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**United Nations Environment  
Program  
(UNEP)  
Chair Report**

**Agenda: Preventing 1.5°C Temperature Rise  
by 2100**

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## **[ About UN ]**

The United Nations (UN) is the largest intergovernmental organization that aims to maintain international peace and security, protect human rights, deliver humanitarian aid, promote sustainable development, and uphold international law. It consists of 193 member states, with the latest addition of South Sudan in 2011.

The United Nations took its first step in April 1945, when 50 governments met in San Francisco to start drafting the UN Charter. As it was adopted on 25 June 1945 and took effect on 24 October 1945, the UN began its operations. It has been the center of discussion for multilateral issues such as general disarmament, international security, multilateral cooperation, international economy, human rights affairs and sustainable development. The United Nations is operated under six major organs and has also assigned other specialized agencies in reach for international peace and security.

Sessions of committees pertaining to the United Nations carry heavy responsibilities of perpetuating peace and humanitarian rights. Delegates of member states represent their designated nation and form an international consensus on numerous agendas.

## **[ About Committee ]**

The United Nations Environment Program (UNEP), organization of the environment, founded in 1973 following the decision of the United Nations Conference on the Environment in Stockholm, Sweden. The headquarters of UNEP is in Nairobi, Kenya.

The United Nations Environment Program aims to promote the international cooperation on new environmental issues to enable nations and peoples to improve their quality of life without compromising that of future generations, and to comprehensively coordinate and direct all environmental activities by supporting the security and technical manpower to other international organizations or nations related to the environment. The United Nations Environment Program works in seven broad thematic areas: Climate Change, Disasters and Conflicts, Ecosystem management, Environmental governance, Chemicals and Waste, Resource efficiency, and Environment under review.

In addition, the UNEP has held conferences and established negotiations for many International Environmental Agreements, and its influence is never small in the international community as in the global effort for a sustainable global environment.

## **[ Agenda Introduction ]**

Human activities are estimated to have caused approximately 1.0°C of global warming compared to pre-industrial levels, with a likely range of 0.8°C to 1.2°C. At the current rate, Global warming is predicted to reach 1.5°C between 2030 and 2052. The Paris Agreement of 2015 resolved to keep the Earth's temperature within 2 degrees Celsius compared with the pre-industrial level.

Climate models project robust differences in regional climate characteristics between present-day and global warming of 1.5°C, and between 1.5°C and 2°C. These differences include increases in the following articles: mean temperature in most land and ocean regions, hot extremes in most inhabited regions, heavy precipitation in several regions, and the probability of drought and precipitation deficits in some regions.

The impacts of a 1.5°C-warmer world, while less than in a 2°C-warmer world, would require complementary adaptation and development action, typically at local and national scales. The world is growing increasingly interconnected. Therefore, it will require concerted efforts to overcome global warming and its devastating effects. This committee will discuss how we could cut back carbon emissions in order to keep the average temperature of Earth within 1.5 degrees celsius.

## [ Key Terms ]

### Global warming

Global warming is an increase in the Earth's atmospheric and oceanic temperatures widely predicted to have occurred due to an increase in the greenhouse effect resulting mainly from pollution.

### Industrialization

Industrialization is the process by which an economy is transformed from primarily agricultural to one based on the manufacturing of goods. Individual manual labor is often replaced by mechanized mass production, and craftsmen are replaced by assembly lines.

### Anthropogenic emission

Anthropogenic emission is the emissions of greenhouse gases, greenhouse gas precursors, and aerosols caused by human activities. These activities include the burning of fossil fuels, deforestation, land use changes, livestock production, fertilization, waste management, and industrial processes.

### Climate change

Climate change is a significant and long-lasting change in the Earth's climate and weather patterns.

Climate change describes a change in certain conditions — such as temperature and rainfall — in a region over a long period of time. The NASA scientists have observed the temperatures of Earth's surface rising, and many of the warmest years on record were part of the past 20 years.

### Ocean acidification

Ocean acidification is sometimes called “Climate change’s equally evil twin,” and for good reason. It is a significant and harmful consequence of excess carbon dioxide in the atmosphere that we do not immediately see or feel because it goes into effect underwater. According to the United Nations Environment Program (UNEP) report, Environmental Consequences of Ocean Acidification,

the average hydrogen ion concentration index (pH) in the oceans was lowered from 8.2 in the 1750s to 8.1 in the 2000s, and it was predicted that sea acidification is worsening at the quickest rate all through the late 65 million years. .

### Biodiversity

Biodiversity is the existence of a large number of different kinds of animals and plants which make a balanced environment. Biodiversity is typically a measurement of variations calculated at the genetic, species, and ecosystem levels. It can be thought as the ultimate source of life and an essential resource for maintaining an ecosystem whose sphere happens to include humanity. In addition, the conservation of biodiversity is indispensable in terms of resource management.

## [ Historical Background ]

1860

John Tyndall was the first to suggest the role of CO<sub>2</sub> in regulating the climate in his pioneering laboratory experiments in the 1860s. His experiments demonstrated that CO<sub>2</sub> (and other specific gases) could effectively absorb infra-red radiation and therefore change the temperature of the planet. However, many scientific disagreements lingered over the role of changes in atmospheric CO<sub>2</sub>, largely because of the uncertainty in many of the measurements.

1938/4

Guy Stewart Callendar, suggested that about half of the observed temperature increase in the early 1900s was due to the accumulation of CO<sub>2</sub> in the atmosphere, linking global warming to CO<sub>2</sub> emissions.

1972

*The Limits to Growth* is a 1972 report on exponential economic and population growth with a finite supply of resources, studied by computer simulation, commissioned by the Club of Rome. Discussions on global warming, raised by the Roman Club's "Limit of Growth," emerged as a global concern in the 1980s due to abnormal weather conditions and frequent natural disasters around the world. The widespread need for a scientific basis concerning the hypothesis of global warming led the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) to jointly establish the Intergovernmental Panel on Climate Change (IPCC) in 1988.

1972/6/5

A United Nations Conference on the Environment in Stockholm was held. The conference was the first world conference to make a major issue out of environmental situations. The participants adopted a number of principles for sound management of the environment including the Stockholm Declaration and Action Plan for the Human Environment and several resolutions.

The Stockholm Declaration, which contained 26 principles, placed environmental issues at the forefront of international concerns and marked the start of a dialogue between industrialized and developing countries on the link between economic growth, the pollution of the air, water, and oceans and the well-being of people around the world. Also, the foundation of UNEP was first discussed at this conference.

*1972/12*

The United Nations Environment Program was established after the 27th United Nations General Assembly agreed to create a UN body to deal with the global environmental issues.

Before 1988, climate change issues were discussed mainly in non-governmental sectors such as scientists and civic groups. However, as scientists widely publicized the seriousness of the climate change problem, the issue of climate change began to be recognized as a global problem.

*1988/11*

Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the scientific facts related to climate change. It was created in 1988 by the World Meteorological Organization (WMO) and the UNEP, and the objective of the IPCC is to provide governments at all levels with scientific information that they can use to determine climate policies.

*1992/6*

The United Nations Framework Convention on Climate Change (UNFCCC), adopted by the United Nations Conference on Environment and Development in June 1992, was a convention emphasizing 'Common but Differentiated Responsibilities,' which means reducing greenhouse gases according to the abilities of each individual state.

*1997/12/11*

The Kyoto Protocol was signed. The Kyoto Protocol was an extension of the international treaty 1992 UNFCCC that commits state parties to reduce greenhouse gas emissions.

*2011/11/28*

The 17th session of the Conference of the Parties (COP 17) has become an important turning point in climate change negotiations. The parties agreed to establish a new system which was to be applied after 2020 and also agreed to complete negotiations by 2015.

*2015/12/12*

The Paris agreement was signed in 2015. The Paris Agreement is an agreement within the UNFCCC, dealing with greenhouse-gas-emissions mitigation, adaption, and finance.

## **[ Past Actions by Nations/NGOs/Organizations ]**

### *United Nations Framework Convention on Climate Change(1992.6)*

The United Nations Framework Convention on Climate Change (UNFCCC) is an International Environmental Treaty that seeks to reduce atmospheric concentrations of greenhouse gases with the aim of preventing dangerous anthropogenic interference with the Earth's climate system. It is a framework which requires individual countries to commit to controlling greenhouse gas emissions. There are 195 parties that take part in the convention, who meet annually in Conferences of the Parties (COP) to assess progress in dealing with climate change. As an example of past action, the application of the Kyoto Protocol strengthened the obligations of developed countries to reduce greenhouse gas emissions.

### *Intergovernmental Panel on Climate Change(1988.11)*

The Intergovernmental Panel on Climate Change (IPCC) provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation. The IPCC Assessment Report, which is published by scientists from all over the world, presents scientific evidence and policy directions for climate change and is used as a basis for intergovernmental negotiations in the UNFCCC.

### *Kyoto Protocol(1997.12.11)*

After the UNFCCC treaty, Parties of the UNFCCC met at conferences to discuss how to achieve the treaty's aims. At the 1st Conference of the Parties, it was decided that stabilizing the gas emissions of parties at 1990 levels by the year 2000 was "not adequate", and further discussions at later conferences led to the Kyoto Protocol in 1997. Kyoto Protocol commits state parties to reduce greenhouse gas emissions, based on the scientific consensus that global warming is actually in effect and that it is extremely likely that human-made CO<sub>2</sub> emissions had predominantly caused it. Currently, there are 192 Parties to the Kyoto Protocol. But in 2001, the U.S. administration of President George W. Bush withdrew from the Kyoto Protocol on the grounds that it adversely affected its economy and is still rejecting the ratification. Also, Japan, Canada, Russia, and New Zealand have withdrawn from the Kyoto Protocol.

### *Paris agreement(2015.12.12)*

The Paris Agreement is an environmental agreement within the UNFCCC, dealing with greenhouse-gas-emissions mitigation, adaptation, and finance, signed in 2015. The Paris Agreement's long-term temperature goal is to keep the increase in global average temperature to well below 2°C. So under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. However, carbon emission reduction of many countries aren't nearly enough to keep global warming goal and even the some of the world's largest carbon emitters are likely to continue to increase their emissions

## **[ Status Quo ]**

Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate. So, previous treaties were signed to keep the increase in global average temperatures well below 2°C. But compared to 2°C, keeping the increase in global average temperatures well below 1.5 °C prevents irrevocable harm, according to the IPCC report in 2018.

First, risks from droughts and precipitation deficits are predicted to be higher at 2°C compared to 1.5°C global warming in certain regions and risks from heavy precipitation events are projected to be higher at 2°C compared to 1.5°C global warming in several northern hemisphere high-latitude and/or high-elevation regions.

Second, by 2100, global mean sea level rise is projected to be around 0.1 metre lower with global warming of 1.5°C compared to 2°C. A reduction of 0.1 m in global sea level rise implies that up to 10 million fewer people would be exposed to related risks.

Third, there is high confidence that the probability of a sea-ice-free Arctic Ocean during summer is substantially lower at global warming of 1.5°C when compared to 2°C. With 1.5°C of global warming, one sea ice-free Arctic summer is projected per century. This likelihood is increased to at least one per decade with 2°C global warming.

The avoided climate change impacts on sustainable development, eradication of poverty and reducing inequalities would be greater if global warming were limited to 1.5°C rather than 2°C, if mitigation and adaptation synergies are maximized while trade-offs are minimized.

To meet such demand, globally many international organizations are trying to reduce emissions, mainly in countries with relatively high carbon emissions, while many non-governmental organizations are joining the effort.

Whether or not, environmental protection efforts should not change depending on the regime of the country and should always be practiced for the sake of the present generation of humanity. However, many countries have withdrawn from the agreements they signed based on the administration's tendency to prioritize economic activities or environmental protection, and have failed to make proper efforts.

As a representative case in point, U.S. President Donald Trump has announced that the U.S. will withdraw from the Paris agreement and begin negotiations to reach a new agreement. With President Trump's decision to withdraw, the United States is scheduled to withdraw from the Paris Agreement in November 2020. The withdrawal from the Paris Agreement will have little economic impact in the United States, but concerns are rising over the reduction of the influence of the United States on global issues such as reducing greenhouse gas emissions, and prospects are that investment in renewable energy industries related to greenhouse gas reduction activities could be reduced.

## **[ Stances Major Countries (and NGOs) ]**

### *United States of America*

The United States is the second largest greenhouse gas emitter in the world after China. About 200 countries, including the United States, signed the Paris climate change agreement in 2015 to reduce greenhouse gases and prevent climate change. However, the Trump Administration, which was launched in 2017, announced in 2019, that it would withdraw from the agreement. The United States says that they withdrew because paying for the Paris Agreement would reduce the resources to create and invest in jobs, which means that its industry and economic development are more important.

### *Federative Republic of Brazil*

Brazil is a member of the Climate Change Convention, but since the inauguration of the current government, Brazil has been moving not to complete the Paris Agreement. The destruction of the Amazon rainforest over the past year has increased 34.5 percent from the previous year, and President Bolsonaro's mention of withdrawing from the Paris climate change agreement shows that Brazil values its economic development more than keeping the climate change agreement.

### *Australia*

Australia is one of the world's largest producers of iron ore and bituminous coal used to generate coal-fired power, with per capita greenhouse gas emissions at the highest in the world. Australia is suffering from severe environmental and economic impacts in various areas due to climate change, which it predicts will have profound consequences for the nation's future depending on how the government and social members each deal with in the future. Australia's lawmakers' withdrawal from the Paris Agreement, which was originally tarnished by the withdrawal of the United States of America, and their abandonment of the implementation of the plan to strengthen renewable energy suggest that Australia is also not focusing on preventing climate change.

### *United Kingdom*

The United Kingdom is one of the countries that actively cooperates with the climate change convention. The UK set a goal to cut its greenhouse gas emissions by 80 percent by 2050, compared to 1990, and actively participates in adapting to and responding to climate change. Thanks to these specific goals, greenhouse gas emissions of the UK are steadily and continuously decreasing along with economic growth. So compared to other countries, the UK is considered successful in responding to climate change.

### *China*

Although China is the No.1 country in greenhouse gas emissions, it is taking active steps to prevent climate change by reducing carbon concentration, increasing the development of non-fossil energy, and using the carbon emission trading system. Among them, the carbon emission trading system, in particular, showed a drop in both total carbon emissions and intensity. Like this, China showed a steady willingness to seek and make efforts to reduce carbon emissions.



## *Republic of Kiribati*

The Republic of Kiribati is on the verge of being submerged by 2050, or people becoming environmental refugees, due to continued sea level rise. Therefore, the Republic of Kiribati hopes other countries will join in reducing climate change.

Recently, according to AFP, New Zealand's Supreme Court rejected the application of a native of Kiribati who applied for climate refugees for the first time in the world, saying it does not conform to the legal definition of refugees. Legally, refugees refer to those who are persecuted for racial, religious, national or political reasons or who are not protected by their own country.

## **[ Possible Solutions ]**

### *Adoption of '1.5°C climate change'*

Even though 197 parties signed for the *United Nations Framework Convention on Climate Change (UNFCCC)*, only few are actively working to prevent climate change. Therefore, it would be a little bit of a solution if organizations recommend specific solutions to help many countries actively participate in efforts to prevent climate change, or create international opinion that climate change should be prevented. Also, urging the U.S. to rejoin the treaty could be a solution.

### *Emission Trading Scheme(ETS)*

ETS is a market-based policy tool for reducing emissions of greenhouse gases. The system is generally operated on the basis of the cap and trade principle. If the government sets a cap on economic players, they will be given the right to emit greenhouse gases only within the specified emission limits, namely the Right to emit emissions. Emission rights can be allocated or purchased by the government and traded among the target enterprises. The whole process is called 'cap and trade'. The 17 countries, including China, which is preparing to launch a national emission trading system, are currently implementing the emission trading system.

### *Developing renewable energy*

In responding to climate change and seeking eco-friendly sustainable energy sources, renewable energy is theoretically the closest source of energy that we should value. Saving resources to prepare for energy depletion is also important, but saving energy resources alone is limited in solving the problem, creating a need to develop renewable energy to replace fossil fuels. New and renewable energy has the advantage of being continuously available and less polluting the environment compared to fossil fuels because it depletes almost no energy sources. Therefore, international organizations can resolve the issue by urging each country to develop renewable energy and strengthening support for it.

## **[ Questions to Consider ]**

- How can we turn the minds of developed countries that value their own economic development rather than responding to climate change?
- What are the ways that developing countries can simultaneously develop their own development and protect their environment?
- On what basis should we support each country's costs in responding to climate change, such as the cost of developing renewable energy?

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