GIMUN ANNUAL CONFERENCE 2020

STUDY GUIDE

UNITED NATIONS ENVIRONMENT PROGRAMME

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Words of Welcome

Honourable Delegates,

We would like to extend a warm welcome to you from this year's United Nations Environment Programme (UNEP).

At this upcoming GIMUN conference, you will get the opportunity to not only expand your knowledge and network but also contribute to bringing sustainable solutions to the pressing topics which will be discussed during the committee sessions.

First and foremost, we insist on the fact that feasible and reliable results can only be reached through thorough research. Therefore, we invite you all to do the necessary work in order to ensure that the conference runs smoothly. This study guide, although not exhaustive, is the first step to rigorous research, kindly use it as a starting point.

Furthermore, Geneva is a beautiful city; it embodies the history of diplomacy. We hope that your stay there will be a remarkable and memory-filled week to cherish for the rest of your lives.

As your Chairs, we expect great things from you and wish you all the best with your research.

If you have any questions, do not hesitate to contact us. We will be more than pleased to assist you in any way needed.

We are looking forward to meeting you all in Geneva, listening to your debate and watching you achieve, but most importantly, we are more than pleased to have you among this year's UNEP committee!

Sincerely,
Your Chairs

1. United Nations Environment Programme

1.1 History of the Committee

The United Nations Environment Programme (UNEP) was founded in 1972 with the purpose of coordinating and devising plans for better and more efficient implementation of environmental strategies and activities within the United Nations and its bodies, as well as encouraging international cooperation and scientific exchange, research and policymaking among Member States. Its headquarters are located in Nairobi, Republic of Kenya.[1]

[1] Mingst, Karen. 1998. "United Nations Environment Programme." *Encyclopedia Britannica*. 20 July 1998. Accessed on 18 November 2019. https://www.britannica.com/topic/United-Nations-Environment-Programme

The first-ever United Nations Conference on the Human Environment was held in Stockholm, Sweden, from 5 to 16 June 1972 with the opening statement read by the then Secretary-General of the United Nations, Kurt Waldheim, stressing that "No crisis ever before has underlined to such an extent the interdependence of nations. The environment forces us to make the greatest leap ever into worldwide solidarity."[2] It was at this conference that Maurice Strong founded the United Nations Environment Programme as the most efficient and reasonable option for tackling the beginning of a process that is today commonly referred to as the climate crisis. As the Secretary-General of the United Nations Conference on the Human Environment and former director of the then Canadian International Development Agency, he founded the programme despite objections to the establishment of any new United Nations agencies by the so-called Brussels group. Maurice Strong then went on to serve as its first Executive Director.[3]

UNEP also provides technical assistance for a variety of international conventions, including the Montreal Protocol on Substances that Deplete the Ozone Layer (1987), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989) and the United Nations Convention on Biological Diversity (1992). As the Secretariat for these conventions, UNEP holds the conferences, implements the decisions, monitors implementation and provides data and information. Together with the Food and Agriculture Organization (FAO), UNEP helps to implement the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998). UNEP also coordinates the work on United Nations agencies with respect to desertification and the regional seas (with special attention to the Mediterranean Sea). The 193-member UNEA (United Nations Environment Assembly) and the Governing Council are the organization's principal legislative bodies.[4]

UNEP's mandate can be summed up in seven major thematic areas: climate change, disasters and conflicts, ecosystem management, environmental governance, chemicals and waste, resource efficiency, and environment under review. In that sense, UNEP's primary role is to establish international standards in environmental policy and scientific support on the way to achieve full sustainability on all levels. In addition to this, UNEP also hosts numerous secretariats on many critical multilateral environmental agreements and research bodies such

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[2] Johnson, Stanley. The Birth of UNEP The United Nations Conference on the Human Environment. In *UNEP The First 40 Years; A Narrative by Stanley Johnson*, (Nairobi: UNON/Publishing Section Services, 2012), 7-18.

[3] Government of Canada. "Maurice Strong" (24 April 2019). Accessed on 18 November 2019. https://www.international.gc.ca/gac-amc/programs-programmes/od_skelton/maurice_strong_bio.aspx?lang=eng

[4] Mingst, Karen. 1998. "United Nations Environment Programme." *Encyclopedia Britannica*. 20 July 1998. Accessed on 18 November 2019. https://www.britannica.com/topic/United-Nations-Environment-Programme

as the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Basel, Rotterdam and Stockholm Conventions, the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol, etc. It is also important to note that its income is 95 per cent funded from voluntary contributions and partners.[5]

1.2 Membership and Mandate

The United Nations Environmental Programme is the number one driver of all matters related to the environment within the United Nations. According to the Report of the United Nations Conference on the Human Environment, it was established in 1972 during the Stockholm Conference with a membership of 54 Member States initially.[6] The States also served as the governing council until 2012 at the United Nations Conference on Sustainable Development (Rio+20), which created the United Nations Environmental Assembly (UNEA). It has become the governing council for all environmental matters, encompassing all Member States of the United Nations.[7] In essence, all current 193 members of the United Nations are automatically recognised as members of United Nations Environment Programme.

As stated earlier, all functions related to the environment are within the purview of the United Nations Environment Programme. As such, according to the founding document establishing UNEP – resolution 2997 (XXVII) on institutional and financial arrangements – UNEP's mandate includes:[8]

- To promote international cooperation in the environmental field and to recommend, as appropriate, policies to this end;
- To provide general policy guidance for the direction and coordination of environmental programmes within the United Nations system;
- To keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance should receive appropriate and adequate consideration by governments;

[5] United Nations Environment Programme (UNEP). "Why does UN Environment matter?" Accessed on 18 November 2019. https://www.unenvironment.org/about-un-environment/why-does-un-environment-matter

[6] Sustainable Development Goals Knowledge Platform. n.d. *United Nations Conference on the Human Environment (Stockholm Conference).* Accessed 21 November 2019. https://sustainabledevelopment.un.org/milestones/humanenvironment

[7] UNEP. *Member States (n.d.).* Accessed 21 November 2019. http://www.unenvironment.org/about-un-environment/funding-and-partnerships/funding-partners/member-states

[8] Sustainable Development Goals Knowledge Platform. n.d. *United Nations Conference on the Human Environment (Stockholm Conference).* Accessed 21 November 2019. https://sustainabledevelopment.un.org/milestones/humanenvironment

- To promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information as appropriate, to the technical aspects of the formulation and implementation of environmental programmes within the United Nations system.

This list only mentions a few of UNEP's functions. With the mandate provided by the founding document, the United Nations Environment Programme has indeed done much within their powers to create a better environment for all. On this note, it has six core areas of concentration, which include: climate change; post-conflict and disaster management; ecosystem management; environmental governance; harmful substances; and resource efficiency/sustainable consumption and production.[9] With these thematic areas in place, UNEP has taken purposeful strides both in action and policy creation to completely achieve their objectives (with a regular budget of over 40 million dollars in 2017, as well as additional funding schemes).

1.3 Responsibilities and Past Actions

During the first UNEP Governing Council in June 1973, a variety of UNEP priorities were outlined as follows:

> (a) To provide […] improved knowledge for an integrated and rational management of the resources of the biosphere, and for safeguarding human well-being as well as ecosystems;
>
> (b) To encourage and support an integrated approach to the planning and management of development, including that of natural resources, so as to take account of environmental consequences, to achieve maximum social, economic and environmental benefits;
>
> (c) To assist all countries, especially developing countries, to deal with their environmental problems and to help mobilize additional financial resources for the purpose of providing the required technical assistance, education, training and free flow of information and exchange of experience, with a view to promoting the full participation of developing countries in the national and international efforts for the preservation and enhancement of the environment;[10]

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[9] Office of the Secretary-General's Envoy on Youth. *UNEP: United Nations Environment Programme (n.d.).* Accessed 21 November 2019. https://www.un.org/youthenvoy/2013/08/unep-united-nations-environment-programme/

[10] Johnson, Stanley. Johnson, Stanley. The Birth of UNEP The United Nations Conference on the Human Environment. In *UNEP The First 40 Years; A Narrative by Stanley Johnson*, (Nairobi: UNON/Publishing Section Services, 2012).

In addition to the prime principles, 14 *Particular Policy Objectives* were adopted by the Governing Council, which would later on pave the way for all strategic frameworks adopted by UNEP in the future.[11] These objectives are identified as follows:

(a) to anticipate and prevent threats to human health and well-being posed by contamination of food, air or water;
(b) to detect and prevent serious threats to oceans' and marine biodiversity's condition by controlling sources of pollution;
(c) to improve the quality of water for human use and ensure access to water;
(d) to help Governments improve the quality of life in rural and urban settlements;
(e) to prevent erosion, salination, contamination and desertification, as well as restore the productivity of desiccated soil;
(f) to help Governments in managing forest resources;
(g) to anticipate natural disasters and help Governments implement mitigative measures in response to such disasters;
(h) to assist Governments in preventing and anticipating the effects of climate change;
(i) encourage and support renewable energy use in order to minimise adverse effects on the environment;
(j) to ensure that environmental measures do not damage economic interests of developing countries;
(k) to protect threatened species;
(l) to assist Governments in identifying and preserving natural and cultural landmarks that are part of each countries' national heritage;
(m) to help Governments in acknowledging the link between population growth, density, distribution and available resources, as well as environmental effects; and
(n) to help Governments increase public awareness regarding environmental concerns, as well as to facilitate their citizens to participate in environmental action.[12]

[11] Ibid.
[12] Ibid.

2. Topic A: Transitioning to Renewable Energy within the Public and Private Sectors

2.1 Introduction

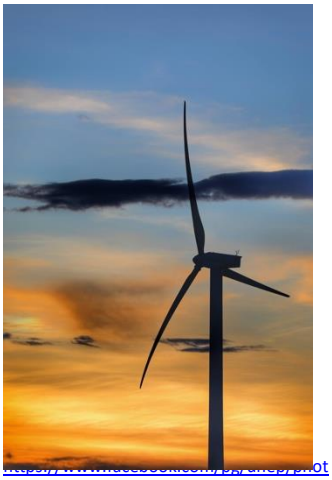
Energy plays a key role in the development of societies and industries. Consequently, energy consumption has contributed to the flourishing of the global economy as well as the rise of living standards. Nevertheless, with productivity on the rise and basic human needs like lighting and heating being met, many countries and populations are still at a disadvantage. Energy

accessibility is lacking in some regions of the world, where poorer populations are the ones directly affected: 1.1 billion people still do not have access to electricity.[13]

With the increase of energy consumption, another global issue has emerged over the centuries: climate change. The energy sector is responsible for approximately more than two thirds of greenhouse gas emissions (GHG).[14] Non-renewable energy sources contribute to the worsening of the climate, enabling a catastrophic domino effect: extreme weather disasters most severely affect vulnerable communities which have little to no access to protection against the consequences of natural disasters. This makes it difficult for them to escape poverty. It also means that they are deprived of clean water access, safe infrastructure, security and welfare, among other basic human needs.

The REN21 2019 Global Status Report states that "Global renewable power capacity totalled 2,378 GW in 2018".[15]

In the fight against climate change and inequality, renewable energy sources have been deemed to be an important tool. According to the United Nations Sustainable Energy for All (SEforALL), renewable energy is defined as "energy that is derived from natural processes (e.g. sunlight and wind) that are replenished at a higher rate than they are consumed. Solar, wind, hydro, and biomass are common sources of renewable energy."[16]



[https://www.[illegible]/energy/photos/ Accessed on 8 December 2019]

Universal access to renewable energy highly depends on both the public and private sectors' implications in the matter. In 2017, renewable energy global investments peaked at approximately $326.3 billion.[17] In recent years, there has been a new communalisation trend in the energy sector: an increasing number of countries are withdrawing concessions of energy networks, such

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[13] United Nations Development Programme (UNDP). 2016. *UNDP Support to the implementation of Sustainable Development Goal 7.* New York: United Nations Development Programme.

[14] Ibid.

[15] REN21. 2019. Global Status Report. Energy Report, Paris: REN21 Secretariat.

[16] Economic Commission for Europe Committee on Sustainable Energy. *United Nations Economic and Social Council Twenty-fifth session,* "ECE/ENERGY/2016/4" (2016). Geneva: United Nations Economic and Social Council. 4.

[17] Bloomberg NEF. *Clean Energy Investment Trends* (2018). https://data.bloomberglp.com/professional/sites/24/BNEF-Clean-Energy-Investment-Trends-2018.pdf

as electricity, from their previously private operators.[18] On the other hand, the guarantee of transparency and good governance can encourage the public sector to legislate new green policy frameworks and the private sector to invest in renewable energy, thus inciting a collaborative transition towards a renewable energy-powered country.

2.2 Historical Background

Renewable energy has been proven to offer win-win solutions in terms of accessibility and sustainability. It offers a wide range of clean energy sources that benefit vulnerable communities, the global economy and most importantly, the climate. The use of renewable energy allows a reduction of greenhouse gas (GHG) emissions as well as a decrease in dependency on fossil fuels, a goal outlined in 2007 by the fourth Intergovernmental Panel on Climate Change (IPCC) report,[19] as well as in the fifth edition of the IPCC report which effectively provided the scientific input for the 2015 Paris Agreement.[20] Thus, enabling us to progressively meet climate targets such as limiting the global temperature increase to 2ºC above pre-industrial levels and pursuing efforts to limit temperature increase to 1.5ºC by 2050 as agreed upon by the 2015 Paris Agreement.[21]

Although none of the Millennium Development Goals (MDGs) specifically raised the question of energy,[22] the importance of sustainable, clean energy was deemed, since the early 2000s, essential to the achievement of the eight MDGs. For example, there is in fact a link between energy and eradicating poverty: at local levels, ensuring access to energy (more precisely to clean and sustainable energy) can immensely contribute to industrial activities, agricultural activities and thus to economic growth. This consequently leads to poverty alleviation, new job creations and improvement of living standards. In other words, "sustainable energy delivers sustainable development".[23]

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[18] Christoph Burger and Jens Weinmann, "The failure of privatization in the energy sector and why today's consumers are reclaiming power". Renewable Energy World (26 June 2019). Accessed 10 November 2019. https://www.renewableenergyworld.com/2019/06/26/the-failure-of-privatization-in-the-energy-sector-and-why-todays-consumers-are-reclaiming-power/

[19] IPCC, 2007: *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104.

[20] IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151.

[21] United Nations Framework Convention on Climate Change. *Conference of the Parties Twenty-First session.* "Paris Agreement FCCC/CP/2015/L.9/Rev.1" (2015). Paris: UNFCCC.

[22] United Nations General Assembly. *General Assembly Fifty-fifth session.* "United Nations Millennium Declaration A/RES/55/2" (2000). New York: UNGA.

[23] UNDP. 2016. *UNDP Support to the implementation of Sustainable Development Goal 7.* New York: United Nations Development Programme.

Fast-forwarding to the adoption of the Sustainable Development Goals (SDGs) in the now-famous 2015 General Assembly resolution A/RES/70/1, SDG7: "Affordable and Clean Energy" specifically addresses the matter of energy, as indicated by its title.[24] Thereupon, numerous initiatives were launched in support of SDG7. The following list contains examples of such initiatives:

- Global Fuel Economy Initiative (GFEI): relaunched in 2019 by the London-based FIA Foundation,[25] the GFEI aims to improve vehicle efficiency as well as the transition to low-carbon vehicles across all sectors. This initiative is implemented across 70 countries in collaboration with the United Nations Framework Convention on Climate Change, SEforALL and the G20;
- Sweden's Goal – becoming the world's first fossil-free welfare State: this initiative was launched by the Swedish Government in 2017 in response to the Paris Agreement.[26] Set for completion in 2045, Sweden's Goal provides an important framework with long-term objectives for all Swedish sectors in order to transition to a fossil-free country;
- Gabel El Zeit Wind farm complex (Ensuring access to affordable, reliable and modern energy for all): the 2015 Gabel El Zeit Wind farm complex was built in Egypt and represented the biggest wind complex in the Middle East and North Africa region.[27] Installed by the Egyptian New and Renewable Energy Authority (NREA) in collaboration with the Egyptian Environmental Affairs Agency (EEAA), this public sector initiative encouraged the transition to renewable clean energy in the Egyptian national grid, as well as reducing the total amount of GHG emissions over the three years that the project ran.

"Sustainable energy delivers sustainable development".[28]

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[24] United Nations General Assembly. *General Assembly Seventieth session.* "Transforming our world: the 2030 Agenda for Sustainable Development A/RES/70/1" (2015). New York: UNGA.

[25] United Nations Sustainable Development Goals Knowledge Platform. *Global Fuel Economy Initiative (GFEI) - Relaunched to accelerate progress on decarbonising road transport (*May 2019). Accessed on 7 November 2019. https://sustainabledevelopment.un.org/partnership/?p=33972

[26] United Nations Sustainable Development Goals Knowledge Platform. *Sweden's goal – becoming the world's first fossil-free welfare state* (12 July 2017). Accessed on 7 November 2019. https://sustainabledevelopment.un.org/partnership/?p=33918

[27] United Nations Sustainable Development Goals Knowledge Platform. *Gabel El Zeit Wind farm complex (Ensuring access to affordable, reliable and modern energy for all)* (30 September 2015). Accessed 7 November 2019. https://sustainabledevelopment.un.org/partnership/?p=29586

[28] UNDP. 2016. *UNDP Support to the implementation of Sustainable Development Goal 7.* New York: United Nations Development Programme.

- One of the most notable energy transition initiatives launched by UNEP in support of energy transition is the 2003 "Sustainable Energy Finance Initiative" (SEFI),[29] a platform that provides the necessary tools, networks and support for financial institutions in order to encourage environmentally-friendly innovation in the energy market, thus assisting the transition to renewable energy investments.
- The 2004 Bonn International Renewable Energy Conference concluded with the creation of the International Renewable Energy Agency (IRENA) which would finally be founded five years later in the same German city where its creation was first decided. The main objective of IRENA is to facilitate the widespread use of renewable and sustainable energy in order to preserve the environment and biodiversity; considering economic growth, social cohesion and the benefits of renewable energy measures on national and domestic priorities. It supports countries in their transition to the use of renewable energy resources in their private and public sectors.[30]
- In 2005 the Beijing Declaration on Renewable Energy for Sustainable Development reaffirmed the need to mobilise, in both the public and private sectors, financial resources in order to invest in renewable energy sources, thus allowing a worldwide fossil-free transition.[31]
- Most recently, in the 2019 United Nations Climate Action Summit that was held at the United Nations Headquarters in New York, last September, United Nations Secretary-General António Guterres prioritised energy transition among other action portfolios.[32] The ultimate goal is to accelerate the shift towards renewable energy and away from fossil-fuel resources by mobilising public and private sources of finance, as well as improving energy efficiency. Following the Summit, a new "Leadership Group for Industry Transition" was launched, with the mission of assisting the transformation of energy-intensive sectors. This new global public-private partnership is to be supported by the World Economic Forum, the Energy Transitions Commission, among others.[33]

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[29] UNEP. "Sustainable Energy Initiative (SEFI)". *UNEP Finance Initiative* (November 2003). Accessed on 5 December 2019. https://www.unepfi.org/publications/climate-change-publications/sustainable-energy-finance-initiative-sefi/

[30] International Renewable Energy Agency (IRENA). Statute of *IRENA* (26 January 2009). Accessed on 10 November 2019. https://www.irena.org/-/media/Files/IRENA/Agency/About-IRENA/Statute/IRENA_FC_Statute_signed_in_Bonn_26_01_2009_incl_declaration_on_further_authentic_versions.ashx?la=en&hash=FAB3B5AE51B8082B04A7BBB5BDE978065EF67D96&hash=FAB3B5AE51B8082B04A7BBB5BDE978065E

[31] Beijing International Renewable Energy Conference (BIREC). *Beijing Declaration* (2005). Beijing.

[32] United Nations. *UN Climate Action Summit 2019* (n.d.). Accessed 10 November 2019. https://www.un.org/en/climatechange/un-climate-summit-2019.shtml

[33] United Nations. "New leadership group announced at Climate Action Summit to drive industry transition to low-carbon economy." *Climate Action Summit 2019* (September 2019). New York: UN.

2.3 Current Issues

The purpose of transitioning to renewable energy sources is mainly for reducing climate change and its adverse effects on the environment. In achieving this, Agenda 2030 (in particular goals 7, 9, 11 and 13) addresses this as there is a need for all sectors of the economy to be involved in its attainment. Hence, a strong collaboration between the public and private sectors in transitioning from non-renewable sources to renewable energy sources is needed. Renewable energy does not, in its entirety, deal with electricity but rather with transportation, cooling systems, heating systems and any other technology involving the use of energy. The public sector consists of government owned agencies which benefit its citizens while the private sector is quite the opposite, focusing on profit-making. With this in mind, it is important to note that the private sector accounts for about 90 per cent of employment for developing countries and contributes significantly to the gross domestic product (GDP) of any country.[34] Consequently, in providing or using energy resources, persons within this category need to keep informed on the need for transitioning to renewable energy sources especially when weighed with the quest for development. Essentially because in either the quest for or maintenance of development, a large amount of energy is generated from non-renewable resources, as about 60 per cent of GHGs are produced from the energy sector.[35] Therefore, in trying to attain and maintain development or businesses, one should seek sustainable development through the use of renewable energy sources.

Figure 2: Solar panels on the outskirts of Santiago, Chile. [Source: www.reuters.com. Accessed on 8 December 2019]

2.3.1 Production and Consumption of Renewable Energy

The production of renewable energy has constantly been on the rise.[36] In 2016, the World Bank recorded that global production of modern renewable energy was about 5,900TWh, an increase

[34] William Robert Avis. "Urban governance: The Role of the Private Sector", *GSDRC Applied Knowledge Services* (November 2016). Accessed on 9 November 2019. https://gsdrc.org/topic-guides/urban-governance/elements-of-effective-urban-governance/the-role-of-the-private-sector/

[35] UNDP. *Goal 7: Affordable and Clean Energy* (n.d). Accessed on 9 November 2019. https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-7-affordable-and-clean-energy.html

[36] Hannah Ritchie and Max Roser. Our World in Data. *Renewable Energy: Global Renewable Energy Consumption* (n.d.). Accessed on 9 November 2019. https://ourworldindata.org/renewable-energy

of about five to six-fold since the 1960s (1,000TWh). On the flipside of this, the production from fossil energy sources as of 2017 was over 120,000TWh.[37]

The forms of renewable energy which are constantly produced include hydropower, wind energy, solar energy, geothermal and several others. Amongst these forms of energy, hydropower remains the most prominent source of renewable energy, being produced, consumed and accounting for almost 70 per cent.[38] At these cross roads, it is important to consider the production of energy from waste (EFW) otherwise called waste to energy (WTE) and question if it should fall under the forms of renewable sources available, considering the processes involved. It is to note that this form has been used and is continuously being used by several countries in the production of energy, one being New Delhi, India where they use WTE as a source of energy which converts more than 50 per cent of the city's daily waste to energy and fuel.[39] Other countries include Denmark, Japan, Singapore, Sweden, etc. Addressing the issue herein, the position has not been settled, as on the one hand it reduces the use of fossil fuels, and its biodegradable fraction of municipal and industrial waste is considered as biomass, hence making it a renewable resource.[40] On the other hand, it is believed that though it reduces GHGs, it also produces these gases.[41] Nevertheless, in this controversy, most have accepted this source as renewable energy and recently the United States of America has deemed WTE a renewable source of energy.[42]

It is to note that the urban population accounts for a high percentage of any economy's GDP, hence why they shape energy use and currently make-up about two thirds of global primary energy use and demand.[43] Consequently, if the production of energy is from fossil fuel sources

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[37] Hannah Ritchie, and Max Roser. Our World in Data. *Fossil Fuels* (n.d.). Accessed on 9 November 2019. https://ourworldindata.org/fossil-fuels

[38] Hannah Ritchie and Max Roser. Our World in Data. *Renewable Energy: Global Renewable Energy Consumption* (n.d.). Accessed on 9 November 2019. https://ourworldindata.org/renewable-energy

[39] UNEP. *Renewable Energy and Energy Efficiency in Developing Countries: Contributions to Reducing Global Emissions* (2017). Accessed on 9 November 2019.https://wedocs.unep.org/bitstream/handle/20.500.11822/22149/1_Gigaton_Third%20Report_EN.pdf?sequence=1&isAllowed=y

[40] Confederation of European Waste-to-Energy Plants (CEWEP). *What is Waste-to-Energy* (n.d.). Accessed on 9 November 2019. https://www.cewep.eu/what-is-waste-to-energy/

[41]Better Meets Reality. *Pros & Cons of Waste Incineration & Waste to Energy (Benefits and Disadvantages)* (8 March 2019). Accessed on 9 November 2019. https://www.bettermeetsreality.com/pros-cons-of-waste-incineration-waste-to-energy-benefits-disadvantages/

[42]Thomas, Stringfellow. Renewable Energy World. *An Independent Engineering Evaluation of Waste-to-Energy Technologies.* (13 January 2014). Accessed on 9 November 2019. https://www.renewableenergyworld.com/2014/01/13/an-independent-engineering-evaluation-of-waste-to-energy-technologies/

[43]UNEP. *Renewable Energy and Energy Efficiency in Developing Countries: Contributions to Reducing Global Emissions* (2017). Accessed on 9 November 2019.

then unequivocally the consumption would also be, but if the source of production is from renewable sources, then consumption of renewable energy is inevitable. As such the private and public sector have a crucial role to play herein, with both sectors embracing its use, especially in the urban areas, which would inevitably impact countries' GDPs positively.

From the above, it is observed that within this sector there has been a boost. Nonetheless, the production capacity needs to be increased, in particular in terms of its consumption base, because as of now around 1.1 billion people remain without access to electricity. This forces people to rely on non-renewable sources that are harmful to the environment,[44] while another 2.9 billion people still rely on solid sources such as wood and charcoal for cooking and cleaning.[45]

All that having been said, the role of partnerships between the public and private sectors must also be considered as crucial to attaining goals to help the environment. An example is in Kampala, Uganda wherein the Government partners with the private sector in providing clean energy for cooking.[46] Partnerships between States are also crucial to this achievement.

2.3.2 Legal Frameworks

In ensuring effective and efficient transition to renewable sources, there is undoubtedly a need for the creation of policies, either by international organizations or by State Governments. The policies created would ensure a certain level of compliance within States and although there is currently no international treaty specifically dedicated to renewable energy, there are many others which convey its need either explicitly or by implication; goal 7 of the SDGs for example.

Notwithstanding the non-creation of an international treaty, there is still a need for individual States to enact policies that regulate this transitioning; such was done in Mexico where the Ministry of Environment and Natural Resources had a shift in regulation for building codes, to include guidelines on the construction of energy-efficient buildings.[47] Such regulation is quite commendable, the reason being that if no guidelines, regulations, and laws are put in place by

https://wedocs.unep.org/bitstream/handle/20.500.11822/22149/1_Gigaton_Third%20Report_EN.pdf?sequence=1&isAllowed=y

[44] UNDP. *Energy Access* (n.d.). Accessed 9 November 2019. https://www.undp.org/content/undp/en/home/2030-agenda-for-sustainable-development/planet/sustainable-energy/energy-access.html

[45] Ibid.

[46] UNEP. *Renewable Energy and Energy Efficiency in Developing Countries: Contributions to Reducing Global Emissions* (2017). Accessed 9 November 2019. https://wedocs.unep.org/bitstream/handle/20.500.11822/22149/1_Gigaton_Third%20Report_EN.pdf?sequence=1&isAllowed=y

[47] Ibid.

necessary bodies, then there would be zero compliance in using these technologies or energy resources. It is to this end that the Governments, in creating regulations, need to ensure that within private and public sectors (while creating business models for their companies) include sustainable and renewable approaches within their business models.

In essence, through the creation of appropriate policies by Government and an enabling environment for the production and use, the private and public sectors would be able to abide by these laws. Such was done by the Nanjing Municipal Government in China, whereby the Government enacted a series of policies aimed at promoting the sales, use and production of electric vehicles,[48] which indeed has accomplished a great deal.

2.3.3 Environmental Impacts

Although environmental impacts of renewable energy may not be as adverse as the use of fossil fuels, and which is a means of mitigating the effects of climate change, maintaining the Earth's average temperature well below 2°C, yet these sources still present some cause for concern. This would have to be considered, because it is one thing to set up several plants or use these technologies, but it is another thing to maintain it, ensuring it does not adversely affect the environment. While developing an economy, the environmental impacts would have to be considered. For example, while planning on harnessing wind energy, one would have to consider its effects on land use, wildlife and habitats.[49] For solar energy, one would have to consider the use of hazardous materials; for hydropower plants consideration needs to be given to land use, especially for man-made dams, which presents the issue of flooding to communities within range;[50]and for biomass, issues such as deforestation, water use that disrupts local sources and air emissions would need proper consideration.[51] The need for adequate evaluation of these factors is to limit the adverse impacts they may have on the environment.

Another aspect to consider is the sustainability of these sources even though they are renewable. This involves three areas: environmental sustainability, social sustainability and

[48] Ibid.

[49] Union of Concerned Scientists. *Environmental Impacts of Renewable Energy Technologies.* (5 March 2013). Accessed 9 November 2019. https://www.ucsusa.org/resources/environmental-impacts-renewable-energy-technologies

[50] Ibid.

[51] Max Roman Dilthey. *Negative Effects of Biomass* (25 April 2018). Accessed 9 November 2019. https://sciencing.com/negative-effects-biomass-19624.html

economic sustainability.[52] These elements would have to be properly considered by both the private sector and the public while transitioning in order to align with the SDGs.

The transitioning would inevitably result in an increase in the global GDP, reduction of poverty, increase in welfare services and, most importantly, an increase in employment rates, as it has been proven that the renewable energy sector currently employs around 2.3 million people and is said to reach around 20 million by 2030.[53] Nevertheless, the costs of these renewable technologies are rather on the high side, and may not be favourable to all, especially for small private businesses. A solution to this dilemma may include a system of subsidy by the Government. In tackling this issue, which can be seen as another solution, the Nanjing Municipal Government offers incentives for manufacturers of electric cars to base their production in Nanjing,[54] which would inevitably reduce the cost of purchase within Nanjing.

2.4 Bloc Positions

2.4.1 AFRICA

Africa is an emerging global player in the oil and gas market and as such, its projected growth in oil demand is higher than that of China and second only to that of India. It is also the third-largest source of global gas demand in the world. In terms of renewable energy, Africa is the richest continent in solar resources but so far has only five gigawatts (GW) of solar photovoltaics (PV) installed (less than one per cent of the global total). As was stated in the Africa Energy Outlook 2019 of the International Energy Agency, "Africa's vast renewable resources and falling technology costs drive double-digit growth in deployment of utility-scale and distributed solar photovoltaics (PV), and other renewables, across the continent."[55] On that note, the primary objective for the African continent in regards to starting a transition to renewable energy is a new and more reliable power system and the reduction of power outages which hinder enterprises throughout the continent. The strengthening of regional electricity markets and the support of power pools is crucial for further development. Africa's main renewable resources lie within on and off-shore wind energy, biomass and solar power.[56] The continent needs a big

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[52] Marjolein Helder. World Economic Forum. *Renewable Energy is not Enough: It needs to be Sustainable* (2 September 2015). Accessed 9 November 2019. https://www.weforum.org/agenda/2015/09/renewable-energy-is-not-enough-it-needs-to-be-sustainable/

[53] UNDP. *Goal 9: Industry Innovation and Infrastructure* (n.d.). Accessed 9 November 2019. https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-9-industry-innovation-and-infrastructure.html

[54] UNEP. *Renewable Energy and Energy Efficiency in Developing Countries: Contributions to Reducing Global Emissions* (2017). Accessed 9 November 2019. https://wedocs.unep.org/bitstream/handle/20.500.11822/22149/1_Gigaton_Third%20Report_EN.pdf?sequence=1&isAllowed=y

[55] IEA. 2019. Africa Energy Outlook 2019. Energy report, Paris: IEA.

[56] UNDP Regional Bureau for Africa. UNDP Africa Policy Brief (2018), vol. 1., no. 1. Policy Brief, New York: UNDP.

investment in the electricity sector – particularly for generation and grids, which are ranked at an all-time low given that Africa currently accounts for just four per cent of global power supply investment. At present, there is an ongoing initiative between the Organisation for Economic Co-operation and Development (OECD), the European Union and the African Renewable Energy Initiative which aims to support the continent in its transition to renewable energy.

2.4.2 ASIA AND THE PACIFIC

Asia is a diverse continent which boasts great potential in renewable energy (some of which is already utilised), with its sources mostly lying in "strong sunlight, wind in the middle latitudes, wave and tidal power to considerable geothermal and hydropower resources."[57] Among the most significant regional players in renewables is China, with its terrestrial wind and solar resources, Japan with its geothermal energy and South Korea with its development of wave and tidal power. Asia now accounts for almost 32 per cent of the world's hydro generation.[58] However, coal and fossil fuels are still commonly used in all parts of the continent and,[59] according to the Wood Mackenzie study from 2019, "by 2040, coal will account for 36 per cent of Southeast Asia's energy mix for power generation."[60] In terms of regional response to renewable energy, most initiatives such as the South East Asia Regional Initiative and the Central Asia Regional Initiative are conducted through IRENA.

Issues facing Asia on the way to full sustainability are mostly linked with intermittency - the availability or lack thereof of renewable power on days when there isn't enough sunlight or wind to power the plants. Air pollution is another major issue connected to widespread exploitation of non-renewable resources across the continent. However, Asia's renewable energy capacity has nearly doubled in the last five years, making up a significant chunk of the global supply of 2,351 gigawatts (roughly a third of the world's total energy).[61]

2.4.3 EASTERN EUROPE

[57] Recap Asia. "Asia's Renewable Energy" (2017). *Recap Data*. Accessed on 8 November 2019. https://recap.asia/climate-asia/Asia's-Renewable-Energy.html

[58] REN21. 2019. Asia and the Pacific Renewable Energy Status Report. Energy Report, Paris: REN21 Secretariat.
[59] IRENA. "Asia and Pacific" (2019). Accessed on November 9, 2019. https://www.irena.org/asiapacific
[60] Huileng Tan. "'Coal is still king' in Southeast Asia even as countries work toward cleaner energy" (30 September 2019). CNBC News. Accessed on 7 November 2019. https://www.cnbc.com/2019/10/01/coal-is-still-king-in-southeast-asia-despite-clean-energy-efforts.html

[61] Jack Terry. "The future of the renewable energy market in Asia." *Open Access Government*. (August 2, 2019). Accessed on 7 November 2019. https://www.openaccessgovernment.org/renewable-energy-market-in-asia/65679/

Unlike Western European countries, their Eastern and Southeastern neighbours are at present not able to afford a full transition into renewable energy. The infrastructure of these countries, most of which still implement the energy supply infrastructure from Soviet times, are inefficient and outdated.[62] In addition to this, Eastern Europe is a major player in the coal market (Poland being the largest coal producer in Europe) and, as such, sees little interest in abandoning a system that has proven sufficient in the past. This is especially true as a switch to renewable energy and a complete restructuring of its current system could potentially result in economic instability and a loss of jobs especially in the mining industry which is thriving.[63] This does not mean that Eastern Europe is not rich in renewable resources,[64] but rather that it does not see the immediate benefits of ceasing its oil and gas production which also accounts for a big part of its economy.

2.4.4 LATIN AMERICA AND CARIBBEAN STATES

Latin American countries have "more than a quarter of primary energy coming from renewables, twice the global average",[65] and have set a collective target of 70 per cent renewable energy use by 2030.[66] It has been predicted that power generation from fossil fuels will peak in the near future after which clean energies will become the dominant force on the continent, supported by COP21 funding ($100 billion annually). Despite this, countries such as Colombia, Mexico, Peru and Venezuela are still greatly dependent on their coal, oil and gas reserves. The devastating effects of the climate crisis in this region and the subsequent political response to it shows that there is still a long way to go until the transition to renewable energy is complete. In terms of electricity, only six per cent is generated from renewable resources such as wind, solar, biomass or geothermal resources, and countries still rely on traditional electricity sources. In addition to this, ten per cent of global greenhouse gas emissions come from Latin America, with Chile and Mexico as the largest polluters.

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[62] Komila Nabiyeva. "Europe's East should go solar" (21 March 2019). IPS-journal. Accessed on 9 November 2019. https://www.ips-journal.eu/in-focus/ecology-and-class/article/show/europes-east-should-go-solar-3340/

[63] Tomas Demcak. "The coal curtain: why Eastern Europe will be slower to adopt renewable energy" (27 September 2019). *Renewable Energy World*. Accessed on 9 November 2019. https://www.renewableenergyworld.com/2019/09/27/the-coal-curtain-why-eastern-europe-will-be-slower-to-adopt-renewable-energy/#gref

[64] Phillip Heidinger, Fabian Hunek and Simon Göss. 2018. "For Eastern Europe, controllable renewable power is a good alternative for new nuclear power" (16 May 2018). *Energypost.eu*. Accessed on 9 November 2019. https://energypost.eu/for-eastern-europe-controllable-renewable-power-is-a-good-alternative-for-new-nuclear-power/

[65] IRENA. "Latin America and the Caribbean" (2019). Accessed on 9 November 2019. https://www.irena.org/lac

[66] Valerie Volcovici. "Latin America pledges 70% renewable energy, surpassing EU: Colombia minister" (25 September 2019). *Reuters*. Accessed on 8 November 2019. https://www.reuters.com/article/us-climate-change-un-colombia/latin-america-pledges-70-renewable-energy-surpassing-eu-colombia-minister-idUSKBN1WA26Y

The Caribbean is still heavily, if not completely, dependent on diesel fuel and natural gas. Renewable energy is not commonly used despite an abundance of sun and wind, with solar PV plants being ideal replacements for current power plants. The use of public-private partnerships (PPPs) in the region have resulted in more solar farms being built in recent years.[67]

2.4.5 WESTERN EUROPE

Europe has been a driving force in the fight for sustainability. It is rich in renewable energy sources and is a key player in renewable tech markets. To quote the former President of the European Commission Jean-Claude Juncker, the goal of all European Union members is to become "the world's number one in renewables" and as such, the European Union has adopted targets to achieve a 20 per cent share in renewable energy in energy consumption by 2020, and 32 per cent by 2030.[68] It has put forward a complex and comprehensive framework for the full transition to renewable energy, while the civil sector shows equal engagement in the issue through campaigns such as "Europe beyond coal" (it is important to note that both Eastern and Western European countries are part of this initiative).[69] Its vast and varied potential is being fully drawn on with wind power, solar power (thermal, photovoltaic and concentrated), hydropower, tidal power, geothermal energy and biofuels among its biggest assets.[70]

2.4.6 NORTH AMERICA

North America is a world leader in wind, solar, geothermal, hydroelectric and biomass resources. The continent relies on renewable energy for large-scale power generation, particularly in the form of hydropower. In Canada, hydropower accounts for 63 per cent of electricity generation, with some dams being over 100 years old. The solar industry in the country employs more than 260,000 people.[71] Many private sector participants in the region (such as the Ball Corporation) also aim to achieve full sustainability, often through cooperation with public sectors.[72]

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[67] Martin Vogt. "The Caribbean's Untapped Renewable Energy Potential" (6 February 2019). *Renewable Energy World*. Accessed on 9 November 2019. https://www.renewableenergyworld.com/2019/02/06/the-caribbeans-untapped-renewable-energy-potential/#gref

[68] IRENA. "Europe" (2019). Accessed on 9 November 2019. https://www.irena.org/europe

[69] Mirjana Jovanovic. "Interview: Europe beyond coal - European and Regional Initiatives for Clean Energy" (2019). *Belgrade Open School*. Accessed on 8 December 2019. http://bos.rs/en/news/215/2017/11/02/interview_-europe-beyond-coal--european-and-regional-initiatives-for-clean-energy-.html

[70] Eurostat Statistics Explained. "Renewable energy statistics" (January 2019). Accessed on 9 November 2019. https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics

[71] IRENA. "North America" (2019). Accessed on 9 November 2019. https://www.irena.org/northamerica

[72] Renewable Energy World Editors. "Ball Corporation plans 100 percent renewable push; purchases 388 MW of wind and solar" (26 April 2019). *Renewable Energy World*. Accessed on 9 November 2019.

2.5 Guiding Questions

1. Should energy be legally regulated in the same way in both the private and public sectors?
2. How can your Government assist the private sector in subsidising the market for renewable energy?
3. In what way has your Government or local NGOs contributed to renewable energy transition?
4. Is your country part of any supranational body or signatory to any treaty regarding renewable energy transition?

3 Topic B: Designing Strategies for the Protection of Environmentally Displaced Persons

3.1 Introduction

Environmental displacement is an increasingly relevant phenomenon in contemporary political discourse. The threats posed by climate change in all its forms have gained more exposure and visibility in the international community as of late and as such, they present a chilling image of a decaying planet dangerous to all its inhabitants, including humans. In terms of the process of environmental displacement, there is not one applicable model of its manifestation – it can happen due to sudden natural disasters (such as tsunamis, landslides and floods) or after longer, slower processes which render a certain area uninhabitable. In addition to

https://www.renewableenergyworld.com/2019/04/26/ball-corporation-plans-100-percent-renewable-push-purchases-388-mw-of-wind-and-solar/#gref

environmental displacement as an immediate result of disasters, there are many other indirect factors that emerge as inherent results of climate change and contribute to environmental migration, e.g., extreme pollution, scarcity in resources, increased poverty and lowered living standards, overall decline in health, harsher living conditions, mass food and water shortages, etc.

According to the Office of the United Nations High Commissioner for Refugees (UNHCR), "Since 2009, an estimated one person every second has been displaced by a disaster, with an average of 22.5 million people displaced by climate or weather-related events since 2008 (GRID 2018)."[73] Projections by UNHCR suggest that environmentally induced displacement could take unprecedented dimensions, with an additional 250 million people displaced due to environmental factors over the next 35 years.[74] The newest Global Report on Internal Displacement (GRID 2019) states than an additional 17.2 million people were displaced due to disasters in the past year with floods as one of the most destructive in terms of numbers.[75]

There is a growing need for a comprehensive legal framework to address environmentally displaced persons and migrants. In 2018, the Global Compact on Refugees, as part of the Report of the United Nations High Commissioner for Refugees, stated that "climate, environmental degradation and natural disasters increasingly interact with the drivers of refugee movements."[76] While the 1951 Refugee Convention does not recognise climate change as a cause of displacement or migration,[77] many experts worry that adding climate refugees to international law would reduce protections for existing refugees.[78] Herein lies the issue with establishing consensus in the international legal community on the status of environmentally displaced persons, with some even citing that the issue is an internal one and therefore does not warrant an immediate intervention on an international level.[79]

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[73] UNHCR. "Environment, Disasters and Climate Change" (2019). Accessed on 19 November 2019. https://www.unhcr.org/environment-disasters-and-climate-change.html

[74] ELI. "Environmental Displacement and Migration" (12 March 2019). Accessed on 19 November 2019. https://www.eli.org/migration

[75] IDMC. Global Report on Internal Displacement (2019). Displacement Report, Geneva: The Internal Displacement Monitoring Centre (IDMC).

[76] UNHCR. "Global Compact on Refugees" Report of the United Nations. High Commissioner for Refugees. New York: United Nations, 2 August 2018.

[77] United Nations General Assembly. "Convention Relating to the Status of Refugees" (28 July 1951). United Nations, Treaty Series, vol. 189, 137. Accessed on 8 December 2019. https://www.refworld.org/docid/3be01b964.html

[78] W., H. "Why climate migrants do not have refugee status" (6 March 2018). The Economist. Accessed on 18 November 2019. https://www.economist.com/the-economist-explains/2018/03/06/why-climate-migrants-do-not-have-refugee-status

[79] Ionesco, Dina. "Let's Talk About Climate Migrants, Not Climate Refugees" (6 June 2019). Accessed on 19 November 2019. https://www.un.org/sustainabledevelopment/blog/2019/06/lets-talk-about-climate-migrants-not-climate-refugees/

3.2 Historical Background

Despite the fact that climate change or, as it was recently coined, the "climate crisis", is a process that has gained traction in the past several decades, in terms of historical relevance, environmental displacement (if we approach the term loosely) has been a steady occurrence throughout human history. However, statistics have also shown that due to climate change, the world has seen exponential growth in the number of environmental disasters (natural or otherwise) that prompt environmental displacement.[80]

After the Second World War, international policymakers judged that the term 'refugee' should be restricted to "A person who, owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country".[81] The confusion around the definitions of environmental displacement, migration and refugees continues today.

Historically speaking, some of the largest environmental disasters and the subsequent displacement they caused usually included human error as their primary contributing factor such as in the case of the Chernobyl disaster of 1986, the Bhopal disaster of 1984,[82] or the Minamata disease just to name a few.[83] Infrastructure projects also played a big role in displacement in the 1980s, with 10 million people forcibly displaced each year by dam constructions and transportation projects.[84] This is somewhat in contrast to today where displacement is equally if not more so caused by natural disasters, than man-made ones. It is also important to note that the line between human and natural factors, especially when it comes to climate change, has become quite blurry since the 1970s and 1980s. Another historically important factor to consider is the ongoing and growing scarcity of natural resources, with claims that 40 per cent of all conflicts within national borders in the past 70 years are related to conflicts over natural resources.[85]

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[80] Linguère Mously Mbaye. Climate Change, Natural Disasters, and Migration. Climate Report, Abidjan: African Development Bank Group and IZA, 2017.

[81] UNEP. Frontiers 2017: Emerging Issues of Environmental Concern. Environmental Report, Nairobi: UN Environment, 2017.

[82] Joe Myers. "These are some of the world's worst environmental disasters" (20 April 2016). *World Economic Forum*. Accessed on 18 November 2019. https://www.weforum.org/agenda/2016/04/these-are-some-of-the-world-s-worst-environmental-disasters/

[83] TIME. "Top 10 Environmental Disasters" (3 May 2010). Accessed on 18 November 2019. http://content.time.com/time/specials/packages/completelist/0,29569,1986457,00.html

[84] UNEP. "Environmental Displacement: Human mobility in the Anthropocene"(2017). https://wedocs.unep.org/bitstream/handle/20.500.11822/22269/Frontiers_2017_CH6_EN.pdf?sequence=1&isAllowed=y

[85] Ibid.

In 1990, the Intergovernmental Panel on Climate Change warned that the greatest single impact of climate change could be on human migration— with millions of people displaced by shoreline erosion, coastal flooding and severe drought.[86] Be that as it may, it was only in the early 2000s that scientists made significant efforts to study empirically whether and how climatic factors and climate-induced hazards and natural disasters affect domestic and international migration flows. While the rise in public interest in climate change and global warming has had an effect on this, the most important factor was the increased availability of data and scientific development, as well as databases of bilateral migration flows which became available in the 2000s.[87] From the 2000s onwards, despite extensive international efforts and the ever-increasing public interest in climate issues and displacement as its core theme, there is still not much to go by in terms of defining and regulating environmentally displaced persons.[88] At the United Nations General Assembly High-Level Dialogue on International Migration and Development (HLD), held in September 2006, and the Global Forum on Migration and Development (GFMD), held in July 2007, "there was barely any discussion of the linkages between migration, environment and development. Similarly, the report of the Global Commission for Migration, published in 2005, includes virtually no discussion of environmentally induced migration."[89] With that in mind, it is clear that even though significant progress has been made within the field of research and data gathering, there is much left to be desired in the legal aspects of the issue.

3.3 Current Issues

[86] Koko Warner and Frank Laczko. "Migration, Environment and Development: New Directions for Research", *International Migration and Development* (2008), 238.

[87] Michael Berlemann and Friedrich Steinhardt. "Climate Change, Natural Disasters, and Migration—a Survey of the Empirical Evidence" *CESifo Economic Studies*, vol. 63(4), 2017, 358.

[88] Anthony Oliver-Smith. "Debating Environmental Migration: Society, Nature and Population Displacement in Climate Change", *Journal of International Development,* 2012, 1058-1070.

[89] Koko Warner and Frank Laczko. "Migration, Environment and Development: New Directions for Research", *International Migration and Development* (2008), 240.

There is a wide range of literature that started developing in the 1980s regarding the issue of climate-change-induced migration. Although, defining a linkage between migration and environmental damage hasn't always been an obvious task. In order to understand the migration movements that are directly related to environmental disasters or deterioration, it is important to describe the impacts of these natural and/or human-made events on human livelihood, especially for vulnerable populations. Global warming is, unfortunately, a subject that politicians have not given enough attention to until recently.

Figure 3: Submerged area due to sea level rise in Port-au-Prince, Haiti
[Source: www.un.org Accessed on 8 December 2019]

3.3.1 Defining Environmentally Displaced Persons and Environmental Refugees

According to many working papers published by the United Nations High Commissioner for Refugees (UNHCR), the first obstacle encountered when discussing Environmentally Displaced Persons (EDPs) is the definition of EDPs itself. With such a broad typology, defining 'environmentally displaced persons' and more specifically 'environmental refugees' has not been an easy task.

By taking a closer look at the 1951 United Nations Refugee Convention, we realise that there is no mention of 'environmental refugees', nor is the term covered by the definition of 'refugees' provided by the Convention.

The term 'environmental refugee' was given a first definition in 1985, by UNEP expert Essam El-Hinnawi: "those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life".[90] Criticised as being ambiguous by other experts, the definition given by El-Hinnawi does not differentiate between 'environmental refugees' and 'environmental migrants', which adds to the complexity of the debate.

Although, to this day, there is no legal basis for the concept of 'environmental refugees', there is a high chance that the world will see the first case of environmental refugees: the Pacific island of Tuvalu is facing imminent danger due to the unprecedented sea-level rise around the world. With a maximum elevation of approximately 4.5 meters above sea level, Tuvalu is at risk of being completely submerged in the near future, thus making Tuvaluans the world's first official environmental refugees.[91] By seeking asylum against climate change in neighbouring countries, they will have to be relocated and reintegrated into new societies.

Figure 4: Three Tuvaluan children sitting on the porch of their sinking home [Source: www.asiapacificreport.nz Accessed on 8 December 2019]

In a 1996 UNHCR working paper, the term 'environmentally displaced persons' was given an official definition: "persons who are displaced within their country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessarily the sole one".[92] The elaboration of this definition demonstrates a certain progress in the domain of EDPs; a progress that is nonetheless insufficient in order to establish long-term protection for this newly-defined category of displaced persons. Another challenge encountered with the aforementioned definition is that environmental deterioration remains an insufficient factor in explaining population displacement: it can be a "major cause" but, as indicated above, "not necessarily

[90] Essam El-Hinnawi. *Environmental Refugees.* Nairobi:United Nations Environment Programme, 1985.

[91] Cole Mellino. "Meet the World's First Climate Refugees" (5 January 2016). *EcoWatch*. Accessed 10 November 2019. https://www.ecowatch.com/meet-the-worlds-first-climate-refugees-1882143026.html

[92] United Nations High Commissioner for Refugees (UNHCR). *Environmentally-Induced Population Displacements and Environmental Impacts Resulting from Mass Migrations.* Geneva: UNHCR, 1996.

the sole one".[93] Therefore, according to the existing literature on this topic, the displacement of EDPs cannot be directly and solely based on environmental degradation, but rather on an entanglement of various factors, such as harsh economic conditions or fear of persecution for ethnic, religious or political reasons. Thus, there is no existing linkage between climate change and displacement which, once again, adds to the complexity of the debate.

3.3.2 Human mobility as an adaptation to Climate Change

The consequences of climate change, environmental degradation and deterioration are many. Notably, the impact on humans and their livelihood is on a catastrophic scale. As it affects the most vulnerable populations, climate change today has reached a point of no return for certain areas of the planet. These affected populations have had to adapt over the years to changing environmental conditions. One adaptive measure has taken the form of migration for some populations. Experts recorded that in 2017, 61 per cent of new internal displacements were triggered by disasters of all kinds (floods, storms, extreme temperatures, droughts, wildfires, etc.).[94] As for cross-border displaced populations, there is an immense data gap due to the various drivers of such movement. Existing data is qualitative and solely based on case studies, making the quantification of global EDPs all the more challenging.

In the aforementioned UNHCR working paper of 1996, five categories of EDPs were identified.[95] These are as follows:

i- acute onset movements with the possibility of return: this type of movements can be triggered by natural disasters, such as earthquakes and floods, or man-made disasters such as industrial accidents;

ii- acute onset movements without the possibility of return: this type of movement can be triggered by hazardous and nuclear waste accidents/contamination;

iii- slow onset movements with the possibility of return: drivers behind this movement could be for example, water shortages, reversible desertification, resource pollution, etc.;

iv- slow onset movements with predictability without possibility of return due to human activities: this movement can be caused by large-scale construction projects; and

[93] Ibid.

[94] International Displacement Monitoring Centre (IDMC). *Global Report on Internal Displacement.* Geneva: IDMC, 2018.

[95] United Nations High Commissioner for Refugees (UNHCR). *Environmentally-Induced Population Displacements and Environmental Impacts Resulting from Mass Migrations.* Geneva: UNHCR, 1996.

v- slow onset movements without possibility of return due to the natural conditions of the area: the populations of Pacific islands such as Tuvalu and Vanuatu can be categorised in this movement since they are slowly being forced to permanently relocate due to rising sea-levels that will eventually cause the disappearance of the islands altogether.

"In 1996, 25 million people were estimated to be environmentally displaced worldwide".[96]

3.3.3 Disaster Risk Reduction: Preventive Measures

Natural and human-made hazards can cause an important disruption in human livelihood, critical damage to infrastructures and immense economic losses. UNEP encourages and supports, first and foremost, the implementation of preventive measures in order to minimise the losses caused by climate change, thus preventing the increase of EDPs in the world, as well as any possible future disasters on an already environmentally-deteriorated territory.

Furthermore, UNEP is an active supporter and signatory to the Sendai Framework for Disaster Reduction 2015-2030, which was adopted as an outcome of the 2015 intergovernmental conference in Sendai, Japan, organised by the United Nations Office for Disaster Risk Reduction (UNDRR).[97] UNEP implements the framework by mainly aiming to reduce the risk of natural and man-made hazards through innovative ecosystem-based disaster risk reduction (Eco-DRR) projects. These projects provide solutions, at both national and local levels, and promote sustainable development.

By implementing such projects, UNEP enhances the capabilities of Governments and local NGOs to integrate Eco-DRR as a key strategy. By doing so, vulnerable communities become less exposed to disaster risk, thus decreasing the chances of environmentally-induced migration. Eco-DRR projects also help the countries that are most affected by hazards to become resilient against disasters. Nevertheless, there continues to be a lack of action plans regarding disaster reduction risk around the world: only 88 countries of the 193 UNEP members are using the Sendai Framework monitor of 2018.[98] Another challenge is facing data gaps in disaster-affected

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[96] Ibid.

[97] United Nations Office for Disaster Risk Reduction (UNDRR). *Sendai Framework for Disaster Risk Reduction 2015 - 2030.* Sendai: UNDRR., 2015.

[98] United Nations Office for Disaster Risk Reduction (UNDRR). *United Nations Office for Disaster Risk Reduction 2018 Annual Report.* Geneva: UNDRR, 2018.

States, which consequently stand in the way of conceiving DRR initiatives that would prevent future losses in terms of infrastructure and human lives.

3.4 Bloc Positions

3.4.1 Africa

The African continent is the second largest continent in the world with an average of around 1.3 billion people, and still on the rise.[99] The climate of Africa, having one of the hottest climates (if not the hottest) and considering the placement of the Sahara Desert within it, would obviously raise concerns within the continent. Hence, internal displacement and refugee crises based on environmental issues are problems for this continent.

Within this region, many people depend on various forms of agriculture as their main source of livelihood, which would usually be affected by climate change, making these victims migrate.[100] In Sub-Saharan Africa, around 80 million people were considered semi-starved, primarily due to environmental factors and around seven million were advised to migrate in order to obtain necessary relief.[101] While this group of people may have had a choice between migrating or not, many other people affected by natural disasters do not have such choice, thereby becoming refugees or internally displaced persons. This was seen in the Tropical Cyclone Idai that recently struck Mozambique in March of this year, whereby 146,000 people were internally displaced.[102]

In migrating and becoming refugees in another country, especially within the African continent, where most countries are still developing States, more environmental and political concerns are created for the receiving States. As such, in mitigating and adapting to these changes, countries within this region have been advised to prepare earlier for these outcomes and effectively manage displacement of their people.[103] The chart below shows an analysis of the

[99] Worldometers. *Africa Population (Live)* (n.d.). Accessed on 20 November 2019. https://www.worldometers.info/world-population/africa-population/

[100] European Council on Foreign Relations. *"Climate-Driven Migration in Africa"* (n.d.). Accessed on 30 December 2019. https://www.ecfr.eu/article/commentary_climate_driven_migration_in_africa

[101] Norman Myers. "Environmental Refugees: A Growing Phenomenon of the 21st Century" (n.d.). Accessed 20 November 2019. http://www.envirosecurity.org/conference/working/EnvironmentalRefugees.pdf

[102] John Podesta. *The Climate Crises, Migration and Refugees* (25 July 2019). Accessed 20 November 2019. https://www.brookings.edu/research/the-climate-crisis-migration-and-refugees/

[103] UNEP. *Displacement and Environment in Africa: What is the Relationship?* (30 June 2016). Accessed 8 December 2019. https://www.unenvironment.org/news-and-stories/story/displacement-and-environment-africa-what-relationship

growing number of environmental refugees within Sub-Saharan Africa, where it is mostly occurs.

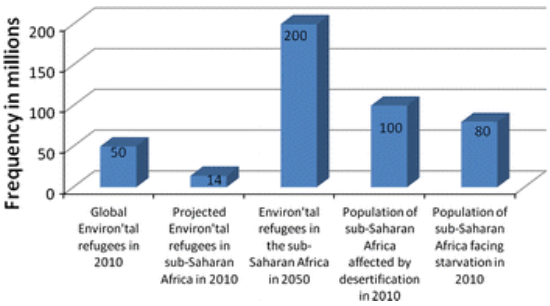

Figure 5: Chart predicting the number of sub-saharans that will be affected by climate change by 2050 [Source: *GeoJournal*. Accessed on 8 December 2019]

3.4.2 Asia and the Pacific

This region has more than half of the world's population and about 30 per cent of the world's land mass.[104] Although this is advantageous in many ways, it can also serve as a disadvantage in many ways. One disadvantage is the impact of climate change within this region, as this issue is currently a challenge being faced therein. According to the 2010 Asia Pacific Disaster Report, people in Asia are four times more susceptible to natural disasters, while people within the Pacific are 25 times more susceptible when compared to people living in Africa and North America/Europe.[105] Hence, these groups of people are more prone to becoming environmental refugees, and their figures would be considerably higher based on population size.

The climate crisis in this region has caused several other natural disasters such as flooding, increased drought (resulting in water scarcity) and several others.[106] In 2016, around 24.2 million people were displaced from their homes for reasons related to climate and weather,[107] and although such displacement was temporal, there are still strong links between this and international migration.[108] On this note, it is important to mention countries such as Tuvalu and Vanuatu, whose citizens are already threatened by the effects of climate change and environmental issues.

In addressing these changes, both Asia and the Pacific have taken various actions; in the Pacific this means having national, bilateral and regional migration policies, which grants an entry link for its people within other countries.[109] In Asia, there is the Association of Southeast Asian

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[104] United Nations Development Programme (UNDP). *About Asia and the Pacific* (n.d.). Accessed 20 November 2019. https://www.asia-pacific.undp.org/content/rbap/en/home/regioninfo.html

[105] Ibid.

[106] Economic and Social Commission for Asia and the Pacific (ESCAP). "Migration and climate change in Asia and the Pacific" (7 September 2017). Accessed 20 November 2019. https://www.unescap.org/sites/default/files/GCMPREP_5E.PDF

[107] Ibid.

[108] Ibid.

[109] Ibid.

Nations (ASEAN) which has an Agreement on Disaster Management and Emergency Response, whereby the States decided to respond to any disaster by joint corporation.[110]

3.4.3 Eastern Europe

The subregion of Eastern Europe is also not excluded from the environmental refugees' crises. This region not only has people within it migrating and becoming refugees or internally displaced, but more so, many refugees try to seek refuge within these States, which nationalist parties within the region are hostile towards.[111]

Russia is currently being faced with the issue where citizens who used to live in the countryside are currently migrating to cities and towns. Such instances, although few, are nonetheless significant cases of the climate crises,[112] resulting in citizens becoming either internally displaced or taking refuge in other places, as is the case in the Russian town of Kiselyovsk, where citizens are seeking refuge in Canada as Environmental Refugees.[113] This is just one of many instances occurring in the Eastern European region.

It is important to note that countries within this region are parties to several international treaties, such as the Paris Agreement. The aim of such treaties is to address the root causes of environmental degradation, such as cutting down on their carbon footprint. In achieving this, it would unequivocally lead to a reduced number of environmental refugees. The UNHCR is currently working with Governments within this region to assist refugees and internally displaced persons therein.

3.4.4 Latin America and Caribbean States

These two regions are in a much more precarious position than other regions. It has been recorded that a decrease in water availability in Latin America would be seen over the next five years,[114] causing migration and refugee crises. The effects of environmental crises, such as climate change, have made a lot of citizens leave their homes and become displaced persons. This is especially seen in States such as Honduras and Nicaragua, both of which have been

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[110] Ibid.

[111] James Hollifield and Idean Salehyan. Wilson Center. *Environmental Refugees* (21 December 2015). Accessed 20 November 2019. https://www.wilsoncenter.org/article/environmental-refugees

[112] Anton Troianovski and Chris Mooney. The Independent. *Melting Permafrost in Siberia is Creating Climate Change Refugees* (16 October 2019). Accessed 20 November 2019. https://www.independent.co.uk/news/long_reads/climate-change-refugees-siberia-permafrost-melt-a9146616.html

[113] Dan Robitzski. *Residents are trying to flee Russian Town where snow turned black* (n.d.). Accessed 30 December 2019. https://futurism.com/the-byte/flee-russian-town-snow-black

[114] Olivia Long. Help Refugees. *Climate Refugees: A Global Crises* (September 16, 2019). Accessed 20 November 2019. https://helprefugees.org/news/the-plight-and-rise-of-climate-refugees/

heavily affected by extreme weather events between 1998 and 2017.[115] Conversely, for the Caribbean States, natural disasters such as hurricanes have displaced many people and turned many into environmental refugees,[116] such as was the case for citizens of Antigua and Barbuda after the 2017 Hurricane Irma.

3.4.5 Western Europe

This subregion is quite similar to the Eastern European region, but what differs is the rate at which this subregion accepts refugees within its territory, being more receptive to such persons. This subregion is essentially a driver of the fight against environmental issues such as climate change (Sweden being at the forefront of this), with youth activism on the rise. Denmark and the United Kingdom, to mention a few, are also at the forefront of environmental issues, as each State within this subregion has seen the devastating effects of both climate change and natural disasters affecting the livelihood and homes of its citizens.

3.4.6 North America

The recognition of the status of environmental refugees is still very much in dispute, especially in this region, where Canada does not welcome environmental refugees,[117] although the Green Party is pushing for its recognition.[118] While within the United States of America, being on the receiving end, opened their doors to around 80,000 Hondurans after the 1998 Hurricane Mitch, which affected large parts of Central America.[119] They have developed a Temporary Protected Status (TPS) programme since 1990, as a form of humanitarian relief.[120] TPS is not a grant of permanent residence, nor are they eligible to apply for one, but TPS beneficiaries acquire provisional protection against deportation and have permission to work within the State for a

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[115] Miranda Cady Hallett. The Conversation. *How Climate Change is Driving Emigration from Central America* (6 September 2019). Accessed 20 November 2019. https://theconversation.com/how-climate-change-is-driving-emigration-from-central-america-121525

[116] Marshall Shepherd. Forbes. *Are Hurricanes creating Climate Refugees in the Caribbean?* (21 September 2017). Accessed 20 November 2019. https://www.forbes.com/sites/marshallshepherd/2017/09/21/are-hurricanes-creating-climate-refugees-in-the-caribbean/

[117] Dan Robitzski. *Residents are trying to flee Russian Town where snow turned black* (n.d.). Accessed 30 December 2019. https://futurism.com/the-byte/flee-russian-town-snow-black

[118] Douglas Todd. Vancouver Sun. *Douglas Todd: Greens push to welcome 'Environmental Refugees' to Canada* (3 October 2019). Accessed 20 November 2019. https://vancouversun.com/opinion/columnists/douglas-todd-greens-push-to-welcome-environmental-refugees-to-canada

[119] International Organisation for Migration (IOM). "Migration and Climate Change", *Migration Research Series*, no. 31, 2008.

[120] Madeline Messick and Claire Bergeron. *Temporary Protected Status in the United States: A Grant of Humanitarian Relief that is Less than Permanent* (2 July 2014). Accessed 20 November 2019. https://www.migrationpolicy.org/article/temporary-protected-status-united-states-grant-humanitarian-relief-less-permanent

limited period of time.[121] This is terminated once the home country of the beneficiary has recovered. Despite all of the assistance the countries within this region may provide, they are also faced with the issue of environmental refugees emanating therein.

3.5 Guiding Questions

1. How has climate change impacted your country's environment and population? Has your Government taken any steps to address the issue, specifically regarding EDPs?
2. How far has your State gone in recognising 'environmental refugees'?
3. How is your country implementing the Sendai Framework for Disaster Risk Reduction? In what way does it invest in disaster risk management?

[121] Ibid.

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5 Countries Present in the Committee

Arab Republic of Egypt

Argentine Republic

Bolivarian Republic of Venezuela

Bosnia and Herzegovina

Canada

Commonwealth of Australia

Federal Republic of Germany

Federal Republic of Nigeria

Federative Republic of Brazil

French Republic

Hellenic Republic

Hungary

Islamic Republic of Pakistan

Kingdom of Denmark

Kingdom of Saudi Arabia

Kingdom of Spain

Kingdom of Sweden

Kingdom of the Netherlands

New Zealand

People's Republic of Bangladesh

People's Republic of China

Plurinational State National

Republic of Botswana

Republic of Chile

Republic of Colombia

Republic of Côte D'Ivoire

Republic of Cuba

Republic of Fiji

Republic of India

Republic of Kenya

Republic of Kiribati

Republic of Korea

Republic of Madagascar

Republic of Namibia

Republic of Palau

Republic of Panama

Republic of Poland

Republic of South Africa

Republic of the Philippines

Republic of Zambia

Republic of Zimbabwe

Russian Federation

State of Israel

State of Libya

State of Qatar

Swiss Confederation

Syrian Arab Republic

United Arab Emirates

United Kingdom of Great Britain and Northern Ireland

United Republic of Tanzania

United States of America

International Organizations

Greenpeace

Intergovernmental Panel on Climate Change

United Nations High Commissioner for Refugees

World Wildlife Fund