



Forum: UNFCCC

Issue: Ensuring the protection of biodiversity endangered by rising sea levels

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Introduction

Climate change is one of the most pressing concerns of the 21st century. If we want to sustain a liveable planet, action should be undertaken. This is the message that is becoming clear to more and more people worldwide. In this session of Coornhert Model UN we focus on climate-related issues. The UNFCCC will be working on a solution to the problem of the endangered biodiversity by rising sea levels.

Even though we might not see most coastal areas as a place full of animals, they are often quite fertile and densely populated with special plants, microbes and animals. All of these species are under direct threat by the ongoing rise of the sea level.

Definition of Key Terms

Biodiversity

According to the Cambridge Dictionary, biodiversity means: the number and types of plants and animals that exist in a particular area or in the world in general. Taking that into account, biodiversity and its change can tell us a lot about development of certain areas.

Endemic species

Endemic species are plants, animals, microbes and all other possible kinds of species that are unique to a certain area. The loss of their habitat will mean that they will become extinct as they only live there and nowhere else.

Greenhouse effect

The greenhouse effect is a process that results from the heat energy of sunlight being absorbed by the earth and molecules in the earth's atmosphere. This energy is usually radiated back towards space. However, as we change the gases in the earth's atmosphere as the results of everyday living, this energy is unable to leave the earth's atmosphere and is trapped as heat. The heat causes a gradual warming of the air around the earth. This warming is known as the greenhouse effect.



Anthropogenic emissions

Anthropogenic emissions are defined as gas-form pollution from a human source. From the industrial revolution onwards till now, our planet is more and more becoming dependent on industries and pollutive products.

General Overview

Direct threat: islands and coastal areas

Despite considerable attention to climate change, no global assessment of the consequences of sea level rise is available for insular ecosystems. Yet, over 180,000 islands world-wide contain 20% of the world's biodiversity. This include for example the Caribbean and Micronesian islands, that are currently facing enormous difficulties with rising sea levels. A French-led investigation on the future of these areas has shown the catastrophes that lie ahead. Between 6 and 19% of the 4447 islands would be entirely submerged under considered scenarios (1–6 m of sea level rise). Three hotspots displayed the most significant loss of insular habitat: the Caribbean islands, the Philippines and Sundaland, representing a potential threat for 300 endemic species.

National governments tend to focus on maintaining the populated coastal areas safe and dry. This means that less funds go to the protection of coastal and semi-submerged natural sites such as lagoons and deltas that are at risk. The area that cover and their wildlife face the imminent danger of flooding. Such a reduction of space, and the subsequent decrease of biodiversity, will be the most direct and inevitable outcome of sea level rise.

In addition, more than 10% of all islands will lose at least 50% of their area in the future. The relative effect of sea level rise on habitat differs substantially among geographic regions. In some cases the inhabitants, both human and others, are totally reliant on their shores and coastal areas.

Examples of endangered species

- **Sea turtles:** As sea turtles need water and beaches to survive, their habitat and future life is in danger. Regularly flooding of beaches cause a decrease of the turtle population. Some certain breeds of turtles face extinction such as the Loggerhead sea turtle.
- **Small coastal rodents:** Those small animals are often living in between the low-lying rocks of coastal areas. Even though you might be surprised; some of them too, such as the Delmarva Fox squirrel face extinction.
- **Birds:** A lot of the fish-eating birds are extremely reliant on the low-lying coastal and insular areas. For as well breeding as nourishment, they need low lying salt-water areas and their endangered habitat threatens to vanish. Examples are the Black-



fronted Tern and the Magenta Petrel in New Zealand where their breeding grounds are likely to vanish beneath the waves in the next 100 years.

Main causes of the rising sea level

Global warming is the main contributor to the rise in global sea level since the Industrial Revolution. Human activities such as burning coal and oil increase the amount and produce so-called heat-trapping gases in the atmosphere. This causes the ice in the arctic to melt. The causes of the greenhouse effect can be ordered in sub-categories.

Major Parties Involved

G20-nations

Simply stating a couple of nations is in this case clearly not sufficient. All nations existing on earth are involved in this matter, but the main pollutants are mostly the highly industrialised nations.

United States of America

As the debate on climate change and the measures that have to be undertaken seems to move more towards constructivity, the U.S. president Donald J. Trump decides to leave the Paris Agreement. This causes a major shift of the influence in this process. Other organisations and forms of governments now undertake action, such as municipalities and individual states. This shows how a global threat can be politicalized and lead towards and contribute to a divided social climate.

United States is the only Member state that has withdrawn from the Paris Agreement, in contrast to the addition of several other nations. The decision undertaken by Trump, negatively impacted the relationship with United States' allies.

People's Republic of China

As the US is retreating from the constructive dialogue, China sees this as an opportunity to profile itself as the new superpower. As well economically and financially as morally, China is building enormous amounts of solar cells and other means to ensure a greener economy in the future. The political situation with one party ensures that this happens efficient without the long-lasting debate on the funding that is needed in most Western nations. In addition to this, China is the nation with the biggest population that is at risk as a consequence of the rising sea level. Not as a percentage of the population, but in absolute numbers.



World Wide Fund for Nature (WWF)

Since its establishment in 1961, the World Wide Fund for Nature has been one of the most prominent organisations and fundraisers worldwide on the matter of wildlife-preservation and climate-change. This makes that the organisation, with over 5000 employees and 5.000.000 members, has an enormous expertise and knowledge of the situation. This makes the organisation useful in attempts to spread awareness and raise funds.

Timeline of Events

November 1988	Establishment of the Intergovernmental Panel on Climate Change (IPCC)
December 1990	First major UN General Assembly negotiations on climate change
May 1992	UNFCCC adopted
June 1992	Rio Earth Summit in Rio de Janeiro, Brazil
April 1995	The then-environment minister Angela Merkel is president of the Berlin climate convention which lays the groundwork for the Kyoto summit
December 1997	Kyoto protocol is adapted
16 February 2005	Kyoto protocol is put into action after Russian Ratification. The US still do not ratify as of today.
December 2009	The failure of the Copenhagen summit shows that the issue is more difficult to solve than people might think
December 2015	Perhaps the most important and well known climate treaty is adopted: the Paris Agreement
1 June 2017	The new US president Trump holds on to his campaign-promise and announces that the US will pull out of the Paris Agreement, making the future of climate cooperation more difficult

Previous attempts to solve the issue

As we have all seen, there have been quite a lot of recent attempts to deal with this issue. However, all the agreements that are made focus on damage control instead of the total eradication of the problem. The two most important ones are listed below. Others can be found on the timeline of the UNFCCC.

Paris agreement



The Paris Agreement is a global treaty that is sponsored by the UNFCCC, it has a purpose of enhancing the global response by diminishing the emissions of greenhouse gases, this conference took place in April 2016; each Member state within this agreement reports regularly its contribution to global warming.

As we all know, the Paris Agreement is the latest of the big treaties on climate change. It did however get the most attention when president Donald J. Trump decided to withdraw from the accord that his predecessor Barack Obama signed. His main motive being in his own words that the accord is a threat to sovereignty, that it hamstrings the US-workforce and that it is undermining the US-economy more than that of the other signatories.

Kyoto protocol

The direct cause of the rising sea level are the melting masses of sea and land ice. In order to counter this negative trend, we have to minimize the greenhouse effect. The main aim of the Kyoto protocol is to limit the emissions per country by getting the biggest economies a target. The EU as a whole, for example, has to cut down 8% on emissions. The European Commission then set targets for individual member states. An example being a Dutch cut of 6%.

United Nations decade on Biodiversity

The United Nations declared the United Nations decade on Biodiversity (Resolution/65/161) which is taking place from 2011 until 2020, this will ensure the use of strategic plans to mainstream biodiversity with a variety of solutions. During the Decade, governments are expected to enhance, apply and connote the results obtained from the implementation of national strategies for the Strategic Plan for Biodiversity.

The Sustainable Development Goal 15

The Sustainable Development goals are objectives that were set out by the United Nations to be completed by 2030; more specifically Goal 15 addresses issues such as the promotion of the usage of sustainable terrestrial ecosystems and a halt towards the loss of biodiversity.

Intergovernmental Panel on Climate Change (IPCC)

The IPCC is the main international organization on climate change evaluation. It was created in 1988 by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO), in order to globally provide an insight on the scientific view of the knowledge concerning climate change and its possible socio-economic and environmental impacts. The IPCC reviews and evaluates information produced globally, regarding recent scientific, technical and socio-economic issues applicable to climate change understanding.

United Nations Conference on Environment and Development (UNCED)



The UNCED, also known as Rio de Janeiro Earth Summit is a conference that was held in Rio de Janeiro, Brazil in 1992, this was convened for the global economic development with the environmental protection. This summit defined 27 concepts for a sound development of the environment. Global strategies for an unpolluted environment and the encouragement of a sound ambient were stated in Agenda 21.

Possible solutions

Sharing of knowledge and techniques

The world can benefit enormously from international cooperation and sharing of knowledge. Decrease of the prices of energy-saving techniques is only one of the beneficial examples that will follow. Even though investigation-sharing sounds all very good, it might be hard to form an effective solution. Most of the research in the industries are funded by commercial parties that are probably not willing to share competition-sensitive information such as the plans of new techniques and theories.

Monetary or other sanctions for non-signatories

Even though the Paris agreement isn't legally binding, that doesn't mean it is useless or even toothless as for example a lot of Trump-supporters want to believe. The agreement can, logically, be a great base for sanctions. On the other hand, civil cases can follow against non-complying governments. The civil initiative Urgenda sued the Dutch government for not doing enough to counter global warming and the judge's verdict was in their favour. The fact that a relatively-constructive nation on this issue gets condemned by a judge enlarges the possibility that another judge does the same to non-signatories.

Useful documents

As the issue at hand is as clear as can be, it is evident and necessary that delegates do their own research. International policies differ a lot seeing that the situation of every nation is different and cannot be compared.

Agenda 21

<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

Agenda 21, meaning the agenda for the 21st century, is the final document as a result of the Rio Earth summit of 1992. It contains lots of useful information. Furthermore, you can easily compare the document's goals with the measures that actually have been implemented more than 2 and a half decades later.



Kyoto Protocol

<https://unfccc.int/resource/docs/convkp/kpeng.pdf>

Kyoto Protocol, the UNFCCC's final document following the Kyoto summit. The most important practical aims of this treaty are in regards to emission-reduction.

Climate summit in Bonn

http://unfccc.int/files/meetings/bonn_nov_2017/application/pdf/os_nov2017.pdf

Information on the latest climate summit in Bonn, Germany. Bonn is, with over 20 climate related organisations the climate capital of the world. The city hosts the UNCFF and other agencies and hosted the last major climate talks.

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