



New York City, NY, USA  
28 March - 1 April (Conf. A) / 5-9 April (Conf. B)



# United Nations Environment Assembly Background Guide 2021

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# NATIONAL MODEL UNITED NATIONS



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Dear Delegates,

Welcome to the 2021 National Model United Nations New York Conference (NMUN•NY)! We are pleased to introduce you to our committee, the United Nations Environment Assembly (UNEA). This year's staff is: Directors Vincent Carrier (Conference A) and Caitlin Hopper (Conference B), and Assistant Directors Ksenia Shevtsova (Conference A) and Eedee-Bari Bawoh (Conference B). Vincent completed his MSc in Biology at Laval University and is currently pursuing a PhD in Molecular Microbiology at the Arctic University of Norway in Tromsø and a MBA in Strategic Projects Management. Caitlin lives in Washington DC and works at the International Food Policy Research Institute. She is currently pursuing her Master's in Public Policy and Administration from Northwestern University. Ksenia holds an MA in International relations and works as an analyst in the field of Russia's foreign policy and its participation in intergovernmental organizations. Eedee-Bari is a legal practitioner and the founder of the charitable organization Voice to the Street.

The topics under discussion for United Nations Environment Assembly are:

- I. Climate Change and Health
- II. Ensuring Sustainable Consumption and Production
- III. Mitigation of and Adaptation to Desertification and Drought

As the governing body of the United Nations Environment Programme, the UNEA is the world's highest-level decision-making entity on matters concerning the environment. Membership of the UNEA has been universal since it was created in June 2012 during the UN Conference on Sustainable Development (RIO+20) to act as the "parliament of the environment." Member States meet biennially to provide leadership and establish priorities for environmental protection, foster intergovernmental collaboration, and build partnerships with civil society, the academic community, the private sector, and other stakeholders. It will be critical for delegates to understand the role and mandate of the UNEA in order to develop effective solutions to realize the environmental aspect of the 2030 Agenda for Sustainable Development.

This Background Guide serves as an introduction to the topics for this committee. However, it is not intended to replace individual research. We encourage you to explore your Member State's policies in depth and use the Annotated Bibliography and Bibliography to further your knowledge on these topics. In preparation for the Conference, each delegation will submit a Position Paper by 11:59 p.m. (Eastern) on 1 March 2021 in accordance with the guidelines in the [Position Paper Guide](#) and the [NMUN•NY Position Papers](#) website.

Two resources, available to download from the [NMUN website](#), that serve as essential instruments in preparing for the Conference and as a reference during committee sessions are the:

1. [NMUN Delegate Preparation Guide](#) - explains each step in the delegate process, from pre-Conference research to the committee debate and resolution drafting processes. Please take note of the information on plagiarism, and the prohibition on pre-written working papers and resolutions. Delegates should not start discussion on the topics with other members of their committee until the first committee session.
2. [NMUN Rules of Procedure](#) - include the long and short form of the rules, as well as an explanatory narrative and example script of the flow of procedure.

In addition, please review the mandatory [NMUN Conduct Expectations](#) on the NMUN website. They include the Conference dress code and other expectations of all attendees. We want to emphasize that any instances of sexual harassment or discrimination based on race, gender, sexual orientation, national origin, religion, age, or disability will not be tolerated. If you have any questions concerning your preparation for the committee or the Conference itself, please contact the Under-Secretaries-General for the Development Department, Lauren Kiser (Conference A) and Max Lacey (Conference B), at [usg.dev@nmun.org](mailto:usg.dev@nmun.org).

We wish you all the best in your preparations and look forward to seeing you at the Conference!

Sincerely,

**Conference A**

Vincent Carrier, *Director*

Ksenia Shevtsova, *Assistant Director*

**Conference B**

Caitlin M. Hopper, *Director*

Eedee-Bari Nuah Bawoh, *Assistant Director*

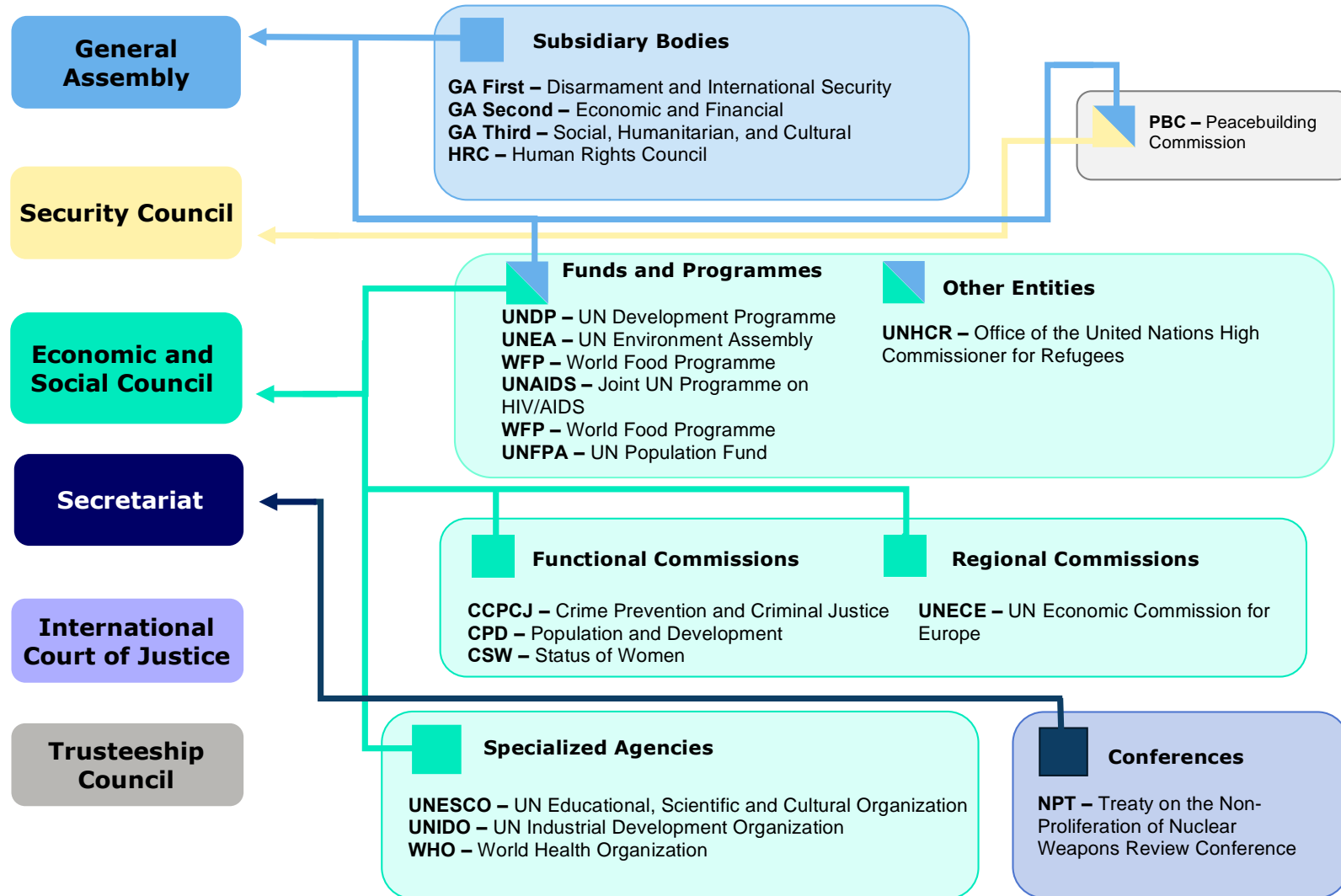


## Table of Contents

<b>United Nations System at NMUN•NY.....</b>	<b>2</b>
<b>Committee Overview.....</b>	<b>3</b>
Introduction .....	3
Governance, Structure, and Membership.....	4
Mandate, Functions, and Powers .....	5
Recent Sessions and Current Priorities.....	6
Conclusion .....	8
Annotated Bibliography.....	8
Bibliography .....	9
<b>I. Climate Change and Health.....</b>	<b>12</b>
Introduction .....	12
International Framework .....	13
Role of the International System .....	14
Influence of climate change on vector-borne diseases .....	15
Best Practices in Health and Climate Change .....	16
Conclusion .....	18
Further Research.....	18
Annotated Bibliography.....	18
Bibliography .....	20
<b>II. Ensuring Sustainable Consumption and Production .....</b>	<b>23</b>
Introduction .....	23
International and Regional Framework.....	24
Role of the International System .....	26
Unsustainable Production Patterns .....	28
Unsustainable Consumption.....	29
Conclusion .....	30
Further Research.....	30
Annotated Bibliography.....	31
Bibliography .....	32
<b>III. Mitigation of and Adaptation to Desertification and Drought .....</b>	<b>36</b>
Introduction .....	36
International and Regional Framework.....	37
Role of the International System .....	39
Land degradation, food security and threats to peace .....	40
Partnerships to combat desertification globally .....	42
Conclusion .....	43
Further Research.....	43
Annotated Bibliography.....	43
Bibliography .....	44

## United Nations System at NMUN•NY

This diagram illustrates the UN system simulated at NMUN•NY and demonstrates the reportage and relationships between entities. Examine the diagram alongside the Committee Overview to gain a clear picture of the committee's position, purpose, and powers within the UN system.



## Committee Overview

### Introduction

Twenty years after the adoption of the *Rio Declaration on Environment and Development* (1992), the United Nations Conference on Sustainable Development (Rio+20) called for the strengthening and upgrading of the United Nations Environment Programme (UN Environment) so that it could better execute its mandate.<sup>1</sup> In 2013, the 58-member Governing Council of UN Environment adopted resolution 27/2, which expanded the Governing Council to universal membership and requested the General Assembly to change its designation to the United Nations Environment Assembly (UNEA), which was done with General Assembly resolution 67/251 of the same year.<sup>2</sup> UNEA is the governing body of UN Environment and is the international community's highest-level decision-making body on environmental matters.<sup>3</sup> UNEA's universal membership strengthens its own role and the role of UN Environment in international affairs and is designed to increase the responsiveness of Member States in developing environmental policy.<sup>4</sup> UNEA meets biennially and has held four regular sessions, the most recent of which was held in March 2019 with the theme "Innovative Solutions to Environmental Challenges and Sustainable Consumption and Production."<sup>5</sup> The upcoming fifth session will be held in February 2021, the theme of which is "Strengthening Actions for Nature to Achieve the Sustainable Development Goals."<sup>6</sup>

At NMUN•NY 2021, we are simulating the Environment Assembly in terms of composition and size. In addition to making budgetary and programmatic decisions for the United Nations Environment Programme, the Assembly may propose global priorities, policies, and legal frameworks under the mandate of UN Environment.

UNEA is mandated to "ensure the active participation of all relevant stakeholders in the governance of [UN Environment] and to promote a strong science-policy interface."<sup>7</sup> UNEA is also tasked with making major strategic and policy decisions at the international level, which UN Environment then works to promote and implement.<sup>8</sup> UNEA works with Member States, regional bodies, UN entities, and Civil Society Organizations in order to achieve these goals.<sup>9</sup>

UN Environment was a result of a concerted effort made during the 1972 UN Conference on Human Environment in Stockholm, Sweden.<sup>10</sup> Subsequently, the General Assembly established UN Environment as the official body concerned with environmental issues within the United Nations (UN).<sup>11</sup> Since 1972, UN Environment has played a significant role in coordinating environmental policy across the UN system.<sup>12</sup> UNEA governs and sets policy for UN Environment, whose mission is to "provide leadership and encourage partnership in caring for the environment" in order to develop environmental-friendly practices and policies in the UN system.<sup>13</sup> UN Environment is a UN program that encourages international, regional, and local coordination for environmental issues, while also ensuring various other

<sup>1</sup> UN General Assembly, *The Future We Want (A/RES/66/288)*, 2012, p. 18.

<sup>2</sup> UN Environment Assembly, *About the United Nations Environment Assembly*.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> UN Environment Assembly, *Fifth session of the United Nations Environment Assembly*.

<sup>7</sup> UN Environment, *United Nations Environment Assembly of the UNEP (UNEA)*.

<sup>8</sup> UN Environment, *Engaging with UN Environment Assembly and Member States*.

<sup>9</sup> Ibid.

<sup>10</sup> United Nations Conference on the Human Environment, *Report of the United Nations Conference on the Human Environment (A/CONF.48/14/Rev.1)*, 1972.

<sup>11</sup> UN General Assembly, *Institutional and financial arrangements for international environmental cooperation (A/RES/2997(XXVII))*, 1972.

<sup>12</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2017-18*, 2017, pp. 256-257.

<sup>13</sup> UN Environment, *About UN Environment*.

UN entities take environmental impacts into account when executing their missions.<sup>14</sup> UN Environment reports both to the General Assembly and the Economic and Social Council (ECOSOC).<sup>15</sup>

UN Environment served as the secretariat and was a main contributor for the planning and execution of the UN Conference on Environment and Development (UNCED) in 1992, the outcomes of which included the *Rio Declaration on Environment and Development* and *Agenda 21*.<sup>16</sup> These landmark documents revolutionized the international community's approach to environmental issues and provided further guidance and renewed support for UN Environment's role in international cooperation on environmental protection.<sup>17</sup> UNCED marked a turning point for international collaboration to preserve biodiversity and the climate with the *Convention on Biological Diversity* (1992) and the *UN Framework Convention on Climate Change* (1992) both opening for signature at the summit.<sup>18</sup> The *Convention to Combat Desertification* (1994), another major agreement, was adopted two years later.<sup>19</sup> While the three Rio Conventions are each administered by their own secretariat, UN Environment assisted in negotiating the conventions and was tasked with promoting their implementation through *Agenda 21*.<sup>20</sup>

### **Governance, Structure, and Membership**

In 2013, UNEA became the designated policy-making body of UN-Environment, superseding the original 58-member Governing Council.<sup>21</sup> UNEA has universal membership, meaning that all 193 UN Member States are represented in the Assembly, along with the United Nations non-voting permanent observers.<sup>22</sup> UNEA meets biennially to set priorities for global environmental policy, discuss developments for environmental legislation, and assist in the implementation of the *2030 Agenda for Sustainable Development*.<sup>23</sup> The UN Environment Secretariat is responsible for supporting UNEA and consists of a rotating President, three Vice-Presidents, and a Rapporteur.<sup>24</sup> The President for the fifth UNEA session is H.E. Mr. Sveinung Rotevatn of Norway.<sup>25</sup> The Bureau is elected during the final meeting of a regular session to oversee the general conduct of business of the UNEA.<sup>26</sup> The Committee of Permanent Representatives (CPR) is the subsidiary inter-sessional organ to the UNEA and meets at least four times a year.<sup>27</sup> The CPR performs functions, also strengthened by Governing Council Decision 27/2, such as: (a) contribute to the preparation of the UNEA agenda, (b) hold an advisory role in policy matters within the UNEA, (c) monitor the implementation of its decisions, (d) hold thematic and/or programmatic debates, (e) promote the inclusion of non-resident members of the Committee, and (f) perform any other functions delegated by UNEA.<sup>28</sup> CPR is composed of all accredited Permanent Representatives to UN Environment and is led by a five-member bureau that is elected for two years.<sup>29</sup>

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<sup>14</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2017-18*, 2017, p. 256.

<sup>15</sup> *Ibid.*, pp. 256-257.

<sup>16</sup> Johnson, S., *UNEP, The First 40 Years: A Narrative*, 2012, pp. 127-128.

<sup>17</sup> *Ibid.*, pp. 137-139.

<sup>18</sup> Convention on Biological Diversity, *The Rio Conventions*.

<sup>19</sup> *Ibid.*

<sup>20</sup> Johnson, S. *UNEP, The First 40 Years: A Narrative*, 2012, pp. 155-156.

<sup>21</sup> UN General Assembly, *Institutional and financial arrangements for international environmental cooperation (A/RES/2997(XXVII))*, 1972.

<sup>22</sup> UN Environment, *Directory: Committee of Permanent Representatives to the UN Environment*, 2019, p. 4.

<sup>23</sup> UN Environment Assembly, *About the United Nations Environment Assembly*.

<sup>24</sup> UN Environment, *Rules of Procedure of the United Nations Environment Assembly of the United Nations Environment Programme (UNEP/EA.3/3)*, 2016.

<sup>25</sup> UNEA, *UNEA 5 Presidency and Bureau*.

<sup>26</sup> UN Environment, *Rules of Procedure of the United Nations Environment Assembly of the United Nations Environment Programme (UNEP/EA.3/3)*, 2016.

<sup>27</sup> UN Environment Assembly, *Committee of Permanent Representatives*.

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

UN Environment relies on three main financial sources to facilitate its agenda: earmarked funds, the Environment Fund, and the UN Regular Budget.<sup>30</sup> Earmarked funds, also known as earmarked contributions, are funds appropriated for specific projects, themes, or countries.<sup>31</sup> These funds aim to expand and/or replicate the results of UN Environment’s work in more countries and with more partners.<sup>32</sup> The Environment Fund aids in maintaining the capacity, balance, and efficiency needed for UN Environment to function.<sup>33</sup> When contributing to the Environment Fund, Member States are encouraged to make financial contributions to the fund based upon the Voluntary Indicative Scale of Contributions (VISIC), which considers their respective socio-economic background to determine the predictability of a continued financial contribution.<sup>34</sup> The UN Regular Budget supports the functions of the Secretariat and its respective governing bodies, as well as the coordination of the UN Environment with the UN system and cooperation with global scientific communities.<sup>35</sup> From 2018 to 2019, about 80% of UN Environment’s income was comprised of earmarked contributions, while the Environment Fund made up about 15% and the UN Regular Budget made up about 5%.<sup>36</sup> Earmarked contributions and the Environment Fund are comprised of voluntarily contributions, hence 95% of UN Environment’s income is received on a voluntary basis from Member States.<sup>37</sup>

### **Mandate, Functions, and Powers**

With the adoption of General Assembly resolution 2997 of 1972 on “Institutional and financial arrangements for international environmental cooperation,” UN Environment was created with a mandate to “promote international and regional environmental cooperation, develop environmental policy, highlight global and regional problems, facilitate the transfer of scientific knowledge, assist developing Member States in environmental matters, review reports of the Executive Director, and approve the annual program on the allocation of the Environment Fund.”<sup>38</sup> The first expansion of UN Environment’s mandate came after the *Rio Declaration on Environment and Development* (1992) via *Agenda 21*, which outlined a list of priority areas for UN Environment’s future work and called for the program to gain “access to greater expertise and... adequate financial resources,” as well as closer collaboration with the rest of the UN system to fulfil these new tasks.<sup>39</sup>

In 1997, during its 19<sup>th</sup> regular session, the Governing Council of UN Environment held a discussion on the future role of the UN Environment, which resulted in the adoption of the *Nairobi Declaration on the Role and Mandate of the United Nations Environment Programme* (1997).<sup>40</sup> As the 19<sup>th</sup> special session of the General Assembly was scheduled to address the implementation of *Agenda 21* later that year, the *Nairobi Declaration* represented a call to the UN system and its Member States to acknowledge UN Environment’s role.<sup>41</sup> The General Assembly endorsed the *Nairobi Declaration* (1997), which reaffirmed and established UN Environment’s mandate “as the leading global environmental authority.”<sup>42</sup>

UN Environment’s authority was further affirmed by former Secretary-General Kofi Annan, who advocated for the reform and strengthening of its role as “the focal point for harmonization and coordination of

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<sup>30</sup> UN Environment, *Funding Facts*.

<sup>31</sup> Ibid.; UN Environment, *Earmarked Funds*.

<sup>32</sup> UN Environment, *Funding Facts*; UN Environment, *Earmarked Funds*.

<sup>33</sup> UN Environment, *Funding Facts*.

<sup>34</sup> UN Environment Assembly, *Environment Fund*.

<sup>35</sup> UN Environment, *Funding Facts*.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> UN General Assembly, *Institutional and financial arrangements for international environmental cooperation (A/RES/2997(XXVII))*, 1972.

<sup>39</sup> UN Conference on Environment and Development, *Agenda 21*, 1992, par. 38.21-38.23.

<sup>40</sup> Johnson, S., *UNEP The First 40 Years: A Narrative*, 2012, p. 155.

<sup>41</sup> Ibid.

<sup>42</sup> UN General Assembly, *Programme for the Further Implementation of Agenda 21 (A/RES/S-19/2)*, 1997, par. 123; Governing Council of UN Environment, *Proceedings of the Governing Council at its Nineteenth Session (UNEP/GC.19/34)*, 1997, pp. 52-56.

environment-related activities.<sup>43</sup> In October 1998, the General Assembly reported a set of recommendations that further modified UN Environment’s mandate, as per recommendations made by the UN Task Force on Environment and Human Settlements.<sup>44</sup> As a result of one of the recommendations, the UN Environment Management Group (EMG) was created with the Executive Director of UN Environment serving as its chairperson.<sup>45</sup> A key purpose of the EMG is to coordinate information-sharing and facilitate discussion on essential priorities in order to ensure the most efficient and cost-effective allocation of resources.<sup>46</sup>

As the governing body of UN Environment, UNEA develops international environmental law and policy that serves as a catalyst for intergovernmental action through the practice of multilateral agreement.<sup>47</sup> Under UNEA’s guidance, UN Environment assesses the environment on a global, regional, and national scale and uses that information to hold relevant stakeholders accountable in developing proper action.<sup>48</sup> As the UN recognizes climate change as the predominant issue in its global-civic efforts, UN Environment continues to partner with various stakeholders to highlight the complexity of environmental issues in terms of conflict, disaster, security, and education.<sup>49</sup> UNEA often hosts intersessional events and forums with these stakeholders to build and foster support for UN Environment initiatives.<sup>50</sup> UNEA also has the ability to create ad hoc committees and subsidiary bodies to implement specific environmental objectives when necessary.<sup>51</sup>

### **Recent Sessions and Current Priorities**

With the adoption of the *2030 Agenda on Sustainable Development*, the responsibility of UN Environment has shifted towards addressing environmental protection as part of an integrated vision of sustainable development, rather than addressing environmental issues in a silo.<sup>52</sup> UN Environment assesses that 86 of the 169 targets across the 17 Sustainable Development Goals (SDGs) are concerned with environmental sustainability.<sup>53</sup> The paradigm change toward an integrated approach is reflected in the *Medium Term Strategy 2018-2021*, which envisions UN Environment as providing “an environmental lens through which to view, understand and advise on sustainable development.”<sup>54</sup> UN Environment’s *Medium Term Strategy 2018-2021* outlines seven thematic 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.<sup>55</sup> It also highlights five operating principles to guide the agency’s actions and decisions.<sup>56</sup> Those principles include the adoption of a globally coherent and locally responsive approach, the use of results-based management, the development of synergy from strategic partnerships between stakeholders, the strengthening of regional presence to tailor efforts to the needs of regions, and the integration of environment-related frameworks in other UN entities’ thematic or

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<sup>43</sup> UN General Assembly, *Renewing the United Nations: A Programme for Reform (A/51/950)*, p. 58.

<sup>44</sup> UN General Assembly, *Environment and human settlements: Report of the Secretary-General (A/53/463)*, 1998.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> UN Environment Assembly, *About the United Nations Environment Assembly*.

<sup>48</sup> UN Environment, *Programme Performance Report 2016*, 2016, p. 57.

<sup>49</sup> Ibid., p. 32.

<sup>50</sup> World Animal Net, *United Nations Environment Assembly: A Guidance Document for Animal Protection Organizations*, p. 5.

<sup>51</sup> UNEA, *Ministerial declaration of the United Nations Environment Assembly at its fourth session: Innovative solutions for environmental challenges and sustainable consumption and production (UNEP/EA.4/HLS.1)*, 2019.

<sup>52</sup> UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015; UN Environment Assembly, *Delivering on the environmental dimensions of the 2030 Agenda: Information note of the Executive Director (UNEP/EA.2/INF/4)*, 2016.

<sup>53</sup> UN Environment Assembly, *Delivering on the environmental dimensions of the 2030 Agenda: Information note of the Executive Director (UNEP/EA.2/INF/4)*, 2016, p. 1.

<sup>54</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016, p. 2.

<sup>55</sup> Ibid., p. 16.

<sup>56</sup> Ibid., p. 12.



functional areas.<sup>57</sup> UNEA is currently developing UN Environment’s new medium-term strategy for 2022-2025, which will analyze the impacts of current UN management and governance reform and set strategic priorities for UN Environment’s operations in the allotted timeframe.<sup>58</sup>

The fourth and most recent regular session of UNEA took place in March 2019, and was entitled “Innovative Solutions for Environmental Challenges and Sustainable Consumption and Production.”<sup>59</sup> The fourth regular session emphasized three thematic priorities: “(a) Environmental challenges related to poverty and natural resources management, including food systems, food security and halting biodiversity loss; (b) Life-cycles approaches to resource efficiency, energy, chemicals and waste management; and (c) innovative sustainable business development at a time of rapid technological change.”<sup>60</sup> A key outcome of the fourth regular session was the *Ministerial declaration of the United Nations Environment Assembly (2019)*, that made 19 key actions which exemplified a concerted effort to address environmental challenges by Member States.<sup>61</sup> A few of these actions entail improving global resource management strategies, the promoting and sharing of innovative knowledge sharing, and the engagement of environmental research and relevant stakeholders.<sup>62</sup> By continuing to foster sustainable development as an integrated effort, UNEA agreed to continue its mandate in overcoming common environmental challenges by: distinguishing innovative solutions, promoting the use of environmental data and its sharing, along with the engagement of pertinent stakeholders, such as civil society members, those from academia, and the private sector.<sup>63</sup>

The next and fifth session of UNEA will take place from the 22 to 26 of February 2021.<sup>64</sup> The theme of the session is “Strengthening Actions for Nature to Achieve the Sustainable Development Goals.”<sup>65</sup> At the fifth session, UNEA will continue to mobilize Member States and stakeholders to implement and achieve the 2030 Agenda and the Sustainable Development Goals (SDGs), with a conscious focus on nature-based solutions.<sup>66</sup> The theme calls for a concerted effort in enhancing the protection and restoration of nature, but the main goal of the fifth session will aim to consolidate global environmental action and highlight the eradication of poverty and “sustainable patterns of consumption and production.”<sup>67</sup> During this session, UNEA hopes to streamline environmental actions within the UN system within the context of sustainable development and find means of more effective implementation of policies.<sup>68</sup> UNEA 5 will also consider a renewed review process for UNEA and its subsidiary bodies as well as a new strategy for private sector engagement.<sup>69</sup>

UN Environment has created and re-focused some of its work in order to adequately respond to and “build back better” after COVID-19.<sup>70</sup> UN Environment recently led a discussion at the High-level Political Forum on Sustainable Development regarding opportunities to jumpstart and rebuild economies through green recovery plans which are aligned with the *2030 Agenda for Sustainable Development*.<sup>71</sup> UN environment’s COVID-19 work also includes sustainable and climate-resilient economic recovery, especially for economies dependent on eco-tourism and biodiversity; sustainable consumption and

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<sup>57</sup> Ibid.p. 2.

<sup>58</sup> UNEA, *Draft roadmap to the development of UNEP’s Medium-Term Strategy 2022-2025*, 2019.

<sup>59</sup> UN Environment Assembly, *Theme of the fourth Session of the UN Environment Assembly*.

<sup>60</sup> Ibid.

<sup>61</sup> UNEA, *Ministerial declaration of the United Nations Environment Assembly at its fourth session: Innovative solutions for environmental challenges and sustainable consumption and production (UNEP/EA.4/HLS.1)*, 2019.

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>64</sup> UN Environment Assembly, *Fifth session of the United Nations Environment Assembly*.

<sup>65</sup> Ibid.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

<sup>69</sup> UN Environment, *Briefing note on UNEA 4 and UNEA 5 for relevant regional ministerial or expert meetings*.

<sup>70</sup> UN Environment, *COVID-19 updates from UNEP*.

<sup>71</sup> UN Environment, *Recovering better: Global opportunities to jumpstart the real economy*.

production during coronavirus quarantining procedures; and future prevention of zoonotic diseases.<sup>72</sup> These COVID-19 recovery plans would emphasize building resilience, ensuring prosperity, and engaging with economic stakeholders, especially local actors and the private sector.<sup>73</sup> UN Environment has also been responding to regional action plans developed in response to COVID-19 and how these regional action plans can influence global response to the pandemic and its aftermath.<sup>74</sup>

### **Conclusion**

The reform of UN Environment at the start of the 1990s redefined its thematic role within the UN system and highlighted the importance of addressing environmental issues on a global scale.<sup>75</sup> UNEA's inception represents a key step in UN Environment's mission to ensure the work of all UN entities, its Member States, and respective stakeholders aim to be environmentally sustainable and align with international laws and policies concerning the environment.<sup>76</sup> The establishment of an international authority for environmental issues with a universal membership reflects the need for an integrated and comprehensive approach for environmental protection.<sup>77</sup> The *Ministerial Declaration* from the fourth session of UNEA will elicit further global effort to meet a multidimensional environment, but will also aim to address capacity building and pivot on socio-economic enhancement for sustainable development.<sup>78</sup> Moreover, a retroactive assessment of nature-based solution will reaffirm the necessity of a healthy ecosystem.<sup>79</sup> Nonetheless, as the world continues to face alarming implications of climate change and the global recovery from COVID-19, UNEA continues to be a key leader in achieving global sustainable development.<sup>80</sup>

### **Annotated Bibliography**

United Nations Environment Assembly. (2016). *Delivering on the environmental dimensions of the 2030 Agenda: Information note of the Executive Director (UNEP/EA.2/INF/4)*. Retrieved 21 August 2020 from: <http://undocs.org/UNEP/EA.2/INF/4>

*In this information note delivered to the High-Level Segment of UNEA-2 (2016), UNEP's Executive Director outlines the strategic vision of the Programme for the implementation of the 2030 Agenda. According to UN Environment's assessment, at least 86 of the 169 SDG targets are immediately concerned with environmental sustainability. The note presents a detailed overview of the links between UN Environment's agenda and the SDGs and suggests several overarching principles and concrete measures to ensure that the Programme contributes to the success of the 2030 Agenda. Through this resource, delegates can acquire a better understanding of UN Environment's role in the 2030 Agenda, including its institutional connections within the UN system.*

United Nations Environment Assembly. (2019). *Ministerial declaration of the United Nations Environment Assembly at its fourth session: Innovative solutions for environmental challenges and sustainable consumption and production (UNEP/EA.4/HLS.1)*. Retrieved 21 August 2020 from: <http://wedocs.unep.org/bitstream/handle/20.500.11822/28463/K1901029.pdf>

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<sup>72</sup> UN Environment, *COVID-19 updates from UNEP*.

<sup>73</sup> UN Environment, *Recovering better: Global opportunities to jumpstart the real economy*.

<sup>74</sup> UN Environment, *COVID-19 updates from UNEP*.

<sup>75</sup> Johnson, S., *UNEP The First 40 Years: A Narrative*, 2012, p. 155.

<sup>76</sup> World Summit on Sustainable Development, *Report of the World Summit on Sustainable Development (A/CONF.199/20)*, 2002.

<sup>77</sup> UNEA, *Delivering on the environmental dimensions of the 2030 Agenda: Information note of the Executive Director (UNEP/EA.2/INF/4)*, 2016.

<sup>78</sup> UNEA, *Ministerial declaration of the United Nations Environment Assembly at its fourth session: Innovative solutions for environmental challenges and sustainable consumption and production (UNEP/EA.4/HLS.1)*, 2019.

<sup>79</sup> UN Environment Assembly, *Fifth session of the United Nations Environment Assembly*.

<sup>80</sup> UN Environment Assembly, *About the United Nations Environment Assembly*.

*This declaration is the primary outcome document of the most recent session of UNEA, held in March 2019. It highlights the priority areas that emerged from the session and the efforts necessary to influence these areas. The declaration discusses how Member States, CSOs, the private sector, local communities, and academia can promote more sustainable uses of resources and more responsible production and disposal of these resources. Delegates can find the current priorities and talking points of the UNEA within this document.*

United Nations Environment Programme. (n.d.). *About the United Nations Environment Assembly*. Retrieved 21 August 2020 from: <https://environmentassembly.unenvironment.org/about-united-nations-environment-assembly>.

*This website provides a basic overview of the Assembly and its role within the UN Environment's governance structure, including its history and mandate. The resource represents an entry point for delegates to begin their research on the committee, as it provides an overview of the body's functions, as well as links to the documentation of past sessions and current thematic priorities of the Assembly. It is also here that preparatory material for the upcoming session of the Assembly is collected. This website should help delegates to easily distinguish between UN Environment and the Assembly and understand how they are connected to each other.*

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## I. Climate Change and Health

### **Introduction**

In 2012, the United Nations Conference on Sustainable Development (Rio+20) described climate change as “a cross-cutting and persistent crisis” that “threatens the viability and survival of nations.”<sup>81</sup> Furthermore, the effects of climate change on health are the “single largest environmental cause of disease and premature deaths in the world.”<sup>82</sup> Climate change is defined in Article 1 of the United Nations Framework Convention on Climate Change (UNFCCC) as the “change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere.”<sup>83</sup> This definition suggests that climate change also includes pollution, such as gaseous emissions resulting from human activities which complements the natural level of greenhouse gases that trap the heat and warmth on the planet.<sup>84</sup> Health, on the other hand, is defined by the World Health Organization (WHO) as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>85</sup>

Drawing from these definitions, climate change does not only threaten the environment but also threatens human health and development.<sup>86</sup> The consequences of climate change on health endanger the basic social and environmental determinants of health in that it affects access to clean air, safe drinking water, nutritious food supply, and safe and secure shelter.<sup>87</sup> According to WHO, since 1960 more than 60,000 deaths have resulted from weather-related natural disasters in the world which were a direct result of climate change.<sup>88</sup> The United Nations Environment Programme (UN Environment) and the United Nations Environment Assembly (UNEA) have also acknowledged the growing evidence and increasing risks that climate change presents to health and ecosystem degradation as well as the increased burden of disease caused by environmental risks.<sup>89</sup>

These impacts of climate change can be categorized as primary, secondary or tertiary.<sup>90</sup> An example of a primary consequence is increased rainfall which results in increased humidity.<sup>91</sup> Increased humidity leads to distribution of vector-borne diseases and water-borne diseases due to the contamination of drinking water.<sup>92</sup> A secondary impact of climate change can be a decrease in crop productivity and increased water scarcity, often causing undernutrition.<sup>93</sup> On top of this, rising temperatures also affect production of food in many regions in the world, which forces people to migrate from their homes.<sup>94</sup> This in turn causes malnutrition and undernutrition which results to a death increase of 3.1 million every year.<sup>95</sup> Some secondary impacts also include heatwaves and extreme high temperatures.<sup>96</sup> These set of impacts have resulted in an increase in air pollutants that cause several cardiovascular and respiratory diseases such as asthma.<sup>97</sup> In the long term, some tertiary climate change effects may occur when populations are forced to migrate due to the consequence of climate change, and the subsequent physical and mental health impacts these processes would bring.<sup>98</sup>

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<sup>81</sup> United Nations General Assembly, *The Future We Want (A/RES/66/288)*, 2012.

<sup>82</sup> UNEA, *Environment and health (UNEP/EA.3/Res.4)*, 2018.

<sup>83</sup> The United Nations Framework Convention on Climate Change, *Climate: Get the Big Picture*, 2016.

<sup>84</sup> Secretariat of the Convention on Biological Diversity, *Biodiversity and Climate Change*, 2007, p. 5.

<sup>85</sup> WHO, *Basic Documents*, 2020, p. 1.

<sup>86</sup> WHO, *Health and Climate change*, 2018.

<sup>87</sup> Ibid.

<sup>88</sup> WHO, *Climate change and Health*, 2018.

<sup>89</sup> UN Environment, *Health & Environment*, 2020; UNEA, *Environment and Health (UNEP/EA.3/Res.4)*, 2017.

<sup>90</sup> WHO, *Health and Climate change*, 2018.

<sup>91</sup> WHO, *Climate Change and Health*, 2018.

<sup>92</sup> Ibid.

<sup>93</sup> WHO, *Climate Change and Health*, 2018.

<sup>94</sup> WHO, *Health and Climate change*, 2018.

<sup>95</sup> Ibid.

<sup>96</sup> WHO, *Climate Change and Health*, 2018.

<sup>97</sup> Ibid.

<sup>98</sup> Ibid.

## ***International and Regional Framework***

Though the environment and climate change has been discussed at the United Nations (UN) since the early 1970s, climate change was generally not considered on a major scale until the 1992 Earth Summit in Rio de Janeiro.<sup>99</sup> This summit aimed to strengthen international collaboration on global environmental and climate policy and ultimately adopted *The United Nations Framework Convention on Climate Change* (UNFCCC).<sup>100</sup> The UNFCCC is a binding treaty for all States parties to reduce the emission of greenhouse gases and to avoid harmful human interference with the climate system.<sup>101</sup> Also at the Earth Summit, the *Rio Declaration on Environment and Development* was adopted.<sup>102</sup> This declaration lays out 27 non-binding principles for Member States to meet developmental and environmental needs to achieve a healthy and productive life of human beings.<sup>103</sup> In 1997, the *Kyoto Protocol* was adopted to amend and operationalize the UNFCCC.<sup>104</sup> The protocol sets targets for reducing emission of greenhouse gases and places this obligation on industrialized and developed countries.<sup>105</sup> It also aims to strengthen the global response of the international community to climate change by reducing emission of greenhouse gases.<sup>106</sup>

At the World Summit on Sustainable Development in 2002, the *Johannesburg Declaration on Sustainable Development* was adopted and emphasized the importance of partnerships for enhancing health and the environment.<sup>107</sup> Drawing from the World Summit on Sustainable Development, in 2015, the UN General Assembly adopted resolution 70/1, “Transforming Our World: 2030 Agenda for Sustainable Development”, which introduced the 17 Sustainable Development Goals (SDGs).<sup>108</sup> Amongst the SDGs, SDG 13 (Climate Action) calls for Member States to prevent and reduce climate change and its effects.<sup>109</sup> SDG 3 (good health and well-being) seeks to ensure that everyone lives healthy lives at all ages.<sup>110</sup> Furthermore, the SDGs also provide specific targets to minimize exposure to all forms of pollution in SDG target 3.9.<sup>111</sup> The *Paris Agreement* was also adopted in 2015 and built upon the UNFCCC, emphasizing that health is a human right and should be taken into consideration when actions are taken by Member States to address climate change.<sup>112</sup>

In 2016, UNEA drafted the report “Healthy environment, healthy people.”<sup>113</sup> The report establishes a nexus between human health and the environment, showing that negative changes to land, oceans, biodiversity, and access to freshwater affect human health.<sup>114</sup> The report provides several policies for governments and policy makers of Member States in enhancing clean environment and the human health.<sup>115</sup> It encourages Member States to adopt inclusive green policies for a healthy environment and healthy people.<sup>116</sup> The report also encourages Member States to deliver on the SDGs, invest in environmental sustainability, address the environmental health relationship for efficiency, and move from

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<sup>99</sup> United Nations, *Charter of the United Nations*, 1945; UN Conference on Environment and Development, *The Rio Declaration (A/CONF.151/26 (Vol. I))*, 1992.

<sup>100</sup> Ibid.

<sup>101</sup> UNFCCC, *What is the United Nations Framework Convention on Climate Change?*

<sup>102</sup> UN Conference on Environment and Development, *The Rio Declaration (A/CONF.151/26 (Vol. I))*, 1992.

<sup>103</sup> Ibid.

<sup>104</sup> UNFCCC, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 1997.

<sup>105</sup> Ibid.

<sup>106</sup> Ibid.

<sup>107</sup> UN World Summit on Sustainable Development, *Report of the World Summit on Sustainable Development (A/CONF.199/20)*, 2002.

<sup>108</sup> UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>109</sup> Ibid.

<sup>110</sup> WHO, *Health and Climate change*, 2018.

<sup>111</sup> UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015, pp. 16, 18, 21-22.

<sup>112</sup> COP 21, *Paris Agreement*, 2015.

<sup>113</sup> UN Environment, *Healthy Environment, Healthy People (UNEP/EA.2/INF/5)*, 2016.

<sup>114</sup> Ibid.

<sup>115</sup> Ibid.

<sup>116</sup> Ibid.

reactive policies to proactive policies.<sup>117</sup> It recommends that Member States raise awareness on the health risks from damage to the environment, draft frameworks and legislations to protect the human health and the environment, and involve public and private actors and stakeholders to promote innovation and funding.<sup>118</sup>

Further to this, at its third session in 2017, UNEA adopted a resolution titled “Environment and health.”<sup>119</sup> This resolution addresses the importance of implementing the SDGs to cater for health inequalities and stresses the role of collaboration between Member States and the international community in making policies to address the environmental determinants of health.<sup>120</sup> As a way forward, the resolution requests that collaboration should be taking place between UNEP and other United Nations entities, stakeholders, and the private sector to provide health and environmental policies for Member States.<sup>121</sup>

WHO also adopted a number of resolutions in 2015 on various environmental health risks, including “Health And The Environment: Addressing The Health Impact of Air Pollution.”<sup>122</sup> This resolution outlines the responsibilities of Member States and WHO in building awareness of and facilitating relevant research on morbidity and mortality relating to air pollution.<sup>123</sup> In 2016, WHO adopted the *Marrakech Ministerial Declaration on Health, Environment, and Climate Change*.<sup>124</sup> This led the way for WHO and UNEA to sign a formal intent of collaboration on climate change and health for the first time.<sup>125</sup> The collaboration advocates incorporating health into sustainable development and adaptation plans at all levels of the UN system and calls for partnerships between intergovernmental entities such as WHO, UN Environment, and the World Meteorological Organization (WMO) to work with regional health and environmental ministerial entities, regional organizations, and other stakeholders.<sup>126</sup> The goal of this collaboration is for Member States to stimulate and scale up the sharing of best practices, experiences, and technological expertise in order to improve and protect the environment against climate change and health related risks.<sup>127</sup> WHO also adopted *The role of the health sector in the Strategic Approach to International Chemicals Management towards the 2020 goal and beyond* in 2016, which reiterates the objective of reducing the consequences of hazardous chemicals on human health.<sup>128</sup> In 2017, the *Minamata Convention on Mercury* came into force, which addresses the environmental and health factors involved in mercury contamination and containment.<sup>129</sup> This convention serves as a global treaty to protect human health and the environment from all forms of anthropogenic emissions and releases of mercury and mercury compounds.<sup>130</sup>

### ***Role of the International System***

Due to the cross-cutting nature of climate change and health, UNEA closely coordinates its efforts with relevant partner organisations, international and national stakeholders, policy makers and the private sector.<sup>131</sup> A key part of UNEA’s work is the creation of policy recommendations surrounding risk assessments for governments of Member States and works to enhance the implementation of

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<sup>117</sup> Ibid.

<sup>118</sup> Ibid.

<sup>119</sup> UNEA, *Environment and health (UNEP/EA.3/Res.4)*, 2018.

<sup>120</sup> Ibid.

<sup>121</sup> Ibid.

<sup>122</sup> WHO, *Health and the environment: addressing the health impact of air pollution (WHA68.8)*, 2015, pp. 4-7.

<sup>123</sup> Ibid.

<sup>124</sup> COP 22, *Ministerial Declaration on Health, Environment and Climate Change*, 2016, pp. 1-2.

<sup>125</sup> Ibid.

<sup>126</sup> Ibid.

<sup>127</sup> Ibid.

<sup>128</sup> WHO, *Health and the environment: addressing the health impact of air pollution (WHA68.8)*, 2015, pp. 4-7.

<sup>129</sup> *The Minamata Convention on Mercury celebrates its First Anniversary*, UN Environment, 2018.

<sup>130</sup> Ibid.

<sup>131</sup> UNEA, *Towards a pollution-free planet (UNEP/EA.3/25)*, 2017.



environmental legislation, whilst raising awareness through communication, education and consumer information.<sup>132</sup> UNEA also works towards advocacy for action and invests significantly in financing in climate actions which have an impact on human health.<sup>133</sup>

In 2018, UNEA and WHO signed a landmark memorandum of understanding designed to increase coordination and drive progress on mitigating environmental health risks.<sup>134</sup> The priority areas of this agreement is centered around improving water and air quality, tackling vector-borne diseases as a result of climate change, and promoting waste and chemicals management.<sup>135</sup> Further to this agreement, both bodies held joint campaigns, such as the BreatheLife campaign, to raise awareness in addressing air pollution.<sup>136</sup> Following this, the Director-General of WHO, Dr. Tedros Adhanom Ghebreyesus, released a report on health, environment, and climate change that discusses the importance of monitoring and reporting environmental risk while strengthening institutional capacity and promoting global leadership and coordination.<sup>137</sup>

WHO performs a broad range of operations related to environmental health.<sup>138</sup> WHO provides policies linking greenhouse gases and human health and calls for immediate action to reduce health risks.<sup>139</sup> These operations also include the functioning of its Department of Public Health, Environmental and Social Determinants of Health (PHE).<sup>140</sup> The PHE works to promote preventive policies and interventions to improve environmental and social determining elements of human health.<sup>141</sup> The PHE evaluates environmental health dangers and presents policy guidance to diminish the risk of disease.<sup>142</sup> Aside from this, WHO responds to climate crises using various means such as advocacy and partnerships, creating awareness, monitoring science and evidence, and supporting countries to implement and protect public health responses to climate change.<sup>143</sup> WHO also assists countries in building capacity such as organizing training and educational materials for Member States to reduce health vulnerability as a result of climate change.<sup>144</sup>

The United Nations Children's Fund (UNICEF) protects children from the impact of climate change and ensures their well-being.<sup>145</sup> It works with partners at both global and local level to make sure children live in a safe and clean environment, for instance, through climate-smart water, sanitation, and hygiene services and providing sustainable energy and disaster risk response in schools and health centers.<sup>146</sup>

### ***Influence of climate change on vector-borne diseases***

Vector-borne diseases are diseases caused by transmission between living organisms and include malaria, dengue fever, and yellow fever.<sup>147</sup> The WHO estimates that more than 17% of infectious diseases - resulting in more than 700,000 deaths per year - are a result of vector-borne diseases.<sup>148</sup>

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<sup>132</sup> UNEA, *Towards a pollution-free planet* (UNEP/EA.3/25), 2017; UN Environment, *Health and Environment*, 2020.

<sup>133</sup> UNEA, *Towards a pollution-free planet* (UNEP/EA.3/25), 2017.

<sup>134</sup> UN Environment, *Health and Environment*, 2020.

<sup>135</sup> *UN Environment and WHO agree to major collaboration on environmental health risks*, WHO, 2018.

<sup>136</sup> UN Environment, *Health and Environment*, 2020.

<sup>137</sup> WHO, *Health, environment and climate change: Road map for an enhanced global response to the adverse health effects of air pollution. Report by the Director-General (WHA71.10 Add.1)*, 2018.

<sup>138</sup> WHO, *Department of Public Health, Environmental and Social Determinants of Health*, 2018.

<sup>139</sup> WHO, *Climate Change: WHO Response*, 2020; COP 22, *Ministerial Declaration on Health, Environment and Climate Change*, 2016.

<sup>140</sup> WHO, *Department of Public Health, Environmental and Social Determinants of Health*, 2018.

<sup>141</sup> *Ibid.*

<sup>142</sup> *Ibid.*

<sup>143</sup> WHO, *Climate Change: WHO Response*, 2020.

<sup>144</sup> *Ibid.*

<sup>145</sup> UNICEF, *Environment and Climate change*, 2019.

<sup>146</sup> *Ibid.*

<sup>147</sup> WHO, *Vector-borne Diseases*, 2020.

<sup>148</sup> *Ibid.*

Climate change lengthens the transmission seasons of vector-borne diseases and alters their geographic range, as it creates more favorable breeding grounds for disease-carrying insects.<sup>149</sup> As a result of this, more vectors survive and reproduce.<sup>150</sup> This increases the pathogen's incubation rate within the vector organism which in turn increases the amount of vectors and results in an increase in vector biting rates.<sup>151</sup> An example is the increase of mosquitoes due to changes in temperature and humidity, resulting in increased occurrence of diseases including dengue fever, Zika virus, and malaria.<sup>152</sup> Malaria alone kills over 400,000 people every year.<sup>153</sup> UNICEF reports that children under the age of five are most vulnerable to these diseases.<sup>154</sup> Aside from the impact on children's health, climate change also poses a threat in exacerbating the inequalities children in the world face such as the gap between access and lack of access to health services.<sup>155</sup>

Major outbreaks of vector-borne diseases in the past have occurred in tropical and subtropical areas and especially countries with the poorest populations, such as Small Island Developing States (SIDS) and developing African countries.<sup>156</sup> In addressing and mitigating the increased risks of vector-borne diseases as a result of climate change, WHO recommends that Member States strengthen vector control to prevent and respond to the outbreaks of vector-borne diseases.<sup>157</sup> Some solutions which have been provided by WHO in response to vector-borne diseases include making technical support available, such as medical technologies and expertise, to countries to manage outbreaks and cases and improving national reporting systems to take note of the diseases.<sup>158</sup> Additionally, WHO developed new tools, innovations and technologies in vector control such as insecticide-treated mosquito nets and management tools and technologies.<sup>159</sup>

Another technique adopted by WHO is mosquito sterilization, where birth rates of mosquitos are controlled to fight chikungunya, dengue, and Zika.<sup>160</sup> An examples is Sterile Insect Technique (SIT) for Aedes mosquitoes, wherein large quantities of sterilized male mosquitoes are released into the wild and thereby decrease reproduction rates.<sup>161</sup> UN Environment has also worked to pioneer an alliance to combat vector-borne diseases using the Global Mosquito Alert initiative, in which data, observations, and information about mosquitoes will be shared to help scientist monitor the trends of disease carrying mosquitoes.<sup>162</sup>

### ***Best Practices in Health and Climate Change***

Best practices in health and climate change include the increased adoption of national green policies in relation to transportation, infrastructure, agriculture, cities, energy, and sanitation.<sup>163</sup> Specific action to do this include removing harmful substances from the environment, removing carbon dioxide from gaseous emissions, and changing lifestyles and enhancing the resilience of the ecosystem.<sup>164</sup> WHO recommends that Member States find a strong interlinkage between climate change and health and address these

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<sup>149</sup> UNICEF, *Environment and Climate Change*, 2019.

<sup>150</sup> Ibid.

<sup>151</sup> Ibid.

<sup>152</sup> Ibid.

<sup>153</sup> WHO, *Climate change and Health*, 2018.

<sup>154</sup> UNICEF, *Environment and Climate Change*, 2019.

<sup>155</sup> Ibid.

<sup>156</sup> WHO, *Climate Change and Human Health- Risks and Responses*, 2003; UNICEF, *Environment and Climate Change*, 2019.

<sup>157</sup> WHO, *Climate Change and Human Health- Risks and Responses*, 2003.

<sup>158</sup> WHO, *Vector-borne Diseases*, 2020.

<sup>159</sup> Ibid.

<sup>160</sup> *Mosquito sterilization offers new opportunity to control chikungunya, dengue, and Zika*, WHO, 2019.

<sup>161</sup> Ibid.

<sup>162</sup> *Pioneering alliance against mosquito-borne diseases joins global fight to save lives*, UN Environment, 2017.

<sup>163</sup> UN Environment, *Healthy Environment, Healthy People (UNEP/EA.2/INF/5)*, 2016.

<sup>164</sup> Ibid.

jointly when implementing the 2030 Agenda.<sup>165</sup> This can be achieved through practices that include positioning health as a priority in climate change debates and frameworks within Member States.<sup>166</sup> WHO also recommends that Member States develop institutional capacities to set and achieve health goals against the risk of climate change using knowledge, skills, and relevant systems.<sup>167</sup> A project of this nature has been successfully implemented in Guinea, Madagascar, Malawi, and Zambia.<sup>168</sup> For example, in Malawi, health surveillance systems that are capable of alerting the country of climate diseases such as cholera was integrated.<sup>169</sup> In addition to this, climate resilient water safety and sanitation management was developed.<sup>170</sup>

UN Environment also recommends that Member States adopt legislation promoting a strengthened health system and health service delivery as a preventive method against climate change risk.<sup>171</sup> In some least developed Asian countries such as Bangladesh, Cambodia, Lao People’s Democratic Republic, Myanmar, Nepal, and Timor-Leste, resilience of their various health systems are being put in place to withstand the risk and impact of climate change.<sup>172</sup> In implementing this, institutional capacities are being enhanced by providing guidance, tools and training/educational materials to Member States to efficiently incorporate climate risks.<sup>173</sup> In addition to this, guidance is also given to Member States on how to implement these capacities in their various health sector planning and implementation.<sup>174</sup> These Member States have enabled efficient decision-making in regards to health through production of information and better surveillance and/or early warning systems.<sup>175</sup> In addition to this, climate resilience can also be enhanced when provisions for co-operation at regional levels in terms of knowledge transfer in the health sector are put in place.<sup>176</sup> Furthermore, with the recent outbreak of the COVID-19 pandemic, UNEA and UN Environment are working on programs focused on “building back better” where Member States can adopt green investments to reduce pollution and increase public health.<sup>177</sup>

Another example is the practice between WHO and UNICEF in the formation of adaptation strategies to climate change in health in least developed countries and SIDS where climate vulnerability is greatest.<sup>178</sup> WHO and UNICEF have collaborated on a project aimed at providing basic water, sanitation, and hygiene (WASH).<sup>179</sup> The WASH project provides a framework for protecting health and reducing the risk of disease which results from climate change.<sup>180</sup> The WASH project is important because it reduces overall health care cost and health service inequalities and improves the resilience of health systems of countries where the project is carried out.<sup>181</sup> The project works to provide health improvements that are

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<sup>165</sup> UNEP, *Environment and Health*, 2020.

<sup>166</sup> WHO, *Adaptation to climate change in the health sector: Improving engagement, evidence and action in sub-Saharan African countries*, 2020.

<sup>167</sup> WHO, *Protecting health from climate change: a seven-country initiative in the eastern part of the WHO European Region*, 2020.

<sup>168</sup> WHO, *Adaptation to climate change in the health sector: Improving engagement, evidence and action in sub-Saharan African countries*, 2020.

<sup>169</sup> WHO, *Delivering climate-resilient water and sanitation in Africa and Asia*, 2018.

<sup>170</sup> WHO, *Adaptation to climate change in the health sector: Improving engagement, evidence and action in sub-Saharan African countries*, 2020.

<sup>171</sup> WHO, *Climate Change and Human Health- Building resilience of health systems in Asian LDCs to Climate change*, 2020.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid.

<sup>174</sup> Ibid.

<sup>175</sup> Ibid.

<sup>176</sup> Ibid.

<sup>177</sup> UN Environment, *UNEP Statement on COVID-19*, 2020.

<sup>178</sup> WHO, *Adaptation to climate change in the health sector: Improving engagement, evidence and action in sub-Saharan African countries*, 2020.

<sup>179</sup> WHO, *Achieving Quality Health Services For All, Through Better Water, Sanitation and Hygiene: Lessons From Three African Countries*, 2020.

<sup>180</sup> Ibid.

<sup>181</sup> Ibid.

“environmentally-friendly and climate-resilient.”<sup>182</sup> The project has been implemented in Bangladesh, Nepal, Ethiopia, and Tanzania because of the high sensitivity to climate change and health risk.<sup>183</sup>

To ensure that children are not left out, UNICEF and WHO have produced steps that may be taken to ensure best practices in protecting children’s health against climate change.<sup>184</sup> These steps include recognizing children as agents of change in addressing climate related issues on their health.<sup>185</sup> In addition to this, children can be involved by making sure they observe climate-smart water, sanitation, and hygiene habits.<sup>186</sup> Secondly, promotion of initiatives to make sure that schools, health centers, and places which are critical to children’s well-being become resilient to climate change.<sup>187</sup> Finally, UNICEF recommends that every country makes children the center of climate change strategies and response plans in order to have an immediate response for children diseases from climate change.<sup>188</sup>

### **Conclusion**

Climate change is increasingly a threat to human health.<sup>189</sup> Climate change has contributed to increased rainfall, rising temperature, heatwaves, extreme high temperatures and an increase in vector-borne diseases.<sup>190</sup> These events have a huge impact on the health of humans, especially children and the populations of least developed countries.<sup>191</sup> The international community has adopted practices that help to reduce the impact of climate change on health, although holistic measures around the mitigation of and adaptation to climate change remain necessary.<sup>192</sup> Best practices include forming international partnerships and collaborations, incorporating climate policy in national legislative frameworks, building capacities through trainings and knowledge exchange, raising public awareness, and strengthening resilience of health systems and practitioners.<sup>193</sup>

### **Further Research**

As delegates proceed in research, some questions they may need to keep in mind include: How can policies addressing climate change be effectively implemented? How can local and global partnerships between governments, the private sector, and the UN system provide better support in addressing climate change and particularly its effects on health? How can children be more integrated into the fight against climate change and its impact on their health? In what ways can the global community innovate new and more viable ways to tackle the health impact of climate change?

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*This overarching definition of climate change by the UN outlines what climate change is and the challenge it poses to the world at large. This document also highlights the fifth assessment report by the UN Intergovernmental Panel on Climate Change. Delegates*

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<sup>182</sup> Ibid.

<sup>183</sup> Ibid.

<sup>184</sup> WHO, *Climate Change and Human Health- Building resilience of health systems in Asian LDCs to Climate change*, 2019.

<sup>185</sup> UNICEF, *Environment and Climate Change*, 2019.

<sup>186</sup> Ibid.

<sup>187</sup> Ibid.

<sup>188</sup> Ibid.

<sup>189</sup> UN Environment, *Health and Environment*, 2020.

<sup>190</sup> Ibid..

<sup>191</sup> WHO, *Vector-borne Diseases*, 2020.

<sup>192</sup> UN Environment, *Health and Environment*, 2020.

<sup>193</sup> Ibid.

can use this source to understand what climate change entails as well as various United Nations legal instruments on climate change.

United Nations Environment Assembly. (2017). *Towards a pollution-free planet (UNEP/EA.3/25)*. Retrieved 20 July 2020 from: <https://undocs.org/UNEP/EA.3/25>

*This report emphasizes the health challenges resulting from global air and water pollution which in turn contribute towards climate change. It also highlights potential responses to this challenge, including transitioning to a green and sustainable development in a bid to protect the environment, fight climate change and reduce pollution. Delegates will understand the range of interlinked environmental challenges associated with pollution and the potential legislative avenues in mitigating them.*

United Nations Environment Assembly. (2018). *Environment and Health (UNEP/EA.3/Res.4)*. Retrieved 20 July 2020 from: <https://undocs.org/UNEP/EA.3/Res.4>

*This resolution recognizes the effect climate change has on human health. It also suggests recommendations to tackle these problems. Delegates will find this very relevant in understanding background work on environment and health and ways forward in tackling the issues of climate change and health. Specifically, part two outlines the substantial risks posed by climate change such as vector-borne diseases due to climate change.*

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<https://wedocs.unep.org/bitstream/handle/20.500.11822/17602/K1602727%20INF%205%20Eng.pdf?sequence=1&isAllowed=y>

*This report discusses the challenges resulting from environmental changes. It emphasizes that as a result of the negative change in the environment there are several implications on human health and well-being. Finally, it provides a framework of actions to achieve a healthy environment and people. It gives several recommendations in this regard.*

United Nations Environment Programme. (2020). *Health and Environment*. Retrieved 26 August 2020 from:

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*This document is important in understanding the goal, the actions, and key results in achieving a pollution free planet. The document provides how countries and stakeholders will be assisted to enhance capacity in a bid to find a nexus between the environment and health. Delegates will find this relevant for their research on what UN Environment is currently doing in creating a pollution free planet.*

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*This source outlines the project of adaptation on climate change in the health sector carried out in sub-Saharan African countries. Delegates will find this source useful in articulating practical examples of best practices in resolving the issue of health as a result of climate change. This will be understood particularly from the aspect of how to improve engagement, evidence, and action plans to be taken in sub-Saharan African Countries.*

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## II. Ensuring Sustainable Consumption and Production

### *Introduction*

It is estimated that the world population will rise to 9.7 billion people by 2050, adding nearly 10% of the current global population.<sup>194</sup> As population growth is accompanied by further need for the production and consumption of products, it will cause strains on the environment and its resources.<sup>195</sup> The United Nations Environment Programme (UN Environment) estimates that an increasing global population will increase demand for water by 55% and will require a 60% increase in food production.<sup>196</sup> Therefore, the natural resources equivalent to almost three planets could be required to cover the needs of the population.<sup>197</sup> At the same time, worldwide, 30% of the food produced, equivalent to 1.3 billion tons, ends up in the bins of consumers and retailers, or spoiled due to poor transportation and harvesting practices.<sup>198</sup>

The increased demand for energy, food, water, and a multitude of resources contributes to pollution, environmental degradation, resource depletion, and climate change.<sup>199</sup> A significant element of achieving sustainable development is the transition towards Sustainable Consumption and Production (SCP).<sup>200</sup> UN Environment describes SCP as a “holistic approach to minimizing the negative environmental impacts from consumption and production systems while promoting quality of life for all.”<sup>201</sup> SCP demands an approach that is inclusive of many stakeholders, including governments, the private sector, and consumers.<sup>202</sup> The main principles of SCP include improving quality of life without increasing environmental degradation, decoupling economic growth from environmental degradation, and reducing material and energy intensity of current economic activities.<sup>203</sup> SCP also includes applying life-cycle thinking which reflects each stage of the production and consumption processes.<sup>204</sup>

When referring to consumption patterns, this includes water, energy, and food.<sup>205</sup> As it relates to water, excessive use strains water resources, and the infrastructure to deliver water is costly.<sup>206</sup> Energy consumption continues to increase and households account for 21% of CO<sub>2</sub> emissions.<sup>207</sup> Food production and consumption represent around 30% of the world’s total energy consumption and account for 22% of greenhouse gas emissions.<sup>208</sup> This means a substantial impact on the environment from agriculture and food processing, as well as household dietary choices and habits.<sup>209</sup> Agriculture represents the largest use of water worldwide, with irrigation utilizing 70% of all freshwater.<sup>210</sup>

In 2020, the issue of SCP became more relevant in the context of the COVID-19 pandemic.<sup>211</sup> Certain sectors have seen a decrease in production and consumption while global production and consumption of personal protection equipment and products increased, impacting the environment, inter alia, the pollution

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<sup>194</sup> UN DESA, *World Population Prospects*, 2019.

<sup>195</sup> *Ibid.*

<sup>196</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016, p. 4.

<sup>197</sup> UN DESA, *Goal 12: Ensure Sustainable Consumption and Production Patterns*.

<sup>198</sup> *Ibid.*

<sup>199</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 7.

<sup>200</sup> *Ibid.*

<sup>201</sup> *Ibid.*, p. 10.

<sup>202</sup> *Ibid.*, p. 7.

<sup>203</sup> *Ibid.*, p. 10.

<sup>204</sup> *Ibid.*

<sup>205</sup> UN DESA, *Sustainable Development Knowledge Platform*.

<sup>206</sup> UN DESA, *Sustainable Development Goal 12*.

<sup>207</sup> *Ibid.*

<sup>208</sup> *Ibid.*

<sup>209</sup> *Ibid.*

<sup>210</sup> UNDP, *Goal 12: Responsible Consumption and Production*.

<sup>211</sup> Sustainable Consumption Institute, *Covid-19, changing social practices and the transition to sustainable production and consumption*, 2020, p. 12.

of air and water.<sup>212</sup> While COVID-19 is an extraordinary event, our consumption patterns during the crisis is one of a series of examples illustrating the need to strengthen sustainable production and consumption patterns worldwide.<sup>213</sup> In the long-term perspective, the COVID-19 pandemic could also become an opportunity to reduce the prevalence of lifestyles premised on large volumes of energy and material throughput.<sup>214</sup> UN Environment being a key organization facilitating the transition of the world economies to more sustainable patterns.<sup>215</sup>

### ***International and Regional Framework***

Sustainable consumption and production form a crucial component of the Sustainable Development Goals (SDGs), with SDG 12 (responsible consumption and production) being specifically focused on the transition towards sustainable consumption and production patterns.<sup>216</sup> The *2030 Agenda for Sustainable Development* (2030 Agenda), establishing the SDGs, notes the importance of a global collaboration and providing developing countries with financial and technical assistance to improve their innovative capacities to shift to SCP patterns.<sup>217</sup> SDG 12 is comprised of 11 targets along with 13 indicators and addresses numerous subtopics related to SCP needs, including objectives around the efficient use of natural resources, reducing food waste, and the transition towards sustainable public procurement practices.<sup>218</sup> SDG indicators mirror the targets by providing specific measurable objectives, which Member States should strive towards.<sup>219</sup> SCP-specific indicators include the global food loss index, national rates of recycling, number of companies publishing sustainability reports, amount of hazardous waste produced per capita, or number of countries with a national SCP policy.<sup>220</sup>

Yet, the 2030 Agenda is not the first framework addressing SCP and other previous efforts were made to structure global production and consumption. For instance, The *Montreal Protocol on Substances that Deplete the Ozone Layer* of 1989, commonly known as the Montreal Protocol, was among the first UN frameworks to address sustainability and consumption.<sup>221</sup> Its aim was to protect the Earth's ozone layer by establishing a system that regulates the production and consumption of chemicals depleting the ozone layer.<sup>222</sup> Besides regeneration of the ozone layer, the Protocol led to considerable reductions of greenhouse emissions, more-efficient use of energy, and promotion of SCP patterns over the globe.<sup>223</sup>

Also, the UN Conference on Environment and Development of 1992 produced *Agenda 21*, which provided a guiding framework for the UN as it relates to sustainable development.<sup>224</sup> Chapter 4 of *Agenda 21* promotes SCP on a national level by encouraging Member States to identify and develop their specific consumption and production patterns.<sup>225</sup> *Agenda 21's* overarching goals are to promote efficient production, to reduce waste, and encourage patterns of consumption and production that had a reduced impact on the environment.<sup>226</sup>

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<sup>212</sup> UN Environment, *Speech by Executive Director of UN Environment Inger Andersen on Marine litter and the challenge of sustainable consumption and production on 15 July 2020, in New York, 2020.*

<sup>213</sup> *Ibid.*

<sup>214</sup> *Ibid.*

<sup>215</sup> *Ibid.*

<sup>216</sup> UN DESA, *Sustainable Development Goal 12.*

<sup>217</sup> UN General Assembly, *Transforming our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>218</sup> UN DESA, *Sustainable Development Goal 12.*

<sup>219</sup> *Ibid.*

<sup>220</sup> *Ibid.*

<sup>221</sup> UN Environment, *About Montreal Protocol.*

<sup>222</sup> *Ibid.*

<sup>223</sup> UNDP, *The Sustainable Development Goals (SDGs) and the Montreal Protocol on Substances that Deplete the Ozone Layer.*

<sup>224</sup> UNCED, *Agenda 21*, 1992.

<sup>225</sup> *Ibid.*, p. 18.

<sup>226</sup> *Ibid.*

Two decades later, *the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP)* was adopted at the World Summit on Sustainable Development in 2012.<sup>227</sup> It represents a platform of collective impact of numerous stakeholders which scales up SCP policies through six programs: Sustainable Public Procurement, Consumer Information for SCP, Sustainable Tourism, Sustainable Lifestyles and Education, Sustainable Buildings and Construction, and Sustainable Food Systems.<sup>228</sup> As the core SCP framework for UN Environment, 10YFP aims to ensure access of developed and developing countries to technical and financial assistance by supporting SCP and resource efficiency initiatives.<sup>229</sup>

The fourth session of the United Nations Environment Assembly (UNEA) met in March of 2019 with its theme centered on navigating pathways and strategies to achieve SCP.<sup>230</sup> Some decisions from the fourth session include resolutions on innovative pathways to achieve SCP, promoting sustainable practices and innovative solutions for curbing food loss and waste, sound waste management practices, and addressing single use plastics.<sup>231</sup> Most notably, the resolution “Innovative pathways to achieve SCP” called on all stakeholders, including manufacturers, retailers, and consumers, on how to improve their collaboration by providing consumers and public authorities with the tools to make informed choices regarding SCP.<sup>232</sup> Specifically, the resolution noted the importance of reliable consumer information relating to resource efficiency so as to increase the longevity and re-use of products and the recycling of materials.<sup>233</sup> The resolution also requested that the Executive Director provide a study based on a life-cycle approach to assess the potential of current economic models for achieving SCP in particular sectors such as that of plastics, textiles, and the construction sector.<sup>234</sup> The resolution recalled key past and present frameworks such as the SDGs, 10YFP, and the 2015 *Paris Agreement*.<sup>235</sup> It also highlighted the importance of the 2015 *Addis Ababa Action Agenda of the Third International Conference on Financing for Development*.<sup>236</sup>

As highlighted by UN Environment, SCP has to be addressed by various stakeholders and therefore frameworks have also been adopted by regional and national governments.<sup>237</sup> Notable regional documents on SCP include the *Sustainable Consumption Production Action Plan for the Mediterranean*, which addresses key human activities that contribute to marine and coastal environment issues.<sup>238</sup> By 2027, the SCP Action Plan hopes to have achieved a Mediterranean region that is established with non-pollutant, socially inclusive economies that simultaneously ensure the preservation of natural resources and ecosystems that can provide goods and services for present and future generations.<sup>239</sup> In 2008, the European Union (EU) adopted the Sustainable Consumption and Production Action Plan.<sup>240</sup> The Action Plan promotes SCP, the improvement of environmental performance of products, and increasing the demand for more sustainable goods and production technologies.<sup>241</sup>

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<sup>227</sup> UN Environment, *10 YFP- 10 Year Framework Programmes on Sustainable Consumption and Productions Patterns*.

<sup>228</sup> Ibid.

<sup>229</sup> Ibid.

<sup>230</sup> UNEA, *Innovative pathways to achieve sustainable consumption and production (UNEP/EA.4/Res.1)*, 2019.

<sup>231</sup> Ibid.

<sup>232</sup> Ibid.

<sup>233</sup> Ibid.

<sup>234</sup> Ibid.

<sup>235</sup> Ibid.

<sup>236</sup> Ibid.

<sup>237</sup> Switchmed, *Regional Action Plan on Sustainable Consumption and Production in the Mediterranean*.

<sup>238</sup> Ibid.

<sup>239</sup> Ibid.

<sup>240</sup> European Commission, *The Sustainable Consumption and Production Action Plan*.

<sup>241</sup> Ibid.

## ***Role of the International System***

Governed by UNEA, UN Environment supports Member States in creating an enabling policy environment promoting sustainable consumption and resource efficiency.<sup>242</sup> UN Environment also provides assistance to governments and stakeholders to adopt sustainable consumption and production practices.<sup>243</sup> As the UN's overarching governance body for environmental matters UNEA holds a particular importance in the achievement of SCP.<sup>244</sup> UNEA's organizational strategy, the *Medium Term Strategy 2018-2021* outlines 7 thematic priorities which include climate change; disasters and conflicts; ecosystem management; environmental governance; chemicals and waste; resource efficiency; and environment.<sup>245</sup> The *Medium Term Strategy* also responds to exponentially increasing needs for water, food, and other resources, striving to direct a sustainable utilization of natural resources to ensure sustainability in the long term.<sup>246</sup>

In terms of SCP, UN Environment significantly contributes to the promotion of sustainable lifestyles and life cycle thinking.<sup>247</sup> As an example, its Life Cycle Initiative established in 2002 as a public-private partnership, provides a global forum to ensure a science-based, consensus-building process to support more sustainable decisions.<sup>248</sup> By 2022, it aims to mainstream the use of life cycle thinking in at least 15 countries and 30 companies, train at least 2500 staff, and share at least 20 life cycle thinking success stories.<sup>249</sup>

As a response to rapidly changing production and consumption patterns during periods of remote work caused by the COVID-19 pandemic, UN Environment raised the issue of waste management and SCP as an essential element in the fight against COVID-19.<sup>250</sup> UN Environment developed a range of COVID-19 guidelines, inter alia, factsheet "Links to Circularity –Non-healthcare waste", which recognized possible negative impacts of COVID-19 waste on the environment and provided a range of recommendations to the international community.<sup>251</sup> Those recommendations included recycling of the waste products, elaboration of practical guidance to citizens on reducing the consumption of single-use products, developing standards and eco-labels, raising awareness on advantages of reusable products, and supporting new products and business models creating opportunities for more sustainable lifestyles.<sup>252</sup>

UNEA also cooperates with a number of other UN bodies in its work on the transition towards SCP.<sup>253</sup> In 1972, the UN General Assembly launched World Environmental Day (WED) that is celebrated annually on 5 June as a day for positive environmental action.<sup>254</sup> In 2015, the theme of WED related to resource efficiency and SCP within the context of the planet's regenerative capacity.<sup>255</sup>

Given the nature of SCP, and as recognized in UN Environment's *Medium Term Strategy*, synergy between the public and private sectors are essential in producing meaningful progress.<sup>256</sup> UNEA works with organizations such as the International Chamber of Commerce to create forums through which policy

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<sup>242</sup> UN Environment, *Resource efficiency and sustainable consumption and production: Accelerating the transition to sustainable societies*, 2015.

<sup>243</sup> Ibid.

<sup>244</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016.

<sup>245</sup> Ibid., pp. 3-4.

<sup>246</sup> Ibid.

<sup>247</sup> UN Environment, *Funding and partnerships*.

<sup>248</sup> UN Environment, *The Life Cycle Initiative*.

<sup>249</sup> Ibid.

<sup>250</sup> UN Environment, *Covid-19 response*, 2020.

<sup>251</sup> UN Environment, *Covid-19 Waste Management Factsheet: Links to Circularity –Non-healthcare waste*, 2020.

<sup>252</sup> Ibid..

<sup>253</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016.

<sup>254</sup> World Environment Day, *World Environment Day: Driving Five Decades of Environmental Action*.

<sup>255</sup> IISD, *World Environment Day 2015*.

<sup>256</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016, p. 16.

makers and private businesses can interact and develop shared objectives.<sup>257</sup> Bilateral project partnerships also include the Poverty-Environment Initiative, a program initiated by the UN Development Programme and UN Environment, which seeks to bring lasting institutional change, and which encourages key actors to increase investment in pro-poor environmental and natural resource management.<sup>258</sup>

With the support of the European Commission, UN Environment coordinated the SWITCH to Green initiative that was launched in Mediterranean, Asian, and African regions in the period between 2007 and 2014.<sup>259</sup> These initiatives provided assistance, tools, and connections to communities and businesses and encouraged social and ecological innovations.<sup>260</sup> SWITCH to Green programs promote circular economy approaches by fostering networking opportunities and assisting to policy makers, small and medium sized enterprises, and start-ups prioritizing natural resource protection and job creation.<sup>261</sup>

In addition, to implement 10YFP and support the global shift to SCP and the achievement of SDG 12, the One Planet network was formed.<sup>262</sup> As a multi-stakeholder partnership for Sustainable Development uniting governments, UN bodies and intergovernmental organizations, business, civil society, scientific, and technical organizations, One Planet monitors progress towards SCP across the network. It also supports implementation of national SCP-relevant policies and facilitates coordination of country-level implementation of SCP measure through engagement of National Focal Points by the six programs: Public Procurement, Buildings and Construction, Tourism, Food Systems, Consumer Information, and Lifestyles and Education.<sup>263</sup> The latest report *Monitoring the Shift to Sustainable Consumption and Production Patterns – in the context of the SDGs* (2016) underlined the major difficulties faced by countries including producing monitoring indicators, limited data, and technical capacity.<sup>264</sup> The report elaborates on the steps in developing and applying SCP statistics and indicators for the SDGs.<sup>265</sup> Besides monitoring progress on SCP, the One Planet network regularly publishes relevant case studies, toolkits, awareness raising material for its Global Sustainable Consumption and Production projects, and resources databases.<sup>266</sup>

Engagement of civil society in the global environmental agenda, including SCP, is carried out through various platforms and networks, such as the Global Major Groups and Stakeholders Forum, which is one of the major actors.<sup>267</sup> In 2020, Global Major Groups and Stakeholders Consultations were held during the Act #ForNature virtual preparatory forum for UNEA's fifth session (UNEA-5).<sup>268</sup> As a result of the consultations, civil society recommended to strengthen education activities for youth, women, and decision makers to change consumption patterns from plastics purchasing and littering.<sup>269</sup> Participants of the consultations also recommended establishing a global trust fund sponsored by the plastics producing businesses to change consumption and production patterns and ensure full lifecycle processing.<sup>270</sup>

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<sup>257</sup> *Business Showcases Sustainable Consumption and Production Solutions*, International Chamber of Commerce, 2019.

<sup>258</sup> UNDP, *About the Poverty-Environment Initiative*.

<sup>259</sup> UN Environment, *Sustainable consumption and production policies*.

<sup>260</sup> *Ibid.*

<sup>261</sup> Switchmed, *About SwitchMed*.

<sup>262</sup> One Planet Network, *One Plan for One Planet: 5 Year Strategy, 2018-2022*.

<sup>263</sup> *Ibid.*

<sup>264</sup> One Planet Network, *Monitoring the Shift to Sustainable Consumption and Production Patterns – in the context of the SDGs*, 2016.

<sup>265</sup> *Ibid.*

<sup>266</sup> One Planet Network, *A platform for Sustainable Development Goal 12*.

<sup>267</sup> UN Environment, *Global Major Groups and Stakeholders Forum*.

<sup>268</sup> UN Environment, *Major Groups and Stakeholders Consultations during the Act #ForNature virtual preparatory forum for UNEA-5, 7-10 June 2020, Oslo, Norway*.

<sup>269</sup> UN Environment, *Report from The International Online Consultation of Major Groups and Stakeholders*.

<sup>270</sup> *Ibid.*

## ***Unsustainable Production Patterns***

Sustainable production patterns are characterized by a direct link between resource efficiency and SCP.<sup>271</sup> Resource efficiency is the concept of using fewer resources to achieve the same or improved product or result.<sup>272</sup> It is also an indicator of the manner in which resources are utilized by individuals, companies, sectors, or economies.<sup>273</sup> Unsustainable production can mean the excessive use of resources to create a product when the same product can be designed with fewer raw materials.<sup>274</sup> However, today's markets are full of examples in which products are designed in a manner that require replacement, and thus more raw materials.<sup>275</sup> UN Environment has stated that resource efficiency is only possible if consumers, both individual and institutional, demand sustainable products and services.<sup>276</sup> A demand for unnecessarily resource-intensive products often means that a competitive economic field will ultimately meet the demand.<sup>277</sup>

One approach to this challenge includes increasing the eco-efficiency of production, which may include reducing the natural resources used in production as well as its related waste and emissions, which is not only beneficial to the environment but also saves production costs.<sup>278</sup> More so, this is an encouraging incentive for businesses involved in the manufacturing of products.<sup>279</sup> Identifying production patterns and processes, as well as industry sectors that have the highest contribution to environmental impacts, helps policymakers and companies develop new production processes that are sustainable and eco-efficient.<sup>280</sup> A 2010 UN Environment report identified fossil fuels, agriculture, and fisheries as high-impact sectors, as it relates to production processes as well as their impact on climate change, acidification of soils, or eutrophication of water bodies.<sup>281</sup> There is an opportunity in the heavy industry and agricultural sectors for eco-efficiency to be further developed.<sup>282</sup> Other opportunities to increase eco-efficiency of production systems include improving recycling, with many materials having a large recycling potential.<sup>283</sup>

The unsustainable management of chemicals and waste also adversely affect human life and the environment, as addressed in SDG 12.<sup>284</sup> There are also challenges related to air, soil, and water due to exposure to toxic chemicals.<sup>285</sup> Thus, the sound management of chemicals and waste from production practices is critical to prevent further land degradation and environmental harm.<sup>286</sup> There are a number of ways in which Member States can increase sustainability in their production.<sup>287</sup> Many governments have formulated policies, which require mandates for land usage, waste disposal, and energy efficiency through legislation, financial incentives, or both.<sup>288</sup>

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<sup>271</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 11; UNEA, *Report of the fourth session of the United Nations Environment Assembly of the United Nations Environment Programme*, 2019.

<sup>272</sup> *Ibid.*

<sup>273</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 11.

<sup>274</sup> *Ibid.*

<sup>275</sup> *Ibid.*

<sup>276</sup> *Ibid.*

<sup>277</sup> *Ibid.*

<sup>278</sup> *Ibid.* p. 24.

<sup>279</sup> *Ibid.*

<sup>280</sup> *Ibid.*, p. 25.

<sup>281</sup> *Ibid.*

<sup>282</sup> *Ibid.*, p. 24.

<sup>283</sup> *Ibid.*, p. 25.

<sup>284</sup> UN Environment, *Goal 12: Responsible Consumption and Production*.

<sup>285</sup> UN Environment, *Why do Chemicals and Waste Matter?*.

<sup>286</sup> *Ibid.*

<sup>287</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 36.

<sup>288</sup> *Ibid.*

To support decision-making in the area of SCP, a life cycle management approach may be used to identify the best environmental protection strategies.<sup>289</sup> As the main goal of this approach is to reduce a product's resource use and waste to the environment, it represents a system allowing businesses to minimize the environmental and social burdens associated with their product or product portfolio during its entire life cycle.<sup>290</sup> Decisions based on the life cycle approach include among others eco-labeling and certification of a product, sustainable procurement, and environmental impact assessment.<sup>291</sup> It is important to engage the private sector when thinking of ways to promote SCP, as most products and services are provided by private businesses.<sup>292</sup> As producers, the private sector is in a position to apply a 'life cycle perspective', acknowledging that they have a responsibility for the total impact that is caused through a product's life cycle.<sup>293</sup> Green economies driven by resource efficiency and sustainable business strategies can result in more resilient supply chains, reduced dependency on natural resources, increased consumer demand for sustainable goods and services, mitigation against the negative financial risk from environmental impact, new investment opportunities, job creation, and more.<sup>294</sup>

### ***Unsustainable Consumption***

Worldwide material consumption reached 92.1 billion tons in 2017 compared to that of 27 billion in 1970.<sup>295</sup> It is estimated that this figure will rise to 190 billion by 2060 if the global material footprint continues to grow.<sup>296</sup> Demand for natural resources continues to increase, with current material needs subjecting the environment to possible over-extraction of resources.<sup>297</sup> In 2020, the COVID-19 pandemic caused significant shifts in social and economic aspects of life.<sup>298</sup> It caused turmoil in international supply chains, forcing businesses to find local sources of materials to maintain industrial production.<sup>299</sup> Furthermore, in some countries consumers have been stockpiling nonperishable products, while public authorities recognized the need for policies aimed at consumption controls.<sup>300</sup> According to studies on the impact of COVID-19 on China, extended periods of quarantine create novel forms of consumer demand such as excessive online shopping as people cope with isolation.<sup>301</sup> In the UK, as in other countries, online consumption increased, compared to the pre-COVID-19 period; internet shopping increased to a record 32.8% share in May 2020.<sup>302</sup>

Changing consumer behavior as it relates to consumption patterns are of importance; however, SDG 12 also highlights the significance of focusing on supply chain operations, involving all parties from the producer to the final consumer.<sup>303</sup> Such measures can include but are not limited to educating consumers about sustainable lifestyles through disseminating information, and the utilization of standards, labels, and engaging in sustainable public procurement.<sup>304</sup> Labeling, subsidies, and information campaigns are all areas in which governments have an opportunity to be involved.<sup>305</sup>

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<sup>289</sup> Life Cycle Initiative, *Life Cycle Approaches*.

<sup>290</sup> Ibid.

<sup>291</sup> Ibid.

<sup>292</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 42.

<sup>293</sup> Ibid.

<sup>294</sup> Ibid.

<sup>295</sup> UN DESA, *Sustainable Development Goal 12*.

<sup>296</sup> Ibid.

<sup>297</sup> Ibid.

<sup>298</sup> Cohen, *Does the COVID-19 outbreak mark the onset of a sustainable consumption transition*, 2020.

<sup>299</sup> Ibid.

<sup>300</sup> Ibid.

<sup>301</sup> Ibid.

<sup>302</sup> Coyle & Nguyen, *The impact of Covid-19 on the value of online goods*, 2020.

<sup>303</sup> UN DESA, *Sustainable Development Goal 12*.

<sup>304</sup> Ibid.

<sup>305</sup> UN Environment, *Sustainable Consumption and Production: A Handbook for Policymakers*, 2011, p. 25.

Life cycle thinking can be significant, as it prompts consumers to reflect on how products have been produced, and the environmental costs that come with it.<sup>306</sup> For example, few consider how a product is disposed of once they are done using it without thinking of how it can be reused, recycled, or disposed of safely.<sup>307</sup> Products that are used daily can impact the environment in numerous ways, including the toxic release of pollutants, greenhouse gas emissions, and nutrient discharges to water.<sup>308</sup> The life cycle approach also includes taking into account all stages of production, all the way from raw materials extraction, the design and production, packaging and distribution, to the end-of-life management.<sup>309</sup> In light of this, UN Environment hosts the Life Cycle Initiative, a partnership that consists of both public and private stakeholders which enables the global use of credible, science-based life cycle knowledge by all stakeholders to encourage more sustainable decisions.<sup>310</sup> The Life Cycle Initiative seeks to incorporate life cycle thinking in at least 15 countries and 30 companies by 2022, among other goals.<sup>311</sup> Additionally, UN Environment has responded to related emerging SCP needs through several initiatives, including the Education for Sustainable Consumption, and Sustainable Lifestyles and Youth programs.<sup>312</sup> Through Education for Sustainable Consumption individuals learn how to adopt more sustainable lifestyle choices, consume more responsibly, and engage in policy debates through seeking creative new solutions.<sup>313</sup> Similarly, the Sustainable Lifestyles and Youth program is promoting responsible use of natural resources, equitable socio-economic development, and a better quality of life for all.<sup>314</sup> Educating young consumers on SCP, namely those below the age of 25, means nearly half of the world's population can become engaged in SCP.<sup>315</sup>

### **Conclusion**

One of the most salient global challenges is the integration of environmental sustainability with economic growth.<sup>316</sup> The commitments made by Member States as it relates to SCP as a whole are vital to the achievement of SDG 12.<sup>317</sup> Shifts towards methods of production that do not overburden or damage the environment, whilst also transforming consumer behaviors to provide an environment wherein this is possible, is essential for ensuring that the environmental and economic perspectives of sustainable development are able to be mutually reinforcing.<sup>318</sup> The COVID-19 pandemic in 2020 showcased the importance of a more rapid shift of Member States to SCP patterns.<sup>319</sup> In the long term, it could be an opportunity to reduce the prevalence of lifestyles premised on large volumes of energy and material throughput.<sup>320</sup> Globally, sustainable consumption and production will contribute to cutting waste, emissions, and pollution of natural environments.<sup>321</sup>

### **Further Research**

Civil society often plays an important role in formulating the agreements and resolutions we see today. What further role can they take part in influencing consumer behavior? Similarly, what gaps in SCP need to be closed in order to halt further environmental degradation, resource over-extraction, and other

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<sup>306</sup> Ibid., p. 37.

<sup>307</sup> Ibid., p. 37.

<sup>308</sup> Ibid., p. 42.

<sup>309</sup> UN Environment, *The Life Cycle Initiative*.

<sup>310</sup> Ibid.

<sup>311</sup> Ibid.

<sup>312</sup> UN Environment, *Education, Lifestyles, and Youth*.

<sup>313</sup> Ibid.

<sup>314</sup> Ibid.

<sup>315</sup> Ibid.

<sup>316</sup> UN Environment, *Goal 12: Responsible Consumption and Production*.

<sup>317</sup> UN DESA, *Sustainable Development Goal 12*.

<sup>318</sup> UN DESA, *Responsible Consumption and Production: Why it Matters*.

<sup>319</sup> UN Environment, *Speech by Executive Director of UN Environment Inger Andersen on Marine litter and the challenge of sustainable consumption and production on 15 July 2020, in New York, 2020*.

<sup>320</sup> Ibid.

<sup>321</sup> UN Environment, *Global Environment Outlook: Geo-6: Healthy Planet, Healthy People*, 2019, p. 30.



harmful outcomes as a result of unsustainable consumption and production? How can responsible consumption and production be further integrated with economic growth? What roles do retailers, consumers, and parties in between have in meaningfully shifting towards a more resource efficient economy? What issues with regards to mainstreaming and implementation of SCP strategies have become evident due to the COVID-19 pandemic outbreak? What new approaches to SCP have appeared or need to be introduced? How can the global community “do more with less?”

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*This report outlines changes introduced due to the COVID-19 pandemic in key areas, including hygiene, food provision, mobility, shopping, alternative economies and thrift, water use, household work, and other aspects. The report offers four scenarios for the society impacted by COVID-19 - Recovery, Collapse, Accelerated Transition to Digitalisation and Accelerated Transition to Sustainable Development. The research presented in the report suggests ways to transit to a qualitatively different, more sustainable society after the pandemic. It also argues that it would require taking into account the wider social and economic dynamics and developing skills, resources and insights in that direction. This source will help delegates to understand the consequences of the 'lockdown' and its implications for the consumption patterns in the post-COVID era.*

The One Planet network. (n.d.). *A platform for Sustainable Development Goal 12*. Retrieved 23 August 2020 from: <https://www.oneplanetnetwork.org/platform-sustainable-development-goal-12>

*This source represents a database of case studies, toolkits, awareness raising material from its Global Sustainable Consumption and Production projects, and resources databases within the framework of the One Planet network. The network was established to implement 10YFP and support the global shift to SCP and the achievement of SDG 12. It is a multi-stakeholder partnership for Sustainable Development, monitoring progress on SCP across the network, supporting implementation of national SCP-relevant policies, and facilitating coordination of country-level implementation of SCP measure through engagement of National Focal Points by the six programs. This source will help delegates to find relevant information on initiatives from all regions in the world categorized by countries, themes, sectors, and programs of 10YFP.*

United Nations Environment Assembly. (2019). *Report of the fourth session of the United Nations Environment Assembly of the United Nations Environment Programme*. Retrieved 20 July 2020 from: <https://web.unep.org/environmentassembly/proceedings-report-ministerial-declaration-resolutions-and-decisions>

*This report details the progress that was reached at the forth session of UNEA held in March 2019. It elaborates on the resolutions and agreements adopted at the session. This includes the adoption of resolution 4/21 entitled “Implementation plan ‘Towards a pollution-free planet’” as a roadmap to effectively implement the declaration’s objectives, and also highlights other UNEA resolutions as well as voluntary commitments. Delegates will find this useful as it also highlights the agenda and goals for the fifth session in spring 2020 and other goals of the Assembly. It also encourages Member States to scale up their efforts and initiatives, reiterating the need for further progress and a full utilization of the frameworks and processes that are already in place to address SCP.*

United Nations Environment Programme. (2011). *Sustainable Consumption and Production: A Handbook for Policymakers*. Retrieved 18 September 2020 from: <https://sustainabledevelopment.un.org/content/documents/1951Sustainable%20Consumption.pdf>

*This report serves as a handbook for policymakers which outlines both an introduction to SCP policy and thematic policy opportunities. This document can deepen one’s understanding of why SCP policy is necessary to achieve sustainable development and*

*provides comprehensive frameworks on how SCP can be applied. This resource also details the key principles of SCP, including resource efficiency, life cycle thinking, and improving the quality of life for all while preventing further environmental degradation. This handbook also includes some key trends in consumption and production, and an outlook for the future with the purpose of engaging all stakeholders.*

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*This strategy document for UNEA and UN Environment serves as the organization's primary strategic blueprint, including an overview of its role in relation to SCP. It details a current "situation analysis," which describes the challenges linked to resource efficiency and growing demographic pressures. It also includes operating principles, a vision for 2030 and lays out specific priority areas and proposed outcomes for the future. These include specific goals for the areas of climate change, resilience to disasters and conflicts, healthy and productive ecosystems, environmental governance, chemicals, waste and air quality, and resource efficiency. Delegates will find this helpful as it details the long-term strategy and goals towards sustainability and also contextualizes the 17 Sustainable Development Goals.*

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*This source will help delegates to understand the current state of the environment worldwide and outlines possible future environmental trends. Assessments of effectiveness of global environmental policies, this document provides recommendations to governments on building sustainable futures. It particularly analyses possible measures to achieve the Sustainable Development Goals and other internationally agreed environmental goals, such as the Paris Agreement. The report contains recommendations to ensure urgent and inclusive actions at all levels to contribute to a healthy planet. Delegates might also find useful the section "The State of our Environment: Lessons Learned from the Sixth Global Environment Outlook" to advance their research on the topic and specifically on the committee mandate and best practices.*

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### III. Mitigation of and Adaptation to Desertification and Drought

#### *Introduction*

Desertification is the degradation of land resulting from various factors including both climatic conditions and human factors.<sup>322</sup> It can occur due to the exploitation of land resources, overgrazing, and bad irrigation practices.<sup>323</sup> Desertification should not be confused with the expansion of existing deserts, which is known as desert encroachment.<sup>324</sup> Over one-third of the world's land area is composed of dryland ecosystems, which are the most vulnerable to desertification.<sup>325</sup> In 2019, the UN Secretary-General warned that 24 billion tons of fertile land is lost every year to temporary or permanent reduction of soil quality.<sup>326</sup> This degradation includes the loss of vegetation, water resources and wildlife, subsequently affecting the economic productivity of the soil.<sup>327</sup> Furthermore, the UN estimates that by 2045, approximately 135 million people will be displaced because of desertification.<sup>328</sup> The demand for water is expected to increase by 50% by the year 2050 and the *United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa* (UNCCD) estimates that by 2050, 1.8 billion people will experience absolute water scarcity, with two-thirds of the world population living under water-stressed conditions.<sup>329</sup>

In contrast, droughts are extended periods of deficient rainfall and result thereby in deficiencies in land surface water, insufficient soil moisture, and lack of precipitation.<sup>330</sup> The effects of drought may be direct or indirect.<sup>331</sup> Examples of direct impacts include increased fire hazards, increased livestock and wildlife mortality rates, depleted agricultural yields, and reduced water levels.<sup>332</sup> Collectively, these direct impacts lead to indirect impacts, which are generally seen as more intangible, albeit with economic, environmental, or social ramifications.<sup>333</sup> The economic impacts of drought affect agricultural production by destruction of crops and farmland and are characterized by problems such as forest fires, while its social impacts include forced migration of human populations.<sup>334</sup>

Addressing desertification and droughts require both mitigation and adaptation efforts from the global community.<sup>335</sup> Mitigation efforts refer to initiatives taken to reduce the impact of undesirable events while adaptation efforts refer to adjusting practices to actual or expected effects of desertification/droughts.<sup>336</sup> The mitigation of drought requires short and long-term actions.<sup>337</sup> Mitigation actions include early warning systems, establishment of management techniques and objectives in each drought level, and defining the conditions based on climatic and geographical regions.<sup>338</sup> Adaptation measures in contrast include the improvement and use of infrastructure for improved climate, water monitoring, capacity building at all

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<sup>322</sup> UNOOSA, *Drought*; UN, General Assembly, *Elaboration of an International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (A/AC.241/27)*, 1994.

<sup>323</sup> IUCN, *Drylands and land degradation*.

<sup>324</sup> UN General Assembly, *Elaboration of an International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (A/AC.241/27)*, 1994.

<sup>325</sup> CarbonBrief, *Explainer: 'Desertification' and the Role of Climate Change*, 2019.

<sup>326</sup> UN DGC, *Secretary-General Urges Protecting, Restoring Degraded Land in Message for World Day to Combat Desertification*, 2019; CarbonBrief, *Explainer: 'Desertification' and the Role of Climate Change*, 2019.

<sup>327</sup> CarbonBrief, *Explainer: 'Desertification' and the Role of Climate Change*, 2019.

<sup>328</sup> UN-Water, *Water Scarcity*.

<sup>329</sup> *Ibid.*

<sup>330</sup> UNOOSA, *Drought*.

<sup>331</sup> *Ibid.*

<sup>332</sup> *Ibid.*

<sup>333</sup> *Ibid.*

<sup>334</sup> *Ibid.*

<sup>335</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016.

<sup>336</sup> IPCC, *Special Report: Climate Change and Land*, 2019.

<sup>337</sup> UNOOSA, *Drought*.

<sup>338</sup> *Ibid.*

levels, and training for farmers and pastoralists, including women and youth, on how sustainable farming practices and livestock production.<sup>339</sup>

### ***International and Regional Framework***

The United Nations Environment Assembly (UNEA) is the world's highest-level decision-making body on the environment and its commitment to protect terrestrial ecosystems, including agricultural biodiversity, underscores its already long-term commitment to combat desertification and droughts.<sup>340</sup> In addition to establishing frameworks to guide governmental decision-making, such as the *Convention on Biological Diversity* (1992), the United Nations Environment Programme (UN Environment) also provides tools and resources through its divisions and partners with other organizations for restoring land quality.<sup>341</sup>

In 2015, the UN General Assembly adopted the 2030 Agenda for Sustainable Development (2030 Agenda), outlining the 17 Sustainable Development Goals (SDGs) and their related targets.<sup>342</sup> Because of the direct and indirect impacts on the environment, society, and the economy, desertification and droughts can affect the achievement of nearly all SDGs.<sup>343</sup> For example, desertification can jeopardize the achievements of ending poverty and hunger (Goals 1 & 2), clean sanitation and water (Goal 6), sustainable economic growth (Goal 8), or climate action (Goal 13).<sup>344</sup> Among other SDGs, Goal 15 specifically focuses on halting and reversing land degradation, combating desertification, and sustainably managing forests.<sup>345</sup> This goal has several targets directly linked to mitigating and adapting to desertification and drought.<sup>346</sup> Target 15.3 aims at combatting desertification, restoring degraded land and soil, including land affected by desertification, drought, and floods.<sup>347</sup> Target 15.9 seeks an integration of ecosystem and biodiversity values into national and local planning, and development processes.<sup>348</sup> The General Assembly has also adopted resolution 64/201 (2010) to raise awareness about desertification and drought, and the gravity of danger posed to many species on Earth, including our own.<sup>349</sup>

Desertification and droughts are impacted by the environment and have consequences for the environment.<sup>350</sup> Therefore, UN Environment has an important role in leading global efforts to combat them.<sup>351</sup> In 1988, UN Environment convened experts on biological diversity to establish an international convention for the sustainable use of biological diversity, and the *Convention on Biological Diversity* entered into force in 1993.<sup>352</sup> The Convention is a strong foundation for UN Environment to lead global efforts, establishing a framework to guide Member States in data monitoring, ecosystem-based management strategies, acquisition and transfer of technologies and knowledge, among other important activities.<sup>353</sup> In its strategic plan for 2018-2021, UN Environment further emphasizes the importance of strengthening resilience of our terrestrial ecosystems, addressing land degradation and combatting desertification as key strategies to restore healthy and productive ecosystems.<sup>354</sup> During the Fourth Assembly of UNEA (UNEA4) in 2019, under the theme "Innovative solutions for environmental challenges

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<sup>339</sup> UNDP, *Agriculture/Food Security*.

<sup>340</sup> UNEA, *UN Environmental Assembly and Governing Council*.

<sup>341</sup> UN Environment, *What we do*.

<sup>342</sup> UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>343</sup> UNDP, *Better land use and management critical for achieving Agenda 2030, says a new report*, 2017.

<sup>344</sup> UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>345</sup> *Ibid.*

<sup>346</sup> *Ibid.*

<sup>347</sup> *Ibid.*

<sup>348</sup> *Ibid.*

<sup>349</sup> UNCCD, *The UN Decade for Deserts and the Fight Against Desertification: The Purpose*.

<sup>350</sup> National Geographic, *Desertification, explained*, 2019.

<sup>351</sup> UN Environment, *About UN Environment Programme*.

<sup>352</sup> CBD, *History of the Convention*, 2020.

<sup>353</sup> CBD, *Text of the Convention*, 2016.

<sup>354</sup> UN Environment, *Medium Term Strategy 2018-2021*, 2016.

and sustainable consumption and production” Member States proposed guidelines to foster partnerships for better environmental practices.<sup>355</sup> The guidelines seek to promote healthy use of land resources, sustainable irrigation practices, proper management of freshwater sources, and mitigation of desertification.<sup>356</sup> During this session, Member States and other relevant stakeholders also stressed the need for inclusivity in policymaking, especially of women and youth.<sup>357</sup> UNEA adopted a decision that encouraged the Executive Director of UN Environment to work with States parties to the UNCCD to implement voluntary national targets for land degradation neutrality by 2030.<sup>358</sup>

The UNCCD is the sole legally binding international agreement that links environmental development to sustainable land management.<sup>359</sup> The General Assembly established the UNCCD in 1994 to mobilize international efforts in addition to establishing recommended actions from both developed and affected countries.<sup>360</sup> For instance, affected Member States are recommended to adopt strategies to combat desertification and to promote awareness among local populations.<sup>361</sup> However, developed Member States have the responsibility to provide support to affected parties to provide financial and technological resources, and to enhance participation of other stakeholders, such as the private sector.<sup>362</sup> The UNCCD includes the creation of several mechanisms to support global efforts and decision-making, including the Conference of Parties to the UNCCD, the decision-making body of the Convention, and the Committee on Science and Technology.<sup>363</sup> The Conference of the Parties (COP) to the UNCCD also adopted the *2018 – 2030 Strategic Framework* to reverse and minimize the effects of desertification and drought.<sup>364</sup> This Framework seeks to build a future with neutral land degradation, consistent with the *2030 Agenda for Sustainable Development* (2030 Agenda), within the scope of the UNCCD.<sup>365</sup> The objectives of this strategic framework include the improvement of currently affected ecosystems, promotion of sustainable land management, and land degradation neutrality.<sup>366</sup> Other objectives include improving the living conditions of affected populations and mitigation of, and adaptation to, drought in order to enhance resilience of vulnerable populations and ecosystems.<sup>367</sup> The Framework also seeks to generate global environmental benefits through effective implementation of the UNCCD and mobilization and capacity building at all levels.<sup>368</sup> Since land, climate, and biodiversity are closely connected, the UNCCD also works with the *Convention on Biological Diversity* (CBD) and the *United Nations Framework Convention on Climate Change* (UNFCCC), as they have similar goals and together form an integrated approach for the sustainable use of natural resources.<sup>369</sup>

Other UN organizations and specialized agencies, such as the United Nations Food and Agriculture Organization (FAO) established their own frameworks to combat desertification and droughts.<sup>370</sup> FAO developed in 2014 a vision for sustainable agriculture as a means of, among other objectives, mitigating and adapting to desertification and drought.<sup>371</sup> Sustainable agriculture incorporates practices such as recycling soil nutrients by using plants that fix their own nitrogen and achieving balance between pests

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<sup>355</sup> UNEA, *Report of the Fourth Session of the United Nations Environment Assembly*, 2019.

<sup>356</sup> *Ibid.*

<sup>357</sup> UNEA, *Fourth session of the UN Environment Assembly*.

<sup>358</sup> UNEA, *Innovation on biodiversity and land degradation (UNEP/EA.4/Res.10)*, 2019.

<sup>359</sup> UNCCD, *About the Convention*.

<sup>360</sup> *Ibid.*

<sup>361</sup> UNCCD, *United Nations Convention to Combat Desertification in those countries experiencing serious drought and/or desertification, particularly in Africa*, 1994.

<sup>362</sup> *Ibid.*

<sup>363</sup> *Ibid.*

<sup>364</sup> UNCCD, *The Future Strategic Framework of the Convention (ICCD/COP(13)/L.18)*, 2017.

<sup>365</sup> *Ibid.*

<sup>366</sup> *Ibid.*

<sup>367</sup> *Ibid.*

<sup>368</sup> *Ibid.*

<sup>369</sup> UNCCD, *About the Convention*.

<sup>370</sup> FAO, *Desertification and land degradation*.

<sup>371</sup> FAO, *Building a common vision for sustainable food and agriculture*, 2014.



and predators to reduce dependence on inorganic fertilizers and chemical pesticides.<sup>372</sup> FAO developed a five-principle framework for practicing sustainable agriculture.<sup>373</sup> Principle 1 seeks to transform policy, create jobs, and increase agricultural production with a limited expansion of agricultural land.<sup>374</sup> Principles 2 and 3 are designed to protect natural resources and enhance the use of natural resources without damage to the environment, and improve livelihoods while ensuring inclusive economic growth, respectively.<sup>375</sup> Principle 4 seeks to improve the resilience of people, ecosystems, and communities to extreme weather and climate change.<sup>376</sup> Principle 5 seeks to institutionalize the other aspects of sustainable agriculture through government policy, and governance to promote and maintain the adoption of these sustainable agricultural practices.<sup>377</sup>

### ***Role of the International System***

While UNCCD leads global efforts toward combatting desertification and droughts, UN Environment is the lead global environmental authority and therefore plays a critical role to address desertification.<sup>378</sup> UN Environment established and supports several mechanisms to support Member States into combating desertification and water management.<sup>379</sup> These mechanisms include the Global Environment Monitoring System for freshwater that provide data for supporting water quality management and the Economics of Land Degradation Initiative, which brings expertise of scientists, decision-makers, and business leaders to increase the awareness on the economic impacts of land degradation.<sup>380</sup> Finally, the role of UN Environment as the custodian of indicator 6.5.1 in the SDGs on the degree of integrated water resources management implementation also illustrates their key role in monitoring efforts for mitigation and adaptation to desertification and droughts.<sup>381</sup>

In addition to UN Environment, other UN bodies also play a key role in combating desertification and droughts, such as the UNCCD.<sup>382</sup> Member States submit national reports and share information through the *Performance Review and Assessment of Implementation System* (PRAIS).<sup>383</sup> PRAIS is managed by the UNCCD Secretariat to promote a multilevel effective planning and implementation of the UNCCD.<sup>384</sup> The information gathered is publicly available to all Member States and civil society.<sup>385</sup> States parties to the convention have agreed to strengthen their national policies and provide support to developing countries to promote transparency and accountability.<sup>386</sup> The UNCCD Secretariat requires national reporting to its Secretariat to stay up-to-date on results and challenges faced by Member States.<sup>387</sup> The UNCCD uses this information to adopt policies focused on the mitigation of the effects of drought, to combat desertification, maintain and restore soil productivity, and improve the livelihoods of people in drylands.<sup>388</sup>

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<sup>372</sup> Ibid.

<sup>373</sup> FAO, *Building a common vision for sustainable food Sustainable Agriculture and agriculture*, 2014; FAO, *Sustainable Agriculture and Rural Development*, 1995.

<sup>374</sup> Ibid.

<sup>375</sup> FAO, *Building a common vision for sustainable food Sustainable Food and agriculture*, 2014; FAO, *The Global Framework on Water Scarcity in Agriculture*, 2019.

<sup>376</sup> Ibid.

<sup>377</sup> FAO, *Sustainable Agriculture and Rural Development*, 1995.

<sup>378</sup> UN Environment, *About UN Environment Programme*.

<sup>379</sup> UN Environment, *Monitoring Water Quality*.

<sup>380</sup> The Economics of Land Degradation, *About ELD*; UN Environment, *Monitoring Water Quality*.

<sup>381</sup> UN Water, *Indicator 6.5.1 "Degree of integrated water resources management implementation (0-100)"*.

<sup>382</sup> UNCCD, *About the Convention*.

<sup>383</sup> UNCCD, *Reporting Process and the PRAIS*.

<sup>384</sup> Ibid.

<sup>385</sup> UNCCD, *Homepage of PRAIS3*.

<sup>386</sup> European Commission, *Paris Agreement*.

<sup>387</sup> UNCCD, *Reporting Process and the PRAIS*.

<sup>388</sup> Ibid.

The World Day to Combat Desertification and Drought is observed annually on 17 June.<sup>389</sup> This observance is to promote global awareness of international efforts for addressing desertification and drought.<sup>390</sup> One of the objectives of this observance is to achieve Land Degradation Neutrality (LDN), defined by the States parties to the UNCCD as a “state whereby the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems.”<sup>391</sup> The LDN Target Setting Programme is an initiative of the UNCCD Secretariat, in collaboration with several international partners designed to assist Member States in accomplishing national measures to achieve LDN.<sup>392</sup>

The UNCCD also uses Sustainable Land Management (SLM) as a cost-effective means of combatting land degradation.<sup>393</sup> FAO defines SLM as the use of land resources to meet human needs while simultaneously ensuring long-term productivity to man and the environment.<sup>394</sup> SLM is also an effective means of reversing land degradation and desertification.<sup>395</sup> It involves the use of land appropriately, based on biophysical and socio-economic conditions.<sup>396</sup> It is based on four principles, which target policy-making and institutional support, grassroots participation, integrated use of natural resources at the ecosystem scale, and multilevel partnerships.<sup>397</sup>

The Global Greengrants Fund (GGF) was established in 1993 to support grassroots action on climate change.<sup>398</sup> It has since worked to support grassroots-led efforts around the world by directly engaging with local people and providing them with resources, and assisting with policy implementation.<sup>399</sup> It has also worked with non-governmental organizations to extend solutions to local communities, especially those most impacted by desertification and drought.<sup>400</sup> This approach is unique because it gives a local platform to advance strategies that best fit their needs.<sup>401</sup> Since its establishment, the organization has offered more than 12,000 grants in 168 countries totaling over \$84 million.<sup>402</sup> In places where desertification has led to reduced agricultural production, GGF has helped local women adapt to water scarcity by adopting new agricultural practices.<sup>403</sup> The GGF also empowers female leaders involved in grassroots environmental action initiatives.<sup>404</sup> The GGF currently works in Africa, Asia, Latin America, North America, and the Pacific Islands.<sup>405</sup>

### ***Land degradation, food security and threats to peace***

Around 2 billion people, 90% of whom live in developing countries, live in drylands that are more vulnerable to land degradation.<sup>406</sup> Furthermore, over 2 billion people live in areas experiencing high water stress and an estimated 700 million will be displaced by 2030.<sup>407</sup> In 2019, 17 countries were withdrawing more than 80% of the available water resources and 44 countries withdrew more than 40%, underscoring

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<sup>389</sup> UN DGC, *World Day to Combat Desertification and Drought 17 June*, 2019.

<sup>390</sup> *Ibid.*

<sup>391</sup> UNCCD, *Achieving Land Degradation Neutrality*.

<sup>392</sup> UNCCD, *The Land Degradation Neutrality Setting Programme*.

<sup>393</sup> UNCCD, *Land and Human Security*.

<sup>394</sup> FAO, *Land and Water: Sustainable Land Management*.

<sup>395</sup> UNCCD, *Land and Human Security*.

<sup>396</sup> FAO, *Land and Water: Sustainable Land Management*.

<sup>397</sup> *Ibid.*

<sup>398</sup> GGF, *Where Change Takes Root*, 2019.

<sup>399</sup> *Ibid.*

<sup>400</sup> *Ibid.*

<sup>401</sup> *Ibid.*

<sup>402</sup> *Ibid.*

<sup>403</sup> UNCCD, *Reforestation and the Power of Exchange in Kenya’s Rift Valley*.

<sup>404</sup> GGF, *Women’s Environmental Action*.

<sup>405</sup> GGF, *Where We Work*.

<sup>406</sup> FAO, *Global Drylands Assessment*, 2019; FAO, *Trees, Forests and Land Use in Drylands: The first global assessment*, 2016. p 40.

<sup>407</sup> UN-Water, *Water Scarcity*; Gopal Water Institute, *Future Water (In)security: Facts, Figures, and Predictions*, 2013.

that these countries face extremely high water stress.<sup>408</sup> Agriculture accounts for over 70% of global water use, so a shortage of water could lead to reduced agricultural output.<sup>409</sup> Furthermore, food production is expected to increase by 70% by 2050 and therefore the destruction of 12 million hectares of agriculturally viable land annually, caused by the changing climate and anthropogenic activities, poses a threat to sustaining this increase in demand.<sup>410</sup> Farmers in rural areas are most vulnerable to food shortages due to drought and land degradation.<sup>411</sup> Methods of crop production that utilize fewer inputs that help mitigate drought are now included in national, regional, and local levels of policy-making<sup>412</sup>

In the past 60 years, 40% of national conflicts occurred as a result of disputes over land resources.<sup>413</sup> This led to the failure of fragile states and an increase in armed conflicts in affected regions.<sup>414</sup> The reduction of land quality and other land resources subsequently leads to the use of violence as the major means of controlling the remaining available land.<sup>415</sup> People are forced to leave their homes in search of water and arable land, often traveling hundreds of miles while under the threat of violence and armed conflict.<sup>416</sup> In some cases, non-state actors monopolize the flow of resources, while limiting the power of legitimate governments, with the most vulnerable social groups suffering the biggest consequences.<sup>417</sup> Rural communities in Africa are especially vulnerable to forced migration, since subsistence agriculture practiced in local communities is mostly dependent on rain and poorly-developed agricultural infrastructure.<sup>418</sup> Improving soil health increases agricultural production and improves security, which in turn will reduce land disputes, and the need to emigrate.<sup>419</sup> Since land used for agriculture accounts for most of the harmful impacts of desertification and drought, preventing land degradation is essential to food security.<sup>420</sup> Several regions of the world have prioritized land restoration and adopted healthy agricultural practices to maintain soil health and productivity to address this issue.<sup>421</sup> These practices, such as mulching or reduced tillage, contribute to mitigate the impacts of desertification and adapt to its effects whenever possible.<sup>422</sup> More widespread adoption of healthy land practices have occurred with Member States incorporating healthy land management into their national planning.<sup>423</sup>

The African Union (AU) has initiatives to tackle the aftermath of desertification and drought, such as the African Risk Capacity (ARC).<sup>424</sup> ARC is an insurance mechanism providing efficient financial relief to its 33 participating states in the event of natural disasters, including drought.<sup>425</sup> ARC's method relies on four pillars: customized early warning systems, creating country-specific contingency plans, financing pre-approved contingency plans in the event of disasters, and pooling risks from Africa as a region.<sup>426</sup> ARC understands the impact of drought on food security, and has created a regional financial solution that taps into the power of globalized markets.<sup>427</sup> The mechanism of the ARC is complex, but could be summarized

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<sup>408</sup> World Resources Institute, *17 Countries, Home to One-Quarter of the World's Population, Face Extremely High Water Stress*, 2019.

<sup>409</sup> FAO, *The Global Framework on Water Scarcity in Agriculture*, 2019.

<sup>410</sup> UNCCD, *Land and Human Security*.

<sup>411</sup> FAO, *Global Drylands Assessment*.

<sup>412</sup> UNCCD, *Land and Human Security*.

<sup>413</sup> *Ibid.*

<sup>414</sup> *Ibid.*

<sup>415</sup> *Ibid.*

<sup>416</sup> FAO, *Global Drylands Assessment*.

<sup>417</sup> UNCCD, *Land and Human Security*.

<sup>418</sup> *Ibid.*

<sup>419</sup> *Ibid.*

<sup>420</sup> Alliance for a Green Revolution in Africa, *To Ensure Food Security, Keep Soils Healthy*.

<sup>421</sup> *Ibid.*

<sup>422</sup> *Ibid.*

<sup>423</sup> *Ibid.*

<sup>424</sup> African Risk Capacity, *African Risk Capacity: Sovereign Disaster Risk Solutions: A Specialized Agency of the African Union*, 2012.

<sup>425</sup> *Ibid.*, p. 2; African Risk Capacity, *African Risk Capacity: Transforming disaster risk management & financing in Africa*.

<sup>426</sup> African Risk Capacity, *African Risk Capacity: Transforming disaster risk management & financing in Africa*.

<sup>427</sup> *Ibid.*; African Risk Capacity, *Africa RiskView*, 2019.

as an insurance system where participating African countries pay premiums to an insurance risk pool that protects its capital via investments.<sup>428</sup> When facing a major drought event, a participating country receives pre-determined financial support to cover emergency costs, at a maximum of US \$30 million per country per season at a maximum frequency of 1 drought event in 5 years.<sup>429</sup> Despite the ARC and other established solutions similarly aiming to reduce impacts of desertification and droughts, food security remains a major threat in Africa to the achievement of the SDGs and additional initiatives are required from different stakeholders.<sup>430</sup>

### ***Partnerships to combat desertification globally***

Mitigating and adapting to desertification and droughts involves a wide diversity of stakeholders, illustrated by the long list of partnerships collaborating with UN Environment and/or UNCCD to address the issue.<sup>431</sup> In addition, of the UN bodies mentioned above, other international organizations, such as the World Bank, regional and national governments, civil organizations, and the private sector have also had an impact in addressing the topic.<sup>432</sup> Partnerships are critical to success in the combat against desertification as it allows for the combination of resources, in addition to lowering the initial costs or risks.<sup>433</sup> Such partnerships have been implemented worldwide and present promising efforts.<sup>434</sup> For instance, FAO, in partnership with the UNCCD, works to enhance the development of the Great Green Wall Initiative (GGWI) in Africa.<sup>435</sup> Several other actors are also involved in the project, including the AU, the European Union, the International Union for Conservation of Nature and the World Bank Group.<sup>436</sup> The GGWI has the mission to restore 100 million hectares over a 8,000km stretch of degrade land.<sup>437</sup> The wall extends from Senegal to Djibouti, running across other West African countries in its course.<sup>438</sup> GGWI was instituted in 2007 and already over 15 million hectares of degraded lands were restored.<sup>439</sup> GGWI improves the livelihoods and living conditions of millions of lives across the African continent through restoration of degraded ecosystems and land productivity.<sup>440</sup> This is often due to lack of technology for better irrigation, and sustainable water management.<sup>441</sup>

Another example of successful partnerships is the Global Framework on Water Scarcity in Agriculture (WASAG) where FAO has established thematic working groups to address water management in agriculture in collaboration with other international and national organizations, universities and research facilities, and foundations.<sup>442</sup> One of these working groups, Drought Preparedness, works to identify practical solutions for the effects of drought and water scarcity on agriculture.<sup>443</sup> Some of these solutions include the adoption of saline agriculture, which focuses on how to improve agriculture where saline water is the dominant water resource.<sup>444</sup> Another working group, Water and Migration, aims to alleviate the pressure caused by water scarcity in order to reduce forced migration and the risk of armed conflict.<sup>445</sup>

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<sup>428</sup> African Risk Capacity, *How the African Risk Capacity Works*.

<sup>429</sup> Ibid.

<sup>430</sup> UNDP, *Better land use and management critical for achieving Agenda 2030, says a new report*, 2017.

<sup>431</sup> UNCCD, *Our Partners*.

<sup>432</sup> Ibid.

<sup>433</sup> UNCCD, *United Nations Convention to Combat Desertification in those countries experiencing serious drought and/or desertification, particularly in Africa*, 1994; African Risk Capacity, *How the African Risk Capacity Works*.

<sup>434</sup> The World Bank, *World Desertification Day: Concerted Effort in Global Resilience to Turn Back Drought and Desertification*, 2017.

<sup>435</sup> FAO, *Action Against Desertification: Great Green Wall*.

<sup>436</sup> UNCCD, *The Great Green Wall Initiative*.

<sup>437</sup> GGW, *Growing a World Wonder*, 2019.

<sup>438</sup> Ibid.

<sup>439</sup> Ibid.

<sup>440</sup> Ibid.

<sup>441</sup> FAO, *Global Drylands Assessment*.

<sup>442</sup> FAO, *The Global Framework on Water Scarcity in Agriculture*.

<sup>443</sup> Ibid.

<sup>444</sup> FAO, *The Global Framework on Water Scarcity in Agriculture*, 2019.

<sup>445</sup> Ibid.

This is being achieved by promoting sustainable water use and disseminating information based on the needs of each region.<sup>446</sup>

Despite the recognized value of involving all stakeholders in elaborating strategies to combat desertification and droughts through finding mitigating and adapting solutions, several key players are left out of these partnerships.<sup>447</sup> Local populations, especially representatives from vulnerable groups such as women and youth, are often forgotten and least developed countries, despite the available knowledge and technologies, may not have the capacity to implement these.<sup>448</sup> As the global leader for environmental affairs, UNEA can orientate actions taken by UN Environment to improve the inclusiveness of the initiatives taken to reduce land degradation.<sup>449</sup>

### **Conclusion**

The international community has contributed to the mitigation of and adaptation to desertification and drought through monitoring and evaluation, information sharing, and regional cooperation to mobilize and empower more Member States to address the effects of climate change on land.<sup>450</sup> Desertification and drought pose a threat to food security and the need for action will become more urgent with the exponential increase in demand for food in the future.<sup>451</sup> Land restoration can be achieved by sustainable agriculture and irrigation practices, strengthening of technical and functional capacities of individuals, communities, organizations and national governments through promoting partnerships, and sustainable land management.<sup>452</sup> The international community has created various frameworks to combat desertification, adapt to climate change, and reduce harmful side effects of agriculture.<sup>453</sup> UNEA continues to seek international collaboration to strengthen existing partnerships that promote the maintenance of resilient landscapes for resilient people in the fight against desertification and drought.<sup>454</sup>

### **Further Research**

With an expected increase in food production, how can the UNEA better prepare to cope with demand in a sustainable manner? In what ways do Member States contribute to adaptation measures to reduce the risk of humanitarian crises occurring as a result of forced migration? In areas where agriculture is the major driver of economic development, how can policy be framed to ensure that resources are not depleted, but conserved for future generations while ensuring food security? How do Member States currently encourage sustainable land management? How can resilience of local populations be further enhanced to address the challenges of desertification and drought?

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*This FAO publication will show delegates the relationship between land productivity and the socioeconomic status of local populations. It shows the importance of monitoring the land and soil health in dryland forests which are not often prioritized in climate action. It also shows the various international organizations that are working to restore drylands, and equip local communities with information on how to adapt to desertification. It contains information on the world's drylands and shows the intensity of desertification*

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<sup>446</sup> Ibid.

<sup>447</sup> Climate Home News, *Desertification action not possible until fair land management addressed*, 2012.

<sup>448</sup> FAO, *Gender and Sustainable Development in Drylands: an Analysis of Field Experiences*, 2003.

<sup>449</sup> UN Environment, *What is an "Inclusive Green Economy"?*.

<sup>450</sup> FAO, *Action Against Desertification: Great Green Wall*.

<sup>451</sup> UNCCD, *Land and Human Security*.

<sup>452</sup> FAO, *Action Against Desertification: Land restoration*; FAO, *Action Against Desertification: Capacity development*.

<sup>453</sup> Ibid.

<sup>454</sup> IISD, *Summary of the Second United Nations Environment Assembly of the UN Environment Programme*, 2016.

*and drought in various parts of the world. Delegates will find this useful when conducting research on policy responses to desertification and drought.*

Global Greengrants Fund. (n.d.). *Where Change Takes Root*. Retrieved 22 September 2020 from: <https://www.greengrants.org/who-we-are/>

*In order to bridge the gap between policy and implementation, the GGF uses a grassroots approach in addressing environmental challenges. This method shows how policy has been implemented by directly engaging members of rural communities and ensuring their inclusion in policy making and implementation. The GGFs approach to local empowerment has been utilized for 25 years and employs volunteer experts for informed data collection and collation. The fund also promotes human empowerment by giving financial grants to local farmers who seek to adopt new or improved methods of agricultural production in order to ensure land degradation neutrality.*

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*This publication addresses water scarcity in different climatic regions and freshwater sources. It also highlights the relationships between water scarcity and socioeconomic status, as well as the future of water security. This publication will help delegates to utilize in their initial research to get a broad view of the various problems of water on land such as water scarcity, drought, the status of women and children relating to collection of water in rural areas, as well as the how the use of water in cities affects the general availability of the resource.*

Great Green Wall. (n.d.). *Growing a World Wonder*. Retrieved 22 September 2020 from: <https://www.greatgreenwall.org/about-great-green-wall>

*This project is an ambitious solution to problems of desertification and drought in Africa. The project was kickstarted in the region of the world most affected by desertification and drought. Its objectives include a broad range of goals, including mitigating desertification directly, reducing forced migration, land restoration, and sustainable land use. With an unprecedented success rate, it has been recommended by the African Union to other regions of the world affected by desertification as a tool for climate action. Delegates will find this to be an invaluable resource in their research because it consists of several objectives and goals of the Sustainable Development Goals and offers specific examples of how this project has aided in the mitigation of and adaptation to desertification and drought.*

United Nations Environment Programme. (2016). *Medium Term Strategy 2018-2021*. Retrieved 16 September 2020 from: <http://wedocs.unep.org/handle/20.500.11822/7621>

*The role of UN Environment in combating desertification and droughts may be difficult to grasp with a prominent role played also by the UNCCD, the FAO and other UN organizations. Reading the Medium Term Strategy of UN Environment for 2018-2021 will help delegates in understanding the objectives and role of UN Environment, and UNEA, as the global authority in environment sustainability. Furthermore, the document provide a rich source of information into the impacts of desertification and actions to be undertaken by UN Environment to address the topic.*

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