



SRMUN ATLANTA 2018

Our Responsibility: Facilitating Social Development through Global Engagement and Collaboration

November 15 - 17, 2018

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Greetings Delegates,

Welcome to SRMUN Atlanta 2018 and the United Nations Environmental Programme – Committee of Permanent Representatives (UNEP-CPR). My name is Michael Engelhardt, and I will be serving as your Director for the UNEP-CPR. This will be my third conference as a SRMUN Atlanta staff member. Previously, I served as the Assistant Director for the Committee on Narcotics and Drugs at SRMUN Atlanta 2016 and as the Assistant Director for the International Atomic Energy Agency at SRMUN Atlanta 2017. I hold a Master's Degree in International Security from the University of Denver and a Bachelor's degree in History with a minor in Political Science from the University of Wisconsin-River Falls. Our committee's Assistant Director will be Sam Compagno. This will be Sam's first time as a staff member, but he has been participating in Model United Nations for over five years. Sam holds a Bachelors in Criminal Justice from Kennesaw State University and will be enlisting in the United States Air Force at the end of this year

The United Nations Environment Programme was created to lead the United Nations on environmental affairs and to provide leadership and encourage partnerships for Member States to improve their quality of life while taking into account the impact on the environment. The Committee of Permanent Representatives was created in 1985 and currently serves to prepare the agenda for the UN Environment Assembly and to convene debates on pressing environmental topics.

By focusing on the mission of the UNEP-CPR and the SRMUN Atlanta 2018 theme of "*Our Responsibility: Facilitating Social Development through Global Engagement and Collaboration*," we have developed the following topics for the delegates to discuss come conference:

- I. Expanding UN-Based Green Energy Infrastructure Programs in Developing Member States
- II. Promoting Global Collaboration in Combating Rising Sea Levels due to Climate Change

This background guide provides a strong introduction to the committee and the topics and should be utilized as a foundation for the delegate's independent research. While we have attempted to provide a holistic analysis of the issues, the background guide should not be used as the single mode of analysis for the topics. Delegates are expected to go beyond the background guide and engage in intellectual inquiry of their own. The position papers for the committee should reflect the complexity of these issues and their externalities. Delegations are expected to submit a position paper and be prepared for a vigorous discussion at the conference. Position papers should be no longer than two pages in length (single spaced) and demonstrate your Member State's position, policies and recommendations on each of the two topics. For more detailed information about formatting and how to write position papers, delegates can visit srmun.org. **All position papers MUST be submitted no later than Friday, October 26, 2018 by 11:59pm EST via the SRMUN website.**

Sam and I are enthusiastic about serving as your dais for the UNEP-CPR. We wish you all the best of luck in your conference preparation and look forward to working with you in the near future. Please feel free to contact Deputy Director-General Jordin Dickerson, Sam, or myself if you have any questions while preparing for the conference.

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Committee History of the United Nations Environment Programme - Committee of Permanent Representatives

As the United Nations (UN) lead organization on environmental affairs, the United Nations Environment Programme (UN Environment) is tasked “to provide leadership and encourage partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations.”¹ Unlike most other UN bodies, UN Environment is headquartered neither in New York City nor in Geneva. It shares the United Nations Office Complex (UNON) in Nairobi, Kenya with the United Nations Centre for Human Settlements. UN Environment is administered by an executive director and a deputy.

Created by General Assembly Resolution A/RES/27/2997, on December 15, 1972, in response to the recommendation of the United Nations Conference on the Human Environment (UNCHE), UN Environment began its work with limited expectations from the global community.² While the major industrial powers encouraged the creation of a UN structure to coordinate environmental activities, they feared paying for a massive new bureaucracy. Less developed countries were concerned that a new specialized agency would create international pressure to limit their development programs.³ The result was a “programme,” not an “agency,” with a structure and duties carefully laid out in the authorizing resolution, and a “Voluntary Fund” to pay for most of the program’s expenses.⁴ This dependence on contributions and the decision to base UN Environment’s operations in Nairobi were steps taken to assuage the less developed world’s unease with UN Environment and limited the likelihood that UN Environment would be a major actor in world affairs.⁵

The policy-making body of UN Environment is the UN Environment Assembly (UNEA), which, in 2014, succeeded the 58-member Governing Council.⁶ The UNEA consists of all 193 Member States, meets biennially, and may meet in special sessions during alternate years, and reports to the Economic and Social Council (ECOSOC) and the General Assembly (GA).⁷ The current President of the UNEA is Dr. Edgar E. Gutierrez-Espeleta, the current Minister of Environment and Energy of Costa Rica.⁸ He served as President of the UNEA during its most recent special assembly, which took place in Nairobi, Kenya in December 2017.⁹

The Committee of Permanent Representatives (CPR) was created in May 1985 and established as a subsidiary organ of the Governing Council. Today, the CPR meets at least four times a year and serves to prepare the agenda for meetings of the UNEA and reviews the implementation of its decisions.¹⁰ The CPR, made up of 118 Member States plus the European Union, serves as guiding body which focuses the efforts of the UNEA. At the opening of each session of the UNEA, the chair of the CPR provides a brief report on how the CPR had laid the groundwork for the forthcoming debate of the UNEA.¹¹ The CPR is led by a five-person bureau, each elected for terms of two years.

¹ “About UN Environment,” United Nations Environmental Programme, <https://www.unenvironment.org/about-un-environment> (accessed March 13, 2018).

² “About UN Environment,” United Nations Environment Programme.

³ “About UN Environment,” United Nations Environment Programme.

⁴ Victor, David G., Kal Raustiala and Eugene Skolnifoff. *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice*. Cambridge: MIT Press, 1998.

⁵ Moore, John Allphin and Jerry Pubantz. *Encyclopedia of the United Nations*. Facts on File, Inc, 2002.

⁶ “About the UN Environment Assembly,” United Nations Environmental Programme, <http://web.unep.org/environmentassembly/about-un-environment-assembly> (accessed March 13, 2018)

⁷ “United Nations Environment Programme: Report of the United Nations Environment Assembly of the United Nations Environment Programme.” 2016. <http://wedocs.unep.org/bitstream/handle/20.500.11822/17512/K1608503.pdf?sequence=6&isAllowed=y> (accessed March 10, 2018).

⁸ “The President of the UN Environment Assembly,” United Nations Environmental Programme, <http://web.unep.org/environmentassembly/president-un-environment-assembly> (accessed August 19, 2018).

⁹ “Schedule of all Events,” United Nations Environmental Programme, <http://web.unep.org/environmentassembly/schedule-all-events> (accessed March 11, 2018).

¹⁰ “Civil Society Engagement” United Nations Environmental Programme, <http://web.unep.org/about/majorgroups/modalities/committee-permanent-representatives-meetings> (accessed March 13, 2018).

¹¹ “United Nations Environment Programme: Report of the United Nations Environment Assembly of the United Nations Environment Programme: 2016” United Nations Environmental Programme,

Each bureau member serves to represent one of the five regional groups of UN Member States.¹² The current chair of the CPR is H.E. Mr. John Moreti, the High Commissioner and Permanent Representative of Botswana.¹³

In 2016, the Governing Council/Global Ministerial Environment Forum adopted Decision 27/2 which greatly expanded the responsibilities of the CPR.¹⁴ These duties include preparing the agenda for the governing body, advising the governing body on policy matters, and overseeing the implementation of decisions made by the governing body.¹⁵ Other clauses in Decision 27/2 gave the CPR more control over its meeting schedule and decision-making ability.¹⁶ Finally, Decision 27/1-15 brought significant change to UN Environment as a whole and reorganized the bureaucracy of the governing body.¹⁷ Since then, the CPR has played a vital role in the direction and actions taken by UN Environment and continues to be an influential guiding hand to this day. For example, it is currently investigating means to develop the UNEA Pollution Implementation Plan.¹⁸

UN Environment oversees a significant number of departments, special programs, and initiatives in many Member States around the world.¹⁹ In cooperation with the World Meteorological Organization (WMO), in the late 1980s UN Environment launched two important initiatives. The first was the creation of the Intergovernmental Panel on Climate Change (IPCC), which made its first assessment report in August 1990.²⁰ The work of the panel led to the United Nations Framework Convention on Climate Change (UNFCCC), shepherded through the negotiation process by UN Environment, and signed at the United Nations Conference on the Environment and Development (UNCED) in 1992.²¹ The second was the promotion of a World Climate Conference that convened in November 1990, setting the stage for several climate agreements during the decade. The conference called worldwide attention to the problem of global warming and the need to limit carbon dioxide emissions.²²

In addition to the UNFCCC, the 1992 United Nations Conference on Environment and Development, also known as the Earth Summit, is notable for bringing together an unprecedented number of representatives from governments, civil society, and the private sector.²³ The purpose of the Earth Summit was to examine progress made since Stockholm, and to “elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of strengthened national and international efforts to promote sustainable and environmentally sound development in all countries.”²⁴ Besides the UNFCCC, the Earth Summit also saw the creation the Convention on Biological Diversity and the UN Commission on Sustainable Development.²⁵

<https://wedocs.unep.org/bitstream/handle/20.500.11822/19529/UN%20Environment%202016%20Annual%20Report.pdf?amp%3BisAllowed=&sequence=1> (accessed September, 1 2018).

¹² “Committee of Permanent Representatives.” United Nations Environmental Programme, <http://web.unep.org/about/cpr/who-we-are/overview> (accessed March 14, 2018).

¹³ “Committee of Permanent Representatives.” United Nations Environmental Programme, (accessed March 14, 2018).

¹⁴ “Decisions Adopted by the Governing Council/Global Ministerial Environment Forum at its First Universal Session,” NATIONS UNIES, <http://wedocs.unep.org/bitstream/handle/20.500.11822/12221/Governing%20Council%20Decision%2027-2.pdf?sequence=1&isAllowed=y> (accessed September 6, 2018).

¹⁵ “Decisions Adopted,” NATIONS UNIES.

¹⁶ “Decisions Adopted,” NATIONS UNIES.

¹⁷ “Decisions Adopted,” NATIONS UNIES.

¹⁸ Ligia Noronha, “Developing the UN,” Powerpoint Presentation, CPR subcommittee, 2018, <http://wedocs.unep.org/bitstream/handle/20.500.11822/22914/Cpr%20short%20presentaion%2015%20march.pdf?sequence=18&isAllowed=y>.

¹⁹ About UN Environment,” United Nations Environment Programme .

²⁰ Imber, Mark. *Environment, Security and U.N. Reform*. New York: St. Martin's, 1994.

²¹ Victor, David G., Kal Raustiala and Eugene Skolnifoff. *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice*. Cambridge: MIT Press, 1998.

²² Moore, John Allphin and Jerry Pubantz. *Encyclopedia of the United Nations*. Facts on File, Inc, 2002.

²³ United Nations Environment Programme. 2000. <http://www.un.org/geninfo/bp/enviro.html>.

²⁴ United Nations Environment Programme. 2000. http://www.unep.org/PDF/ABOUT_UNEP_ENGLISH.pdf.

²⁵ United Nations Environment Programme. 2000. <http://www.un.org/geninfo/bp/enviro.html>.

For 2018-2019, the UN Environment's work focused will focus on seven key priorities: climate change, resilience to disasters and conflicts, healthy and productive ecosystems, environmental governance, chemicals, waste and air quality, resource efficiency, and environment under review.²⁶ The budget for the UN Environment for that time frame is \$784.3 million and is provided by the Global Environment Facility (GEF), the Environment Fund, and the regular UN budget.²⁷

²⁶ Proposed Programme of Work and Budget for the Biennium 2018-2019" United Nations Environment Assembly, http://wedocs.unep.org/bitstream/handle/20.500.11822/7707/-Proposed_programme_of_work_and_budget_for_the_biennium_2018%E2%80%922019_Report_of_the_Executive_Director-2016PoW_2018-2019_as_approved_by_UNEA_.pdf.pdf?sequence=3&isAllowed=y (accessed May 15, 2018).

²⁷"Proposed Programme of Work and Budget for the Biennium 2018-2019" United Nations Environment Assembly, (accessed May 15, 2018).

I. Expanding UN-Based Green Energy Infrastructure Programs in Developing Member States

“We have entered a new era of clean energy growth that can fuel a future of opportunity and greater prosperity for every person on the planet.” – Ban Ki-Moon, Former Secretary-General of the United Nations²⁸

Introduction

The idea of environmental protection and progress has been instilled in the United Nations (UN) since its inception in 1945. Article 1 of the UN Charter states as one purpose: “to achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character.”²⁹ The threat of climate change certainly falls within those parameters, with the World Economic Forum naming climate change and shifting weather patterns one of its top threats for 2017.³⁰ A study from International Renewable Energy Agency (IRENA) found that renewable energy needs to be scaled up six times faster than it currently is for the world to meet the goals set in the Paris Climate Accord in 2016.³¹ Since its founding in 1972, the United Nations Environmental Programme (UN Environment) has made significant progress in protecting the environment and promoting the usage of renewable energy. However, much work remains to address both long-standing issues of electricity availability, and new problems of rising carbon dioxide emissions.

History

Following end of the Cold War, UN Member States made multiple attempts in the 1990s to address environmental concerns. The drafting of the United Nations Framework Convention on Climate Change (UNFCCC) in May 1992, was followed by the United Nations Conference on Environment and Development (the so-called, “Earth Summit”) which approved the UNFCCC and drafted Agenda 21, a non-binding action plan adopted by 178 governments.³² Member States furthered the promotion of renewable energy technology with the signing of the Kyoto Protocol in 1997.³³ As part of the agreement, each signing party agreed to the “research, promotion, development, and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies, and of advanced and innovative environmentally sound technologies.”³⁴ Both the UNFCCC and the Kyoto Protocol were built upon with the passage of the Paris Climate Accord in 2016 which set even more ambitious goals for dealing with and solving the crisis of climate change.³⁵

UN Environment began to focus on the need for green-energy infrastructure programs in the late 1990’s and early 2000’s. While Goal 7 of the Millennium Development Goals (MDG’s), passed by the UN General Assembly in 1999, focused exclusively on environmental sustainability, it did not give specific attention to the development of green-energy technology in developing Member States.³⁶

²⁸ “Global Trends in Renewable Energy Investment Report 2016,” FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance, http://fs-uneep-centre.org/sites/default/files/publications/globaltrendsinrenewableenergyinvestment2016lowres_0.pdf (accessed May 21, 2018).

²⁹ The United Nations, *Charter of the United Nations*, June 16, 1945.

³⁰ World Economic Forum, *Global Risks Report 2017* (Geneva: 2018), <http://reports.weforum.org/global-risks-2017/part-1-global-risks-2017/> (accessed June 8, 2018).

³¹ “Global Energy Transformation: A Roadmap to 2050,” International Renewable Energy Agency, http://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf?la=en&hash=9B1AF0354A2105A64CFD3C4C0E38ECCEE32AAB0C (accessed September 6, 2018)

³² The United Nations, *United Nations Conference on Environment and Development: Agenda 21*, June 14, 1992. <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf> (accessed September 6, 2018).

³³ The United Nations, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, December 11, 1997. https://treaties.un.org/doc/Treaties/1998/09/19980921%2004-41%20PM/Ch_XXVII_07_ap.pdf (accessed June 5, 2018).

³⁴ The United Nations, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, (accessed June 5, 2018).

³⁵ “What is The Paris Agreement?,” United Nations Framework Convention on Climate Change, July 3, 2018, <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement> (accessed July 30, 2018).

³⁶ Max, “MDG 7: Ensure Environmental Sustainability,” MDG Monitor, November 15, 2016, <http://www.mdgmonitor.org/mdg-7-ensure-environmental-sustainability/> (accessed July 4, 2018).

The first decade of the 21st century brought a larger emphasis on green energy and the development of renewable energy technologies. In 2015, the General Assembly passed the Sustainable Development Goals (SDGs) as the successor to the expiring MDG's.³⁷ The passage of these goals displayed a renewed focus on combatting climate change with four of the 17 goals tackling green energy issues: Goal 7: Affordable and Clean Energy, Goal 9: Industry, Innovation, and Infrastructure, Goal 11: Sustainable Cities and Communities, and Goal 13: Climate Action.³⁸

Efforts to implement green energy programs are a United Nations-wide program. The latest meeting of the parties of the UNFCCC occurred in Bonn, Germany at the 2017 United Nations Climate Change Conference (COP23). In total, new funding of almost USD 1 billion dollars was announced toward green initiatives during the conference.³⁹ This included a USD 37 million commitment from the International Energy Agency in their clean energy transition programme, USD 75 million from the European Investment Bank in water distribution and wastewater treatment in Fiji, and the launching of a new initiative from the World Health Organization, in collaboration with the UN Climate Change Secretariat for climate change initiatives in small island states.^{40 41}

Since 1996, the United Nations Development Project (UNDP) has supported over 400 micro-hydroelectric power plants that have provided power to thousands of people in Nepal.⁴² Also, in 2010, the United Nations Development Project UNDP partnered with the Government of Eritrea to pilot a wind energy project near the city of Assab.⁴³ Through this project, more than 35,000 people now have direct access to electricity.⁴⁴ A partnership between the UNDP and the South African company, Sun Exchange, in 2018 was created to fund the installation of solar panels at the Technical University of Moldova via cryptocurrency.⁴⁵ The UNDP is hoping this pilot-program could facilitate the use of cryptocurrency to fund projects throughout Eastern Europe and Central Asia.⁴⁶

However, even with this larger emphasis by the UN as whole, attention to green infrastructure has been lacking by parts of the UN Environment. Since being formed in 2012, the UN Environment Assembly has held three general sessions in 2014 and 2017.⁴⁷ At only one of the sessions has the body addressed the topic of investing in

³⁷ "The Sustainable Development Agenda," The United Nations, <https://www.un.org/sustainabledevelopment/development-agenda/> (accessed May 21, 2018).

³⁸ "Sustainable Development Goals," United Nations Development Programme, <http://www.undp.org/content/undp/en/home/sustainable-development-goals.html> (accessed May 21, 2018).

³⁹ United Nations, "UN Climate Change Annual Report 2017," <https://unfccc.int/resource/annualreport/> (accessed September 6, 2018)

⁴⁰ United Nations, "UN Climate Change Annual Report 2017," <https://unfccc.int/resource/annualreport/> (accessed September 6, 2018)

⁴¹ World Health Organization, "Launch of Special Initiative to Address Climate Change Impact on Health in Small Island Developing States," November 12, 2017, <http://www.who.int/news-room/detail/12-11-2017-launch-of-special-initiative-to-address-climate-change-impact-on-health-in-small-island-developing-states> (accessed September 6, 2018)

⁴² Catherine Benson Wahlen, "UNDP Supports Micro-Hydro Power in Nepal," International Institute for Sustainable Development, January 30, 2013, <http://sdg.iisd.org/news/undp-supports-micro-hydro-power-in-nepal/> (accessed May 21, 2018).

⁴³ "Communities in Eritrea benefit from Renewable Wind Energy," United Nations Development Programme, <http://www.er.undp.org/content/eritrea/en/home/ourwork/environmentandenergy/successstories/alternative-energy-for-eritran-rural-communities.html> (accessed May 20, 2018).

⁴⁴ Heikki Noro, "Wind Energy Applications in Eritrea: Mid-Term Review," Parola International Associates, <https://www.climate-eval.org/sites/default/files/evaluations/349%20Wind%20Energy%20Applications%20in%20Eritrea.pdf> (accessed May 21, 2018)

⁴⁵ "UNDP, Solar Currency Exchange to Power Up Moldovan University," United Nations Development Programme, press release, May 7, 2018, <http://www.undp.org/content/undp/en/home/news-centre/news/2018/UNDP-solar-currency-exchange-to-power-up-Moldovan-university.html> (accessed July 30, 2018)

⁴⁶ "UNDP, Solar Currency Exchange to Power Up Moldovan University," <http://www.undp.org/content/undp/en/home/news-centre/news/2018/UNDP-solar-currency-exchange-to-power-up-Moldovan-university.html> (accessed July 30, 2018)

⁴⁷ "UN Environment Assembly and Governing Council," United Nations Environment Programme, <http://web.unep.org/environmentassembly/node/40734> (accessed July 20, 2018).

environmental solutions with the passage of UNEP/EA 3/Res. 5: Investing in Innovative Solutions for Accelerating the Implementation of Sustainable Development Goals.⁴⁸

Current Situation

Member States displayed their aspirations of addressing the challenge of climate change through aggressive climate policies. In 2009, 153 Member States and the European Union (EU) created International Renewable Energy Agency (IRENA) with the goal of promoting and encouraging the use of renewable energy.⁴⁹ Today, the agency is an official UN observer and, according to its charter, strives to “act in accordance with the purposes and principles of the United Nations to promote peace and international cooperation, and in conformity with policies of the United Nations furthering sustainable development.”⁵⁰

In addition, huge strides are being made on the financial side. 2015 marked the first year that investment in renewable electricity in developing Member States was more than in developed Member States. That investment totaled over USD 156 billion. In fact, over the last ten years, investment in renewable energy in developed Member States has decreased by USD 94 billion, while investment in developing Member States has increased by USD 86 billion.⁵¹ In 2017, USD 279.8 billion was invested in renewable energy with over a 40 percent of that being in the People’s Republic of China.⁵² Not only this, but 2017 saw over USD 10 billion apiece invested in the Middle East and Africa, India, plus an additional USD 6 billion in Brazil.⁵³

Most of the money for renewable energy projects is being supplied by development banks and green bonds. Green bonds were created in 2007 as a way for banks and governments to fund environmental projects.⁵⁴ In 2016, the largest contributor amongst development banks was Germany’s KfW with USD 34.1 billion in commitments.⁵⁵ Additionally, significant commitments were made by the European Investment Bank, the World Bank Group, the Export-Import Bank of China, as well as India’s Export-Import Bank.⁵⁶ Green bond issuance in 2016 also rose to USD 163.1 billion with most of these being issued by financial companies, corporations, and as asset-backed or mortgage-backed securities.⁵⁷

Money can also be found in the private sector. For example, the two largest renewable energy projects in the world were approved in 2017, both in the United Arab Emirates and are being financed by international commercial banks. The 800 Megawatt (MW) Mohammed bin Rashid Al Maktoum Solar Park is being built with the support of electric companies, EDF and Masdar, while the 1,177 MW Sweihan solar project, the largest PV solar plant in the world, is being financed by Jinko Solar Holding Co. and Marubeni Corp.^{58,59,60}

⁴⁸ United Nations Environment Assembly of the United Nations Environment Programme, Resolution 3.5, *Investing in Innovative Environmental Solutions for Accelerating the Implementation of the Sustainable Development Goals*, UNEP/EA.3/Res.5, January 30, 2018, <https://papersmart.unon.org/resolution/uploads/k1800192.english.pdf>

⁴⁹ “About Irena,” International Renewable Energy Agency, <http://irena.org/aboutirena> (accessed May 21, 2018)

⁵⁰ “Vision and Mission,” International Renewable Energy Agency, <http://irena.org/statutevisionmission> (accessed May 21, 2018)

⁵¹ “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵² “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵³ “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵⁴ “Explaining Green Bonds,” Climate Bonds Initiative, <https://www.climatebonds.net/market/explaining-green-bonds> (accessed July 26, 2018).

⁵⁵ “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵⁶ “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵⁷ “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁵⁸ “EDF Group Joins Masdar-led Consortium Developing Phase 3 of Mohammed bin Rashid Al Maktoum Solar Park,” EDF Group Press Release, March 22, 2017, https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-medias/cp/2017/cp_edf_20170323_masdar_va.pdf (accessed June 23, 2018).

⁵⁹ “Mohammed bin Rashid Inaugurates 200 MW First Stage of Third Phase of Mohammed bin Rashid Al Maktoum Solar Park,” Dubai Electricity & Water Authority, May 1, 2018, <https://www.dewa.gov.ae/en/about-dewa/news-and-media/press-and-news/latest-news/2018/05/mohammed-bin-rashid-inaugurates-200-mw> (accessed June 23, 2018).

⁶⁰ “JinkoSolar & Marubeni 1177 MW Sweihan Project Wins MESIA Large Scale Project Award” JinkoSolar Holding Co. Ltd. Press Release, February 2, 2018, <https://www.prnewswire.com/news-releases/jinkosolar--marubeni-1177-mw-sweihan-project-wins-mesia-large-scale-solar-project-award-300592532.html> (accessed June 23, 2018).

Presently, large-scale renewable energy projects are continuing to be built in developing Member States.⁶¹ For example, Tunisia, with the help of private investors from Germany, is building a massive 4,000 MW solar array with the intention of selling a portion of the generated power to European nations, such as France and Italy.⁶² In Costa Rica, the Costa Rican Electricity Institute (ICE) powered the entire country for 80 consecutive days off of a combination of geothermal, solar, and wind power.⁶³

Even with these positive developments, there is still much to be done. For example, in Nepal, rivers and streams are capable of producing between 50,000 and 90,000 MW of renewable electricity but as of 2017, Nepal was only generating 847 MW of electricity from hydroelectric sources.⁶⁴ The story is the same all over the developing world. Member States with a wealth of renewable energy potential are unable to utilize them because of political, or, most commonly, economic factors. In 2016, 14 percent, or over one billion people across the globe lacked access to any form of electricity, clean or non-renewable.⁶⁵ In 2016, the UN New Climate Economy Report estimated that over USD 90 trillion in investment was needed over the next 15 years, including about USD 4 trillion invested per year in developing states.⁶⁶ The USD 278 billion invested in green energy in 2017, represented less than a quarter of the amount of funding that was actually needed.

Investing in green energy infrastructure takes a true and urgent commitment from Member States. The UN New Climate Energy Report found that actions taken, and investments made over the next 2-3 years will be crucial to determining the course of the world. However, money alone will not solve the issue.⁶⁷ We must also work to address issues of infrastructure development such as price distortions, including subsidies, strengthening frameworks and institutional capacity around the globe, and increasing research into not only green energy technology but also deployment of that technology to all corners of the globe.⁶⁸

Actions Taken by the United Nations

Since 2007, the UN, and specifically UN Environment, have undertaken a number of other initiatives to assist with the completion of the Sustainable Development Goals. This includes the collaboration with a number of non-governmental organizations (NGOs) to assist with projects around the globe. One of the most successful of these partnerships is between UN Environment and the Frankfurt School of Finance and Management in the creation of the UNEP-Frankfurt School Collaborating Center for Climate and Sustainable Energy Finance.⁶⁹ The goal of the Collaboration Center is to “facilitate the necessary structural change of energy supply and use around the globe by helping to catalyze private sector capital flow towards investments in sustainable energy and climate change mitigation and adaptation.”⁷⁰ One of the most important documents the center produces is its yearly, *Global Trends*

⁶¹ “5 of the Biggest Planned Renewable Energy Projects in the World,” Climate Action Programme, <http://www.climateactionprogramme.org/news/5-of-the-biggest-planned-renewable-energy-projects-in-the-world-1> (accessed May 22, 2018).

⁶² “5 of the Biggest Planned Renewable Energy Projects in the World,” Climate Action Programme, (accessed May 22, 2018).

⁶³ Alexander Richter, “Costa Rica Awarded on Emission Savings Through Geothermal Plants,” *Think Geoenergy*, April 26, 2018, <http://www.thinkgeoenergy.com/costa-rica-utility-awarded-on-emission-savings-through-geothermal-plants/> (accessed May 15, 2018).

⁶⁴ Alam, “Hydropower Projects in Nepal,” *Energy Procedia*

⁶⁵ “Access to Electricity (% of Population),” The World Bank, https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?end=2016&start=1990&view=chart&year_high_desc=true (accessed June 25, 2018).

⁶⁶ United Nations: The New Climate Economy, “The Sustainable Infrastructure Imperative: Financing for Better Growth and Development,” <https://www.un.org/pga/71/wp-content/uploads/sites/40/2017/02/New-Climate-Economy-Report-2016-Executive-Summary.pdf> (accessed September 6, 2018).

⁶⁷ United Nations: The New Climate Economy, “The Sustainable Infrastructure Imperative: Financing for Better Growth and Development,” <https://www.un.org/pga/71/wp-content/uploads/sites/40/2017/02/New-Climate-Economy-Report-2016-Executive-Summary.pdf> (accessed September 6, 2018).

⁶⁸ United Nations: The New Climate Economy, “The Sustainable Infrastructure Imperative: Financing for Better Growth and Development,” <https://www.un.org/pga/71/wp-content/uploads/sites/40/2017/02/New-Climate-Economy-Report-2016-Executive-Summary.pdf> (accessed September 6, 2018).

⁶⁹ “Frankfurt School UNEP Collaborating Centre for Climate and Sustainable Energy Finance,” <http://fs-unep-centre.org/> (accessed: May 22, 2018).

⁷⁰ “Frankfurt School UNEP Collaborating Centre for Climate and Sustainable Energy Finance,” Frankfurt School, (accessed: May 22, 2018).

in *Renewable Energy Investment Report*.⁷¹ This report tracks yearly the amount invested by the globe in renewable energy sources and analyses where the money is spent.⁷²

In addition to its reports, the Center also offers an advisory learning service. They work to combine academic learning with practical project experience and advice on project design and implementation.⁷³ While primarily targeting financial institutions, the Center also works alongside national governments and private sector actors to develop renewable energy project plans.⁷⁴ To date, the Joint Collaboration Center has worked on completed work on over 30 projects around the world.⁷⁵

The UN Environment has also partnered with the Basel Agency for Sustainable Energy (BASE) since its founding in 2001.⁷⁶ BASE works with local and international partners to develop small-scale environmental projects in both developing and developed Member States. Some of their current projects include a remittance program for solar energy in Haiti, energy efficient cooling in Rwanda, and LED street lighting in Switzerland.⁷⁷ BASE's program for renewable energy mini-grids in Colombia has received USD 20 million from international donors and is working to connect people without access to electricity to their own, environmentally friendly electrical grid.⁷⁸ Besides Base, the UN Environment also maintains partnerships with other international organizations such as the Global Resource Information Database, The Global Environmental Facility, and the Environmental Management Group.⁷⁹

Case Study: Indian Solar Loan Program

From 2003 until 2007, the UN Environment, with assistance from the World Bank, operated a very successful solar loan program in India.⁸⁰ The USD 7.6 million dollar program was funded through assistance from the UN Foundation and the Shell Foundation.⁸¹ The original purpose of the project was to assist in developing a commercial market for solar home systems and other small solar power arrays in the Member State.⁸² The program operated by introducing a loan subsidy to local banks so that they could issue loans to targeted, rural households to assist with the installation of solar electricity.⁸³ Since the program began, it dispersed over 19,000 loans to over 2,000 local banking institutions.⁸⁴ Most importantly, the program connected over 100,000 people in 18,000 households to a steady source of electricity.⁸⁵

The program ended in 2007 at the end of its five-year test.⁸⁶ Overall, the program was largely successful. Post-project surveys found that most people signed up to the program because of the unreliability of the electricity supply

⁷¹“Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁷² “Global Trends in Renewable Energy Investment Report 2018,” Frankfurt School, (accessed May 22, 2018).

⁷³ “Collaborating Centre for Climate and Sustainable Energy Finance,” Frankfurt School, (accessed May 22, 2018).

⁷⁴ “Advisory Projects,” FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance, <http://fs-unep-centre.org/content/advisory-projects> (accessed May 22, 2018)

⁷⁵ “Projects,” FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance, <http://fs-unep-centre.org/projects> (accessed May 22, 2018)

⁷⁶ “About Us,” Basel Agency for Sustainable Energy, <http://energy-base.org/about/about-us/> (accessed June 23, 2018)

⁷⁷ “Projects,” Basel Agency for Sustainable Energy, <http://energy-base.org/projects/> (accessed June 23, 2018)

⁷⁸ “Renewable Energy Mini-Grids in Colombia,” Basel Agency for Sustainable Energy, <http://energy-base.org/project/renewable-energy-mini-grids-in-colombia/> (June 23, 2018).

⁷⁹ “About UN Environment: Partners,” United Nations Environment Programme, <http://web.unep.org/about/structure/organizational-structure/partners> (accessed June 23, 2018).

⁸⁰“Case Study 12: India-Solar Loan Programme,” The World Bank, <http://documents.worldbank.org/curated/en/705531468044087575/pdf/761230BRI0REFI00Box374367B00PUBLIC0.pdf> (accessed May 21, 2018).

⁸¹ Jim Sniffen, “UNEP’s India Solar loan Programme Wins Energy Globe,” United Nations Environment Programme, press release, April 13, 2007, <http://www.solutions-site.org/node/258> (accessed May 21, 2018).

⁸² “Solar Loans Light Up Rural India,” BBC NEWS, April 29, 2007, <http://news.bbc.co.uk/2/hi/science/nature/6600213.stm> (accessed June 25, 2018).

⁸³ “Solar Loans Light Up Rural India,” BBC NEWS, (accessed June 25, 2018).

⁸⁴Case Study 12: India-Solar Loan Programme,” The World Bank, <http://documents.worldbank.org/curated/en/705531468044087575/pdf/761230BRI0REFI00Box374367B00PUBLIC0.pdf> (accessed May 21, 2018).

⁸⁵ Jim Sniffen, “UNEP’s India Solar loan Programme Wins Energy Globe,” United Nations Environment Programme, press release, April 13, 2007, <http://www.solutions-site.org/node/258> (accessed May 21, 2018).

⁸⁶ “Solar Loans Light Up Rural India,” BBC NEWS, (accessed June 25, 2018).

in the area and participants gave overwhelmingly positive reviews.⁸⁷ The program went on to win the Energy Globe, the world award for sustainability in 2007.⁸⁸ However, the project was limited in its scope in that it was only available to households living above the poverty level, who were determined able to pay back the loan in five years, and was largely focused only in the Karnataka State of India.⁸⁹

The success of the India solar-loan program went on to spur the creation of the Indonesia Solar Loan Program initiated by UN Environment and the Government of Germany that expired in 2011.⁹⁰ A sister program was also launched in Tunisia, where a USD 1.5 million dollar program installed over 16,000 solar water heaters in 2006 and 2007.⁹¹ The success also caused the creation of several more solar-water heating loan programs to Morocco, Algeria, and Chile.⁹² In addition, similar projects have been launched in other parts of the world without the UN's backing. In 2016, the Asian Development Bank agreed to lend Pakistan USD 325 million to fund the installation of micro-hydropower plants and rooftop solar arrays across Khyber Pakhtunkhwa Province, one of the poorest regions in the country.⁹³

Conclusion

Over the past four decades, UN Environment has made great strides in implementing sustainable solutions and living up to the Millennium Development Goals, the Sustainable Development Goals, and the Paris Climate Accord. Small-scale projects across every continent have been established and connections with non-profit organizations and private companies have spurred innovation. Nevertheless, much work remains to be done. With over a billion people without power around the world, the UNEP-CPR has a great opportunity to develop and implement solutions. But beyond that, the Member States of this body must address all facets of green energy infrastructure from research of new technologies, to funding of projects, to the implementation and deployment of those projects to every corner of the globe.

Committee Directive

As the Committee of Permanent Representatives gathers once more this November, the Member States are encouraged to look to the past for ways to improve the future as well as look to the global for ways to improve the local. How can we take policies and initiatives we have adopted and pioneered for decades and adapt them for a new generation? How can we change our thinking to perhaps open doors for global partnership or measuring program effectiveness? Lastly, a global body adapt solutions to target specific regions, countries, provinces, cities, and towns? Solutions to these questions can help guide our committee this November and, in the years, and decades to come.

⁸⁷ Santosh M. Harish, Kaveri K. Iychettira, Shuba V. Raghavan, and Milind Kandlikar, "Adoption of Solar Home Lighting Systems in India: What Might we Learn from Karnataka?" Energy Policy Volume 62, November 2013, <https://www.sciencedirect.com/science/article/pii/S0301421513007283?via%3Dihub> (accessed May, 21 2018).

⁸⁸ Sniffen, "UNEP's India Solar loan Programme Wins Energy Globe," United Nations Environment Programme, (accessed May 21, 2018).

⁸⁹ Sniffen, "UNEP's India Solar loan Programme Wins Energy Globe," United Nations Environment Programme, (accessed May 21, 2018).

⁹⁰ "Indonesia Solar Loan Programme," FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance, <http://fs-unesp-centre.org/projects/indonesia-solar-loan-programme> (accessed May 21, 2018).

⁹¹ "Building on Success, UN-backed Solar Energy Project Poised for Expansion," UN News Centre, April 30, 2007, <http://www.un.org/news/dh/pdf/english/2007/30042007.pdf> (accessed July, 27, 2018).

⁹² "Solar Loans Light Up Rural India," BBC NEWS, April 29, 2007, <http://news.bbc.co.uk/2/hi/science/nature/6600213.stm> (accessed June 25, 2018).

⁹³ "Global Trends in Renewable Energy Investment Report 2018," Frankfurt School, (accessed May 22, 2018).

Topic II: Promoting Global Collaboration in Responding to Sea Level Rise

“Sea ice is at a historic low; sea levels are at a historic high, threatening the existence of low-lying island nations and cities.” – the honorable Secretary-General António Guterres⁹⁴

Introduction

Last year, the honorable United Nations (UN) Secretary-General António Guterres gave an address regarding climate change to New York University.⁹⁵ He highlighted the effects of climate change already being seen including coral bleaching, glacial retreat, and melting ice caps.⁹⁶ Sea level rise and global warming are a reality agreed upon by innumerable scientists and must be addressed immediately.⁹⁷ As carbon dioxide (CO₂) levels rise, the planet warms, causing ice caps and glaciers to melt into the ocean and raise sea levels.⁹⁸ The rate of sea level rise is predicted to increase over the next several decades, reaching up to one meter by the year 2100.⁹⁹

Rising sea levels threaten crucial ecosystems worldwide, as well as billions of people’s homes, livelihoods, and health. It is essential the United Nations Member States, and, specifically, the UN Environment Programme (UN Environment) respond to rising sea levels. There are two major avenues of response, as provided in the Intergovernmental Panel on Climate Change (IPCC)’s 2014 Report: mitigation and adaptation.¹⁰⁰ Mitigation involves limiting damage that we are experiencing right now, and adaptation requires finding solutions to prevent further global warming from occurring.¹⁰¹ Much has been accomplished through the UN Framework Convention on Climate Change (UNFCCC), in treaties like the Kyoto Protocol and Paris Climate Accord, to ensure carbon emissions and temperature increases are minimized and the corresponding effects of climate change are mitigated. However, there are opportunities within these treaties to improve and better address rising sea levels. With extensive data on sea level rise, advanced information-sharing technologies, and the belief humanity can and will live through significant sea level rise, it is the task of this body to promote global cooperation in responding to this impending consequence of global warming.

History

Historical data from the 19th century forward shows sea levels are rising, and they are rising faster than at any point in the last six millennia.¹⁰² During the 20th century, sea levels rose a total of 13-20 centimeters. This rise coincides with the dawn of the Industrial Revolution and, more specifically, when humans began generating high levels of CO₂ with factories, increased livestock production, and motor vehicles.¹⁰³ Further, scientists believe that, even if surface temperatures were stabilized today, sea levels will continue to rise over the next century or longer due to the damage previously inflicted.¹⁰⁴

The UN Environment was established in 1972 when concepts like climate change and global warming were still being solidified.¹⁰⁵ By the end of the following decade, it was clear more information and a means to monitor the

⁹⁴ António Guterres, “Address on Climate Action at New York University Stern School of Business” (speech, New York, NY, May 30, 2017), United Nations Secretary-General, <https://www.un.org/sg/en/content/sg/speeches/2017-05-30/secretary-generals-climate-action-address> (accessed June 13, 2018).

⁹⁵ Guterres, “Address on Climate Action” (accessed June 13, 2018).

⁹⁶ Guterres, “Address on Climate Action” (accessed June 13, 2018).

⁹⁷ Guterres, “Address on Climate Action” (accessed June 13, 2018).

⁹⁸ *IPCC Climate Change 2014: Synthesis Report*, eds. Core Writing Team, R.K. Pachauri, and L.A. Meyer (Geneva, Switzerland: IPCC, 2014), <https://www.ipcc.ch/report/ar5/syr/> (accessed June 13, 2018).

⁹⁹ *IPCC 2014 Synthesis Report*, 74.

¹⁰⁰ *IPCC 2014 Synthesis Report*.

¹⁰¹ *IPCC 2014 Synthesis Report*.

¹⁰² The Ocean Portal Team, “Sea Level Rise,” *Smithsonian*, April 2018, <https://ocean.si.edu/through-time/ancient-seas/sea-level-rise> (accessed June 13, 2018).

¹⁰³ The Ocean Portal Team, “Sea Level Rise.” (accessed June 13, 2018).

¹⁰⁴ *IPCC 2014 Synthesis Report*.

¹⁰⁵ Karen Mingst, “United Nations Environment Programme,” *Encyclopaedia Britannica* online, <https://www.britannica.com/topic/United-Nations-Environment-Programme> (accessed June 13, 2018).

effects was needed, which led to the creation of the IPCC.¹⁰⁶ The IPCC is tasked “to prepare, based on available scientific information, assessments on all aspects of climate change and its impacts, with a view of formulating realistic response strategies.”¹⁰⁷ Thus far, the Panel has generated five assessment reports (ARs) with the most recent, AR5, being published in 2014.¹⁰⁸ There are four parts to the Report: 1) Climate Change 2013: The Physical Science Basis, 2) Climate Change 2014: Impacts Adaptation, and Vulnerability, 3) Climate Change 2014: Mitigation of Climate Change, and 4) Climate Change 2014: Synthesis Report.¹⁰⁹ Each part focuses on a specific area of research regarding climate change, including sea level rise.¹¹⁰ The IPCC has begun working on the sixth AR to be published in 2022.¹¹¹ Aside from the IPCC, the UNFCCC was established during the 1992 Rio Earth Summit.¹¹² While the IPCC monitors all the effects of climate change, the UNFCCC has the specific goal of reducing greenhouse gas levels in the atmosphere so as to prevent the unnatural warming of the planet which will raise sea levels.¹¹³

Present Day and Future Projections

Numerous factors are contributing to rising sea levels. For instance, thermal expansion accounts for about a third of current sea level increases.¹¹⁴ Many assume that it is only water that has to be added to the oceans, via glaciers and ice sheets melting, in order for levels to rise. However, it is thermal expansion that causes current ocean waters to expand and occupy more volume. This occurs when liquids or objects are heated, and the atoms increase their movement and take up more space. As the Earth grows warmer, the oceans and seas will absorb this heat leading to greater thermal expansion and sea level rise.¹¹⁵

Aside from thermal expansion, melting ice caps and glaciers account for the other two-thirds of sea level rise.¹¹⁶ These stores of water are being affected on multiple fronts. On the surface, warmer temperatures melt ice from mountains and glaciers which, in turn, fails to be restored during warm winters. In places like Greenland, the Arctic, and Antarctica, warmer sea temperatures melt ice from the bottom up.¹¹⁷ One result of this combined warming is several large sections of various ice sheets have broken off in the last two decades, and this trend will only worsen as time goes on. Unfortunately, this was not the first or last occurrence of such a phenomenon, and cracks continue to form in the Arctic and Antarctic ice shelves.¹¹⁸ As stated in the IPCC’s AR5, “[o]ver the period 1993–2010, global mean sea level rise is, with high confidence, consistent with the sum of the observed contributions from ocean thermal expansion, due to warming, from changes in glaciers, the Greenland ice sheet, the Antarctic ice sheet and land water storage.”¹¹⁹

These causes of rising sea levels are having significant impacts on human populations and ecosystems. The IPCC forecasts a global rise in ocean levels of 30-100 centimeters by the year 2100.¹²⁰ Predictions from other organizations, such as the University Corporation for Atmospheric Research (UCAR) and National Center for Atmospheric Research (NCAR), forecast up to a two meter increase.¹²¹ Such a rise could push the coastline of

¹⁰⁶ “History,” *ipcc*, https://www.ipcc.ch/organization/organization_history.shtml (accessed June 12, 2018).

¹⁰⁷ “History,” *ipcc*. (accessed June 12, 2018).

¹⁰⁸ “Fifth Assessment Report,” *ipcc*, <https://www.ipcc.ch/report/ar5/> (accessed June 12, 2018).

¹⁰⁹ “Fifth Assessment Report,” *ipcc*. (accessed June 12, 2018).

¹¹⁰ “Fifth Assessment Report,” *ipcc*. (accessed June 12, 2018).

¹¹¹ “Home,” *ipcc*, <http://www.ipcc.ch/> (accessed June 12, 2018).

¹¹² “History of the Convention,” *United Nations Climate Change*, <https://unfccc.int/process/the-convention/history-of-the-convention#eq-2> (accessed June 13, 2018).

¹¹³ “History of the Convention,” *United Nations Climate Change*. (accessed June 13, 2018).

¹¹⁴ The Ocean Portal Team, “Sea Level Rise.” (accessed June 13, 2018).

¹¹⁵ The Ocean Portal Team, “Sea Level Rise.” (accessed June 13, 2018)

¹¹⁶ *IPCC 2014 Synthesis Report*.

¹¹⁷ The Ocean Portal Team, “Sea Level Rise.” (accessed June 13, 2018).

¹¹⁸ “State of the Cryosphere: Ice Shelves,” *NSIDC*, last modified June 22, 2018, <https://nsidc.org/cryosphere/sotc/iceshelves.html> (accessed June 22, 2018).

¹¹⁹ *IPCC 2014 Synthesis Report*.

¹²⁰ The Ocean Portal Team, “Sea Level Rise.”

¹²¹ “AtmosNews: Regional Climate Change – Multimedia Gallery,” *UCAR*, <https://www2.ucar.edu/news/regional-climate-change-multimedia-gallery> (accessed June 23, 2018).

Florida above Miami, displacing thousands.¹²² Additionally, a two meter increase could completely overwhelm many low-lying island Member States including, the Maldives, Tuvalu, and Kiribati.¹²³ Many species, both land and sea, could become extinct as atmospheric, weather, and water conditions transform.¹²⁴ Specifically, the loss of marine life will put stress on both marine ecosystems and fishing industries.¹²⁵ During an address to the Sixth Conference of the Parties (COP 6) in 2000, R. A. Bhagwan put this threat in perspective for Mauritius: “As an island State, we are at greater ecological and economical risks associated with adverse effects of climate change; [t]he threat to agriculture, tourism and fisheries, three of the main pillars of our economy, cannot be overestimated.”¹²⁶ Many other small island developing States (SIDS) are in similar predicaments as rising sea levels threaten the foundations of their economies and cultures.¹²⁷ While SIDS are in the most imminent danger, eventually, all of the Global South and North will have to face the consequences of higher sea levels.

Actions Taken by the UN

Both the UNFCCC and the IPCC have produced legislation addressing rising ocean levels, including the Kyoto Protocol and the Paris Agreement. The Kyoto Protocol went into effect in 2005, has 192 signatories, and sets specific greenhouse gas emissions reduction targets for developed Member States responsible for much of the world’s CO₂ production.¹²⁸ The first cycle of targets for the Kyoto Protocol was completed in 2012, and new objectives were adopted for 2020 via the Doha Amendment¹²⁹

The Paris Agreement, which went into effect in 2016, takes the Kyoto Protocol a step further and sets emissions goals for all Member States.¹³⁰ So far, 178 Member States have ratified the Agreement.¹³¹ There are also support systems built in for developing Member States to progress towards industrialization using clean energy.¹³² Overall, the Paris Agreement’s goal is to prevent the Earth’s temperature from rising more than two degrees Celsius by the end of this century.¹³³ Holding Member States to this goal will help limit sea level rise. These two pieces of legislature represent the culmination of decades of work and negotiation and are the highest achievement thus far on the international stage to address the threats posed by climate change and rising sea levels.

Both of the aforementioned treaties are examples of the UN addressing the “adaptation” aspect of climate change. When it comes to mitigation, there are several local, regional, and global efforts that have been developed. For example, the Adaptation Fund was created during 2001 UN Climate Change Conference (COP 7) in 2001 to help island Member States fund projects to protect themselves from the effects of climate change.¹³⁴ It falls under the purview and financial support of the UNFCCC, and the World Bank is the Trustee.¹³⁵ Recently, The Cook Islands received a USD three million grant from the fund to “strengthen its disaster risk governance, establish and implement a robust water monitoring, reporting and assessment system and revitalize its agricultural production systems.”¹³⁶ Additionally, The Cook Islands will use the money to improve food security and build infrastructure

¹²² “Susceptibility to Sea Level Rise,” digital image from University of Arizona, UCAR, <https://www2.ucar.edu/news/regional-climate-change-multimedia-gallery>, (accessed June 23, 2018).

¹²³ Stefan Ramsdorf, “Modeling Sea Level Rise,” *Nature*, 2012, <https://www.nature.com/scitable/knowledge/library/modeling-sea-level-rise-25857988> (accessed August 5, 2018)

¹²⁴ “Fifth Assessment Report,” *ipcc*, 67.

¹²⁵ “Fifth Assessment Report,” *ipcc*, 67.

¹²⁶ UNFCCC, “Climate Change: Small Island Developing States,” 25.

¹²⁷ UNFCCC, “Climate Change: Small Island Developing States.”

¹²⁸ “KP Introduction,” *United Nations Climate Change*, <https://unfccc.int/process/the-kyoto-protocol> (accessed June 14, 2018).

¹²⁹ “KP Introduction,” *United Nations Climate Change*.

¹³⁰ “The Paris Agreement,” *United Nations Climate Change*, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> (accessed June 14, 2018).

¹³¹ “Paris Agreement – Status of Ratification,” *United Nations Climate Change*, <https://unfccc.int/process/the-paris-agreement/status-of-ratification> (accessed June 26, 2018).

¹³² “The Paris Agreement,” *United Nations Climate Change*.

¹³³ “The Paris Agreement,” *United Nations Climate Change*.

¹³⁴ Adam Hodge, “With International Support, The Cook Islands Braces for Climate Change,” *UNEnvironment.org*, May 7, 2018, <https://www.unenvironment.org/news-and-stories/story/international-support-cook-islands-braces-climate-change> (accessed June 15, 2018).

¹³⁵ Hodge, “With International Support, The Cook Islands Braces for Climate Change.” (accessed June 15, 2018).

¹³⁶ Hodge, “With International Support, The Cook Islands Braces for Climate Change.” (accessed June 15, 2018).

that can withstand the stronger weather systems plaguing the Pacific.¹³⁷ Eight other Member States are in the process of meeting the requirements to receive the aid: Bhutan, Cambodia, Maldives, Nepal, Palau, Samoa, Sri Lanka, and Tuvalu.¹³⁸

Outside of the UN, the European Union (EU) has designated funding in its European Regional Development Fund (ERDF) and Cohesion Fund to assist projects regarding climate change.¹³⁹ For the 2014-2020 period, more than 500 major projects are anticipated.¹⁴⁰ At a workshop hosted by the UN Institute for Training and Research (UNITAR), members of the Central American Integration System (SICA) created a project to improve climate change education in El Salvador, Guatemala, Costa Rica, Panama, Honduras, the Dominican Republic, and Nicaragua.¹⁴¹

Bangladesh is working with the Netherlands to create the Bangladesh Delta Plan 2100.¹⁴² As the largest delta in the world, the Bangladesh Delta accounts for over three quarters of the country.¹⁴³ Floods, cyclones, and droughts plague this area of land, all of which will be worsened with increased sea levels.¹⁴⁴ Since this delta is Bangladesh's greatest natural resource and supports wildlife for the entire region, the government recognizes the importance of preserving it as Bangladesh moves towards industrialization.¹⁴⁵ Specifically, the Plan will protect the water from pollution and ill-uses, as well as ensure future construction projects are environmentally friendly.¹⁴⁶ While this piece of legislation is still being developed, it has the full support of both governments from Bangladesh and the Netherlands as well as international support. These examples highlight the numerous efforts underway to address rising sea levels and climate change.

Small Island Developing States (SIDS)

As mentioned previously, SIDS will be disproportionately impacted as sea levels continue to rise. Currently, 29 SIDS are signatories to the Kyoto Protocol. While they account for very little of CO₂ emissions, SIDS have a large stake in the overall success of this legislation.¹⁴⁷ As mentioned previously, a 2-meter sea level rise could completely engulf multiple SIDs leading to tens of thousands of climate change refugees.¹⁴⁸

The main impacts that SIDS are facing are shoreline erosion, increased flooding events, ocean acidification, damage to infrastructure, and warmer sea and land temperatures.¹⁴⁹ Already, over 34 million hectares of coral reef coverage was lost during the last 20 years, which could cost the international community USD 11.9 trillion with SIDS will bear the majority of this loss.¹⁵⁰ In certain parts of the Caribbean, entire coral reefs have been damaged by bleaching.¹⁵¹ By 2050, all reefs in the Caribbean will be threatened by bleaching.¹⁵² Coral reefs are important because they provide the marine life that many island Member States rely on for food and trade. For some SIDS, fisheries account for up to 12 percent of Gross Domestic Product (GDP).¹⁵³

¹³⁷ Hodge, "With International Support, The Cook Islands Braces for Climate Change." (accessed June 15, 2018).

¹³⁸ Hodge, "With International Support, The Cook Islands Braces for Climate Change." (accessed June 15, 2018).

¹³⁹ "Climate Change and Major Projects," *European Commission*,

https://ec.europa.eu/clima/sites/clima/files/docs/major_projects_en.pdf (accessed June 20, 2018).

¹⁴⁰ "Climate Change and Major Projects," *European Commission*. (accessed June 20, 2018)

¹⁴¹ "SICA Countries Define Their Next Regional Climate Change Learning Project," *UNITAR*, <http://www.unitar.org/sica-countries-define-their-next-regional-climate-change-learning-project> (accessed June 20, 2018).

¹⁴² "Bangladesh Delta Plan 2100," *Bangladesh Delta Plan 2100 Formulation Project*, <http://www.bangladeshdeltaplan2100.org/about/bangladesh-delta-plan-2100-bdp2100/> (accessed August 1, 2018).

¹⁴³ Bangladesh Delta Plan 2100," *Bangladesh Delta Plan 2100 Formulation Project*. (accessed August 1, 2018).

¹⁴⁴ Bangladesh Delta Plan 2100," *Bangladesh Delta Plan 2100 Formulation Project*. (accessed August 1, 2018).

¹⁴⁵ Bangladesh Delta Plan 2100," *Bangladesh Delta Plan 2100 Formulation Project*. (accessed August 1, 2018).

¹⁴⁶ Bangladesh Delta Plan 2100," *Bangladesh Delta Plan 2100 Formulation Project*. (accessed August 1, 2018).

¹⁴⁷ UNFCCC, "Climate Change: Small Island Developing States," *UNFCCC*, https://unfccc.int/resource/docs/publications/cc_sids.pdf (accessed June 14, 2018).

¹⁴⁸ Ramsdorf, "Modeling Sea Level Rise,"

¹⁴⁹ Shereen Zorba, "Sea-Level Rise in Small Island Nations to Cost US\$ Trillions: Shift to Green Policies and Investment Critical," *UN.org*, <http://www.un.org/climatechange/blog/2014/06/sea-level-rise-in-small-island-nations-up-to-fo/index.html> (accessed June 20, 2018).

¹⁵⁰ Zorba, "Sea-Level Rise in Small Island Nations." (accessed June 20, 2018).

¹⁵¹ Zorba, "Sea-Level Rise in Small Island Nations." (accessed June 20, 2018).

¹⁵² Zorba, "Sea-Level Rise in Small Island Nations." (accessed June 20, 2018).

¹⁵³ Zorba, "Sea-Level Rise in Small Island Nations." (accessed June 20, 2018).

Above the surface of the oceans, weather systems are becoming more severe due to the warmer water temperatures, and SIDS will have higher infrastructure costs both in the near future as well as long term as a result.¹⁵⁴ SIDS are also facing faster rates of rising sea levels.¹⁵⁵ One island in the Federated States of Micronesia has seen a rate of 10 mm per year, which is over three times the global rate of 3.2 mm per year, and other areas of the Pacific have seen rates as high as 12 mm per year.¹⁵⁶ One of the most important impacts from this increased rate is that shoreline infrastructure could be lost or require rebuilding in order to keep ports and docks running properly. Many islands, such as Barbados, import almost every significant good, including fuel, food, and building materials.¹⁵⁷ For SIDS like Maldives and Papua New Guinea, where over half of the land area is less than a meter above mean sea level, there are few options in terms of finding higher ground to utilize.¹⁵⁸

All of these consequences of climate change are threatening Member States whose populations are responsible for less than one percent of global carbon emissions.¹⁵⁹ The implementation green energy solutions could reduce energy costs for SIDS and allow national funds to be diverted to other needs, such as infrastructure.¹⁶⁰ As mentioned previously, there are many organizations, including the UN Environment that provide funds to SIDS to help adapt infrastructure and prepare for the impending threats, but the need for assistance is still great.

Conclusion

Rising sea levels are a problem the UN and all Member States must address, both individually and collectively. Ice caps are melting, coral reefs are being lost, and severe weather systems are increasing in strength and intensity. The UN Environment and UNFCCC have made, and are making, many efforts to curb the effects of climate change, while the Kyoto Protocol and Paris Agreement represent global cooperation and agreement that action is needed. While much has been done in the field of mitigation, much more needs to be done in terms of adapting to sea level rise. If current trends continue, multiple SIDS are at risk for being engulfed by sea water, which would result in tens of thousands of climate change refugees and people uprooted from their homes and livelihoods. The UNEP-CPR must be cognizant of this reality when crafting solutions to help curb the effects of rising sea levels.

Committee Directive

The UN has been examining and addressing climate change for over three decades. While progress has been made, many issues, including rising sea levels, are frequently passed on to future sessions. However, the time for debate and speculation has passed. Action and permanent solutions are needed now to prevent the predictions for this century, and beyond, from coming to pass. It is this body's responsibility to come together as one and pass binding resolutions which creates positive, lasting change.

Delegates are highly encouraged to find ways to improve current or past UN bodies, treaties, and programs, such as the Kyoto Protocol and Paris Agreement, as opposed to creating entirely new ones. This Committee should consider plans to aid SIDS in the event partial or total evacuations are necessary in the coming decades due to national disasters and/or permanent loss of land. Due to the availability of summarized data and possible solutions, it is highly recommended delegates review AR5, especially "Synthesis Report" and "Mitigation of Climate Change."¹⁶¹ As delegates prepare for conference, there are several questions that should guide research and position papers: How can current national efforts to mitigate/adapt to sea level rise be expanded into regional or global efforts? How can Member States increase international communication about sea level rise? What can be added to current treaties and agreements under the UNFCCC framework to further address sea level rise? Finding answers to these questions will help delegates bring ideas for solutions to conference which will be refined in committee.

¹⁵⁴ UNFCCC, "Climate Change: Small Island Developing States."

¹⁵⁵ Zorba, "Sea-Level Rise in Small Island Nations."

¹⁵⁶ Zorba, "Sea-Level Rise in Small Island Nations."

¹⁵⁷ UNFCCC, "Climate Change: Small Island Developing States."

¹⁵⁸ UNFCCC, "Climate Change: Small Island Developing States."

¹⁵⁹ Zorba, "Sea-Level Rise in Small Island Nations."

¹⁶⁰ Zorba, "Sea-Level Rise in Small Island Nations."

¹⁶¹ "Fifth Assessment Report," *ipcc*.

Annotated Bibliography

I: Expanding UN-Based Green Energy Infrastructure Programs in Developing Member States

Global Energy Transformation: A Roadmap to 2050. International Renewable Energy Agency. http://irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf (accessed August 19, 2018).

This report, compiled by the International Renewable Energy Agency in April 2018, lays out the current world situation regarding clean energy development and lays out an aggressive series of initiatives and focus areas that the world can focus on to effectively set a limit to Carbon dioxide emissions by 2050. The roadmap provides a path forward for the world to achieve the goal of the Paris Accord to keep the world below a 2-degree Celsius temperature increase.

Global Trends in Renewable Energy Investment: 2016. FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance. http://fsunepcentre.org/sites/default/files/publications/globaltrendsinrenewableenergyinvestment2016lowres_0.pdf (accessed August 19, 2018).

This report released by the UNEP and the Frankfurt School looks at the current state of investment in renewable energy around the globe. The report particularly looks at the different types of investments and the types of investment sources that are being used in both developing and developed countries.

Renewable Energy: Policy Considerations for Deploying Renewables. International Energy Agency. http://www.iea.org/publications/freepublications/publication/Renew_Policies.pdf (accessed August 19, 2018).

In 2011, the International Energy Agency, a group of 28 developed nations released this report aimed at current and future strategies for developing renewable energy. It includes a special section on ways to accelerate the advancement of renewable energy availability in developing countries and particularly looks at possibilities for rural electrification.

“The Paris Agreement.” *United Nations Climate Change*. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>. (Accessed June 14, 2018).

Signed in 2015 and ratified by 175 Member States, the Paris Agreement marked a seminal moment in the history of environmental progress. For the first time, a majority of the nations of the world agreed to do what they can to limit the rise in temperatures and the emission of carbon dioxide. The Paris Agreement should serve as the baseline for any future plans and agreements pursued by Member States.

United Nations: The New Climate Economy, “The Sustainable Infrastructure Imperative: Financing for Better Growth and Development,” <https://www.un.org/pga/71/wp-content/uploads/sites/40/2017/02/New-Climate-Economy-Report-2016-Executive-Summary.pdf> (accessed September 6, 2018)

In 2016, the United Nations released a report known as The New Climate Economy that looks at the true cost of implanting green energy infrastructure around the globe. The report includes a deep look at all levels of infrastructure development and offers ways forward for the world to improve their investment in green energy.

II: Promoting Global Collaboration in Responding to Sea Level Rise

IPCC Climate Change 2014: Synthesis Report, eds. Core Writing Team, R.K. Pachauri, and L.A. Meyer (Geneva, Switzerland: IPCC, 2014). <https://www.ipcc.ch/report/ar5/syr/> (Accessed June 13, 2018).

This part of the 5th IPCC Report depicts key information related to climate change. There are significant amounts of data and statistics, but also plenty of explanations to accompany them. Topic 1 covers the current changes due to climate change and the causes behind them. Included with the causes are probabilities of their likelihood of contributing to the observed deviations. Topic 2 examines changes that will be seen in the future and probabilities of their coming about. Lastly, Topics 3 and 4 cover adaptation and mitigation options. While all of the portions of the 5th Report are worth reading, the Synthesis Report has the most relevant information for delegates. Not only will it educate delegates on current and future effects of climate change, it provides examples of current mitigation and adaptation policies that could potentially be expanded or improved upon.

The Ocean Portal Team. “Sea Level Rise.” Smithsonian Institute, April 2018. <https://ocean.si.edu/through-time/ancient-seas/sea-level-rise>. (Accessed June 13, 2018).

While the Synthesis Report provides a wealth of information, this publication by the Smithsonian is slightly shorter and easier to read. Furthermore, it focuses on sea level rise more exclusively. After discussing rising levels of CO₂ in the atmosphere, the article examines the various ways the ice caps are melting and contributing to sea level rise, as well as other contributing factors. Next, the effects of this rise are highlighted, such as increased severe weather patterns and harm to wildlife. After that, some regional case studies are highlighted, including river deltas and island nations. Finally, the paper discusses the future of sea level rise and how people will need to adapt. Delegates looking for a place to begin their research should consider first reading this article, and then using specific data from the Synthesis Report to help further develop their ideas.

UNFCCC. “Climate Change: Small Island Developing States.” *UNFCCC*. https://unfccc.int/resource/docs/publications/cc_sids.pdf. (Accessed June 14, 2018).

Much of the information regarding SIDS comes from this report by the UNFCCC. While the first three articles discuss climate change and rising sea levels on the global stage, this article discusses the impending dangers SIDS are facing since they will be some of the first Member States to face the more severe consequences of global warming. After defining what constitutes a SIDS, the article examines the financial support systems in place for them currently. It also highlights how little SIDS are contributing to climate change. Next, the effects of climate change on both the planet and SIDS are looked at. Finally, adaptation measures are scrutinized. No matter the Member State delegates are representing, this committee needs to consider solutions for SIDS, and this article will be helpful in starting that process.

Adam Hodge. “With International Support, The Cook Islands Braces for Climate Change.” *UNEnvironment.org*. May 7, 2018. <https://www.unenvironment.org/news-and-stories/story/international-support-cook-islands-braces-climate-change>. (Accessed June 15, 2018).

While “Climate Change: Small Island Developing States” provides a large-scale view of the issues SIDS are facing, this article gives insights into a single country’s battle with rising sea levels. Although it is short, there is a wealth of information regarding the Adaptation Fund which is specially designed to provide Member States like The Cook Islands with financial assistance in preparing for the effects of climate change. A brief history of the Adaptation Fund is included along with an explanation of how the islands plan to use the funds. Not only should delegates consider this article when exploring solutions, they should also look for additional instances of SIDS receiving preemptive aid.