The developed country Parties and other developed Parties included in Annex II shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by paragraph 1 of this Article and that are agreed between a developing country Party and the international entity or entities referred to in Article 11, in accordance with that Article. The implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties.

4. The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

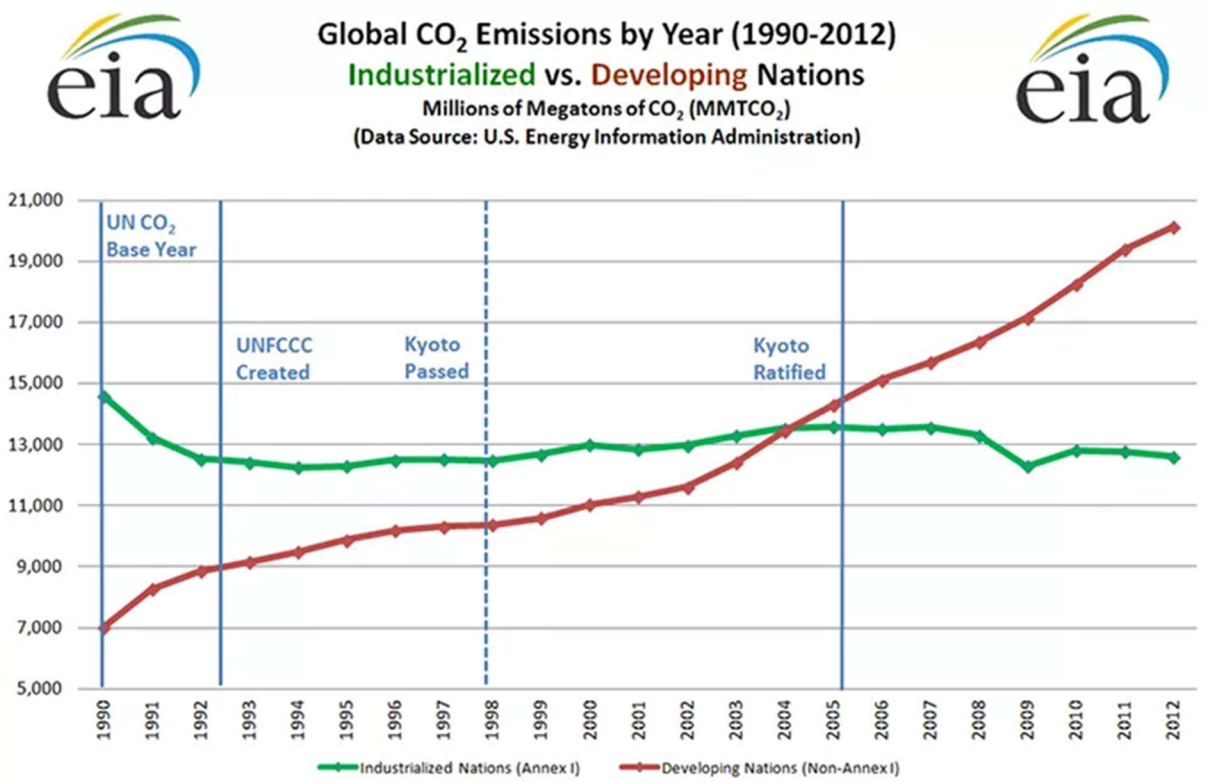
5. The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.

In addition, the position of non-Annex I Parties is mitigated by a provision that makes the fulfilment of their obligations conditional on the fulfilment of the obligations of Annex II Parties related to financial resources and transfer of technologies.

7. The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

Discussion

Discuss the categorisation of Parties made by the UNFCCC, its legitimacy and fairness and its consequences. Think about different ways in which the principle of common but differentiated responsibilities could have been applied.



Source: U.S. Energy Information Administration

6. Commitments

The UNFCCC is a framework convention and therefore contains **only general obligations**. In addition to the obligations mentioned above, these include (for all Parties) obligations relating to:

- national inventories of anthropogenic emissions of GHGs by sources and removals by sinks,
- development and use of technologies and practices that control, reduce or prevent anthropogenic emissions of GHGs in all relevant sectors,
- conservation and enhancement of sinks of GHGs,
- adaptation to the impacts of climate change,
- climate change research,
- information exchange,
- education, training and public awareness.

CHAPTER 3
Kyoto Protocol

The Kyoto Protocol to the United Nations Framework Convention on Climate Change was adopted on 11 December 1997 at the end of the 3rd conference of the Parties (COP3) to the UNFCCC that was held in December 1997 in Kyoto (Japan). It has currently 192 Parties (191 States and the EU), being widely ratified or accepted by both the Annex I and non-Annex I Parties, with a notable exception of the United States of America (which signed but never ratified the protocol) and Canada (which ratified the protocol in 2002 but withdrew from it in 2012). The protocol entered into force on 16 February 2005 after fulfilling the rather complex conditions provided for in art. 24 para. 1.

Article 24

1. This Protocol shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.

The Kyoto Protocol complements the UNFCCC by setting out **specific GHG emission limitation and reduction commitments for Annex I Parties**. Non-Annex I countries are also Parties to the protocol, but the later does not impose any specific emission reduction obligations on them.

The rules and requirements for implementation of the Kyoto Protocol were further elaborated in a package of decisions called the **Marrakesh Accords**. The Marrakesh Accords were formally adopted at the conference of Parties to the UNFCCC serving as the meeting of the Parties to the Kyoto Protocol at its first session in Montreal (Canada) in December 2005 (after the protocol's entry into force).

Reduction targets

The overall aim of the Kyoto Protocol is **to reduce the total GHG emissions of all Annex I Parties by at least 5 % below 1990 levels in the commitment period 2008 to 2012** (art. 3 para. 1 *in fine*).

Article 3

1. The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.

To achieve this aim, each Annex I Party has a **specific emission reduction target (commitment)** inscribed in Annex B to the protocol, which is set relative to its specified GHG emissions in the base year 1990.

Annex B

Party	Quantified emission limitation or reduction commitment (percentage of base year or period)
Australia	108
Austria	92
Belgium	92
Bulgaria*	92
Canada	94
Croatia*	95
Czech Republic*	92
Denmark	92
Estonia*	92
European Community	92
Finland	92
France	92
Germany	92
Greece	92
Hungary*	94
Iceland	110
Ireland	92
Italy	92
Japan	94
Latvia*	92
Liechtenstein	92
Lithuania*	92
Luxembourg	92
Monaco	92
Netherlands	92
New Zealand	100
Norway	101
Poland*	94
Portugal	92
Romania*	92
Russian Federation*	100
Slovakia*	92
Slovenia*	92
Spain	92
Sweden	92
Switzerland	92
Ukraine*	100
United Kingdom of Great Britain and Northern Ireland	92
United States of America	93

* Countries that are undergoing the process of transition to a market economy.

The Party's GHG emissions in the 1990 base year and its reduction target provided for in Annex B are then used to calculate its allowable level of emissions over the commitment period (2008-2012) called **assigned amount**, or more precisely the **initial assigned**

amount.[18] The quantity of the assigned amount is denominated in individual units, called assigned amount units (AAUs). Each AAU represent an allowance to emit one metric tonne of carbon dioxide equivalent (t CO_2 eq.).

The initial assigned amount may change because the Kyoto Protocol allows (and in some cases requires) Parties to add or subtract units from this amount through the LULUCF (abbreviation for *land use, land use change and forestry*) and so-called Kyoto mechanisms (see further). Through these activities, Parties may generate, cancel, acquire or transfer emission allowances, which will raise or lower their assigned amount. The amount available to the given Party after these additions or subtractions is called the **available assigned amount**.

Emissions concerned and LULUCF

To determine the assigned amount the Kyoto Protocol focuses on two main areas that affect the concentration of greenhouse gases in the atmosphere: direct emissions of GHGs from certain industrial and agricultural activities and net changes in GHG emissions from sources and removals by sinks in the LULUCF sector.

Direct **GHG emissions from specified industrial and agricultural activities** are primary and are used by the Protocol to determine the emissions baseline and the initial assigned amount for the commitment period. The GHGs and activities concerned are specified in Annex A to the Kyoto Protocol (six GHGs and activities from five sectors are covered).

The **LULUCF** sector has a secondary, albeit important, role in the Protocol, which distinguishes between mandatory and optional accounting in this area. **Mandatory accounting** (art. 3 para. 3) concerns direct, human-induced, afforestation, reforestation and deforestation activities[19]; each Annex I Party must report on and account for emissions and removals in the commitment period on lands on which these activities have occurred. **Optional accounting** (art. 3 para 4.) concerns forest land management, cropland management, grazing land management and/or revegetation.[20]

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[18] The initial assigned amount (the amount of emissions the given Party is allowed to release in the five-year commitment period 2008-2012, without additions or subtractions) is calculated by multiplying its GHG emissions in the base year by its emissions target in Annex B and then multiplying that value by five (Kyoto Protocol, art. 3 para. 7).

[19] *Afforestation* means planting of new forests on lands which, historically, have not contained forests. *Reforestation* refers to the establishment of trees on land that has been cleared of forest within the relatively recent past. *Deforestation* means permanent removal of forest cover and withdrawal of land from forest use, whether deliberately or circumstantially. See Watson, Robert T, Ian R. Noble, Bert Bolin, N. H. Ravindranath, David J. Verardo and David J. Dokken (Eds.). *Land Use, Land-Use Change and Forestry*. [online]. IPCC, 2000. Cambridge University Press, UK. https://archive.ipcc.ch/ipccreports/sres/land_use/index.php?idp=0 [accessed 1st December 2021].

[20] For more details see UNFCCC. *Reporting and accounting of LULUCF activities under the Kyoto Protocol* [online]. UNFCCC, 2021. https://unfccc.int/topics/land-use/workstreams/land-use-land-use-change-and-

Annex A

Greenhouse gases

Carbon dioxide (CO_2)
Methane (CH_4)
Nitrous oxide (N_2O)
Hydrofluorocarbons (HFCs)
Perfluorocarbons (PFCs)
Sulphur hexafluoride (SF_6)

Sectors/source categories

Energy
- Fuel combustion
  - Energy industries
  - Manufacturing industries and construction
  - Transport
  - Other sectors
  - Other
- Fugitive emissions from fuels
  - Solid fuels
  - Oil and natural gas
  - Other

Industrial processes
- Mineral products
- Chemical industry
- Metal production
- Other production
- Production of halocarbons and sulphur hexafluoride
- Consumption of halocarbons and sulphur hexafluoride
- Other

Solvent and other product use

Agriculture
- Enteric fermentation
- Manure management
- Rice cultivation
- Agricultural soils
- Prescribed burning of savannas
- Field burning of agricultural residues
- Other

Waste
- Solid waste disposal on land
- Wastewater handling
- Waste incineration
- Other

Commitment period(s)

The reduction targets set by the Kyoto Protocol must be met by the Annex I Parties within the **commitment period 2008 to 2012**. The Protocol refers to this period as the **first commitment period** (*cf.* art. 3 para. 4 and para. 7 or art. 5 para. 1) and envisages that it will be followed by a second (*cf.* art. 3 para. 4) and then subsequent (*cf.* art. 3 para.

forestry-lulucf/reporting-and-accounting-of-lulucf-activities-under-the-kyoto-protocol [accessed 1st December 2021].

4 and 13) commitment periods. The reduction targets for commitment periods after 2012 were to be established in future legal texts adopted by the UNFCCC Parties.

The only such text was adopted at the 8th conference of the Parties to the UNFCCC (COP8) serving as the meeting of the Parties to the Kyoto Protocol held in Doha (Qatar) in December 2012, at the very end of the first commitment period. The **Doha Amendment** to the Kyoto Protocol established reduction targets for Annex I Parties for the **second commitment period 2013 to 2020** compared to base year 1990: a common one of at least 18 % and specific ones for individual Parties (by amendment to Annex B). However, several Annex I Parties (Canada, Japan, New Zealand, Russian Federation) have not joined the amendment or made any commitments. The Doha Amendment entered into force on 31 December 2020, the last day of the second commitment period, after having met the strict conditions prescribed by the Kyoto Protocol (acceptance by at least three fourths of the Parties to the Kyoto Protocol). Its contribution to climate protection has been more symbolic than real: it bridged the gap between the end of the first commitment period and the adoption of the Paris Agreement, but the number of Parties that participated and the emission reductions it provided for were too small to make a real difference.

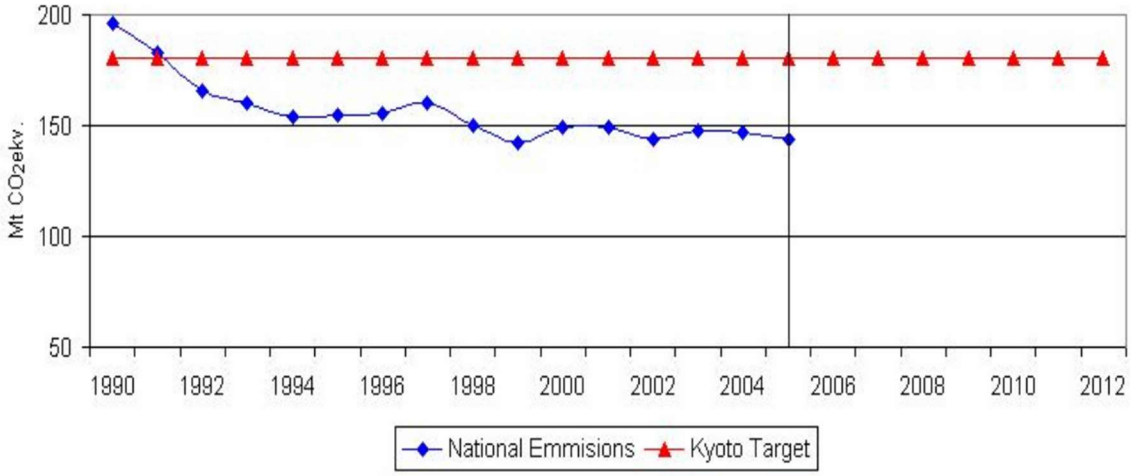
The hope for change came with the Paris Agreement, which was adopted in 2015 and entered into force in 2016, four years before the Doha Amendment.

The 1990 base year

Year 1990 was chosen as the base year mainly under pressure from the EIT countries (countries with economies in transition), which were undergoing political transition in the late 1980s and early 1990s and whose economies were, at that time, characterised by high energy intensity and dependence on fossil fuels, and therefore high GHG emissions. The choice of 1990 was advantageous for them in this respect, because the reduction targets were applied to a larger initial quantity of emissions than if the base year had been 1997 (the year of adoption of the Kyoto Protocol).

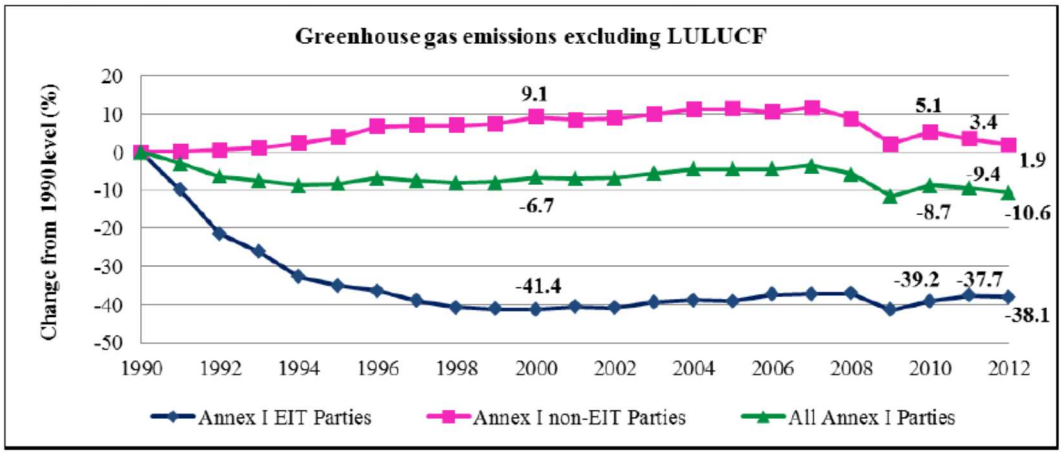
In addition, the EIT countries negotiated the option to choose a different base year, and five of them actually did so (Bulgaria: 1988; Hungary: the average of the years 1985 – 1987; Poland: 1988; Romania: 1989; Slovenia: 1986).

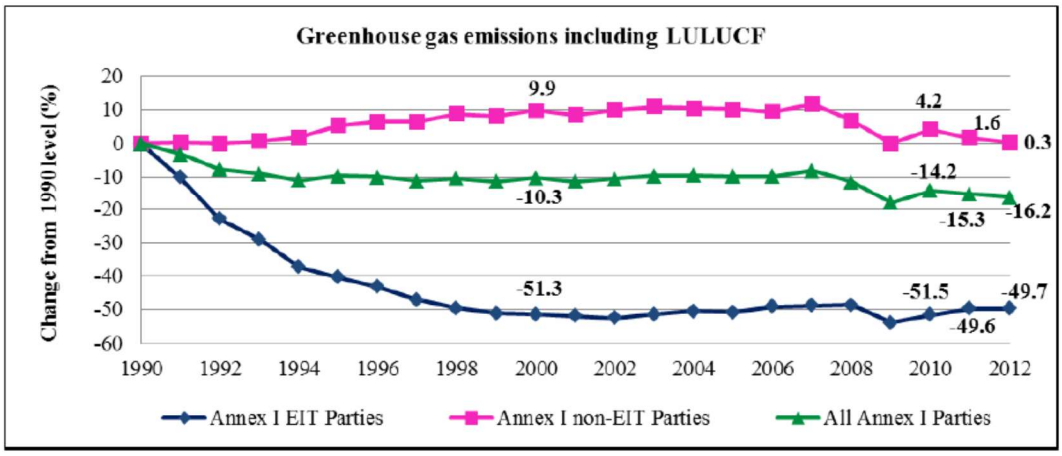
GHG emissions of the Czech Republic and its Kyoto target



Source: Český hydrometeorologický ústav (*Czech Hydrometeorological Institute*)

Changes in greenhouse gas emissions of Annex I Parties, 1990–2012





Abbreviations: EIT = economies in transition, LULUCF = land use, land-use change and forestry.

Source: UNFCCC/Subsidiary Body for Implementation. *National greenhouse gas inventory data for the period 1990-2012.* Doc. FCCC/SBI/2014/20. 17 November 2014, p. 8

Kyoto Protocol Mechanisms

Annex I Parties must meet their reduction targets under the Kyoto Protocol primarily through measures adopted at the national level. However, the Kyoto Protocol allows them to use three specific market-based mechanisms with an international dimension for this purpose.[21]

- **Joint Implementation** (JI, art. 6) is a mechanism that allows an Annex I Party to invest in an emission-reduction or emission removal project in another Annex I Party and count the emission reduction units thus acquired toward meeting its Kyoto target.
- **Clean Development Mechanism** (CDM, art. 12) is a mechanisms the purpose of which is to *"assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the* [UNFCCC]*, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3* [of the Kyoto Protocol]*"* (art. 12 para. 2). It allows an Annex I Party with the emission-reduction commitment under the Kyoto Protocol to implement an emission-reduction project in a country not included in Annex I and to count the emission reduction credits thus created toward meeting its Kyoto target.
- **Emissions Trading** (ET, art. 16bis) is the best known and most widely used market-based instrument in climate protection. This instrument allows Parties that do not use up their "allowed" emissions (assigned amount) to sell the "saved" units to countries that are unable to meet their own reduction commitments. Emission allowances thus become a commodity creating a new type of market – the carbon market. Emissions trading has become one of the basic tools for mitigating climate change not only at the international level, but also at the level of some countries or the EU.

Discussion

The Kyoto Protocol is considered one of the most important environmental treaties adopted at the international level. But is it really? Discuss the contribution of the Kyoto Protocol to climate protection. What were its benefits and what were its drawbacks?

[21] For more details see United Nations Climate Change. *Mechanisms under the Kyoto Protocol* [online]. United Nations Climate Change, 2021. https://unfccc.int/process/the-kyoto-protocol/mechanisms [accessed 1st December 2021].

CHAPTER 4
Paris Agreement

The path to a more effective international instrument to tackle climate change began at the 17th Conference of the Parties to the UNFCCC (serving as the 7th Conference of the Parties to the Kyoto Protocol) held in Durban (South Africa) in December 2011. The conference established a new subsidiary body, *Ad Hoc Working Group on the Durban Platform for Enhanced Action*, and mandated it to lead the process of developing a new binding legal instrument under the UNFCCC.

Decision 1/CP.17

Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action

The Conference of the Parties,

Recognizing that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires to be urgently addressed by all Parties, and acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, with a view to accelerating the reduction of global greenhouse gas emissions,

Noting with grave concern the significant gap between the aggregate effect of Parties' mitigation pledges in terms of global annual emissions of greenhouse gases by 2020 and aggregate emission pathways consistent with having a likely chance of holding the increase in global average temperature below 2 °C or 1.5 °C above pre-industrial levels,

Recognizing that fulfilling the ultimate objective of the Convention will require strengthening of the multilateral, rules-based regime under the Convention,

....

2. *Also decides* to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties, through a subsidiary body under the Convention hereby established and to be known as the Ad Hoc Working Group on the Durban Platform for Enhanced Action;

3. *Further decides* that the Ad Hoc Working Group on the Durban Platform for Enhanced Action shall start its work as a matter of urgency in the first half of 2012 and shall report to future sessions of the Conference of the Parties on the progress of its work;

4. *Decides* that the Ad Hoc Working Group on the Durban Platform for Enhanced Action shall complete its work as early as possible but no later than 2015 in order to adopt this protocol, another legal instrument or an agreed outcome with legal force at the twenty-first session of the Conference of the Parties and for it to come into effect and be implemented from 2020;

The Durban Platform has lived up to its mandate: a new binding legal instrument was adopted at the 21st Conference of the Parties to the UNFCCC held from 30th November to 12th December 2015 in Paris. It was named after the venue of the conference: the Paris Agreement.

Legal character and relation to the UNFCCC

The mandate for the Durban platform was to develop *"a protocol, another legal instrument or an agreed outcome with legal force under the* [UNFCCC]"[22]. Two characteristics of the new instrument were therefore predetermined: its binding character and existence within the UNFCCC. The exact nature has been debated, however, as well as the title of the instrument. The title finally chosen – the Paris Agreement – is unusual in the field of international environmental law (or the international law in general) because it is very general and it is not clear what topic the agreement covers (only where it was adopted). The fact remains, though, that it is legally binding – it is an international convention within the meaning of the Vienna Convention on the Law of Treaties (1969).

As for the relationship to the UNFCCC the question is more complex. Formally, the Paris Agreement is not a protocol to the UNFCCC, but an independent international treaty. The linkages to the UNFCCC are nevertheless very strong. The Agreement only allows signature by Parties (states and the EU) that are Parties to the UNFCCC (and confirms this in the very first paragraph of the Preamble), which is an aspect normally typical for a protocol.

The Parties to this Agreement,

Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as "the Convention",

....

Article 20

1. This Agreement shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations that are Parties to the Convention. It shall be open for signature at the United Nations Headquarters in New York from 22 April 2016 to 21 April 2017. Thereafter, this Agreement shall be open for accession from the day following the date on which it is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

[22] UNFCCC. *Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action.* Decision 1/CP.17, para. 2.

The agreement also refers to the UNFCCC in many ways. In defining the objectives, it states that it is *"enhancing the implementation of the Convention, including its objective"* (art. 2 para. 1), it refers to the definitions in the UNFCCC (art. 1) and methods, guidance and decisions adopted within its framework (for example art. 4 para. 14 and 5 para. 2). It also reminds the developed Parties of their obligation under the UNFCCC to provide financial resources to assist developing country Parties with respect to both mitigation and adaptation (art. 9 para. 1). Last, but not least, it takes over the institutional background of the UNFCCC (Secretariat, Subsidiary Body for Scientific and Technological Advice, Subsidiary Body for Implementation) and makes the Conference of the Parties to the UNFCCC the Conference of the Parties to the Agreement (art. 16 para. 1).

On the other hand, the Agreement does not adopt one of the essential features of the UNFCCC, namely the division of Parties into Annex I Parties and non-Annex I Parties. The Agreement does not treat all Parties equally, but the division it makes differs significantly from that in the UNFCCC (see further).

Discussion

Discuss the relationship of the Paris Agreement to the UNFCCC. Think about why the form of an independent treaty was chosen and not a protocol to the UNFCCC.

Objective

The Paris Agreement sets a general objective of strengthening the global response to the threat of climate change, and within it, specific objectives in three areas: mitigation, adaptation and financial flows.

Article 2

1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and

(c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Discussion

Analyse the objectives of the Paris Agreement and answer the following questions:

a) What is the relationship of the Paris mitigation objective to the UNFCCC objective?

b) What are the risks of setting the mitigation objective in the way the Paris Agreement does?

c) Why does the Paris Agreement specifically mention food production and not other areas of human activity?

d) In what ways are financial flows important in climate protection and what does it mean that they should be *"consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"*?

Division of Parties

As noted above, the Paris Agreement distinguishes between different groups of states, or Parties, but it does not do so in the same way as the UNFCCC. Instead of a rigid division between Annex I and non-Annex I Parties, the Paris Agreement combines **a general division between developed and developing country Parties** with a special attention to certain sub-categories of the latter in certain specific cases.

The difference in treatment between developed and developing countries is best expressed in relation to mitigation efforts, provision of financial resources and support for capacity-building.

Article 4

...

4. Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.

...

Article 9

1. Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.

...

Article 11

...

3. All Parties should cooperate to enhance the capacity of developing country Parties to implement this Agreement. Developed country Parties should enhance support for capacity-building actions in developing country Parties.

The specific sub-categories of developing countries to which the Agreement gives special attention (and which may in some cases be interconnected) include mainly particularly vulnerable (to the adverse effects of climate change) developing countries, least developing countries (LDCs) and small island developing States (SIDSs).

It has to be said, however, that the Paris Agreement does not define the terms *developed* and *developing country Parties*, or their sub-categories used, nor does it specify which countries are part of them, Neither does the UNFCCC, which also uses these terms. The classification of the countries into these groups depends on their self-identification or (in the case of LDCs and SIDSs) their classification within the UN system[23].

Discussion

Think about the division of Parties in the Paris Agreement compared to the UNFCCC and the Kyoto Protocol. What are its advantages and possible disadvantages?

[23] Least developed countries (LDCs) are low-income countries confronting severe structural impediments to sustainable development. They are highly vulnerable to economic and environmental shocks and have low levels of human assets. There are currently 46 countries on the list of LDCs which is reviewed every three years by the Committee for Development. For more information see United Nations, *Least Developed Countries* [online]. United Nations, 2021. https://www.un.org/development/desa/dpad/least-developed-country-category.html [accessed 1st December 2021]. Small island developing States (SIDS) are a distinct group of 38 UN Member States and 20 Non-UN Members/Associate Members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities. For more information see United Nations. *Small Island Developing States* [online]. United Nations, 2021. https://www.un.org/ohrlls/content/small-island-developing-states [accessed 1st December 2021].

Nationally determined contributions (NDCs)

Article 3

As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement.

1. NDCs: dependent on the will of Parties and required from all

The way in which the Paris Agreement imposes obligations on its Parties differs from the UNFCCC and the Kyoto Protocol in two fundamental ways.

First, the Paris Agreement uses a **bottom-up approach**, meaning that it leaves up to each Party to determine how it will contribute to fulfilling of the objectives defined in art. 2. These self-imposed commitments are called **nationally determined contributions (NDCs)** and are an essential tool within the Paris Agreement. While the focus is mainly on mitigation contributions (see further), their scope under the Paris Agreement is much broader. They concern:

- **mitigation** efforts (art. 4),
- **adaptation** in the form of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change (art. 7),
- provision of **financial resources** to assist developing country Parties with respect to both mitigation and adaptation (art. 9),
- **technology development and transfer** in order to improve resilience to climate change and to reduce greenhouse gas emissions (art. 10),
- **capacity-building** with the aim to *"enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action* [...] *and should facilitate technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information"* (art. 11, quotation of para. 1),
- **enhanced transparency framework** (ETF) for action and support the purpose of which is *"to provide a clear understanding of climate change action in the light of the objective of the Convention as set out in its Article 2, including clarity and tracking of progress towards achieving Parties' individual nationally determined*

contributions under article 4, and Parties' adaptation actions under Article 7, including good practices, priorities, needs and gaps, to inform the global stocktake under Article 14" (art. 13, quotation of para. 5)[24].

Second, as is evident from the wording of art. 3, the Paris Agreement does not impose the obligation to submit nationally determined contributions only to Annex I countries (or only to developed countries), but **to all the Parties of the Agreement**.

2. Application of the common but differentiated responsibilities principle

The above stated does not mean that the Paris Agreement has abandoned the **principle of common but differentiated responsibilities (and respective capabilities)**. On the contrary, this principle – one of the most important in the international climate law – is fully applied, just implemented in a different way.

The Paris Agreement refines the principle by specifying it should be applied *"in the light of different national circumstances"* (see especially the Preamble para. 3 and art. 2 para. 2).

The Parties to this Agreement,

...

In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances,

Article 2

...

2. This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

It can be summarized that all Parties are obliged to contribute to the common goal; how they specifically do so is set out in their NDCs, which can and should take into account

[24] For more information on the enhanced transparency framework for action and support (shortened to Enhanced Transparency Framework, ETF) see United Nations Climate Change. *Reporting and Review under the Paris Agreement* [online]. United Nations Climate Change, 2021. https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-paris-agreement [accessed 1st December 2021].

their different responsibilities, respective capacities and differing national circumstances.

Discussion

Compare the implementation of the principle of common but differentiated responsibilities in the Paris Agreement on the one hand and in the UNFCCC and the Kyoto Protocol on the other from the point of view of its fairness and the likelihood of achieving the stated objectives.

3. Characteristics of mitigation NDCs

Although the NDCs relate to several aspects of the Paris Agreement, they are of particular importance in relation to mitigation objectives, which are central to international climate protection law. The Agreement addresses the topic of mitigation in articles 4 to 6: article 4 deals with emissions reduction and mitigation NDCs per se, article 5 with conservation and enhancement of sinks and reservoirs of greenhouse gases and article 6 with cooperative approaches (both market and non-market ones) in the implementation of NDCs. However, of these articles, the NDCs are only supposed to cover article 4, emissions reduction (*cf.* art. 3).

The **main characteristics of mitigation NDCs** are as follows:

- When establishing their mitigation NDCs, Parties should aim *"to reach global peaking of greenhouse gas* emissions *as soon as possible"* and *"to undertake rapid reductions thereafter"* so as to achieve the **climate neutrality (net-zero GHGs emissions) in the second half of the 21st century.** This is a kind of implementation target for achieving the mitigation objective set out in article 2 para. 1(a).

Article 4

1. In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

- The Parties *"shall pursue"* **domestic mitigation measures** with the aim of achieving the objectives of their NDCs (art. 4 para. 2).

- The Parties are required to communicate their NDCs **every five years** (art. 4 para. 9), with the understanding that **subsequent NDCs must represent a progression** comparing to the previous ones and **reflect the highest possible ambition** of the given Party (art. 4 para. 3).

3. Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

- As already noted above, the Paris Agreement confirms the **leading position of developed Parties in combatting climate change** and urges them to undertake *"economy-wide absolute emission reduction targets"*. Developing country Parties are encouraged *"to move over time towards economy-wide emission reduction targets"* (art. 4 para. 4).

4. Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.

- The Parties, including regional economic integration organizations and their member States, may agree to **determine and communicate their NDCs jointly**. In such a case, they must notify the Secretariat of the terms of such agreement, including the emission level allocated to each Party within the relevant time period (art. 4 para. 16).

Discussion
Which parties submit their NDCs together? What are the advantages and possible disadvantages of this approach?

- NDCs communicated by Parties are **recorded in a public registry** maintained by the Secretariat (art. 4 para. 12). The interim registry is accessible from: https://www4.unfccc.int/sites/ndcstaging/Pages/Home.aspx

4. Current NDCs

A year before the Paris conference, the 20th Conference of the Parties to the UNFCCC, held in the first half of December 2014 in Lima (Peru), invited all Parties to communicate to the secretariat their **intended nationally determined contributions** (INDCs). A total of 147 Parties (75% of all Parties to the UNFCCC) responded to this invitation by 1st October 2015, it means before the Paris Conference. A further 42 Parties had submitted their INDCs by 4th April 2016, before the Paris Agreement entered into force, bringing the total number of Parties that had submitted their INDCs to 189 (96% of all Parties to the UNFCCC).

A Party's **INDC was converted to its (first) NDC** at the time it formally joined the Paris Agreement by submitting an instrument of ratification, acceptance, approval or accession, unless the Party decided otherwise.[25]

By the end of 2021, the first NDCs had been submitted by 194 Parties and the second by 13 Parties.[26] However, most Parties that have not submitted second NDCs have submitted "updated" first NDCs during 2020 and 2021 (i.e. five years after the submission of the first NDCs as mandated by the Paris Agreement).

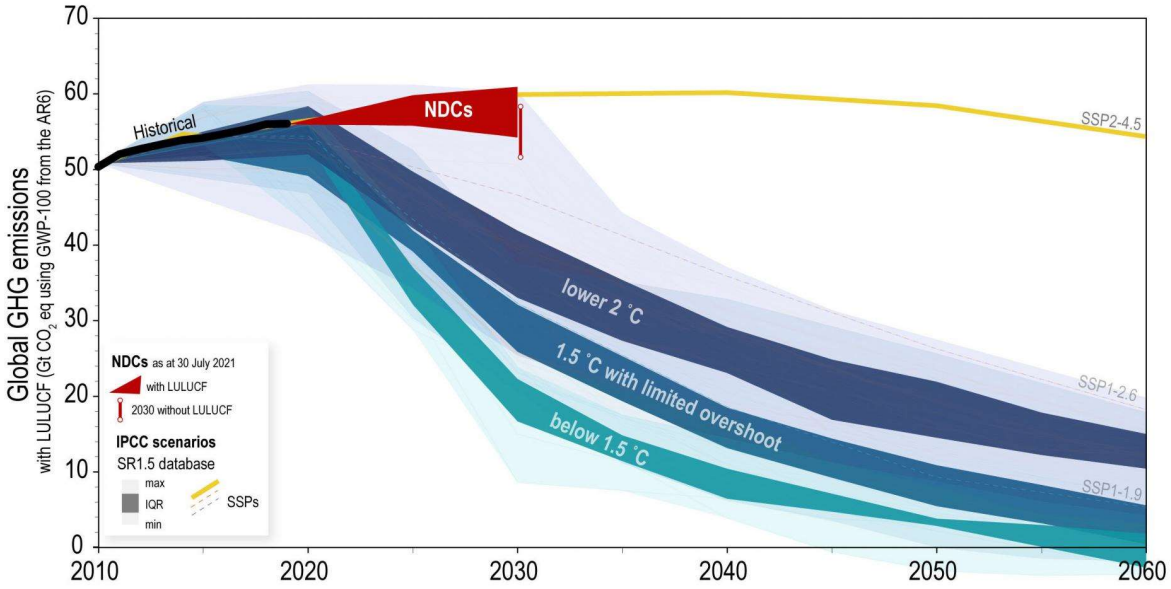
It has to be said, however, that the commitments made by countries in the form of the NDCs submitted so far are **not sufficient to achieve the Paris Agreement objective** of holding the increase in the global average temperature to well below 2°C above pre-industrial levels.[27] To achieve this objective, countries' climate commitments need to be more ambitious.

Discussion

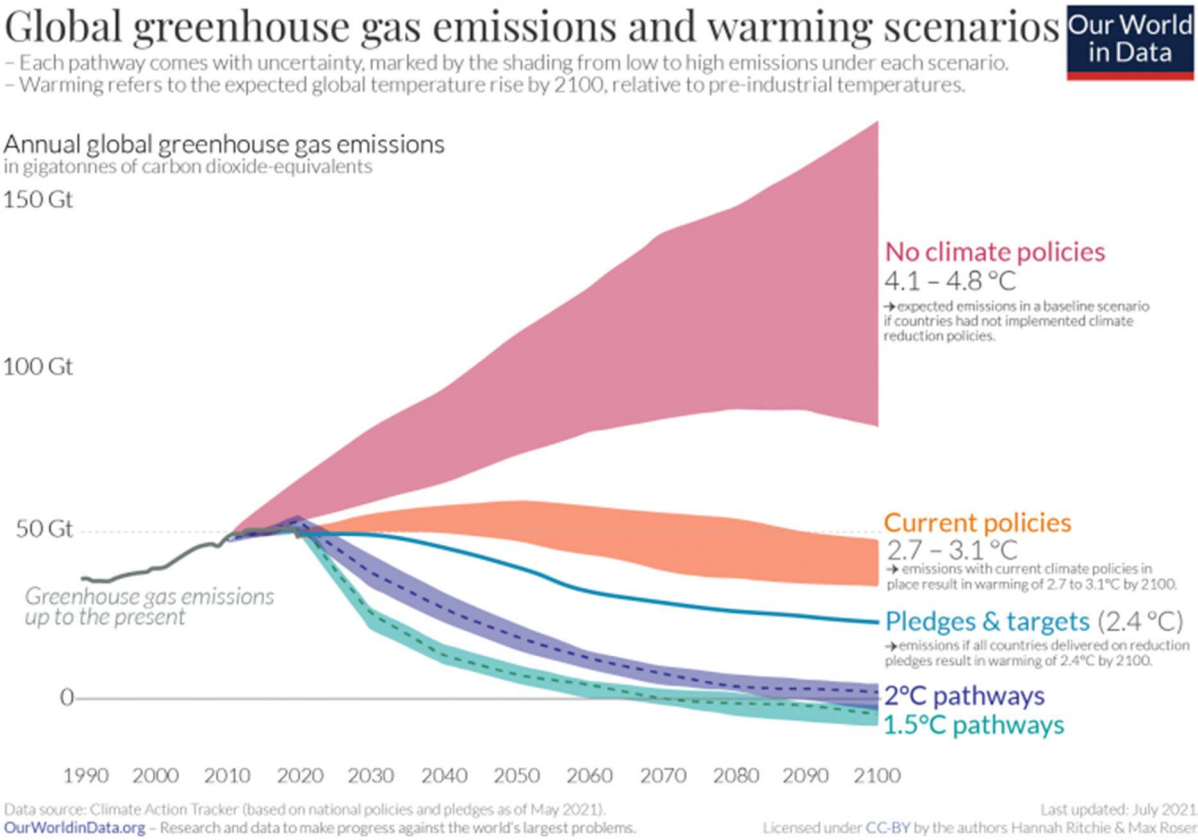
Analyse, compare and discuss in class NDCs of

- your home country,
- selected developed country,
- selected developing country.

[25] Several countries made their national climate commitments stricter upon ratification of the Paris Agreement and submitted their first NDCs that differed from their INDCs. For more detail see Ge, M. and K. Levin. *INSIDER: What's Changing As Countries Turn INDCs into NDCs? 5 Early Insights* [online]. World Resources Institute, 18 April 2018. https://www.wri.org/insights/insider-whats-changing-countries-turn-indcs-ndcs-5-early-insights [accessed 1st December 2021].
[26] See United Nations Climate Change. *NDC Registry (interim)* [online]. United Nations Climate Change, 2021. https://www4.unfccc.int/sites/ndcstaging/Pages/Home.aspx [accessed 1st December 2021].
[27] See United Nations Climate Change. *Full NDC Synthesis Report: Some Progress, but Still a Big Concern* [online]. UN Climate Press Release, 17 September 2021. https://unfccc.int/news/full-ndc-synthesis-report-some-progress-but-still-a-big-concern [accessed 1st December 2021].



Source: United Nations Climate Change. *Full NDC Synthesis Report: Some Progress, but Still a Big Concern* [online]. UN Climate Press Release, 17 September 2021. https://unfccc.int/news/full-ndc-synthesis-report-some-progress-but-still-a-big-concern [accessed 1st December 2021].



Global stocktake and Implementation and Compliance Committee

The Paris Agreement provides for two basic instruments to help its implementation: global stocktake and the Implementation and Compliance Committee.

The **global stocktake** is dealt with in article 14. It is a process of a periodical review of the implementation of the Paris Agreement with the aim to assess the collective progress towards achieving its long-term objectives. It is carried out by the Conference of the Parties to the UNFCCC serving as the meeting of the Parties to the Paris Agreement and shall be done *"in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science"* (art. 14 para. 1 *in fine*). The global stocktake will take place every 5 years starting in 2023.

Article 14

...

3. The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action.

Discussion

Discuss the importance of the global stocktake. What should its outputs be used for?

The **Paris Agreement Implementation and Compliance Committee (PAICC)** was established by article 15 of the Paris Agreement. Its aim is to enhance effectiveness of the Agreement and its proper functioning. It operates under the modalities and procedures adopted by the 24th Conference of the Parties to the UNFCCC serving as the first meeting of the Parties to the Paris Agreement, held in December 2018 in Katowice (Poland).[28]

Article 15

1. A mechanism to facilitate implementation of and promote compliance with the provisions of this Agreement is hereby established.

2. The mechanism referred to in paragraph 1 of this Article shall consist of a committee that shall be expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive. The committee shall pay particular attention to the respective national capabilities and circumstances of Parties.

3. The committee shall operate under the modalities and procedures adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement at its first session and report annually to the Conference of the Parties serving as the meeting of the Parties to this Agreement.

Discussion

Read the decision 20/CMA.1 providing modalities and procedures for the effective operation of the PAICC and discuss the measures available to the Committee in the case of a Party's failure to fulfil its obligations under the Agreement.

[28] UNFCCC. *Modalities and procedures for the effective operation of the committee to facilitate implementation and promote compliance referred to in Article 15, paragraph 2, of the Paris Agreement*. Decision 20/CMA.1 of 15th December 2018. Doc. FCCC/PA/CMA/2018/3/Add.2, distributed 19th March 2019. Available from: https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf [accessed 1st December 2021].

CHAPTER 5
The human rights context of climate change

The interrelationship between environmental quality and the enjoyment of human rights has been extensively analysed by legal scholars over the past few decades and confirmed by numerous decisions and opinions of international and national courts and other human rights bodies. Most attention has so far focused on cases where there is a direct and demonstrable causal link between environmental degradation attributable to a particular person (typically, although not exclusively, the operator of an industrial activity emitting excessive amounts of pollutants or using excessive amounts of resources) and the limited ability of the rights-holder (in the case of individual rights) or holders (in the case of collective rights, particularly indigenous peoples) to fully exercise or benefit from those rights.

Nevertheless, the relationship between climate change and human rights is different, more complex and less straightforward. While it is clear that climate change has a major negative impact on the possibility of realization of human rights – an impact that will intensify as the global average temperature will rise – the role of natural factors makes it very difficult to identify, in individual cases, the responsible person and to prove the causal link. Despite these difficulties, the human rights-based approach can make an important contribution to achieving the goals of international climate law, both in the area of mitigation and adaptation.

Human rights impacts of climate change

> *"Climate change threatens our ability to achieve sustainable development, and in some cases, our very survival. It could fuel famine, political upheaval and conflicts over resources."*
>
> Source: United Nations. *Secretary-General's* [Ban Ki-moon] *video message for Human Rights Council meeting on Climate Change.* United Nations, Secretary General. 6 March 2015. https://www.un.org/sg/en/content/sg/statement/2015-03-06/secretary-generals-video-message-human-rights-council-meeting [accessed 1st December 2021]

There are a number of human rights the realisation of which may be threatened by climate change and its manifestations. In this context, measures in the field of both mitigation (limiting the extent of climate change itself) and adaptation (adapting to changing natural conditions) are important to ensure the full enjoyment of human rights.

Discussion

Discuss the following examples of threats to the realization of human rights due to climate change. Identify, in general terms, the options for ensuring the protection of the rights-bearers as well as the obstacles to applying a rights-based approach in these cases.

Example No. 1
Carteret Islands: threatened by rising sea level

The Carteret Islands are a group of seven small islets on a coral atoll in the South Pacific, about 90 km north-east of Bougainville. They are part of the territory of Papua New Guinea, inhabited by about 1 800 people. Their highest point is of just 1,5 m above the sea level which makes them extremely vulnerable to even a slight sea level rise. Climate change is not (yet?) threatening the lives of islanders, but it is further complicating their already difficult livelihoods.

Suggested reading: Connell, John. *Nothing There Atoll? "Farewell to the Carteret Islands".* In Crook, Tony and Peter Rudiak-Gould (eds.). *Pacific Climate Cultures. Living Climate Change in Oceania.* De Gruyter Open Poland, 2018, pp. 73-87. Available from: https://www.degruyter.com/document/doi/10.2478/9783110591415/html [accessed 1st December 2021]

Example No. 2
The Inuit: threatened by sea ice and permafrost thawing

The Inuit are a group of culturally close indigenous peoples inhabiting the Arctic and subarctic regions of Greenland, Canada and Alaska (United States). The Inuit culture is closely linked and adapted to the Arctic environment, being characterized, among others, by dependence on subsistence harvesting in both the terrestrial and marine environments. The traditional Inuit culture is being threatened by impacts of climate change that are particularly severe in the Arctic, including changes in the quantity and timing of the snowfall, thinning and less extent of the sea ice and thawing of the permafrost.

Suggested reading: *Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States.* 7 December 2005. Available from: http://climatecasechart.com/climate-change-litigation/non-us-case/petition-to-the-inter-american-commission-on-human-rights-seeking-relief-from-violations-resulting-from-global-warming-caused-by-acts-and-omissions-of-the-united-states/ [accessed 1st December 2021]

Example No. 3
People's Climate Case: livelihood and well-being of people working in agriculture and tourism threatened by extreme weather events

One of the typical manifestations of climate change are hydrometeorological extremes such as heat waves, droughts or floods. In many parts of the world, climate change is disrupting seasons and precipitation patterns. These changes fundamentally affect the quality of life of many people, as well as their ability to earn a living in a way to which they were accustomed and in which they had invested time, energy and resources. Among the most affected sectors are agriculture, forestry and tourism.

Suggested reading: *People´s Climate Case* [online]. 2018. https://peoplesclimatecase.caneurope.org/ [accessed 1st December 2021].

Can you think of other examples of threats to the enjoyment of human rights as a result of climate change?

Rights-holders, duty-bearers and extraterritorial application of human-rights

The concept of human rights is generally understood, although their definitions may vary: they are the basis standards which are necessary for a life of dignity[29], *"norms that aspire to protect all people everywhere from severe political, legal, and social abuses"*[30]. They are considered inalienable, indivisible, interdependent and interrelated, and – last, but not least – universal, it means applying to all people in the worlds regardless of their ethnic background, nationality, language, sex, religion, social origin, political opinion, disability or any other characteristic.

As regards their legal nature, recognised human rights are generally **mandatory claim rights**, it means they entail duties (obligations) on other parties (the duty-bearers). Traditionally, **individuals, i.e. every human being, are the bearers of human rights** and **States are the bearers of corresponding duties** to respect, protect and fulfil them.

[29] For a general introduction to human rights see, for example: COUNCIL OF EUROPE. *Compass. Manual for Human Rights Education with Young People.* 2nd edition, 2020, p. 383 et seq. Available from: https://rm.coe.int/compass-eng-rev-2020-web/1680a08e40 [accessed 1st December 2021].
[30] NICKEL, James. *Human rights* [online]. Stanford Encyclopedia of Philosophy, 2019. https://plato.stanford.edu/entries/rights-human/ [accessed 1st December 2021].

Discussion

1. Is the concept of human rights dependent on citizenship? In other words, do States have human rights obligations only in relation to their citizens?
2. How does the responsibility of States, as primary duty-bearers of human rights obligations, manifest itself in the area of climate change?

The universality of human rights does not preclude that only persons fulfilling a certain characteristic may be holders of some of them. These are people who, because of this characteristic, are more vulnerable in certain situations and therefore require special protection. Examples include women, children or members of ethnic and national minorities. Even in these cases, however, it is individuals who are the holders of rights, not groups sharing the characteristic as such. However, the situation is different for two specific groups of rights holders that are becoming increasingly important in the context of climate change: **indigenous peoples** and **future generations**.

Indigenous peoples as rights-holders

There are more than 5 000 indigenous peoples living in more than 90 countries in the world encompassing more than 370 million people. The environment – or nature more precisely (land, water, fauna and flora) – often plays a crucial role in the traditional culture and way of life of indigenous peoples. Although the environmental changes that threaten the long-term survival of indigenous peoples currently stem primarily from direct impacts on the lands they use (territorial development or natural resource use), climate change-induced environmental changes are also gaining importance.

Discussion

Discuss the possible impacts of climate change on indigenous peoples´ lives and livelihoods. Which indigenous peoples are most at risk?

There has been a debate at the international level for many decades as to whether indigenous peoples as such are rights-holders or, more precisely, **whether indigenous communities are peoples** in the sense of international law. This concept was opposed primarily by modern states with strong indigenous populations, who feared that these populations would exercise the right to self-determination guaranteed to nations by international law. However, these fears were gradually overcome and indigenous communities were granted the status of peoples as separate entities and rights holders, with the understanding that their right to self-determination included only internal self-

determination, meaning the right to freely determine their political status and pursue their economic, social and cultural development, but without the possibility to demand territorial separation from "their" state.

At the international level, there are **two major universal texts on the rights of indigenous peoples**: the **Indigenous and Tribal Peoples Convention** adopted in 1989 within the International Labour Organization as convention No. 169[31] and the **United Nations Declaration on the Rights of Indigenous Peoples** adopted in the form of a UN General Assembly resolution in 2007[32].

Discussion

Study both documents and reflect on the following questions:

a) Are indigenous peoples holders of rights related to the environment?

b) Could the exercise of some indigenous peoples' rights be threatened by the impacts of climate change? If so, which ones?

c) What are the obstacles to the exercise of the rights granted to indigenous peoples and the enforcement of the corresponding obligations?

Future generations as rights-holders

The concept of the rights of future generations is considerably less clear than the one of the rights of indigenous peoples. References to future generations, their needs and/or benefits, appear in a number of international documents of both soft and hard law character, such as the 1992 Rio Declaration on Environment and Development [33] or the UNFCC[34]. The idea of the needs of future generations is also embodied in the principle of intergenerational solidarity (or equity), which is closely linked to the principle of sustainable development and is enshrined, for example, in the Paris Agreement.

[31] For more information about the topic, see: INTERNATIONAL LABOUR ORGANIZATION. *Indigenous and tribal peoples* [online]. ILO, 1996-2021. https://www.ilo.org/global/topics/indigenous-tribal/lang--en/index.htm [accessed 1st December 2021].

[32] For more information about the topic, see: UNITED NATIONS, DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS. *United Nations Declaration on the Rights of Indigenous Peoples* [online]. United Nations, 2021. https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html [accessed 1st December 2021].

[33] See Principle 3 of the Declaration: "*The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.*"

[34] See art. 3 para. 1 UNFCCC: "*The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.*"

Paris Agreement

The Parties to this Agreement,

....

Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

However, the explicit granting of rights to future generations does not appear in international legal documents and the concept thus far remains more philosophical (and used in a supportive manner) than legal, at least at the international level.

Discussion

Discuss the concept of the rights of future generations. What are the main obstacles to its wider application? Would future generations in your country have legal standing to bring a lawsuit because of an alleged interference with their rights?[35]

Non-state actors as duty-bearers

As far as duty-bearers are concerned, in the field of human rights it has traditionally been States: the legal relationship arising from human rights is generally between the individual as the holder of the right and the State in whose territory the individual is located as the duty-bearer. Direct accountability of private actors may apply at the national level in the area of civil or criminal law; however, from the perspective of international human rights law, it is States that bear responsibility for human rights violations by non-state actors under their jurisdiction or control.

[35] For a survey of legal academics´opinions on future generations´rights see MARTINEZ, Eric and WINTER, Christoph. *Protecting future generations. A global survey of legal academics.* LPP Working Paper Series N° 1-2021. 51 p. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3931304 [accessed 1st December 2021].

Discussion

Are human rights linked to nationality (citizenship)? In other words, is the ability to claim protection of human rights linked to the nationality (citizenship) of the State in whose territory a person is located?

However, under the influence of the crucial impact of large (especially multinational) business enterprises on the possibility of exercising human rights - including those related to the environment - the notion of who should be the duty-bearer in this field is slowly beginning to change, albeit so far mostly in theory and soft-law instruments.

The lead agency for the business and human rights agenda within the UN system is the Office of the United Nations High Commissioner for Human Rights.[36] The most important soft-law instrument created so far under its auspices is the **UN Guiding Principles on Business and Human Rights**, which were developed by the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, and unanimously endorsed by the Human Rights Council in its resolution 17/4 of 16 June 2011. The document comprises a set of guidelines for States and companies to prevent and address human rights abuses committed in business operations.[37]

These Guiding Principles are based on **three pillars**:
a) States' existing obligations to respect, protect and fulfil human rights and fundamental freedoms.
b) The role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights.
c) The need for rights and obligations to be matched to appropriate and effective remedies when breached.

[36] See the relevant web page at: UNITED NATIONS. *OHCHR and business and human rights* [online]. United Nations Human Rights, Office of the High Commissioner. 1996-2021. https://www.ohchr.org/en/business-and-human-rights [accessed 1st December 2021].
[37] UNITED NATIONS. *Guiding Principles on Business and Human Rights. Implementing the United Nations "Protect, Respect and Remedy" Framework.* United Nations Human Rights, Office of the High Commissioner, 2011. Available from: https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf [accessed 1st December 2021].

Discussion

Study the UN Guiding Principles on Business and Human Rights and discuss the following questions:

a) What sub-obligations do states and businesses have under each pillar?
b) What is the legal nature of the document and its relevance to the protection of human rights?

Related to the question of the rights-holders and the bearers of corresponding obligations is the important question of the territorial scope of human rights, or of the legal relationships that arise on their basis. It is widely acknowledged that States have human rights obligations in relation to individuals (or rights-holders in general) within their territory and/or jurisdiction. But what if an activity carried out under the jurisdiction or control of a State interferes with the human rights of persons (or rights-holders in general) in the territory of another State?

Discussion

Think about the possibility of extraterritorial application of human rights instruments. For example, could the inhabitants of an island State threatened by the rising sea level demand effective climate protection measures from another State – a major GHG emitter – arguing that the lax approach of these States is infringing on their human rights?

Human rights-based climate change litigation

There are a number of bodies at national, EU and international level that deal with human rights violations, including those related to environmental degradation due to climate change. The most important of these are, of course, courts as impartial and independent bodies endowed with the authority to adjudicate legal disputes between parties. Courts at all three levels have seen a significant increase in the number of climate-related cases relying on human rights arguments in recent years, although their share in the total number of climate-related cases remains relatively low. The *Climate Change Litigation Databases*, a recognised database of the U.S. and global climate change litigation, lists (outside the U.S.) 89 human rights-based climate cases out of 562 (the database is updated on a monthly basis, so the numbers change).[38]

Most human rights-based climate cases take place, for obvious reasons, at the **national level** (a complaint to an international human rights mechanism usually requires exhaustion of domestic legal remedies). As far as access to national courts is concerned, it is, including the rules on standing, governed by the national law of the State concerned. These rules vary from jurisdiction to jurisdiction, which means that arguments and approaches used in one State may be difficult to transfer to another one. The personality and setting of the judge(s) may also play a role, as human rights-based climate litigation is generally less bound by specific legal rules and more open to the application of general principles than disputes in other areas.

Discussion

What are the rules for access to human rights courts in your country? Would an individual - or a group, such as an indigenous people - have standing to sue in the event of an alleged violation of a guaranteed human right as a result of inadequate state (or private) action to prevent climate change or mitigate its consequences? What arguments and legal instruments could the rights-holder rely on in doing so?

Do you know of any national court cases based on human rights arguments in relation to climate protection? Has it been successful?

At the **EU level**, enforcing stricter climate protection measures through the courts using human rights arguments seems difficult, as shown by the famous People's Climate Case launched by 10 families from several (including non-European) countries and the Saami

[38] See *Climate Change Litigation Databases* [online]. Sabin Center for Climate Change Law and Arnold & Porter, 2021. http://climatecasechart.com/climate-change-litigation/.

Youth Association Sáminuorra in 2018 and dismissed first (in 2019) by the General Court and then (on appeal in 2021) by the Court of Justice as inadmissible.[39]

Discussion

Read the decisions of the EU courts in the Peoples' Climate Case – order of the General Court in Case T-330/18 from 8 May 2019 and judgement of the Court of Justice in Case C-565/19P – and explain why the application was dismissed.

Can other climate-related human rights-based applications have a chance of success?

The number of applications/petitions submitted to **international human rights mechanisms** has been relatively low and most of them have not yet been decided (of those that have been already dealt with by the respective mechanisms, none has been successful). The most significant cases include:

- the "Inuit Petition" against the U.S. to the Inter-American Commission on Human Rights filed in 2005 (not dealt with by the Commission substantively)[40],
- the Climate Change Petition from Greta Thunberg and 15 other children from twelve countries around the world against five respondent States (Argentina, Brazil, Germany, France and Turkey) to the UN Committee on the Rights of the

[39] *Armando Ferrão Carvalho and Others v. The European Parliament and the Council ("The People's Climate Case")* [online]. Climate Change Litigation Databases, 2021. http://climatecasechart.com/climate-change-litigation/non-us-case/armando-ferrao-carvalho-and-others-v-the-european-parliament-and-the-council/ [accessed 1st December 2021].

[40] Despite the very detailed nature of the petition and the description of the negative impacts of climate change (global warming) on Inuit life, the Commission concluded that *"the information provided does not enable us to determine whether the alleged facts would tend to characterize a violation of rights protected by the American Declaration".* See the letter by the Assistant Executive Secretary of the Inter-American Commission on Human Rights to the petitioners from November 16, 2006. Available from: *Petition To The Inter-American Commission on Human Rights Seeking Relief From Violations Resulting from Global Warming Caused By Acts and Omissions of the United States* [online]. Climate Change Litigation Databases, 2021. http://climatecasechart.com/climate-change-litigation/non-us-case/petition-to-the-inter-american-commission-on-human-rights-seeking-relief-from-violations-resulting-from-global-warming-caused-by-acts-and-omissions-of-the-united-states/ [accessed 1st December 2021].

Child presented in September 2019 (declared inadmissible in September 2021 for failure to exhaust domestic remedies)[41] [42],

- complaint by Duarte Agostinho and 5 other Portuguese youth against Portugal and 32 other States to the European Court of Human Rights filed in September 2020, alleging that the respondent States have violated human rights by failing to take sufficient action on climate change and seeking an order requiring them to take more ambitious action (pending)[43].

Discussion

Analyse the decisions of the relevant human rights mechanisms in cases of the Inuit Petition and the children´s Climate Change Petition and try to predict the decision of the European Court of Justice in the Duarte Agostinho and others case.

[41] CONVENTION ON THE RIGHTS OF THE CHILD/COMMITTEE ON THE RIGHTS OF THE CHILD. Decisions adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communications Nos. 104/2019, 105/2019, 106/2019, 107/2019 and 108/2019. Documents CRC/C/88/D/104/2019, CRC/C/88/D/105/2019, CRC/C/88/D/106/2019, CRC/C/88/D/107/2019 and CRC/C/88/D/108/2019. Available from: https://juris.ohchr.org/en/search/results?Bodies=5&sortOrder=Date [accessed 1st December 2021].

[42] For a very interesting analysis of the petition, see BAKKER, Christine. *'Baptism of fire?' The first climate case before the UN Committee on the Rights of the Child* [online]. Questions of International Law, 31 January 2021. http://www.qil-qdi.org/baptism-of-fire-the-first-climate-case-before-the-un-committee-on-the-rights-of-the-child/ [accessed 1st December 2021].

[43] EUROPEAN COURT OF HUMAN RIGHTS. *Duarte Agostinho and Others v. Portugal and Others*. Case No. 39371/20. HUDOC. Available from: https://hudoc.echr.coe.int/eng#{%22appno%22:[%2239371/20%22]} [accessed 1st December 2021].

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