

# Washington, DC USA 6-8 November 2020

nmun.org/conferences/washington-dc.html



# United Nations Human Settlements Programme

Background Guide 2020

Written by: Caitlin M. Hopper, Director; Emma A. Bott, Assistant Director; Analeigh Willett, Director of Information Services









# NATIONAL MODEL UNITED NATIONS



#### Dear Delegates,

Welcome to the 2020 National Model United Nations Conference in Washington, DC (NMUN•DC)! We are pleased to introduce you to our committee, the The United Nations Human Settlements Programme (UN-Habitat). This year's staff is: Director Caitlin M. Hopper and Assistant Director Emma A. Bott. After receiving her Bachelor's degree in International Studies in 2015, Caitlin started working at the International Food Policy Research Institute. Emma has a Bachelor of Management and is finishing her final year of law school.

The topics under discussion for UN-Habitat are:

- I. Building Smart Cities to Implement the New Urban Agenda
- II. Improving Global Road Safety

The UN-Habitat Assembly was created by the General Assembly in December 2018 and replaced the former Governing Council of UN-Habitat. It works to address the benefits and challenges that urbanization presents by identifying key issues, reviewing and analyzing major urbanization trends, and examining best practices on sustainable urbanization. The UN-Habitat Assembly convenes every four years and is a universal body composed of the 193 Member States of the United Nations.

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 conduct additional research, explore your Member State's policies in-depth, and examine the policies of other Member States to improve your ability to negotiate and reach consensus. In preparation for the conference, each delegation will use their research to draft and submit a <u>position paper</u>. Guidelines are available in the <u>NMUN Position Paper Guide</u>.

The <u>NMUN website</u> has many additional resources, including two that are essential both in preparation for the conference and as a resource during the conference. They are:

- The <u>NMUN Delegate Preparation Guide</u>, which 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 discuss the topics or agenda with other members of their
  committee until the first committee session.
- 2. The <u>NMUN Rules of Procedure</u>, which includes 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 <u>NMUN Conduct Expectations</u> 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-Secretary-General Courtney Indart at usgcourtney.dc@nmun.org or Secretary-General Daniel Sweeney at <a href="mailto:secgen.dc@nmun.org">secgen.dc@nmun.org</a>.

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

Sincerely,

Caitlin M. Hopper, Director Emma A. Bott, Assistant Director



## **TABLE OF CONTENTS**

Committee Overview	1
Introduction	1
Governance, Structure, and Membership	2
Mandate, Functions, and Powers	3
Recent Sessions and Current Priorities	3
Conclusion	5
Annotated Bibliography	5
Bibliography	6
I. Building Smart Cities to Implement the New Urban Agenda	8
Introduction	8
International and Regional Framework	9
Role of the International System	10
Sustainable Economic Development for Smart Cities	11
Planning and Management of Cities	13
Conclusion	14
Further Research	14
Annotated Bibliography	14
Bibliography	15
II. Improving Global Road Safety	19
Introduction	19
International and Regional Framework	20
Role of the International System	21
Capacity-Building and Road Safety Legislation	22
Best Practices, Sustainable Transport, and Private Sector Engagement	23
Conclusion	24
Further Research	24
Annotated Bibliography	24
Bibliography	25



#### **Committee Overview**

#### Introduction

The United Nations (UN) General Assembly established the UN Habitat and Human Settlements Foundation (UNHHSF) on 1 January 1975 with the purpose of addressing urbanization issues. 1 Under the auspices of the United Nations Environment Programme (UNEP), UNHHSF was tasked with assisting country-level human settlement programs through the delivery of fiscal and technical assistance.<sup>2</sup> The 1976 Habitat I conference in Vancouver, Canada, was the first global conference to acknowledge the growing challenges that stem from rapid urbanization.<sup>3</sup> The conference adopted the Vancouver Declaration on Human Settlements (1976), which established a global framework for Member States to respond to rapid urbanization and recommended the creation of the UN Commission on Human Settlements and its Secretariat, and the UN Centre for Human Settlements (Habitat).<sup>4</sup> In 1996, the UN hosted Habitat II, its second conference pertaining to the holistic functioning of cities.<sup>5</sup> This conference was hosted to evaluate global progress since Habitat I and to outline goals for the new millennium.<sup>6</sup> The resulting Istanbul Declaration on Human Settlements (1996), also known as the Habitat Agenda, established over 100 commitments and 600 recommendations pertaining to the provision of adequate human shelter and sustainable human settlements.7 In 2018, the General Assembly adopted resolution 73/239, establishing the UN-Habitat Assembly with universal membership noting that effective implementation of the SDGs in urban areas requires participation at all levels of governance.8

The UN system significantly reformed its approach to human settlements after the adoption of the *UN Millennium Declaration* (2000). General Assembly resolution 56/206 (2002) on "Strengthening the mandate and status of the Commission on Human Settlements and the status, role and functions of the United Nations Centre for Human Settlements" consolidated the UN Commission on Human Settlements, Habitat, and the UNHHSF into the UN Human Settlements Programme (UN-Habitat). UN-Habitat emerged as an integral decision-maker and policy-maker in the UN system's development agenda. Today, UN-Habitat collaborates with governments, the private sector, and many intergovernmental and civil society organizations (CSOs) to ensure that urbanization issues are prioritized globally. UN-Habitat also has an important role in implementing the *2030 Agenda for Sustainable Development*. UN-Habitat, under the direction of the Millennium Declaration, was charged with achieving significant improvements in the lives of at least 100 million slum-dwellers by the year 2020. He is within UN-Habitat's mandate to serve as the primary international organization that works to ensure that cities are providing safe and sufficient housing for all.

<sup>&</sup>lt;sup>1</sup> UN-Habitat, *History, mandate & role in the UN System*, 2020.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Ibid; UN Conference on Human Settlements, *The Vancouver Declaration on Human Settlements*, 1976.

<sup>&</sup>lt;sup>5</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> UN General Assembly, Implementation of the outcomes of the United Nations Conferences on Human Settlements and on Housing and Sustainable Urban Development and strenghtening of the United Nations Human Settlements Programme (UN-Habitat) (A/RES/73/29), 2018.

<sup>9</sup> Ibid

<sup>&</sup>lt;sup>10</sup> UN General Assembly, Strengthening the mandate and status of the Commission on Human Settlements and the status, role and functions of the United Nations Centre for Human Settlements (Habitat) (A/RES/56/206), 2002

<sup>&</sup>lt;sup>11</sup> Ibid.

<sup>&</sup>lt;sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> Ibid

<sup>&</sup>lt;sup>15</sup> Ibid.



Rapid urbanization places immense pressure on the environment, industries, and infrastructure. <sup>16</sup> By 2050, an estimated 70% of the global population will be living in an urban area. <sup>17</sup> If prioritized, urbanization can serve as an opportunity to further sustainable development for those who live in cities. <sup>18</sup> However, unabated urbanization poses significant risks to the general global livelihood. <sup>19</sup> Inadequate urban planning and limited housing have fed the growth of urban slums; in some cities, up to 80% of the population lives in slums. <sup>20</sup> By 2030, informal urban settlements will house an estimated 3 billion people, all of whom will need access to adequate housing, infrastructure, and basic services. <sup>21</sup> Obstacles to establishing adequate housing include affordability, sustainability, and limited capacity for governance. <sup>22</sup>

#### Governance, Structure, and Membership

<sup>16</sup> Ibid.

<sup>34</sup> Ibid

UN-Habitat is governed by three separate bodies, the UN-Habitat Assembly which meets every four years, the Executive Board which meets three times a year, and the Committee of Permanent Representatives (CPR) which meets twice every four years.<sup>23</sup> In addition to ensuring transparency within the agency, the design of having three governing bodies is to ensure effective oversight at both the strategic and operational levels.<sup>24</sup> The UN-Habitat Assembly is the main governing body of the agency, deciding on the overall strategic direction and reviewing reports related to the New Urban Agenda.<sup>25</sup> The assembly also elects the 36 Member States of the UN-Habitat Executive Board, which serves as the main body that ensures accountability, transparency, efficiency of processes, and effectiveness of UN-Habitat policies and programmes. <sup>26</sup> This includes the auditing on the finances and budget of UN-Habitat, provide guidance and supportive efforts of finance to UN-Habitat and collaborate with the executive boards of other UN agencies, falling under the guidance of the Secretary-General's UN management reforms.<sup>27</sup> The executive board also prepares the strategic plan, which is formally approved by the assembly.<sup>28</sup> Each governing body also has a bureau which includes a president, three vice-presidents, and a rapporteur.<sup>29</sup> The three bureaus work together and also independently to create reports and oversee the work of adhoc committees in preparation for regular sessions of the governing bodies.<sup>30</sup> The representatives in the bureau are not individuals, but rather elected Member States from different regional groups.31

UN-Habitat reports to the General Assembly via the Economic and Social Council (ECOSOC) regarding all fiscal matters and organizational activities. UN-Habitat is primarily funded through regular budget allocations approved by the General Assembly and voluntary contributions from Member States, and intergovernmental donors, with a 2020 budget of \$266.4 Million US dollars. UN-Habitat also receives contributions from other UN entities and the private sector to fund technical projects and specific policy work at the country and city-level. Under the private sector to fund technical projects and specific policy work at the country and city-level.

```
<sup>17</sup> UN DESA, Cities for a sustainable future, 2014.
<sup>18</sup> Ibid.
<sup>19</sup> Ibid.
<sup>20</sup> Ibid.
<sup>21</sup> Ibid.
<sup>22</sup> Ibid.
<sup>23</sup> UN-Habitat, Governance, 2020.
<sup>24</sup> Ibid.
<sup>25</sup> UN-Habitat, UN-Habitat Assembly, 2020.
<sup>26</sup> Ibid.
<sup>27</sup> Ibid.
<sup>28</sup> Ibid.
<sup>29</sup> UN-Habitat, Composition of the Bureaux of the UN-Habitat Assembly, the Committee of Permanent
            Representatives and the Executive Board, 2019.
30 Ibid.
<sup>31</sup> Ibid.
<sup>33</sup> UN-Habitat, Donor Relations, 2020; UN-Habitat, Budget Presentation, 2020.
```



#### Mandate, Functions, and Powers

The General Assembly has mandated UN-Habitat as an agency to "promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all." UN-Habitat also serves as the implementor of the Habitat Agenda, addressing matters such as sexual exploitation and abuse, as well as workplace sexual harassment. Despite existing limitations in budget and scope of its mandate, UN-Habitat has played an integral role in international development by providing partnership programs and targeted guidance to policymakers. UN-Habitat's current mandate builds upon General Assembly resolutions 3327 (XXIX) (1974) and 32/162 (1977), which created UN-Habitat's predecessors: UNHHSF, the UN Commission on Human Settlements, and Habitat. On 22 December 2015, the General Assembly adopted resolution 70/210 on "Implementation of the outcome of the United Nations Conference on Human Settlements (Habitat II) and strengthening of the United Nations Human Settlements Programme (UN-Habitat)," which strengthened the governance of UN-Habitat and reinforced its central role in implementing 2030 Agenda.

The UN-Habitat Assembly is mandated to fulfill the agency's mandate by adopting resolutions related to strategic planning and major trends in urbanization.<sup>40</sup> Additionally, the assembly recommend strategies for coherent implementation of urban and human settlements dimensions, identifies key issues and areas of focus for the normative and policy work of UN-Habitat, and Adopt resolutions, declarations, recommendations, formal decisions, reports and other documents pertaining to strategic vision and political guidance in accordance with its mandate.<sup>41</sup> While the Assembly elects the members of the Executive Board, it relies on that body to ensure the operational aspects of the agency's work and focuses almost entirely on the long-term strategic objectives.<sup>42</sup>

In addition to the Habitat Agenda, foundational documents that showcase the increasing importance of sustainable urbanization and ensuring adequate housing for all include the *Vancouver Declaration on Human Settlements* (1976) and the *Declaration on Cities and Other Human Settlements in the New Millennium* (2001).<sup>43</sup> Target 7.D aimed to improve the lives of over 100 million slum dwellers by the end of 2020.<sup>44</sup> The Sustainable Development Goals (SDGs) and the *2030 Agenda for Sustainable Development* also advance the urbanization agenda.<sup>45</sup> SDG 11, Sustainable Cities and Communities, outlines the goal of making cities inclusive, safe, resilient, and sustainable.<sup>46</sup> Likewise, SDG 17, Partnerships for the Goals, stipulates the goal of strengthening and revitalizing global partnerships for sustainable development.<sup>47</sup>

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

In May of 2019 the UN-Habitat assembly held its first session in Nairobi Kenya, adopting five resolutions on a range of topics including "Achieving gender equality through the work of the United Nations Human Settlements Programme to support inclusive, safe, resilient and sustainable cities and human

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid

<sup>&</sup>lt;sup>38</sup> UN General Assembly, Establishment of the United Nations Habitat and Human Settlements Foundation (A/RES/3327(XXIX)), 1974; UN General Assembly, Institutional arrangements for international co-operation in the field of human settlements (A/RES/32/162), 1977.

<sup>&</sup>lt;sup>39</sup> UN General Assembly, Implementation of the outcome of the United Nations Conference on Human Settlements (Habitat II) and strengthening of the United Nations Human Settlements Programme (UN-Habitat) (A/RES/70/210), 2015.

<sup>&</sup>lt;sup>40</sup> Ibid.

<sup>&</sup>lt;sup>41</sup> Ibid.

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> Ibid.

<sup>&</sup>lt;sup>44</sup> Ibid.

<sup>&</sup>lt;sup>45</sup> UN DPI, Goal 11: Make cities inclusive, safe, resilient and sustainable, 2016.

<sup>&</sup>lt;sup>46</sup> Ibid

<sup>&</sup>lt;sup>47</sup> Ibid.



settlements."<sup>48</sup> Other topics discussed included Enhancing urban-rural linkages for sustainable urbanization and human settlements and United Nations System-Wide Guidelines on Safer Cities and Human Settlements.<sup>49</sup> The first session also included discussion of transitioning agreements from the previous Governing Council (GC) which the assembly had replaced.<sup>50</sup>

Due to recent events with relation to COVID-19, UN-Habitat's 2020 Executive Board's first session, which was to be held on the 31st of March through the 2nd of April, had to be postponed. Due to the meeting not being held within its normal timeframe, UN-Habitat continues to work off of its provisional agenda. Within the provisional agenda, UN-Habitat's Executive Board had aimed to explore actions to strengthen protection against sexual exploitation and abuse, as well as workplace sexual harassment. When the Executive Board reconvenes, there is also an aim to explore actions by UN-Habitat to address geographical and gender imbalances within the compositions of its own staff, both in hiring and those who are currently employed—one of the UN's main focuses for inclusions amongst its own employees for 2020, in which Secretary General Guterres outlined as a part of the reformation plan for the UN.

One of the main goals for UN-Habitat to accomplish in 2020 is to work towards the reformation of the development system and management of the United Nations.<sup>55</sup> This falls under Secretary-General Antonio Guterres' goals for the United Nations during his tenure, with those goals.<sup>56</sup> The repositioning of the UN Development System aims to strengthen how the United Nations helps the 193 Member States position themselves to achieve the Sustainable Development Goals.<sup>57</sup> Per the Secretary General, and the reform plan, ambitious common goals are what will guide the UN and its Member States to a more sustainable future, whilst recognizing and creating strategies for poverty eradication.<sup>58</sup> This includes UN-Habitat working to reorganize and restructure to help meet the demands of the Secretary-General's mandate of UN reformation.<sup>59</sup>

UN-Habitat also aims to increase its focus on climate change, working with other international bodies and global city networks to help influence climate policy and actions, ensuring the promotion of cities and human settlements in mitigation and adaptation with climate change solutions. <sup>60</sup> UN-Habitat partners with the United Nations Framework Convention on Climate Change (UNFCCC) as well as the Global Covenant of Mayors for Climate Energy to achieve these goals. <sup>61</sup> By providing more guidelines for sustainable cities and communities, UN-Habitat is able to better aid other UN organizations with their goals on climate change and mitigating the climate crisis. <sup>62</sup>

The New Urban Agenda provides a participatory approach to urbanization, allowing Member States and governments options for building, improving, and creating more sustainable urban areas and global city networks, with the Agenda having been decided to be one of the most inclusive of UN conferences. <sup>63</sup> By reaffirming the global commitment to sustainable and urban development, the New Urban Agenda also addresses the important need to take environment and climate policy into account when further

```
48 Ibid.
49 Ibd.
50 Ibid.
51 UN-Habitat, 2020 First Session of the Executive Board Meeting, 2020.
52 Ibid.
53 Ibid.
54 Ibid.
55 UN-Habitat, Strategies, 2020.
66 UN Foundation, UN Reform: Transforming to Deliver the SDGs, 2020.
57 Ibid.
58 Ibid.
59 Ibid.
60 UN-Habitat, Climate Change, 2020.
61 Ibid
62 Ibid
```

63 UN-Habitat, The New Urban Agenda, 2020



discussing the way human settlements and cities are designed and built.64

The Tenth Session of the World Urban Forum, convened by UN-Habitat, which is held in Abu Dhabi, has a topical focus of Cities of Opportunities: Connecting Culture and Innovation. <sup>65</sup> The Tenth Session aims to bring together innovators and thought leaders on urban development to address a series of topics, hosting roundtables, forums, and caucus meetings to facilitate to development of strategies and ideas. <sup>66</sup> Dialogues at this year's session include Urbanization, Culture, Innovation, and the Implementing of the New Urban Agenda to drive sustainable change and development. <sup>67</sup>

#### Conclusion

UN-Habitat serves to advance global urbanization issues in accordance with the principles of efficiency and sustainability for the betterment of the world's population. UN-Habitat ultimately provides a platform for international collaboration to ensure sustainable urbanization and sustainability measures to achieve the SDGs. By continuing to hold open forums, continue dialogue and discussions amongst Member States, and continue inter-agency collaboration, UN-Habitat will be able to continue to progress on its goals. Despite substantial progress, much work remains to be done to address disparities amongst human populations in urban areas. UN-Habitat is poised to play a vital role in the realization of the SDGs and the New Urban Agenda.

#### **Annotated Bibliography**

United Nations Conference on Human Settlements. (1976). *The Vancouver Declaration on Human Settlements*. Retrieved 27 February 2020 from: <a href="https://unhabitat.org/the-vancouver-declaration-on-human-settlements-from-the-report-of-habitat-united-nations-conference-on-human-settlements-vancouver-canada-31-may-to-11-june-1976">https://unhabitat.org/the-vancouver-declaration-on-human-settlements-vancouver-canada-31-may-to-11-june-1976</a>

The Vancouver Declaration on Human Settlements served as the action plan that came out of HABITAT I. The Declaration brought forth 64 recommendations for National Action for Member States to take to address rapid urbanization. Delegates will find that understanding this document gives a good understanding of the mandate of UN-Habitat as well as their scope of work. The Vancouver Declaration advocates for the improvement of life quality through equal distribution of development benefits, planning and regulated land usage among other things. Its further outcome was the establishment of UNCHS (Habitat).

United Nations Human Settlements Programme. (2020). *Tenth Session of the World Urban Forum*. Retrieved 28 February 2020 from: <a href="https://wuf.unhabitat.org/sites/default/files/2020-02/WUF10">https://wuf.unhabitat.org/sites/default/files/2020-02/WUF10</a> Programme FINAL 1-Feb2020.pdf

This source gives the comprehensive overview of the Tenth Session of the World Urban Forum. Established in 2001, the World Urban Forum was designed and established to analyze and examine rapid urbanization. The Tenth Session had a theme of Cities 2030—Cities for All: Implementing the New Urban Agenda. Each session address parts of the SDGs and provides training for attendees to put skills in addressing to urbanization to use.

<sup>64</sup> Ibid

<sup>&</sup>lt;sup>65</sup> UN-Habitat, *Tenth Session of the World Urban Forum*, 2020.

<sup>66</sup> Ibid

<sup>&</sup>lt;sup>67</sup> Ibid.

<sup>68</sup> Ibid.

<sup>69</sup> Ibid; Ibid.

<sup>&</sup>lt;sup>70</sup> Ibid; Ibid.

<sup>&</sup>lt;sup>71</sup> Ibid; Ibid.

<sup>&</sup>lt;sup>72</sup> Ibid; Ibid.



United Nations Human Settlements Programme. (2020). *The New Urban Agenda*. Retrieved 9 May 2020 from: http://habitat3.org/wp-content/uploads/NUA-English.pdf

Delegates will find value in reading the New Urban Agenda to grasp an understanding of the scope of work that has been adopted and employed by UN-Habitat. With increasing, unprecedented rates of urbanization, the New Urban Agenda serves as the beacon of which projects and policies can be based off of. It lays out the correlation between good urbanization, sustainable urbanization, development, and modernization and the tools for Member States to employ good behaviours and practices when expanding and urbanizing rural and subrural areas.

#### **Bibliography**

United Nations Conference on Human Settlements. (1976). *The Vancouver Declaration on Human Settlements*. Retrieved 27 February 2020 from: <a href="https://unhabitat.org/the-vancouver-declaration-on-human-settlements-from-the-report-of-habitat-united-nations-conference-on-human-settlements-vancouver-canada-31-may-to-11-june-1976">https://unhabitat.org/the-vancouver-declaration-on-human-settlements-vancouver-canada-31-may-to-11-june-1976</a>

United Nations, Department of Economic and Social Affairs. (2014). *Cities for a sustainable future*. Retrieved 30 April 2020 from: <a href="http://www.un.org/en/development/desa/news/ecosoc/cities-for-a-sustainable-future.html">http://www.un.org/en/development/desa/news/ecosoc/cities-for-a-sustainable-future.html</a>

United Nations, Department of Public Information. (2016). *Goal 11: Make cities inclusive, safe, resilient and sustainable.* Retrieved 11 May 2020 from: <a href="http://www.un.org/sustainabledevelopment/cities/">http://www.un.org/sustainabledevelopment/cities/</a>

United Nations Foundation. (2018). *UN Reform: Transforming to Deliver the SDGS*. Retrieved 4 April 2020 from: https://unfoundation.org/blog/post/un-reform-transforming-to-deliver-the-sdgs/

United Nations, General Assembly, Twenty-ninth session. (1974). *Establishment of the United Nations Habitat and Human Settlements Foundation (A/RES/3327(XXIX))*. Adopted on the report of the Second Committee (A/9961). Retrieved 11 May 2020 from: <a href="http://undocs.org/A/RES/3327(XXIX">http://undocs.org/A/RES/3327(XXIX)</a>)

United Nations, General Assembly, Thirty-second session. (1977). *Institutional arrangements for international co-operation in the field of human settlements (A/RES/32/162)*. Adopted on the report of the Second Committee (A/32/265/Add.3). Retrieved 11 May 2020 from: <a href="http://undocs.org/A/RES/32/162">http://undocs.org/A/RES/32/162</a>

United Nations, General Assembly, Fifty-sixth session. (2002). Strengthening the mandate and status of the Commission on Human Settlements and the status, role and functions of the United Nations Centre for Human Settlements (Habitat) (A/RES/56/206). Adopted on the report of the Second Committee (A/56/565). Retrieved 11 May 2020 from: <a href="http://undocs.org/A/RES/56/206">http://undocs.org/A/RES/56/206</a>

United Nations, General Assembly, Seventieth session. (2015). *Implementation of the outcome of the United Nations Conference on Human Settlements (Habitat II) and strengthening of the United Nations Human Settlements Programme (UN-Habitat) (A/RES/70/210)*. Adopted on the report of the Second Committee (A/70/473). Retrieved 7 April 2020 from: <a href="http://undocs.org/A/RES/70/210">http://undocs.org/A/RES/70/210</a>

United Nations General Assembly, Seventy-third Session. (2018). *Implementation of the outcomes of the United Nations Conferences on Human Settlements and on Housing and Sustainable Urban Development and strenghtening of the United Nations Human Settlements Programme (UN-Habitat) (A/RES/73/29)*. Retrieved 27 February 2020 from: <a href="https://undocs.org/en/A/RES/73/239">https://undocs.org/en/A/RES/73/239</a>

United Nations Human Settlements Programme. (2017). *The New Urban Agenda*. Retrieved 8 May 2020 from: <a href="http://habitat3.org/wp-content/uploads/NUA-English.pdf">http://habitat3.org/wp-content/uploads/NUA-English.pdf</a>

United Nations Human Settlements Programme. (2019). Composition of the Bureaux of the UN-Habitat Assembly, the Committee of Permanent Representatives and the Executive Board. Retrieved 1 July 2020 from:



https://unhabitat.org/sites/default/files/2019/06/composition of the bureaux of the policy making organs of un-habitat 1.pdf

United Nations Human Settlements Programme. (2020). *Tenth Session of the World Urban Forum*. Retrieved 28 February 2020 from: <a href="https://wuf.unhabitat.org/sites/default/files/2020-02/WUF10">https://wuf.unhabitat.org/sites/default/files/2020-02/WUF10</a> Programme FINAL 1-Feb2020.pdf

United Nations Human Settlements Programme. (2020). 2020 first session of the Executive Board Meeting. Retrieved 28 February from: <a href="https://unhabitat.org/2020-first-session-of-the-Executive-Board-meeting">https://unhabitat.org/2020-first-session-of-the-Executive-Board-meeting</a>

United Nations Human Settlements Programme. (2020). *Budget Presentation*. Retrieved 10 May 2020 from: <a href="https://unhabitat.org/sites/default/files/2020/02/2021-budget presentation">https://unhabitat.org/sites/default/files/2020/02/2021-budget presentation to eb working group.v2 1.pdf</a>

United Nations Human Settlements Programme. (2020). *Climate Change*. Retrieved 28 February from: https://unhabitat.org/topic/climate-change

United Nations Human Settlements Programme. (2020). *Donor Relations*. Retrieved 11 May 2020 from: https://unhabitat.org/donor-relations

United Nations Human Settlements Programme. (2020). *Governance*. Retrieved 27 February 2020 from: <a href="https://unhabitat.org/governance">https://unhabitat.org/governance</a>

United Nations Human Settlements Programme. (2020). *History, Mandate, & Role in the UN System.* Retrieved 28 February 2020 from: <a href="https://unhabitat.org/history-mandate-role-in-the-un-system">https://unhabitat.org/history-mandate-role-in-the-un-system</a>

United Nations Human Settlements Programme. (2020). *Strategies*. Retrieved 5 April 2020 from: <a href="https://unhabitat.org/our-strategy">https://unhabitat.org/our-strategy</a>

United Nations Human Settlements Programme. (2020). The New Urban Agenda. Retrieved 9 May 2020 from: http://habitat3.org/wp-content/uploads/NUA-English.pdf

United Nations Human Settlements Programme. (2020). *UN-Habitat Assembly*. Retrieved 1 July 2020 from: https://unhabitat.org/governance/un-habitat-assembly



#### I. Building Smart Cities to Implement the New Urban Agenda

#### Introduction

Smart cities use technology and innovation to sustainably meet the needs of citizens through physical, social, institutional, and economic infrastructure.73 Smart cities have also been defined by the International Telecommunication Union (ITU) as an "innovative city that uses information communication technologies (ICTs) and other means to improve the quality of life, efficiency of urban operation and services and competitiveness while ensuring the present and future generations with respect to economic and social environmental aspects" and by the Centre for Cities as providing information that is interconnected to better use resources and improve understanding of the operational system.<sup>74</sup> An inclusive city or settlement is one that focus on the promotion of equity through participation and planning to create a city that is affordable, accessible, sustainable, and resilient. 75 Sustainable and inclusive urban settlements are settlements that work to mitigate the impacts of climate change and are a focus of the New Urban Agenda, the framework that was created during the United Nations (UN) Conference on Human Settlements (Habitat III) in 2016.76 The UN Human Settlements Programme (UN-Habitat) is starting to focus more on smart cities and, in the spring of 2020, had a recruitment campaign for individuals with skills applicable to smart cities, innovation, and technologies. 77 Smart urban planning and design involves using recently developed knowledge, technology, and tools to sustainably address the issues of urbanization. 78 ICTs can be used to build cities to increase the quality of services, the effectiveness of systems, empowerment of citizens, and mitigation of disaster risks.<sup>79</sup> Examples of technologies that are used to make cities smarter are light sensors, air quality monitors, smart poles, free Wi-Fi, and solar energy products such as solar powered street lights.80

By 2030 it is projected that nearly 60 percent of the global population will live in an urban setting and urban land will cover 1.2 million square kilometers, which is more than triple the urban land cover recorded in 2020.81 The purpose of smart cities is to use technology and innovations to solve community issues for current and growing urban areas, such as street quality, waste management, energy consumption, and road congestion.82 Communities have shown benefits to their economies from the implementation of smart city plans such as such as improved health due to less pollution from noise and traffic congestion.83 Smart cities also provide clean water by utilizing energy efficient water treatment systems.84 Smart cities provide for increased and reliable services that prioritize civilians, as well as an opportunity for local communities to implement disaster risk reduction (DRR) that is reflective of the local area and community needs.85 UN-Habitat has identified four focus areas of change for smart cities, including reduced spatial inequality and poverty in communities across urban-rural continuum; enhanced shared prosperity for cities and regions; strengthened climate action and improved urban environment; and effective urban crisis prevention and response.86

<sup>&</sup>lt;sup>73</sup> UN General Assembly, New Urban Agenda (A/RES/71/256), 2016, p. 9.

<sup>&</sup>lt;sup>74</sup> UN Task Team on Habitat III, *Habitat III Issue Papers: 21- Smart Cities*, 2015, p. 1; Centre for Cities, *Smart Cities Definitions*, 2014.

<sup>&</sup>lt;sup>75</sup> Asian Development Bank, *Enabling Inclusive Cities*, 2017, p. 4.

<sup>&</sup>lt;sup>76</sup> Ibid, p. 1; Institute for Transportation and Development Policy, Sustainable Urban Development, 2020.

<sup>&</sup>lt;sup>77</sup> Ibid.

<sup>&</sup>lt;sup>78</sup> Ibid, p. 1.

<sup>&</sup>lt;sup>79</sup> Ibid, p. 10.

<sup>&</sup>lt;sup>80</sup> The Globe and Mail, Five ways smart cities can change daily life in the public realm; Giles, African 'smart cities:' A high-tech solution to overpopulated megacities?, 2018.

<sup>&</sup>lt;sup>81</sup> Ibid.

<sup>82</sup> International Telecommunication Union, Australia launches USD 38 million smart cities programme, 2016; Ibid, p. 5; Australian Minister for Population, Cities and Urban Infrastructure, \$21 million for Smart Cities Project across the Country. 2018.

<sup>83</sup> Dhar et al, How 5G can help municipalities become vibrant smart cities, 2017; Ibid.

<sup>84</sup> International Electrotechnical Commission, Water, 2020.

<sup>85</sup> Ibid; UNESCO, Smart Cities hold the key to sustainable development, 2019.

<sup>86</sup> Ibid.



#### International and Regional Framework

The first UN Conference on Human Settlements produced the Vancouver Declaration on Human Settlements that recommended technology sharing to create efficient urban settlements.87 In 1996, Habitat II adopted the Istanbul Declaration on Human Settlements and the Habitat Agenda that highlights the importance of public and private sector support, especially financially.88 In 2016, the Habitat III Conference adopted the New Urban Agenda. 89 The New Urban Agenda addresses problems during the formation of cities and infrastructure within cities such as sustainable economic development and DRR.90 Sustainable human settlements are resilient, affordable, and accessible as defined by the New Urban Agenda.91 At the Habitat III Conference, the UN Task Team on Habitat III was developed alongside a group of private, public, and non-governmental stakeholders, which are all instrumental to the success of the New Urban Agenda as the framework cannot be implemented by UN-Habitat alone.92

In May 2019, the UN-Habitat Assembly had their first session in its headquarters in Nairobi.93 Under resolution HSP/HA.1/Res.1, "United Nations Human Settlements Programme strategic plan for the period 2020-2023," the UN-Habitat Assembly approved a strategic plan of focusing on increasing spatial equality and reducing poverty, increased economic growth, stronger action on climate change and environmental protection, and better prevention and response to crises. 94 Other UN-Habitat Assembly resolutions focus on the importance of the involvement of multiple stakeholders in urban planning and innovation sharing, implementing practices that promote gender equality, and creating UN System-Wide Guidelines on Safer Cities and Human Settlements. 95 Under the System-Wide Guidelines, safety and security should be considered important factors in city planning to produce smart and safe cities. 96 The guidelines also advocate for technical assistance and innovation between cities.97

Highlighted in the New Urban Agenda is the Sendai Framework for Disaster Risk Reduction 2015-2030, which focuses on resilience and minimizing damages from disasters.98 The Addis Ababa Action Agenda of the Third Conference on Financing for Development promotes equitable access to development financing and recognizes there is a need for the development infrastructure to be sustainable and resilient. 99 Also recognized in the New Urban Agenda is the Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014-2024, which acknowledges that landlocked countries are susceptible to desertification and land degradation, which are often exacerbated by climate change. 100 One of the Vienna Programme of Action's priorities is the development and maintenance of infrastructure. such as promoting collaborative efforts to create sustainable transit systems. 101 Achievement of the Sustainable Development Goals (SDGs) can also be assisted by the New Urban Agenda due to the

<sup>&</sup>lt;sup>87</sup> UN Conference on Human Settlements, *The Vancouver Declaration on Human Settlements*, 1976, pp. 2, 8.

<sup>88</sup> Ibid.

<sup>&</sup>lt;sup>89</sup> Ibid, p. 1.

<sup>&</sup>lt;sup>90</sup> Ibid, p. 2. <sup>91</sup> Ibid. p. 3.

<sup>92</sup> United Nations Task Team on Habitat III, One United Nations for Habitat III, 2016, p. 104.

<sup>93</sup> UN-Habitat, UN-Habitat Assembly, 2020.

<sup>94</sup> UN-Habitat Assembly, United Nations Human Settlements Programme strategic plan for the period 2020-2023 (HSP/HA.1/Res.1), 2019, p. 2.

<sup>&</sup>lt;sup>95</sup> Ibid, p. 2.; UN-Habitat Assembly, Achieving gender equality through the work of the United Nations Human Settlement Programme to support inclusive, safe, resilient and sustainable cities and human settlements (HSP/HA.1/Res.4), 2019, p. 2.

<sup>&</sup>lt;sup>96</sup> UN-Habitat Assembly, United Nations System-Wide Guidelines on Safer Cities and Human Settlements (HSP/HA 1/Res.2), 2019, p. 5.

<sup>&</sup>lt;sup>97</sup> Ibid, p. 8.

<sup>98</sup> Ibid, p. 2-3; UN General Assembly, Sendai Declaration and Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283), 2015, p. 5.

<sup>99</sup> UN General Assembly, Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313), 2015, p. 6.

<sup>100</sup> Ibid, pp. 2-3; UN-OHRLLS, Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014-2024, 2014, pp. 8-9.

<sup>&</sup>lt;sup>101</sup> Ibid, p. 20.



connection of the goals to human settlements.<sup>102</sup> Goal 11 is the most applicable as it is "making cities and human settlements inclusive, safe, resilient and sustainable."<sup>103</sup> Goal 11 addresses the technical gap faced by developing states by encouraging financial and technical assistance.<sup>104</sup>

The Small Island Developing States (SIDS) Accelerated Modalities of Action Pathway (SAMOA Pathway) is focused on SIDS' lack of financial capacity to mitigate the risks of climate change. <sup>105</sup> The SAMOA Pathway supports the development of sustainable water management systems technology. <sup>106</sup> The SAMOA Pathway also advocates for transportation that is safe, environmentally friendly and affordable and looks to support the development and use of new technology to assist in DRR efforts. <sup>107</sup> To prevent falling behind on implementing smart cities and eradicating slums, the African Union (AU) includes smart cities in the Agenda 2063. <sup>108</sup> The development of polices and the forging or partnership to build smart cities is also advocated for in Agenda 2063. <sup>109</sup>

#### Role of the International System

UN-Habitat works to assist countries implement sustainable development in urban locations that is inclusive and resilient to disasters. Habitat III saw not just the participation of national governments, but also "subnational and local governments, parliamentarians, civil society, indigenous peoples and local communities, the private sector, professionals and practitioners, the scientific and academic community and other relevant stakeholders. Habitat is working to improve slums are relevant to the creation of sustainable urban settlements. UN-Habitat is working to improve slums so that people have access to better infrastructure. UN-Habitat has also started an initiative called People-Focused Smart Cities, which focuses on advocating for inclusive digital transitions. UN-Habitat has partnered with Mojang Studio to create the Block by Block programme to assist on consultation of the redesigning of urban settlements. Additionally, UN-Habitat works with governments to create long-term plans to create smart cities, such as the Rwanda Smart City Masterplan. UN-Habitat works with the Global Smart Cities initiative, which in 2019 launched their center at the World Economic Forum in Davos, Switzerland. The initiative focuses on data-sharing platforms, best practice manuals and governance frameworks.

The United Nations Development Programme (UNDP) developed Sustainable Urbanization Strategy with its *Strategic Plan 2018-2021* to support the implementation of the *New Urban Agenda*. <sup>120</sup> Included in the UNDP strategic plan are useful DRR solutions to help states prevent or recover after a crisis and improve energy efficiency in urban settlements. <sup>121</sup> Additionally, the Sustainable Urbanization Strategy intends to use UNDP's global position to improve rural and urban livelihoods; strengthen effective, inclusive, and

```
<sup>102</sup> Ibid, p. 3.
<sup>103</sup> Ibid, p. 3.
<sup>104</sup> UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/701),
<sup>105</sup> UN General Assembly, SIDS Accelerated Modalities of action (SAMOA) Pathway (A/RES/69/15), 2014, p. 4-10.
<sup>106</sup> Ibid, p. 16.
<sup>107</sup> Ibid, p. 12.
<sup>108</sup> African Union, Agenda 2063: The Africa We Want, 2015, p. 90.
<sup>109</sup> Ibid, p. 133.
<sup>110</sup> Ibid.
<sup>111</sup> Ibid, p. 1.
<sup>112</sup> Ibid, p. 1.
<sup>113</sup> UN-Habitat, Housing and slum.
<sup>114</sup> UN-Habitat, People focused smart cities, 2020.
<sup>115</sup> Ibid.
<sup>116</sup> Ibid.
<sup>117</sup> Ibid.
<sup>118</sup> Ibid: Global smart cities initiative launched at Davos, Smart Cities World News Team. 2019.
<sup>120</sup> UNDP, Cities 2030: Implementing the New Urban Agenda, 2018.
<sup>121</sup> Ibid.
```



accountable governance at all levels; and close the energy access gap. <sup>122</sup> The UN Economic Commission for Europe (UNECE) works with industrial partners to develop the United Smart Cities (USC) program. <sup>123</sup> The implementation and management of this initiative is undertaken by UNECE and the Organization for International Relations (OiER). <sup>124</sup> UN-Habitat, along with the Ecumenical Advocacy Alliance (EAA), UN Regional Information Centre (RICS), and the International Society of City and Regional Planners (ISOCARP), provides support on the USC program. <sup>125</sup> The USC initiative focuses on "urban mobility, sustainable housing, clean energy, waste management and ICTs." <sup>126</sup> UN-Habitat and UNECE work with the ITU on the United for Smart Sustainable Cities (U4SSC) initiative that focuses on the achievement for SDG 11. <sup>127</sup> UNECE works to use smart technologies and innovation to plan cities development and provide services through key performance Indicators, which are used by fifty cities to measure their progress. <sup>128</sup> Intelligent transportation systems are promoted by the UNECE to limit the emissions and create a more efficient system. <sup>129</sup> Over 100 cities use the Smart Sustainable Cities (SSC) international key performance indicators, which were developed by the U4SSC as evaluative tools for measuring progress. <sup>130</sup>

The private sector views smart cities as a way to deliver services in a resource efficient method that is integrated and allows for innovative collaborations to improve quality of life so that economies, both local and national are able to grow.<sup>131</sup> The UN Global Compact organizes forums that allow for private sector entities to meet with environmentalist, educators and leaders from at the grassroot level.<sup>132</sup> UN-Habitat looks to partner with private sector organizations looking to improve urban settlements.<sup>133</sup> In 2018, the Association of Southeast Asian Nations (ASEAN) created a Smart Cities Network that works toward cooperative development of Smart Cities.<sup>134</sup> ASEAN's Smart Cities Network facilitates information and best practice sharing and builds funding partnerships with external organizations and private sector investors.<sup>135</sup>

#### Sustainable Economic Development for Smart Cities

UN-Habitat is working to facilitate accelerate financing and investment in sustainable smart cities initiatives .<sup>136</sup> The financial support is being focused on smaller and medium-sized cities in developing countries to aid in sustainable economic growth, defined as a stimulation of the economy that provides quality jobs and does not harm the environment.<sup>137</sup> Smart cities provide market opportunities and economic growth opportunities for countries.<sup>138</sup> The UN Secretary-General recommends financial investment in technology and innovations that creates sustainable developmental opportunities.<sup>139</sup> Pursuant of this, smart cities use ICTs to improve quality of life of citizens.<sup>140</sup> The economy of smart cities change as new ICTs are developed.<sup>141</sup> The planning, designing, financing, developing, and management

<sup>&</sup>lt;sup>122</sup> Ibid.

<sup>&</sup>lt;sup>123</sup> UN DPI, United Smart Cities (USC).

<sup>&</sup>lt;sup>124</sup> Ibid.

<sup>125</sup> Ibid.

<sup>&</sup>lt;sup>126</sup> Ibid.

<sup>&</sup>lt;sup>127</sup> International Telecommunications Union, *United 4 Smart Sustainable Cities*, 2020.

<sup>&</sup>lt;sup>128</sup> UNECE, Harnessing smart technologies and innovation.

<sup>&</sup>lt;sup>129</sup> Ibid.

<sup>&</sup>lt;sup>130</sup> Ibid.

<sup>&</sup>lt;sup>131</sup> Ibid, p. 1.

<sup>132</sup> Ibid.

<sup>&</sup>lt;sup>133</sup> UN-Habitat, *Private Sector*.

<sup>&</sup>lt;sup>134</sup> Association of Southeast Asian Nations, ASEAN Smart Cities Network.

<sup>&</sup>lt;sup>135</sup> Ibid.

<sup>&</sup>lt;sup>136</sup> UN-Habitat, *People-focused smart cities*, 2020.

<sup>&</sup>lt;sup>137</sup> Ibid; UN DPI, Promote inclusive and sustainable economic growth, employment and decent work for all.

<sup>&</sup>lt;sup>138</sup> McKinsey Global Institute, Smart Cities: Digital Solutions for a More Liveable Future, 2018, p.17.

<sup>&</sup>lt;sup>139</sup> UN Secretary-General, Roadmap for Financing the 2030 Agenda for Sustainable Development, 2019.

<sup>&</sup>lt;sup>140</sup> Ibid.

<sup>&</sup>lt;sup>141</sup> Ibid, p. 22



of cities with the SDGs objectives in mind helps create sustainable economic growth. 142 UN-Habitat advocates for smart cities to be cities developed with people being the focus and consulting a diversity of citizens when planning and designing smart cities, as building smart cities often requires retrofitting and redevelopment of existing cities. 143 Smart cities can utilize online services that promote government transparency and efficiency. 144 Transit-Oriented Development uses new technology to create more efficient and improved connectivity in transportation systems. 145 The technology in smart cities focus on six areas; energy, transportation, data, infrastructure, mobility, and devices. 146

The *Addis Ababa Action Agenda* states there needs to be increased financial and technological support provided to developing countries so that industrial development can be sustainable.<sup>147</sup> An example is the launching of the infrastructure initiatives by banks such as the World Bank Group's Global Infrastructure Faculty and the Asian Infrastructure Investment Bank.<sup>148</sup> Other forms of financial and technological support are infrastructure bonds, financial initiatives and revenue sharing performance-based approaches.<sup>149</sup> Support can come through partnerships between the private and public sector.<sup>150</sup> Under the *Addis Ababa Action Agenda*, there was a commitment to have technology frameworks and policies that are positive for the environment in terms of protection, management, and restoration.<sup>151</sup> National and local governments are responsible for effectively allocating domestic resources.<sup>152</sup> Development, national, and regional banks play an important role in financing sustainable economic development.<sup>153</sup>

The *Addis Ababa Action Agenda* provides for increased investment in technology to assist with sustainable development.<sup>154</sup> Implementing technology such as a 5G networks can help strengthen and improve local economies.<sup>155</sup> National governments can also encourage the development of smart cities by financing programmes such as Australia's Smart Cities and Suburbs Programme, which focuses on using new innovative technology to solve long-standing problems at the community level.<sup>156</sup> This program also promotes collaborations between local governments and private-industry technology organizations.<sup>157</sup> In Australia, the second round of the program supported 32 projects with financial contributions of more than \$21 million.<sup>158</sup> The Australian Minister for Cities, Urban Infrastructure and Population has successfully produced many new innovative ideas.<sup>159</sup> For example in Logan, Australia has a program where the roads have a warning system for flooding.<sup>160</sup> The U4SSC and the USC work to facilitate partnership that create smart and sustainable cities.<sup>161</sup> The U4SSC has established key performance indicators to evaluate with ICTs are actually making their city sustainable and smart.<sup>162</sup> In 2018, the USC adopted a standardized indicator for evaluating smart cities to allow for improvement and the degree of impact of smart city programs on the city.<sup>163</sup> The private sector company Solved provides a

```
<sup>142</sup> Ibid, pp. 2-3.
<sup>143</sup> Ibid.
<sup>144</sup> Smart Cities Mission, Smart City Features, 2017.
<sup>146</sup> Maddox, Smart Cities: 6 Essential Technologies, TechRepublic, 2016.
<sup>147</sup> Ibid, p.6.
<sup>148</sup> Ibid.
<sup>149</sup> Hamilton & Zhu, Get smart about financing smart cities.
<sup>150</sup> Ibid.
<sup>151</sup> Ibid, p. 7.
<sup>152</sup> Ibid.
<sup>153</sup> Ibid, pp. 8, 22.
<sup>154</sup> Ibid, p. 33.
<sup>155</sup> Ibid.
<sup>156</sup> Ibid.
<sup>157</sup> Ibid.
<sup>158</sup> Ibid.
<sup>159</sup> Ibid.
<sup>160</sup> Ibid.
<sup>161</sup> Ibid; Ibid.
<sup>162</sup> Ibid.
```

<sup>163</sup> Ibid.



networking platform for cities. 164 The *New Urban Agenda* emphasizes the importance of partnership between multiple stakeholders in urban planning and development. 165

#### Planning and Management of Cities

UN-Habitat focuses on "effective urban crisis prevention and response" and works to assist cities make the transition to technology and innovation in a way that respects the citizens and can be sustained. 166 The capability of government governments to plan and manage smart cities are different depending on the country, with UN-Habitat to offering individualized support, 167 Smart cities can limit their vulnerabilities while building resilience and responsiveness through implementing DRR measures. 168 In order to achieve this, smart cities can disperse disaster risk information and plans effectively to all segments of the population. 169 For states that are recently recovering disasters, there is the opportunity to rebuild with the capacity to develop in a disaster risk adverse way. 170 The USC focuses on improving the capacity of local governments through the use of city organizing systems. 171 The Addis Ababa Action Agenda also calls for support for local governments developing their capabilities to prepare, respond, and recover for DRR. 172 The Addis Ababa Action Agenda also states the importance of developing states receiving technology through multi-stakeholder partnerships and public-private partnerships that provides a benefit to the environment. 173 Technologies used for DRR include early-warning systems, which alert populations to incoming potential disasters so that steps can be taken to mitigate the damage. 174 There are four parts of early warning systems; risk knowledge, monitoring and warning tools, dissemination and communication of information, and response capability. 175 Services under the monitoring and warning component involve technology infrastructure that collects data. 176 Efficient communication is necessary for the system to be effective which requires reliable technology. 177 The effective dissemination of disaster risk information requires infrastructure planning using ICTs. 178 The use of geographic information system (GIS) and other innovative technology from smart cities can also be used to enhance DRR. 179

Rapid urbanization can lead to segregation and exclusion due to increased slums, increased urban sprawl, and lack of sufficient housing and infrastructure. Segregation and exclusion prevents interaction between social classes and therefore a lack of access to opportunities. Residents of slums have limited opportunities to leave, and most commonly the residents that are left behind are women and children. The *New Urban Agenda* supports the achievement of equality, particularly gender equality and recommends that cities allow people to realize rights and opportunities equally. The *Addis Ababa Action Agenda* states that women, youth, and children should have increased access to technology, which can be used to "enhance public participation, advance accountability and enable development of

<sup>&</sup>lt;sup>164</sup> Solved, Case Study: Investment Platform for United Smart Cities. <sup>165</sup> Ibid, p. 26. <sup>166</sup> Ibid. <sup>167</sup> Ibid. <sup>168</sup> Ibid, p. 4. <sup>169</sup> UN General Assembly, Sendai Declaration and Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283), 2015, p. 10. <sup>170</sup> Ibid, p. 17. <sup>171</sup> Ibid. <sup>172</sup> Ibid, p.20. <sup>173</sup> Ibid, p.33. <sup>174</sup> Ibid, p. 10; UNDP, *Preparedness and early warning*, 2020. <sup>175</sup> UNDP, Five Approaches to Build Functional Early Warning Systems, 2018, p. 16. <sup>176</sup> Ibid. <sup>177</sup> Ibid. <sup>178</sup> Ibid, 2015, 9. <sup>179</sup> Ibid. <sup>180</sup> Ibid, p. 2. <sup>181</sup> Ibid, p. 5. <sup>182</sup> Ibid <sup>183</sup> Ibid, p. 2, 3.



performance indicators."<sup>184</sup> The involvement of women in decision-making often leads to non-discriminatory policies and laws being developed and effective policies that protect women in urban areas.<sup>185</sup>

#### **Conclusion**

Smart cities are comprised of developmental, economic, social and physical infrastructure. <sup>186</sup> There are many key infrastructure systems that can be made into smart decisions, including energy, buildings, transportation, water, waste, physical safety and security, health care and education. <sup>187</sup> The *New Urban Agenda* is an important tool in planning and managing sustainable cities and their infrastructure. <sup>188</sup> When planning and managing smart cities, ICTs present an opportunity for urban settlement to become efficient. <sup>189</sup> It is possible that states need to have increased financial support as well as technological support, especially if the state is developing. <sup>190</sup> The participation of citizens assists in the development of Smart Cities. <sup>191</sup> When given the opportunity to access to technology can provide women and children with the opportunity to participate in city planning. <sup>192</sup> In order to mitigation disaster damage, DRR measures can be included in urban planning and development of cities. <sup>193</sup>

#### Further Research

When continuing their research, delegates should consider the following: How successful has national smart cities program been in implementation? What are some more examples of public and private entities? How can Smart Cities decrease or eliminate slums and segregation? How do smart cities in your state do on the Smart Sustainable Cities (SSC) international key performance indicators were developed by the U4SSC? What has been effective and not effective in national governments' smart cities initiatives?

#### **Annotated Bibliography**

United Nations, General Assembly, Sixty-ninth session. (2015). *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. Retrieved 13 February 2020 from: <a href="https://undocs.org/A/RES/69/313">https://undocs.org/A/RES/69/313</a>

The Addis Ababa Action Agenda focuses on Financing for Development. This is important for delegates to understand because the building smart cities requires financing. The Addis Ababa Action Agenda is mentioned in the New Urban Agenda. One of the sections the delegates should focus on is the infrastructure gap between developed and developing states.

United Nations, General Assembly, Sixty-ninth session. (2015). Sendai Declaration and Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283). Retrieved 13 February 2020 from: <a href="https://undocs.org/A/RES/69/283">https://undocs.org/A/RES/69/283</a>

The Sendai Framework is important for subtopic on disaster risk reduction. Delegates can use the Sendai Framework to better understand the role technology can play in disaster risk reduction. This document provides delegates with many starting points and

<sup>&</sup>lt;sup>184</sup> Ibid, p.31; Ibid, p. 7.

<sup>&</sup>lt;sup>185</sup> Ibid, p. 8, UN Women, Asia and the Pacific, Smart Cities are Safe Cities, 2015.

<sup>&</sup>lt;sup>186</sup> Ibid

<sup>&</sup>lt;sup>187</sup> Ibid, p. 4.

<sup>&</sup>lt;sup>188</sup> Ibid, p. 2.

<sup>&</sup>lt;sup>189</sup> Ibid, p. 2.

<sup>&</sup>lt;sup>190</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>191</sup> Smart Cities Mission, Challenges, 2017.

<sup>&</sup>lt;sup>192</sup> Ibid, p. 31; Ibid, p. 7.

<sup>&</sup>lt;sup>193</sup> Ibid, p. 18.



potential indicators to measure success. There is an area focuses on each phase of disaster risk reduction planning; delegates should focus on preparedness and recovery.

United Nations, General Assembly, Seventy-first session (2016). *New Urban Agenda (A/RES/71/256)*. Retrieved 10 February 2020 from: https://undocs.org/A/RES/71/256

The United Nations Conference on Housing and Sustainable Urban Development (Habitat III) adopted the New Urban Agenda in 2016. The New Urban Agenda is the central document for the topic therefore delegates should be familiar with it. The topic focuses on building smart cities to implement the urban agenda. Delegates need to be familiar with this document to formulate the best ideas for implementation. The delegates should focus on sections discussing the planning and development of cities.

United Nations, General Assembly, Seventieth session. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. Retrieved 13 February 2020 from: <a href="https://undocs.org/A/RES/70/">https://undocs.org/A/RES/70/</a>

The purpose of the New Urban Agenda is to assist in the implementation of the SDGs. The meeting of the Sustainable Development Goals are the broad and overreaching goals of the Urban Agenda. Delegates should pay close attention to SDG 9, focusing on industry, innovation and infrastructure, is also important to this topic.

United Nations Task Team on Habitat III. (2015). *Habitat III Issue Papers: 21- Smart Cities*. Retrieved 15 February 2020 from: <a href="http://habitat3.org/wp-content/uploads/Habitat-III-lssue-Paper-21\_Smart-Cities-2.0-2.pdf">http://habitat3.org/wp-content/uploads/Habitat-III-lssue-Paper-21\_Smart-Cities-2.0-2.pdf</a>

This is a working paper that was put together by a United Nations Task Team. This paper was led by UN-Habitat, UNDP, and ITU. This document provides key definitions for this topic. Delegates can use this document to understand what a Smart City is and what is needed to build smart cities. This is a good foundational document that highlights focus areas for the delegates to understand.

### **Bibliography**

African Union. (2015). *Agenda 2063: The Africa We Want.* Retrieved 25 May 2020 from: https://www.un.org/en/africa/osaa/pdf/au/agenda2063-framework.pdf

Asian Development Bank. (2017). *Enabling Inclusive Cities*. Retrieved 29 May 2020 from: https://www.adb.org/sites/default/files/institutional-document/223096/enabling-inclusive-cities.pdf

Association of Southeast Asian Nations. (n.d.). *ASEAN Smart Cities Network*. Retrieved 27 March 2020 from: <a href="https://asean.org/asean/asean-smart-cities-network/">https://asean.org/asean/asean-smart-cities-network/</a>

Australian Minister for Population, Cities and Urban Infrastructure. (2018). \$21 Million for Smart Cities Project Across the Country. Retrieved 31 May 2020 from:

https://ministerinfrastructure.govcms.gov.au/tudge/media-release/21-million-smart-cities-projects-across-country

Centre for Cities. (2014). *Smart Cities Definitions*. Retrieved 2 May 2020 from: https://www.centreforcities.org/reader/smart-cities/what-is-a-smart-city/1-smart-cities-definitions/

Dhar, S., et al. (2017, February 27). *How 5G can help municipalities become vibrant smart cities*. Retrieved 26 March 2020 from: <a href="https://www.accenture.com/ca-en/insights/strategy/smart-cities">https://www.accenture.com/ca-en/insights/strategy/smart-cities</a>

Giles, C. (2018, April 9). *African 'smart cities:' A high-tech solution to overpopulated megacities?*. Retrieved 18 May 2020 from: https://www.cnn.com/2017/12/12/africa/africa-new-smart-cities/index.html

Global Smart Cities Initiative launched at Davos. (2019, January 24). Smart Cities World News Team. Retrieved 23 March 2020: <a href="https://www.smartcitiesworld.net/news/news/global-smart-cities-initiative-launched-at-davos-3785">https://www.smartcitiesworld.net/news/news/global-smart-cities-initiative-launched-at-davos-3785</a>



Hamilton, S. & X, Zhu. (n.d). *Get smart about financing smart cities*. Retrieved 2 May 2020 from: <a href="https://www2.deloitte.com/global/en/pages/public-sector/articles/three-steps-for-financing-smart-cities.html">https://www2.deloitte.com/global/en/pages/public-sector/articles/three-steps-for-financing-smart-cities.html</a>

Institute for Transportation and Development Policy. (2020). *Sustainable Urban Development*. Retrieved 29 May 2020 from: https://www.itdp.org/our-work/sustainable-urban-development/

International Telecommunication Union. (2016). *Australia launches USD 38 million smart cities programme*. Retrieved 24 March 2020 from: <a href="https://news.itu.int/australia-launches-usd38-million-smart-cities-programme/">https://news.itu.int/australia-launches-usd38-million-smart-cities-programme/</a>

International Electrotechnical Commission. (2020). *Water*. Retrieved 3 May 2020 from: https://www.iec.ch/smartcities/water.htm

International Telecommunication Union. (2020). *United 4 Smart Sustainable Cities*. Retrieved 25 March 2020 from: <a href="https://www.itu.int/en/ITU-T/ssc/united/Pages/default.aspx">https://www.itu.int/en/ITU-T/ssc/united/Pages/default.aspx</a>

Maddox, T. (2016, August 1). Smart Cities: 6 Essential Technologies. *Tech Republic*. Retrieved 1 May 2020 from: https://www.techrepublic.com/article/smart-cities-6-essential-technologies/

Smart Cities Mission. (2017). *Challenges*. Retrieved 26 March 2020 from <a href="http://smartcities.gov.in/content/innerpage/challenges.php">http://smartcities.gov.in/content/innerpage/challenges.php</a>

Smart Cities Mission. (2017). *Smart City Features*. Retrieved 26 March 2020 from: http://smartcities.gov.in/content/innerpage/smart-city-features.php

Solved. (n.d.). Case Study: Investment Platform for United Smart Cities. Retrieved 31 May 2020 from: <a href="https://www.solved.fi/case/investment-platform-for-united-smart-cities/">https://www.solved.fi/case/investment-platform-for-united-smart-cities/</a>

The Globe and Mail. (n.d.). Five ways smart cities can change daily life in the public realm. Retrieved 17 May 2020 from: <a href="https://www.theglobeandmail.com/business/adv/article-five-ways-smart-cities-can-change-daily-life-in-the-public-realm-for/">https://www.theglobeandmail.com/business/adv/article-five-ways-smart-cities-can-change-daily-life-in-the-public-realm-for/</a>

United Nations Conference on Human Settlement. (1976). *The Vancouver Declaration on Human Settlements*. Retrieved 12 February 2020 from: https://mirror.unhabitat.org/downloads/docs/The Vancouver Declaration.pdf

United Nations Conference on Human Settlement. (1996). *The Habitat Agenda: Istanbul Declaration*. Retrieved 12 February 2020 from: <a href="https://www.un.org/ruleoflaw/wp-content/uploads/2015/10/istanbul-declaration.pdf">https://www.un.org/ruleoflaw/wp-content/uploads/2015/10/istanbul-declaration.pdf</a>

United Nations, Department of Public Information. (n.d.). *Promote inclusive and sustainable economic growth, employment and decent work for all.* Retrieved 2 May 2020 from: <a href="https://www.un.org/sustainabledevelopment/economic-growth/">https://www.un.org/sustainabledevelopment/economic-growth/</a>

United Nations, Department of Public Information. (n.d.). *United Smart Cities*. Retrieved 23 March 2020 from: <a href="https://sustainabledevelopment.un.org/partnership/?p=10009">https://sustainabledevelopment.un.org/partnership/?p=10009</a>

United Nations Development Programme. (2018). *Cities 2030: Implementing the New Urban Agenda*. Retrieved 14 February 2020 from: <a href="https://www.undp.org/content/undp/en/home/blog/2018/cities-2030-implementing-the-new-urban-agenda.html">https://www.undp.org/content/undp/en/home/blog/2018/cities-2030-implementing-the-new-urban-agenda.html</a>

United Nations Development Programme. (2018). *Five Approaches to Build Functional Early Warning Systems*. Retrieved 27 May 2020 from:



https://www.eurasia.undp.org/content/rbec/en/home/library/environment\_energy/five-approaches-to-build-functional-early-warning-systems.html

United Nations Development Programme. (2020). *Preparedness and early warning*. Retrieved 28 May 2020 from: <a href="https://www.undp.org/content/undp/en/home/ourwork/climate-and-disaster-resilience/disaster-risk-reduction/preparedness-and-early-warning/">https://www.undp.org/content/undp/en/home/ourwork/climate-and-disaster-resilience/disaster-risk-reduction/preparedness-and-early-warning/</a>

United Nations Economic Commission for Europe. (n.d.). *Harnessing smart technologies and innovation*. Retrieved from: https://www.unece.org/index.php?id=52163

United Nations Educational, Scientific and Cultural Organization. (2019). *Smart cities hold the key to sustainable development*. Retrieved 15 February 2020 from: <a href="https://www.unescap.org/op-ed/smart-cities-hold-key-sustainable-development">https://www.unescap.org/op-ed/smart-cities-hold-key-sustainable-development</a>

United Nations Entity for Gender Equality and the Empowerment of Women, Asia and the Pacific. (2015, June 12). *Smart Cities are Safe Cities*. Retrieved 27 March 2020 from: https://asiapacific.unwomen.org/en/news-and-events/stories/2015/06/smart-cities-are-safe-cities

United Nations Habitat Assembly. (2019). Achieving gender equality through the work of the United Nations Human Settlement Programme to support inclusive, safe, resilient and sustainable cities and human settlements (HSP/HA. 1/Res. 4). Retrieved 23 May 2020 from: https://unhabitat.org/sites/default/files/documents/2019-07/hsp ha.1 res.4 english.pdf

United Nations Habitat Assembly. (2019). *United Nations Human Settlements Programme strategic plan for the period 2020-2023 (HSP/HA.1/Res.1)*. Retrieved 23 May 2020 from: <a href="https://unhabitat.org/sites/default/files/documents/2019-07/english">https://unhabitat.org/sites/default/files/documents/2019-07/english</a> 0.pdf

United Nations Habitat Assembly. (2019). *United Nations System-Wide Guidelines on Safer Cities and Human Settlements (HSP/HA. 1/ Res. 2).* Retrieved 23 May 2020 from: <a href="https://unhabitat.org/sites/default/files/documents/2019-07/hsp\_ha.1\_res.2\_e.pdf">https://unhabitat.org/sites/default/files/documents/2019-07/hsp\_ha.1\_res.2\_e.pdf</a>

United Nations Human Settlement Programme. (n.d.). *Private Sector*. Retrieved 3 May 2020 from: <a href="https://mirror.unhabitat.org/content.asp?cid=4227&catid=527&typeid=24&subMenuId=0">https://mirror.unhabitat.org/content.asp?cid=4227&catid=527&typeid=24&subMenuId=0</a>

United Nations Human Settlement Programme. (2019). *Home*. Retrieved 10 February 2020 from: <a href="https://open.unhabitat.org">https://open.unhabitat.org</a>

United Nations Human Settlement Programme. (2020). *People-focused Smart Cities*. Retrieved 18 May 2020 from: https://unhabitat.org/programme/people-focused-smart-cities

United Nations Human Settlement Programme. (2020). *UN-Habitat Assembly*. Retrieved 23 May 2020 from: https://unhabitat.org/governance/un-habitat-assembly

United Nations, General Assembly, Sixty-ninth session. (2014). *SIDS Accelerated Modalities of Action* (*SAMOA*) *Pathway* (*A/RES/69/15*). Retrieved 27 March 2020 from: https://sustainabledevelopment.un.org/samoapathway.html

United Nations, General Assembly, Sixty-ninth session. (2015). *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. Retrieved 13 February 2020 from: https://undocs.org/A/RES/69/313

United Nations, General Assembly, Sixty-ninth session. (2015). Sendai Declaration and Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283). Retrieved 13 February 2020 from: <a href="https://undocs.org/A/RES/69/283">https://undocs.org/A/RES/69/283</a>



United Nations, General Assembly, Seventieth session. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. Retrieved 13 February 2020 from: https://undocs.org/A/RES/70/

United Nations, General Assembly, Seventy-first session (2016). *New Urban Agenda (A/RES/71/256)*. Retrieved 10 February 2020 from: https://undocs.org/A/RES/71/256

United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries (2014). *Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014.* Retrieved 15 February 2020 from: <a href="https://unohrlls.org/custom-content/uploads/2015/03/Vienna-Programme-of-Action.pdf">https://unohrlls.org/custom-content/uploads/2015/03/Vienna-Programme-of-Action.pdf</a>

United Nations, Secretary-General. (2019). *Roadmap for Financing the 2030 Agenda for Sustainable Development*. Retrieved 23 March 2020 from: <a href="https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/UN-SG-Roadmap-Financing-the-SDGs-July-2019.pdf">https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/UN-SG-Roadmap-Financing-the-SDGs-July-2019.pdf</a>

United Nations Task Team on Habitat III. (2015). *Habitat III Issue Papers: 21- Smart Cities*. Retrieved 15 February 2020 from: <a href="http://habitat3.org/wp-content/uploads/Habitat-III-Issue-Paper-21\_Smart-Cities-2.0-2.pdf">http://habitat3.org/wp-content/uploads/Habitat-III-Issue-Paper-21\_Smart-Cities-2.0-2.pdf</a>

United Nations Task Team on Habitat III. (2016). *One United Nations for Habitat III.* Retrieved 24 May 2020 from: http://habitat3.org/wp-content/uploads/One-UN-for-HabitatIII.pdf



#### II. Improving Global Road Safety

"Road safety is an issue that does not receive anywhere near the attention it deserves – and it really is one of our great opportunities to save lives around the world." 194

#### Introduction

According to the 2018 *Global Status Report on Road Safety*, there were 1.35 million road traffic-related deaths in 2016 which equates to nearly 370 deaths each day. <sup>195</sup> When discussing this topic, many United Nations (UN) entities refer to it as a "hidden epidemic," calling it "ubiquitous yet invisible." <sup>196</sup> Road traffic-related deaths are the leading cause of death for people between 5 and 29 years old. <sup>197</sup> Rapid urbanization, poor safety standards, lack of enforcement, failure to use safety mechanisms, and driving while distracted, fatigued, or under the influence of drugs or alcohol all contribute to road traffic-related deaths and injuries. <sup>198</sup> Many things can make a road unsafe for its users, including increased traffic congestion, poor infrastructure, air pollution, non-certified drivers, lack of safety barriers, and crowded public transportation. <sup>199</sup>

2011-2020 was The Decade of Action for Road Safety and was meant to advance the international community's response to road traffic deaths.<sup>200</sup> While road traffic deaths have stabilized in recent years relative to the world population, progress has not been uniform across countries and the Sustainable Development Goal (SDG) target 3.6 to halve road traffic deaths by 2020 has not been met.<sup>201</sup> One of the United Nations Human Settlements Programme's (UN-Habitat) main functions is to promote sustainable urban development, which includes a commitment to promote safe and sustainable measures to improve road safety.<sup>202</sup>

The World Health Organization (WHO) uses the term "road user" when collecting data on road safety. <sup>203</sup> A road user can include anyone who is in close proximity to a road – whether they are operating a vehicle, a passenger, a cyclist, or a pedestrian. <sup>204</sup> All of these groups are at risk of road traffic death. <sup>205</sup> The international community does not yet have a standardized definition of "road traffic death," as each Member State factors in different legislation and timeframes to contextualize their fatality data. <sup>206</sup> Another important aspect of this issue is sustainable transport, which is defined by the High-Level Advisory Group on Sustainable Transport as "the provision of services and infrastructure for the mobility of people and goods – advancing economic and social development to benefit today's and future generations – in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts," though there is no universally-recognized definition currently. <sup>207</sup> Through capacity building, safety standardization, the implementation of sustainable transport mechanisms, and engagement with the private sector, the international community can address this "hidden epidemic" in a way that is equitable, universal, and sustainable. <sup>208</sup>

<sup>&</sup>lt;sup>194</sup> WHO, Global Status Report on Road Safety 2018, 2018, p. ix.

<sup>&</sup>lt;sup>195</sup> Ibid, p. Vii.

<sup>&</sup>lt;sup>196</sup> UN DPI, UN calls for action to tackle 'ubiquitous but invisible' global road safety crisis, 2019.

<sup>&</sup>lt;sup>197</sup> Ibid, p. vii.

<sup>&</sup>lt;sup>198</sup> Ibid, p. vii.

<sup>&</sup>lt;sup>199</sup> UN-Habitat, Best Practice Guide on Walking and Cycling in African Cities: Policy, Infrastructure, Advocacy, and Perceptions, 2020; Ibid, p. 15.

<sup>&</sup>lt;sup>200</sup> Ibid, p. 75.

<sup>&</sup>lt;sup>201</sup> Ibid, pp. xi, 3.

<sup>&</sup>lt;sup>202</sup> UN-Habitat III, *The New Urban Agenda*, 2017.

<sup>&</sup>lt;sup>203</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>204</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>205</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>206</sup> Ibid, p. 282.

<sup>207</sup> UN Secretary-General's High-Level Advisory Group on Sustainable Transport, Mobilizing Sustainable Transport for Development, p. 7.

<sup>&</sup>lt;sup>208</sup> Ibid, pp. 57, 78-79.



#### International and Regional Framework

Historically, the UN has adopted numerous conventions and agreements on road safety – especially in the 1950s and 1960s. <sup>209</sup> The first was the 1949 *Geneva Convention on Road Traffic*, which holds state parties responsible to a set of uniform rules as laid out in the convention. <sup>210</sup> The most recent adopted UN General Assembly resolution 72/271 on "Improving Global Road Safety" came in 2018. <sup>211</sup> It calls for increased national, regional, and international collaboration on road safety, including the implementation of national road safety plans, and adoption and enforcement of legislation that promotes road safety. <sup>212</sup> The adoption of the SDGs illustrated a renewed commitment to promoting road safety, particularly through SDG 3 on good health and well-being and 11 on sustainable cities and communities. <sup>213</sup> SDG target 3.6 calls for halving the number of global deaths and injuries from road traffic crashes. <sup>214</sup> SDG target 11.2 calls for providing access to safe, affordable, accessible and sustainable transport systems for all improving road safety, notably by expanding public transport, with special attention paid to the needs of those in vulnerable situations such as women, children, persons with disabilities, and older persons. <sup>215</sup>

The *New Urban Agenda*, which came out of the United Nations Conference on Housing and Sustainable Urban Development in Quito, Ecuador (Habitat III), provided a new roadmap for the international community to reference in the promotion of sustainable urban development.<sup>216</sup> The international community committed itself to achieving the goals when the UN General Assembly endorsed the *New Urban Agenda* in December 2016.<sup>217</sup> Through this endorsement, Member States committed to improve road safety and integrate it into sustainable transport practices and infrastructure.<sup>218</sup> The *New Urban Agenda* also calls for awareness-raising initiatives and special attention paid to the needs of vulnerable populations.<sup>219</sup> The Agenda commits its signatories to adopt, implement, and enforce policies and measures to protect and promote pedestrians and cyclists – with regards to road traffic injuries and deaths as well as non-communicable diseases caused by harmful vehicle emissions.<sup>220</sup>

A major referential document involved in promoting global road safety is the *Global Status Report on Road Safety*, the most recent iteration of which was launched by WHO in December 2018.<sup>221</sup> The report provides an analysis on the current state of global road safety, how to create policies that promote safe road use, promoting safe road infrastructure and vehicles, as well as information on how to care for people affected by unsafe roads.<sup>222</sup> WHO also created "Save LIVES", a package of 6 strategies to reduce injuries and deaths from road traffic crashes.<sup>223</sup> It involves various strategies, including Speed management; Leadership on road safety; Infrastructure design and improvement; Vehicle safety standards; Enforcement of traffic laws; and Survival after a crash (Save LIVES).<sup>224</sup>

In 2011, the national transport and environment agencies of many South American countries met in Bogota, Colombia and collectively adopted the *Bogota Declaration on Sustainable Transport Objectives*, of which road safety is a cross-cutting strategy to improve sustainable transport.<sup>225</sup> Many United Nations

UN General Assembly, *Improving global road safety (A/RES/72/271)*, 2018, p. 5.

210 UN Conference on Road and Motor Transport, *Convention on Road Traffic*, 1949, p. 3-4.

211 Ibid.

212 Ibid, p. 5.

213 Ibid, p. 18; WHO, *UN General Assembly adopts a resolution on "Improving global road safety"*, 2020.

214 Ibid, p. 15.

215 Ibid, p. 15.

216 Ibid, p. iv.

217 Ibid.

218 Ibid, p. 28.

219 Ibid, p. 28.

220 Ibid, p. 28.

221 Ibid.

222 Ibid.

223 WHO, *Save LIVES Vehicle Safety Standards*, p. 1.

224 Ibid, p. 1; WHO, *Save LIVES: a road safety technical package*, 2017.

<sup>&</sup>lt;sup>225</sup> Ibid, p. 16; Foro de Transporte Sostenible para America Latina, Bogota Declaration on Sustainable Transport Objectives, 2011.



regional economic commissions are also working to create similar road safety regulations.<sup>226</sup> The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) organized a regional meeting in 2016 to address renewing regional road safety goals, targets, and indicators for the region.<sup>227</sup> The Economic Commission for Latin America and the Caribbean (ECLAC) and United Nations Economic Commission for Europe (UNECE) coordinated efforts to promote road safety as a key component of regional laws on mobility, urban transport, and road safety.<sup>228</sup> Cross-regional collaborations between UNECE, ECLAC, and ESCAP work to strengthen national road safety management capacity in various regions and Member States through the identification of road safety priorities and capacity-building opportunities.<sup>229</sup>

#### Role of the International System

UN-Habitat currently has two ongoing projects on road safety: the "Bossaso Port and Roads Infrastructure Upgrading Puntland State of Somalia"; and "Future research, Advanced Development and Implementation Activities for Road Transport – Future Radar – global" (FUTURE-RADAR).<sup>230</sup> The first works to promote sustainable development and infrastructure development.<sup>231</sup> FUTURE-RADAR develops concepts and different approaches to address common challenges that Member States face in implementing sustainable transport.<sup>232</sup> FUTURE-RADAR centers much of its work around finding innovative solutions for sustainable transport through public private partnerships with car companies, infrastructure companies, and universities.<sup>233</sup>

In 1950, UNECE created an Ad Hoc Working Group on the prevention of road accidents, which has since evolved into the Global Forum for Road Traffic Safety.<sup>234</sup> The Forum is currently the only permanent body in the United Nations system that focuses solely on improving road safety. 235 Though UNECE created the Forum, it's open to participation from all countries and works to harmonize traffic rules across regions and the globe. 236 The United Nations Road Safety Fund (UNRSF) is another mechanism from UNECE that aims to help low- and middle-income countries put in place effective national road safety systems.<sup>237</sup> Established in 2018, this fund is a United Nations Multi-Partner Trust Fund and works to finance highimpact projects based on established and internationally recognized best practices to increase road safety. 238 In addition to this, the World Bank has a multi-donor fund called the Global Road Safety Facility which aims to help governments develop road safety management capacity and to scale up road safety delivery in low- and middle-income countries. 239 UNECE is also the secretariat for the United Nations Special Envoy for Road Safety.<sup>240</sup> United Nations Road Safety Collaboration (UNRSC) was formed in April 2004 to improve cooperation with the WHO and UN regional commissions to coordinate road safety issues across the UN System.<sup>241</sup> The UNRSC is an informal consultative mechanism whose members are committed to road safety efforts and in particular the implementation of the recommendations from the World Report on Road Traffic Injury Prevention.<sup>242</sup> The goal of UNRSC is to facilitate international cooperation and strengthen global and regional coordination among UN agencies and other international

<sup>&</sup>lt;sup>226</sup> UN General Assembly, *Improving global road safety: Note by the Secretary-General (A/72/329)*, 2017, p. 6.

<sup>&</sup>lt;sup>227</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>228</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>229</sup> Ibid, p. 6.

<sup>&</sup>lt;sup>230</sup> UN-Habitat, *Projects*, 2019.

<sup>&</sup>lt;sup>231</sup> UN-Habitat, Bossaso Port And Roads Infrastructure Upgrading Puntland State of Somalia, 2019.

<sup>&</sup>lt;sup>232</sup> UN-Habitat, Future Research, Advanced Development And Implementation Activities for Road Transport – Future-Radar, 2019.

<sup>&</sup>lt;sup>233</sup> Rupprecht Consult, *Project Details: FUTURE-RADAR*, 2020.

<sup>&</sup>lt;sup>234</sup> UNECE, Road Safety Fund.

<sup>&</sup>lt;sup>235</sup> Ibid.

<sup>&</sup>lt;sup>236</sup> Ibid.

<sup>&</sup>lt;sup>237</sup> Ibid.

<sup>238</sup> Ihid

<sup>&</sup>lt;sup>239</sup> The World Bank Group, *Global Road Safety Facility*, 2020.

<sup>&</sup>lt;sup>240</sup> UNECE, Meet the Special Envoy: Appointment.

<sup>&</sup>lt;sup>241</sup> UNRSC, About the UN Road Safety Collaboration, 2020.

<sup>&</sup>lt;sup>242</sup> Ibid.



partners to implement General Assembly resolutions and recommendations of the world report, thereby supporting country programs.<sup>243</sup>

In addition to the guidance given to Member States and regional bodies, the UN Department of Safety and Security (UNDSS) has created the One UN Vision for Road Safety.<sup>244</sup> According to UNDSS, road crashes are a leading cause of death and serious injury to UN personnel.<sup>245</sup> UNDSS the One UN Vision for Road Safety in an effort to halve the amount of road-related deaths and injuries for UN staff.<sup>246</sup> In February of 2019, the UN Road Safety Strategy was launched.<sup>247</sup> This strategy rests on 5 pillars: road safety management; safer fleets; safer road users; post-crash response; and a safer driving environment.<sup>248</sup> The strategy has been endorsed by more than 250 entities from the UN system, Member States, civil society, philanthropic organizations, academia, and the private sector.<sup>249</sup>

The United Nations also launched the SaveKidsLives Campaign in order to raise global awareness and lower the number of children who die in road-related incidents – currently 500 per day. <sup>250</sup> This campaign focuses mainly on developing countries and has 5 priorities. <sup>251</sup> These priorities include creating a safe journey to school for every child including safe roads and speed management around every school; safe school transport including seatbelts on all school buses; vehicles that are safe for children and action to promote child restraints in commercial and private vehicles; motorcycle helmets for all children where two-wheeled vehicles are the main family transport; and enforcement and action against impaired driving. <sup>252</sup>

#### Capacity-Building and Road Safety Legislation

When considering global road safety, economic inequality across regions is a large factor. <sup>253</sup> Road-related death rates are three times higher in low-income countries than in high-income countries. <sup>254</sup> Africa experiences 26.6 deaths per 100,000 population each year and South-East Asia experiences 20.7 deaths per 100,000 population each year. <sup>255</sup> Low-income countries have an average rate of 27.5 road traffic deaths per 100,000 population per year, whereas high-income countries have an average rate of only 8.3 road traffic deaths per 100,000 population per year. <sup>256</sup> Despite only having 1% of the world's motor vehicles, low-income countries account for 13% of road traffic deaths and more than 90% of road fatalities take place in low- and middle-income countries. <sup>257</sup> UN-Habitat has identified insufficient monitoring, implementation, and realization of road safety legislation, especially road safety legislation having to do with vulnerable and disadvantaged groups. <sup>258</sup>

Currently, 132 Member States have national strategies for road safety and 109 countries have national targets for the reduction of road traffic deaths.<sup>259</sup> Despite this, many lack economic, management, and institutional capacity in order to effectively implement, uphold, and measure these strategies and targets.<sup>260</sup> Many developing countries are undergoing mass urbanization, which presents social,

```
<sup>244</sup> UNDSS, One UN Vision for Road Safety.
<sup>245</sup> Ibid.
246 Ibid.
<sup>248</sup> Ibid; UNDSS, Road Safety Strategy for United Nations System and its Personnel: A Partnership for Safer
            Journeys, 2019.
<sup>249</sup> Ibid; Ibid.
<sup>250</sup> Ibid, p. 25.
<sup>251</sup> Ibid, p. 25.
<sup>252</sup> UN Sustainable Development Goals Partnership Platform, #SaveKidsLives.
<sup>253</sup> Ibid.
<sup>254</sup> Ibid.
<sup>255</sup> Ibid.
<sup>256</sup> Ibid
<sup>257</sup> Ibid. p. 6: Ibid. p. 25.
<sup>258</sup> UN-Habitat, Planning and Design for Sustainable Urban Mobility, 2013, p. 118.
<sup>260</sup> Ibid, p. 15.
```



economic, and environmental challenges for governments and their citizens.<sup>261</sup> These challenges include overcoming social and economic inequality and increased air pollution from a larger number of vehicles on the road.<sup>262</sup> Unsafe roads and unsustainable transport options can exacerbate these challenges, especially since private vehicle ownership tends to increase as nations and cities develop.<sup>263</sup>

According to WHO, enacting and enforcing legislation on key road safety risk factors are critical components to building an effective strategy to prevent road traffic deaths and injuries.<sup>264</sup> Legislation having to do with speed regulation, impaired driving, and the use of safety measures such as helmets, seat belts, and child restraints greatly impact the rate of road traffic deaths.<sup>265</sup> Currently, 123 countries have laws that meet best practices for at least one of these key behavioral risk factors.<sup>266</sup> Since 2014, 22 countries representing 14% of the world's population have amended their laws on one or more of these key risk factors; however two-thirds of these countries have assessed their enforcement of these laws as insufficient.<sup>267</sup>

#### Best Practices, Sustainable Transport, and Private Sector Engagement

In November of 2017, Member States partnered with the WHO, UNECE, the United Nations Children's Fund, the World Bank, and other agencies in order to create voluntary targets meant to provide a framework of best practices to guide and monitor the implementation of legislation, safety standards, and other interventions to prevent crashes, injuries, and deaths on the road. Together, they reached consensus on a set of 12 Voluntary Global Performance Targets for Road Safety Risk Factors and Service Delivery Mechanisms. These targets were developed to be achieved through the year 2030 and are categorized under 5 pillars: road safety management; safer roads and mobility; safe vehicles; safe road users; and post-crash response. WHO also provides star ratings for road safety to help measure the safety of pedestrians, cyclists, motorcyclists, and motor vehicles. These ratings take into account the presence of sidewalks, bike lanes, motorcycle lanes, and safety barriers. According to WHO, 88% of pedestrian travel is on 1- or 2-star-rated roads, exacerbating the issue of road safety for all road users.

UN-Habitat has discussed the importance of including all stakeholders in the creation, maintenance, and governance of urban transport including government, transport providers and operators, the private sector, and civil society.<sup>274</sup> According to UN-Habitat and WHO, the private sector plays an increasingly important role in promoting road safety and high-rated roads, as constriction and manufacturing companies must practice specific safety standards in order to meet the best practices put in place by WHO.<sup>275</sup> These safety standards include stability control, pedestrian protection, advanced braking, and safety equipment such as seatbelts and airbags.<sup>276</sup> According to the 2018 *Global Status Report on Road Safety*, the remaining challenges for Member States, the private sector, and the international community include increasing political will, ensuring accountability, strengthening data collection, and building capacity.<sup>277</sup> The *New Urban Agenda* also calls for the adoption, implementation, and enforcement of

<sup>&</sup>lt;sup>261</sup> Ibid, p. 24. <sup>262</sup> Ibid, p. 7. <sup>263</sup> Ibid, p. 24, 25. <sup>264</sup> Ibid, p. 23. <sup>265</sup> Ibid, p. 24. <sup>266</sup> Ibid, p. 23. <sup>267</sup> Ibid, p. 25. <sup>268</sup> Ibid, p. 18. <sup>269</sup> Ibid, p. 18. <sup>270</sup> Ibid, p. 19. <sup>271</sup> Ibid, p. 53. <sup>272</sup> Ibid, p. 53. <sup>273</sup> Ibid, p. 75. <sup>274</sup> Ibid, p. viii. <sup>275</sup> Ibid, p. 57; Ibid, 2013, p. 21. <sup>276</sup> Ibid, pp. 57, 62. <sup>277</sup> Ibid, pp. 78-79.



legislation and measures to actively protect and promote the safety of road users, especially in developing countries. <sup>278</sup>

An important aspect of creating safer roads is implementing legislation that promotes sustainable transport practices, which can help promote productivity, cut down on transport time, and create less carbon emissions for all road users and goods transporters. According to the Secretary-General's High-Level Advisory Group on Sustainable Transport, the implementation of sustainable transport practices will lead to improved road safety and promote action to combat climate change through reducing carbon emissions by 7 gigatons. This group recommends an inclusive and people-centered approach to the 2030 Agenda for Sustainable Development and safety must be a pre-requisite of all sustainable transport efforts, especially in developing countries. This can be achieved through providing access to safe, affordable, and accessible public transportation options and adapting infrastructure to be both safe and sustainable.

#### Conclusion

While global road safety has seen vast improvements in recent years, much work is still needed in order to effectively address this issue.<sup>283</sup> Urbanization and a lack of sustainable transport options continue to accelerate road safety challenges and the international community is struggling to keep pace with rapid developments.<sup>284</sup> Developing Member States face especially difficult challenges in addressing this issue, but the international community is working to assist all Member States in creating, implementing, and upholding universal safety standards.<sup>285</sup>

#### Further Research

When considering UN-Habitat's role in improving global road safety, delegates should consider the following: What is the current state of road safety in your country? In your region? What legislation does your country and/or regional organization have in place to improve global road safety? What are the roadblocks to implementing or monitoring this legislation? Is your country's transport options sustainable, both economically and environmentally? How can UN-Habitat engage with the private sector and civil society organizations while staying within its mandate? What best practices in road safety do you want UN-Habitat to promote?

#### **Annotated Bibliography**

Third United Nations Conference on Housing and Sustainable Urban Development (UN-Habitat III). (2017). *The New Urban Agenda*. Retrieved 15 February 2020 from: <a href="http://habitat3.org/wp-content/uploads/NUA-English.pdf">http://habitat3.org/wp-content/uploads/NUA-English.pdf</a>

This document is the most recent UN-Habitat document that discusses road safety. The New Urban Agenda is a roadmap for building cities that can be sustainable engines for economic development. Delegates can find information on UN-Habitat's standards for road safety in this document, as well as various calls to action on road safety.

United Nations General Assembly, seventy-second session (2017). Improving global road safety: Note by the Secretary-General (A/72/329). Retrieved 15 February 2020 from: <a href="https://undocs.org/a/72/359">https://undocs.org/a/72/359</a>
This report from the WHO was transmitted to the General Assembly by the Secretary-General and is the most recent report to be submitted to the General Assembly on improving global road safety. It contains multitudes of information on current road safety

<sup>279</sup> Ibid, p. vii.

<sup>&</sup>lt;sup>278</sup> Ibid, p. 29.

<sup>&</sup>lt;sup>280</sup> Ibid, p. 7.

<sup>&</sup>lt;sup>281</sup> Ibid, p. 10.

<sup>&</sup>lt;sup>282</sup> Ibid, p. 12, 16.

<sup>&</sup>lt;sup>283</sup> Ibid, p. xi, 3.

<sup>&</sup>lt;sup>284</sup> Ibid, p. 7, 24.

<sup>&</sup>lt;sup>285</sup> Ibid, p. 8; Ibid, p. 29.



practices as well as recommendations and examples of best practices. Secretary-General reports and notes are excellent resources for students looking for a comprehensive and factual document on a specific topic.

United Nations General Assembly, seventy-second session. (2018). *Improving global road safety* (A/RES/72/271). Retrieved 15 February 2020 from: https://undocs.org/a/res/72/271

As the most recent General Assembly resolution on global road safety, delegates can look to this resolution for current policy recommendations and priorities of the international community. It contains national, regional, and global strategies to improve road safety. This resolution can give delegates an excellent sense of the international community's mindset and approach to this topic.

United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport. (2016). *Mobilizing Sustainable Transport for Development*. Retrieved 15 February 2020 from: <a href="https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf">https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf</a>

This document ties together many aspects of road safety with the concept of sustainable development. It contains copious amounts of data to give delegates a good picture of the current state of affairs when it comes to road safety and sustainable development. It also contains policy recommendations on road safety and its tangential issues.

World Health Organization. (2018). Global Status Report on Road Safety 2018. Retrieved 15 February 2020 from: <a href="https://apps.who.int/iris/bitstream/handle/10665/276462/9789241565684-eng.pdf?ua=1">https://apps.who.int/iris/bitstream/handle/10665/276462/9789241565684-eng.pdf?ua=1</a>
As the preeminent report on Global Road Safety, this document analyzes the current state of global road safety and includes some key statistics. It reviews current legislation having to do with road user behavior, as well as institutional management and enforcement of this legislation. Delegates can also look to this document for key messages and recommendations on safe roads and vehicles.

### **Bibliography**

Foro de Transporte Sostenible para America Latina. (2011). *Bogota Declaration on Sustainable Transport Objectives*. Retrieved 21 March 2020 from:

https://sustainabledevelopment.un.org/content/documents/1605Bogota%20Declaration\_discussed%20\_E\_NG.pdf

Rupprecht Consult. (2020). *Project Details: FUTURE-RADAR*. Retrieved 30 May 2020 from: <a href="https://www.rupprecht-consult.eu/project/future-radar.html">https://www.rupprecht-consult.eu/project/future-radar.html</a>

Third United Nations Conference on Housing and Sustainable Urban Development (UN-Habitat III). (2017). *The New Urban Agenda*. Retrieved 15 February 2020 from: <a href="http://habitat3.org/wp-content/uploads/NUA-English.pdf">http://habitat3.org/wp-content/uploads/NUA-English.pdf</a>

United Nations Conference on Housing and Sustainable Urban Development. (n.d.). *The New Urban Agenda*. Retrieved 20 March 2020 from: http://habitat3.org/the-new-urban-agenda/

United Nations Conference on Road and Motor Transport. (1949). *Convention on Road Traffic*. Retrieved 21 March 2020 from:

http://www.unece.org/fileadmin/DAM/trans/conventn/Convention on Road Traffic of 1949.pdf

United Nations Department of Safety and Security. (n.d.). *One UN Vision for Road Safety*. Retrieved 20 March 2020 from: <a href="https://www.un.org/undss/roadtosafety">https://www.un.org/undss/roadtosafety</a>

United Nations Department of Safety and Security. (2019). Road Safety Strategy for the United Nations System and its Personnel: A Partnership for Safer Journeys. Retrieved 23 March 2020 from: <a href="https://www.un.org/undss/sites/www.un.org/undss/sites/www.un.org/undss/files/general/road\_safety\_strategy\_-booklet.pdf">https://www.un.org/undss/sites/www.un.org/unds



United Nations Department of Public Information. (17 November 2019). *UN calls for action to tackle 'ubiquitous but invisible' global road safety crisis*. Retrieved 15 February 2020 from: https://news.un.org/en/story/2019/11/1051501

United Nations Economic Commission for Europe. (n.d.). *Meet the Special Envoy: Appointment*. Retrieved 23 March 2020 from: <a href="http://www.unece.org/united-nations-special-envoy-for-road-safety/meet-the-special-envoy/appointment.html">http://www.unece.org/united-nations-special-envoy-for-road-safety/meet-the-special-envoy/appointment.html</a>

United Nations Economic Commission for Europe. (n.d.). *Road Safety Fund.* Retrieved 15 February 2020 from: https://www.unece.org/unrsf/home.html

United Nations General Assembly, seventy-second session (2017). *Improving global road safety: Note by the Secretary-General (A/72/329)*. Retrieved 15 February 2020 from: https://undocs.org/a/72/359

United Nations General Assembly, seventy-second session. (2018). *Improving global road safety* (A/RES/72/271). Retrieved 15 February 2020 from: https://undocs.org/a/res/72/271

United Nations Human Settlements Programme. (2020). Best Practice Guide on Walking and Cycling in African Cities: Policy, Infrastructure, Advocacy, and Perceptions. Retrieved 1 May 2020 from: <a href="https://unhabitat.org/node/143884">https://unhabitat.org/node/143884</a>

United Nations Human Settlements Programme. (2019). Bossaso Port and Roads Infrastructure Upgrading Puntland State of Somalia. Retrieved 20 March 2020 from: https://open.unhabitat.org/node/35963

United Nations Human Settlements Programme. (2019). Future Research, Advanced Development And Implementation Activities for Road Transport – Future-Radar. Retrieved 20 March 2020 from: <a href="https://open.unhabitat.org/node/36329">https://open.unhabitat.org/node/36329</a>

United Nations Human Settlements Programme. (2013). *Planning and Design for Sustainable Urban Mobility*. Retrieved 2 May 2020 from: <a href="https://unhabitat.org/sites/default/files/download-manager-files/Planning%20and%20Design%20for%20Sustainable%20Urban%20Mobility.pdf">https://unhabitat.org/sites/default/files/download-manager-files/Planning%20and%20Design%20for%20Sustainable%20Urban%20Mobility.pdf</a>

United Nations Human Settlements Programme. (2019). *Projects*. Retrieved 15 February 2020 from: <a href="https://open.unhabitat.org/projects">https://open.unhabitat.org/projects</a>

United Nations Road Safety Collaboration. (2020). *About the UN Road Safety Collaboration*. Retrieved 15 February 2020 from: <a href="https://www.who.int/roadsafety/about/en/">https://www.who.int/roadsafety/about/en/</a>

United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport. (2016). *Mobilizing Sustainable Transport for Development*. Retrieved 15 February 2020 from: <a href="https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf">https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf</a>

United Nations Sustainable Development Goals Partnership Platform. (n.d.). #SaveKidsLives. Retrieved 23 March 2020 from: https://sustainabledevelopment.un.org/partnership/?p=11868

The World Bank Group. (2020). *Global Road Safety Facility*. Retrieved 15 February 2020 from: <a href="https://www.worldbank.org/en/programs/global-road-safety-facility">https://www.worldbank.org/en/programs/global-road-safety-facility</a>

World Health Organization. (n.d.). Save Lives Vehicle Safety Standards. Retrieved 15 February 2020 from: <a href="https://www.who.int/violence\_injury\_prevention/publications/road\_traffic/2pager-Vehicle-final.pdf">https://www.who.int/violence\_injury\_prevention/publications/road\_traffic/2pager-Vehicle-final.pdf</a>

World Health Organization. (2016). *UN General Assembly adopts a resolution on "Improving global road safety"*. Retrieved 15 February 2020 from: https://www.who.int/violence\_injury\_prevention/media/news/2016/15\_04/en/



World Health Organization. (2017). Save LIVES: A road safety technical package. Retrieved 15 February 2020 from: <a href="https://apps.who.int/iris/bitstream/handle/10665/255199/9789241511704-eng.pdf?sequence=1">https://apps.who.int/iris/bitstream/handle/10665/255199/9789241511704-eng.pdf?sequence=1</a>

World Health Organization. (2018). *Global Status Report on Road Safety 2018*. Retrieved 15 February 2020 from: <a href="https://apps.who.int/iris/bitstream/handle/10665/276462/9789241565684-eng.pdf?ua=1">https://apps.who.int/iris/bitstream/handle/10665/276462/9789241565684-eng.pdf?ua=1</a>