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# UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

## BACKGROUND GUIDE 2016

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# NATIONAL MODEL UNITED NATIONS





# THE 2016 NATIONAL MODEL UNITED NATIONS

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Dear Delegates,

Welcome to the 2016 National Model United Nations Conference in New York (NMUN•NY)! We are pleased to introduce you to our committee, the United Nations Educational, Scientific and Cultural Organization (UNESCO). This year's staff is: Directors Alice Bauer (Conference A) and Hope Berndt (Conference B), and Assistant Directors Lauren Kiser (Conference A) and Maxwell Lacey (Conference B). Alice completed her M.Sc. in Business Economics in 2015 and is currently a research assistant and doctoral candidate at the Institute for Strategic and International Management at the Hamburg University of Technology. This will be her fourth year on staff. Hope received her B.A. and M.A. in Political Science from Long Island University - Brooklyn Campus. She currently works as a National Organizer for the American Federation of Government Employees and is looking forward to her fifth year on staff. Lauren received a Double Degree from Texas Christian University in International Relations and International Economics in 2013. She is working on her M.A. in Global Finance, Trade and Economic Integration from the Josef Korbel School of International Studies, and this is her first year on staff. Max graduated from Royal Holloway, University of London with a Bachelor's degree in Politics & International Relations, and now works for Royal Holloway as a Regional Recruitment and Partnerships Officer for North and South America. He is looking forward to his second year on NMUN staff.

The topics under discussion for UNESCO are:

- I. Education for All: Strengthening Rural Education
- II. Promoting Women in Science
- III. Protecting World Heritage Sites against New and Emerging Threats

UNESCO plays a unique role as a specialized agency tasked with promoting peace through collaboration in the fields of education, science, and culture. UNESCO has a broad network of partners, including Member States, UN organs, non-governmental organizations, and the private sector. At NMUN•NY 2016, we are simulating the Executive Board of UNESCO in terms of composition and size; however, delegates are not limited to the strict mandate of the Executive Board during the conference. For the purposes of NMUN•NY 2016, and corresponding with the educational mission of the conference, the committee has the ability to make programmatic and policy decisions on issues within the mandate of UNESCO in line with the overall function of the organization.

This Background Guide is a helpful starting point for understanding the committee's topics, but should not replace independent research in preparation for the conference. The Background Guide includes an Annotated Bibliography and Bibliography for each of the topics, which are great resources for beginning in-depth research into these topics and your Member State's policies. In preparation for the conference, each delegation will submit a [position paper](#). Please take note of the [NMUN policies](#) on the website and in the [Delegate Preparation Guide](#) regarding plagiarism, codes of conduct, dress code, sexual harassment, and the awards philosophy and evaluation method. Adherence to these guidelines is mandatory.

The [NMUN Rules of Procedure](#) are available to download from the NMUN website. This document includes the long and short form of the rules, as well as an explanatory narrative and example script of the flow of procedure. It is thus an essential instrument in preparing for the conference, and a reference during committee.

If you have any questions concerning your preparation for the committee or the conference itself, feel free to contact the Under-Secretaries-General for the Development Department, Michael Buechl (Conference A) and Andrea Wong (Conference B). You can reach either USG at: [usg.development@nmun.org](mailto:usg.development@nmun.org).

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

Sincerely,

**Conference A**

Alice Bauer, *Director*  
Lauren Kiser, *Assistant Director*

**Conference B**

Hope Berndt, *Director*  
Maxwell Lacey, *Assistant Director*

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## Table of Contents

|  |           |
|--|-----------|
| <b>Abbreviations</b> .....   | <b>3</b>  |
| <b>United Nations System at NMUN·NY</b> .....                                      | <b>5</b>  |
| <b>Committee Overview</b> .....  | <b>6</b>  |
| Introduction.....  | 6         |
| Governance, Structure and Membership.....  | 6         |
| Mandate, Functions and Powers.....   | 7         |
| Recent Sessions and Current Priorities.....  | 9         |
| Conclusion.....  | 10        |
| Annotated Bibliography.....  | 11        |
| Bibliography.....  | 12        |
| <b>I. Education for All: Strengthening Rural Education</b> .....                   | <b>15</b> |
| Introduction.....  | 15        |
| International and Regional Framework.....  | 15        |
| Role of the International System.....  | 17        |
| Access to Education in Rural Communities.....                                      | 18        |
| Quality of Education in Rural Communities.....                                     | 20        |
| Conclusion.....  | 21        |
| Further Research.....  | 22        |
| Annotated Bibliography.....  | 23        |
| Bibliography.....  | 25        |
| <b>II. Promoting Women in Science</b> .....  | <b>29</b> |
| Introduction.....  | 29        |
| International and Regional Framework.....  | 30        |
| Role of the International System.....  | 32        |
| Challenges to Encouraging Women in Science.....                                    | 32        |
| Innovative Approaches to Including Women in Science.....                           | 34        |
| Conclusion.....  | 35        |
| Further Research.....  | 35        |
| Annotated Bibliography.....  | 36        |
| Bibliography.....  | 37        |
| <b>III. Protecting World Heritage Sites against New and Emerging Threats</b> ..... | <b>42</b> |
| Introduction.....  | 42        |
| International and Regional Framework.....  | 43        |
| Role of the International System.....  | 44        |
| Armed Conflict.....  | 45        |
| Climate Change.....  | 46        |
| Natural Disasters.....   | 47        |
| Conclusion.....  | 47        |
| Further Research.....  | 48        |
| Annotated Bibliography.....  | 49        |
| Bibliography.....  | 51        |



## Abbreviations

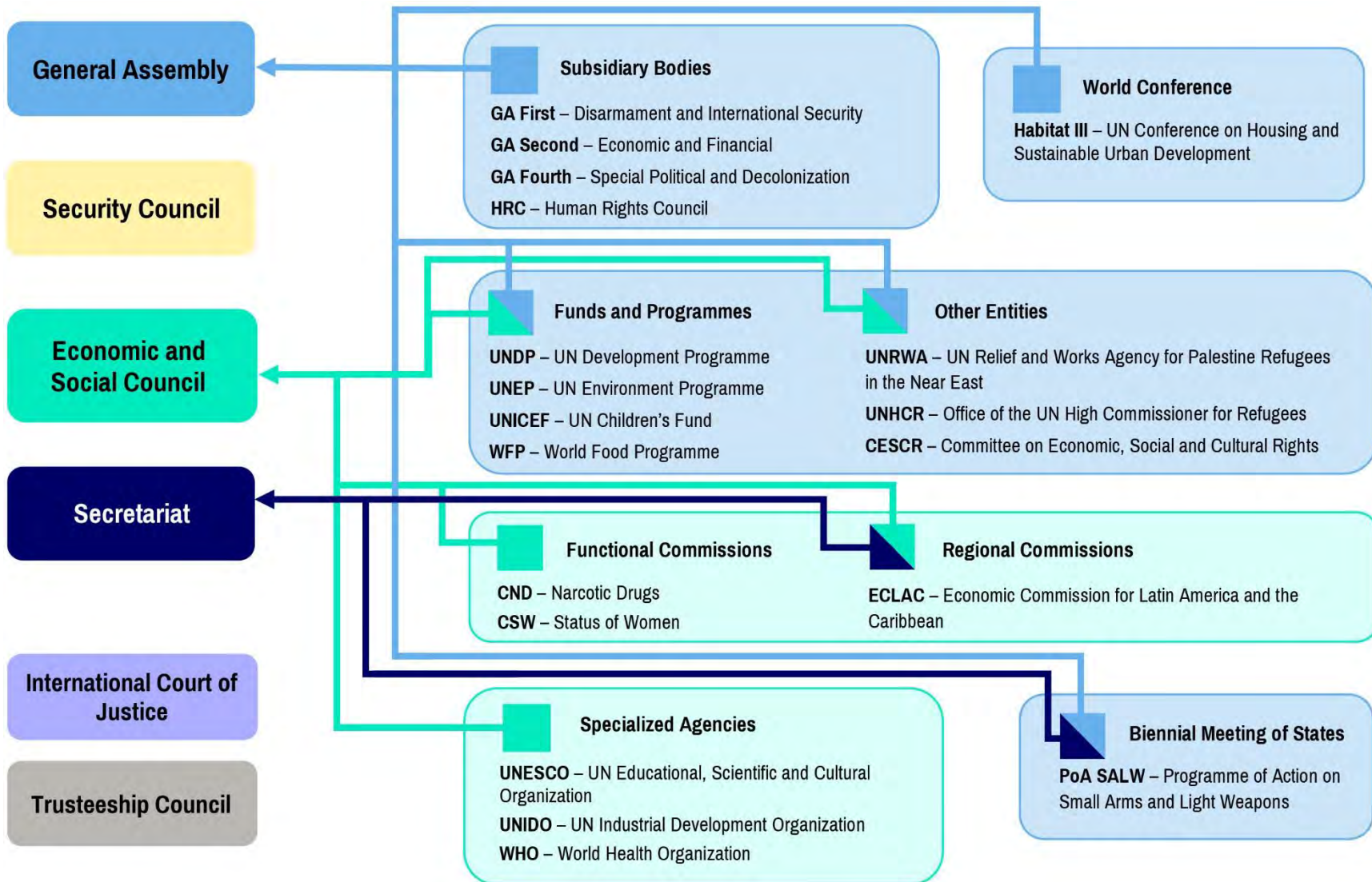
|                  |   |
|------------------|---|
| <b>BPfA</b>      | Beijing Platform for Action   |
| <b>CAME</b>      | Conference of Allied Ministers of Education   |
| <b>CBD</b>       | Convention on Biological Diversity  |
| <b>CCNGO/EFA</b> | Collective Consultation of NGOs on Education for All  |
| <b>CEDAW</b>     | Committee on the Elimination of Discrimination against Women                                |
| <b>CICI</b>      | International Committee on Intellectual Cooperation   |
| <b>CIGEPS</b>    | Intergovernmental Committee for Physical Education and Sport                                |
| <b>CRC</b>       | Convention on the Rights of the Child   |
| <b>DRR</b>       | Disaster risk reduction   |
| <b>ECO/CONF</b>  | United Nations Conference for the establishment of an educational and cultural organization |
| <b>ECOSOC</b>    | Economic and Social Council   |
| <b>EFA</b>       | Education for All   |
| <b>ERP</b>       | Education for Rural People  |
| <b>FFA</b>       | Education 2030 Framework for Action   |
| <b>FAO</b>       | Food and Agriculture Organization   |
| <b>GA</b>        | General Assembly  |
| <b>GEAP I</b>    | Priority Gender Equality Action Plan, 2008-2013   |
| <b>GEAP II</b>   | Priority Gender Equality Action Plan, 2014-2021   |
| <b>GHC</b>       | Grace Hopper Celebration of Women in Computing  |
| <b>HLCM</b>      | High-Level Committee for Management   |
| <b>HLP</b>       | High-Level Committee for Programmes   |
| <b>IBE</b>       | International Bureau of Education   |
| <b>ICCROM</b>    | International Center for the Study of the Preservation and Restoration of Cultural Property |
| <b>ICJ</b>       | International Court of Justice  |
| <b>ICPD</b>      | International Conference on Population and Development                                      |
| <b>ICOMOS</b>    | International Commission on Monuments and Sites   |
| <b>IFAD</b>      | International Fund for Agricultural Development   |
| <b>IGBC</b>      | Intergovernmental Bioethics Committee   |
| <b>IGO</b>       | Intergovernmental organization  |
| <b>ILO</b>       | International Labour Organization   |
| <b>INWES</b>     | International Network of Women Engineers and Scientists                                     |
| <b>ISIL</b>      | Islamic State of Iraq and the Levant  |
| <b>IUCN</b>      | International Union for Conservation of Nature  |
| <b>LDCs</b>      | Least developed countries   |
| <b>MAB</b>       | International Coordinating Council of the Programme on Man and the Biosphere                |
| <b>MDGs</b>      | Millennium Development Goals  |
| <b>NGO</b>       | Non-governmental organization   |
| <b>OWSD</b>      | Organization for Women in Science in the Developing World                                   |
| <b>PPPs</b>      | Public-private partnerships   |
| <b>SAGA</b>      | STEM and Gender Advancement   |
| <b>SDGs</b>      | Sustainable Development Goals   |
| <b>SIDS</b>      | Small Island Developing States  |
| <b>STEM</b>      | Science, technology, engineering, and mathematics   |
| <b>TWAS</b>      | World Academy of Sciences   |
| <b>UDHR</b>      | Universal Declaration of Human Rights   |
| <b>UN</b>        | United Nations  |
| <b>UNDG</b>      | United Nations Development Group  |
| <b>UNESCO</b>    | United Nations Educational, Scientific and Cultural Organization                            |
| <b>UNHCR</b>     | United Nations High Commissioner for Refugees   |
| <b>UIS</b>       | United Nations Educational, Scientific and Cultural Organization Institute for Statistics   |



|               |  |
|---------------|--|
| <b>UNICEF</b> | United Nations Children's Fund   |
| <b>UNRWA</b>  | United Nations Relief and Works Agency for Palestine Refugees in the Near East |
| <b>UNSCEB</b> | United Nations System Chief Executives Board for Coordination                  |
| <b>WHC</b>    | World Heritage Committee   |
| <b>WHS</b>    | World Heritage Sites   |

## United Nations System at NMUN·NY

This diagram illustrates the UN System simulated at NMUN·NY. It shows where each committee “sits” within the system, to help understand the reportage and relationships between the entities. Examine the diagram alongside the Committee Overview to gain a clear picture of the committee's position, purpose, and powers within the UN System.





## Committee Overview

“Since war began in the minds of men, it is in the minds of men that defenses of peace must be constructed.”<sup>1</sup>

### Introduction

The United Nations (UN) Educational, Scientific and Cultural Organization (UNESCO) is a specialized agency of the UN system.<sup>2</sup> Although it is financially and structurally independent from the primary organs of the UN, UNESCO works with the UN to pursue common interests.<sup>3</sup> UNESCO originated in the 1942 Conference of Allied Ministers of Education (CAME), a group of government representatives seeking to restore education systems in the wake of Second World War; CAME was preceded by the International Committee on Intellectual Cooperation (CICI) and the International Bureau of Education (IBE), which has been part of the UNESCO Secretariat since 1969.<sup>4</sup> In November 1945, CAME organized a conference in London to establish an Educational and Cultural Organization (ECO/CONF).<sup>5</sup> Representatives from 37 countries agreed to found UNESCO; a formal constitution was signed on 16 November 1945 and came into force on 4 November 1946.<sup>6</sup>

The **United Nations Educational, Scientific and Cultural Organization** (UNESCO) is a specialized agency, which coordinates with the United Nations through the Economic and Social Council.

Since 1946, UNESCO has coordinated and produced several international standards for the promotion of peace through collaboration in the fields education, science, and culture.<sup>7</sup> Chief among these are *the Universal Copyright Convention* (1952), *the Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972), *the Declaration on Race and Racial Prejudice* (1978), *the Memory of the World Programme* (1992), *the Universal Declaration on the Human Genome and Human Rights* (1998), *the Universal Declaration on Cultural Diversity* (2001), and *the Convention for the Safeguarding of Intangible Cultural Heritage* (2003). Additionally, UNESCO organized the first intergovernmental conference on sustainable development, resulting in the creation of its Man and the Biosphere program.<sup>8</sup> In recent years, UNESCO has significantly contributed to UN reform initiatives and the post-2015 development agenda.<sup>9</sup>

At NMUN·NY 2016, we are simulating the Executive Board of UNESCO in terms of composition and size; however, delegates are not limited to the strict mandate of the Executive Board, as a budgetary and administrative body, during the conference. For the purposes of NMUN·NY 2016, and corresponding with the educational mission of the conference, the committee has the ability to make programmatic and policy decisions on issues within the mandate of UNESCO in line with the overall function of the organization.

### Governance, Structure and Membership

The UNESCO headquarters are located in Paris.<sup>10</sup> UNESCO comprises three Constitutional organs, including a General Conference, an Executive Board, and a Secretariat.<sup>11</sup> UNESCO currently has 195 Member States (whereas Palestine is a full member of the organization) and nine Associate Members.<sup>12</sup> The Constitution affords membership to all UN Member States; non-Member States may be admitted upon the recommendation of the Executive Board with the approval of two-thirds of the General Conference.<sup>13</sup> Members suspended or expelled from the UN may be suspended or expelled from UNESCO, and members may voluntarily withdraw from the organization.<sup>14</sup> UNESCO

<sup>1</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, preamble.

<sup>2</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2014-15*, 2015, p. 306.

<sup>3</sup> UNESCO, *Relations with the organizations of the UN System*, 2012; *Charter of the United Nations*, 1945, Art. 63.

<sup>4</sup> UNESCO, *The Organization's History*, 2014.

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

<sup>7</sup> UNESCO, *Basic Texts: 2014 Edition* 2014.

<sup>8</sup> UNESCO, *UNESCO at a glance (ERI/2010/WS/2)*, 2010, p. 32.

<sup>9</sup> UNESCO, *UNESCO and the UN Reform*, 2008; UNESCO, *UNESCO's Contribution to post-2015*, 2014.

<sup>10</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2014-15*, 2015, p. 306.

<sup>11</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution, arts. III-VI.

<sup>12</sup> UNESCO, *Member States*, 2014.

<sup>13</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution, art. II.

<sup>14</sup> *Ibid.*

operates on a two-year budget that is supported by voluntary contributions from Member States and extra-budgetary funding from partner organizations.<sup>15</sup>

### *General Conference*

The General Conference, which consists of all UNESCO Member States, meets every two years.<sup>16</sup> Every four years, the General Conference appoints a Director-General who is responsible for coordinating the work of the Secretariat.<sup>17</sup> The General Conference may hold additional meetings as summoned by the Executive Board or upon request by at least one-third of its Member States.<sup>18</sup> The General Conference is primarily responsible for electing members of the Executive Board, deliberating upon and approving recommendations from the Executive Board, summoning international conferences, considering reports from Member States, and advising UN organization on matters of education, science, and culture.<sup>19</sup>

The General Conference may establish special and technical committees, create subsidiary organs, and invite observers on the recommendation of the Executive Board.<sup>20</sup> UNESCO currently directs the work of several intergovernmental bodies, including the Intergovernmental Bioethics Committee (IGBC), the Intergovernmental Committee for Physical Education and Sport (CIGEPS), and the International Coordinating Council of the Programme on Man and the Biosphere (MAB).<sup>21</sup> These sub-organs provide expert research and policy recommendations to the General Conference.<sup>22</sup>

### *Executive Board*

The Executive Board, elected by the General Conference with regard to cultural and geographic diversity, consists of 58 UNESCO Member States serving four-year terms.<sup>23</sup> The Executive Board prepares the biennial agenda for the General Conference, submits recommendations to the General Conference, implements decisions adopted by the Conference, recommends the admission of new Members, nominates the Director-General, and reviews the budget.<sup>24</sup> Additionally, the Executive Board may advise primary organs of the UN on issues relevant to its mandate, consult representatives of intergovernmental organizations (IGOs) and independent experts, and request advisory opinions from the International Court of Justice (ICJ).<sup>25</sup>

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

The mandate for UNESCO is formally defined in Article 1, paragraph 3 of the *Charter of the United Nations*, and Article 1 of the UNESCO Constitution (1945).<sup>26</sup> UNESCO is charged with promoting collaboration among Member States in the fields of education, science, and culture in order to develop and maintain peace, rule of law, and mutual respect.<sup>27</sup> Additionally, UNESCO is responsible for coordinating and supporting the development of knowledge and culture for “economic stability, political security, and general well-being of the peoples of the world.”<sup>28</sup> In accordance with this mandate, UNESCO works directly with Member States, UN organs, IGOs, and non-governmental organizations (NGOs) to support peace through the collaborative exchange of knowledge, culture, and sustainable development strategies.<sup>29</sup> Finally, UNESCO plays a major role in coordinating international conventions and setting standards on topics of education, culture, and science.<sup>30</sup>

<sup>15</sup> UNESCO, *UNESCO at a glance (ERI/2010/WS/2)*, 2010, p. 36.

<sup>16</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2014-15*, 2015, p. 306.

<sup>17</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution arts. III-VI.

<sup>18</sup> *Ibid.*, art. IV, para. 8.

<sup>19</sup> UNESCO, *Basic Texts: 2014 Edition* 1945, Constitution arts. IV and VIII.

<sup>20</sup> *Ibid.*, art. IV, paras. 11-14.

<sup>21</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2014-15*, 2015, p. 307.

<sup>22</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution art. IV, paras. 11-14.

<sup>23</sup> *Ibid.*, art. V.

<sup>24</sup> UNESCO Executive Board, *Mandate and Functions*, 2014; UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution, art. V.

<sup>25</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution, art. V.

<sup>26</sup> New Zealand Ministry of Foreign Affairs and Trade, *United Nations Handbook 2014-15*, 2015, p. 306.

<sup>27</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution, art I, para 1.

<sup>28</sup> Conference of Allied Ministers of Education, *Conference for the establishment of the United Nations Educational, Scientific and Cultural Organization (ECO/CONF./29)*, 1945, p. 1.

<sup>29</sup> UNESCO, *Basic Texts: 2014 Edition*, 1945, Constitution arts. X-XI.

<sup>30</sup> UNESCO, *General introduction to the standard-setting instruments of UNESCO*.



To fulfill its mandate, UNESCO summons international conferences to deliberate issues and set standards, provides expert research and consultation to the primary organs of the UN system through ECOSOC, and coordinates with other entities to implement programs in the field.<sup>31</sup> More practically, UNESCO has identified five specific functions at the national, regional, and international levels: fostering and generating innovation, supporting and monitoring global policy efforts, setting norms and standards, strengthening networks for cooperation and knowledge-sharing, and providing capacity-building expertise for institutions and personnel.<sup>32</sup> Additionally, UNESCO's Institute for Statistics serves as the primary platform for collecting and distributing data on education, science, culture, and communication from over 200 countries, regions, and territories.<sup>33</sup>

#### *Relations with the United Nations*

The Economic and Social Council (ECOSOC) is the primary mechanism for coordinating the operations and programs of specialized agencies; thus it serves as UNESCO's first point of contact with the UN system.<sup>34</sup> Additionally, UNESCO relies on the UN System Chief Executives Board for Coordination (UNSCEB) for guidance and strategic direction through its High-Level Committee for Programmes (HLCP), High-Level Committee for Management (HLCM), and the UN Development Group (UNDG).<sup>35</sup> UNESCO maintains memorandums of understanding with sixteen UN system partners.<sup>36</sup> UNESCO's relationship with the UN is governed by an agreement ratified by the General Assembly (GA) on 14 December 1946.<sup>37</sup> Representatives of the UN are invited to attend meetings of UNESCO's General Conference and Executive Board, as well as special meetings convened by UNESCO; similarly, UNESCO is entitled to send representatives to the meetings of ECOSOC and the GA when agenda matters relate to educational, scientific, or cultural matters.<sup>38</sup>

The UN may propose agenda items for consideration by the General Conference or Executive Board.<sup>39</sup> UNESCO is empowered, in turn, to initiate studies and reports for consideration by ECOSOC.<sup>40</sup> UNESCO may also work with ECOSOC to provide assistance to the Security Council as requested "for the maintenance or restoration of international peace and security."<sup>41</sup> Finally, UNESCO may furnish information to and request legal advisory opinions from the ICJ.<sup>42</sup>

#### *Civil Society, Intergovernmental Organizations, and the Private Sector*

UNESCO primarily coordinates with civil society through its 199 National Commissions, agencies set up by the governments of UNESCO Member States and Associated Members.<sup>43</sup> Additionally, the organization maintains direct partnerships with 373 international NGOs and 24 foundations or similar institutions.<sup>44</sup> UNESCO maintains formal agreements with 87 IGOs and several institutions in the private sector.<sup>45</sup> Under the terms of UNESCO's agreement with the UN, the organization must provide ECOSOC information about any formal agreements with UN specialized agencies, IGOs, or NGOs before the agreements are enacted.<sup>46</sup> UNESCO maintains separate strategic objectives for various categories of partnerships, outlined in its *Comprehensive Partnership Strategy (192 EX/5.INF)* of 6 September 2013.<sup>47</sup>

<sup>31</sup> UNESCO, *UNESCO at a glance (ERI/2010/WS/2)*, 2010, p. 32.

<sup>32</sup> UNESCO, *2014-2021: Medium-Term Strategy (37 C/4)*, 2014, p. 14.

<sup>33</sup> UNESCO Institute for Statistics, *UNESCO Institute for Statistics*, 2014.

<sup>34</sup> *Charter of the United Nations*, 1945, Art. 63; UNESCO, *Agreement between the UN and UNESCO*, 1946.

<sup>35</sup> UNSCEB, *What We Do*, 2014; UNSCEB, *United Nations Educational, Scientific and Cultural Organization*, 2014.

<sup>36</sup> UNESCO Bureau of Strategic Planning, *Partnering with UN Agencies*, 2014.

<sup>37</sup> UNESCO, *Agreement between the UN and UNESCO*, 1946.

<sup>38</sup> *Ibid.*, art. II.

<sup>39</sup> *Ibid.*, art. III.

<sup>40</sup> *Ibid.*, art. IV, paras. 1-3.

<sup>41</sup> *Ibid.*, art. VII.

<sup>42</sup> *Ibid.*, art. X.

<sup>43</sup> UNESCO, *National Commissions*, 2014.

<sup>44</sup> UNESCO, *Non-Governmental Organizations*, 2014; UNESCO, *Organizations maintaining official relations with UNESCO*, 2014.

<sup>45</sup> UNESCO, *Intergovernmental Organizations*, 2014; UNESCO, *Private Sector*, 2014.

<sup>46</sup> UNESCO, *Relations with the organizations of the UN System*, 2012; *Charter of the United Nations*, Art. 63.

<sup>47</sup> UNESCO, *Comprehensive Partnership Strategy (192 EX/5.INF)*, 2013.

These partnerships provide critical information and implementation support for UNESCO's various programs and initiatives.<sup>48</sup> Partners help UNESCO form policies, make decisions, and produce research materials by providing resources, operational support, and technical expertise.<sup>49</sup> Partners also play a vital role in promoting and advancing UNESCO initiatives by distributing information and education programs to communities in the field.<sup>50</sup> Partners in the field, including bilateral government partners, NGOs, and private sector institutions, help mobilize resources from UNESCO for program implementation and meetings; these resources comprise financial and in-kind contributions, such as staff time and knowledge resources.<sup>51</sup> Finally, these partners help to monitor the implementation of international instruments related to UNESCO's mission.<sup>52</sup>

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

The 37<sup>th</sup> session of the UNESCO General Conference took place in Paris, France, from 5-20 November 2013.<sup>53</sup> During this session, Irina Bokova from Bulgaria was appointed incumbent Director-General for her second term in office.<sup>54</sup> The 2013 Annual Report was released in conjunction with this conference, highlighting UNESCO's efforts to strengthen mechanisms for preserving cultural heritage, establish greater recognition of culture and sustainable development in the post-2015 development agenda, facilitate water cooperation, and foster greater freedom of information through open-access publishing and the protection of journalists.<sup>55</sup> The next session of the UNESCO General Conference, the 38<sup>th</sup> session, will take place in Paris, France, from 3-20 November 2015.<sup>56</sup>

Draft resolutions for the 38<sup>th</sup> session of the General Conference of UNESCO consider the budget for upcoming years and present a detailed financial plan for 2016 and 2017.<sup>57</sup> Additionally, UNESCO clarifies its major programs to deal with education, natural sciences, social and human sciences, and culture, as well as communication and information.<sup>58</sup> Particular topics that are addressed encompass the situation in Africa, gender equality post-conflict and disaster situations and knowledge management.<sup>59</sup> The General Assembly of States Parties to the World Heritage Convention will take place during the meeting of the General Conference.<sup>60</sup>

The Executive Board met for its 197<sup>th</sup> session from 7-21 October 2015.<sup>61</sup> Topics of interest included cultural and educational institutions in Iraq, a summary of Africa's Scientific Committee's history and the organization's program, as well as budgetary discussions.<sup>62</sup> During 2015, particularly in late 2015, there will be numerous events celebrating UNESCO's 70<sup>th</sup> anniversary.<sup>63</sup> To kick-off the celebrations, UNESCO honored the legacy of Nelson Mandela in October 2014.<sup>64</sup>

As previously mentioned, UNESCO maintains five Major Programs of work on education, natural sciences, social and human sciences, culture, and communication.<sup>65</sup> The operational work of UNESCO is governed by its Medium-Term Strategy, approved most recently for 2014-2021.<sup>66</sup> Within this framework, UNESCO pursues several overarching and strategic objectives, including its Global Priorities of Africa and Gender Equality.<sup>67</sup> Overarching

<sup>48</sup> UNESCO, *Comprehensive Partnership Strategy (192 EX/5.INF)*, 2013, p. 3.

<sup>49</sup> *Ibid.*, pp. 3-4.

<sup>50</sup> *Ibid.*, p. 4.

<sup>51</sup> *Ibid.*, p. 8.

<sup>52</sup> *Ibid.*, p. 4.

<sup>53</sup> UNESCO General Conference, *37<sup>th</sup> Session*, 2014.

<sup>54</sup> UNESCO, *Irina Bokova's second term as Director-General of UNESCO: A pledge for new humanism*, 2013.

<sup>55</sup> UNESCO, *Annual Report 2013*, 2014, preface.

<sup>56</sup> UNESCO General Conference, *38<sup>th</sup> Session*, 2015.

<sup>57</sup> UNESCO General Conference, *2016-2017 38/C5 Draft Resolutions Volume 1*, 2015.

<sup>58</sup> *Ibid.*

<sup>59</sup> *Ibid.*

<sup>60</sup> UNESCO General Assembly of States Parties to the World Heritage Convention, *20<sup>th</sup> Session of the General Assembly*, 2015.

<sup>61</sup> UNESCO Executive Board, *197<sup>th</sup> Session of the Executive Board*, 2015.

<sup>62</sup> *Ibid.*

<sup>63</sup> UNESCO, *Events in the framework of the 70th anniversary of UNESCO*, 2015.

<sup>64</sup> UNESCO, *Homage to Nelson Mandela at launch of UNESCO's 70th anniversary celebrations*, 2014; UNESCO, *70 Anniversary*, 2015.

<sup>65</sup> UNESCO, *2014-2017: Approved Programme and Budget (37 C/5)*, 2014, pp. 15-177.

<sup>66</sup> UNESCO, *2014-2021: Medium-Term Strategy (37 C/4)*, 2014.

<sup>67</sup> *Ibid.*, p. 15.

objectives for UNESCO are to create and maintain a culture of peace and to contribute to sustainable development.<sup>68</sup> Major agenda initiatives currently supported by UNESCO include building knowledge societies, fostering freedom of expression, protecting world heritage, supporting oceans and water security, and promoting education for all.<sup>69</sup> Additional strategic areas include the development agenda; developing a strategic response to HIV/AIDS; and supporting least developed countries (LDCs), Small Island Developing States (SIDS), and youth.<sup>70</sup> UNESCO's flagship publication is an annual global monitoring report on Education for All, published most recently in 2015.<sup>71</sup> In response to internal and external evaluations over the past five years, UNESCO has identified a series of strategic objectives in its approved program and budget for 2014-2017.<sup>72</sup> These objectives are to increase UNESCO's operational focus, position the organization closer to its implementation partners in the field, strengthen UNESCO's participation within the UN system, and develop and strengthen partnerships beyond the UN system.<sup>73</sup>

The five Major Programs of UNESCO are also being considered during the current 70<sup>th</sup> session of the General Assembly, particularly concerning the Sustainable Development Goals (SDGs).<sup>74</sup> In addition and in the context of the SDGs, UNESCO puts special emphasis on inclusive and quality education to counteract violent extremism and the illicit trafficking of cultural objects; the science, technology, engineering and mathematics education crisis; freedom of expression; gender equality; and access to information for sustainable development.<sup>75</sup> UNESCO further emphasizes the need to particularly consider Africa, SIDS, and LDCs as future areas to support in terms of achieving the SDGs, as well as sustainable development.<sup>76</sup>

### **Conclusion**

As the foremost international agency for education, science, and culture, UNESCO plays a unique and vital role in promoting and maintaining peaceful collaboration among Member States. UNESCO often facilitates action on issues within its purview by gathering information from its partners on the ground, facilitating regional and international meetings, and developing international instruments and standards. Collaboration is a fundamental principle of UNESCO's work; the organization relies upon its network of diverse partners to implement programs at the local, regional, national, and international levels. Although the organization is supported by voluntary contributions of financial and human capital, these partnerships represent UNESCO's chief resource.

In the coming years, UNESCO will continue to pursue its strategic objectives by refining its role within the UN system, coordinating more closely with its implementation partners in the field, developing and strengthening new partnerships beyond the UN system, and pursuing a stronger operational focus. These objectives, supported by UNESCO's Medium-Term Strategy for 2014-2021, will require the organization to balance aspirational ideals with attainable goals.

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<sup>68</sup> UNESCO, *2014-2021: Medium-Term Strategy (37 C/4)*, 2014, p. 16.

<sup>69</sup> UNESCO, *Annual Report 2013*, 2014.

<sup>70</sup> UNESCO, *2014-2021: Medium-Term Strategy (37 C/4)*, 2014.

<sup>71</sup> UNESCO, *Education for All Global Monitoring Report: Education for All 2000-2015: Achievements and Challenges*, 2015.

<sup>72</sup> UNESCO, *2014-2017: Approved Programme and Budget (37 C/5)*, 2014, p. i.

<sup>73</sup> *Ibid.*

<sup>74</sup> UNESCO, *UNESCO and Sustainable Development Goals*, 2015.

<sup>75</sup> *Ibid.*

<sup>76</sup> UNESCO, *The Future We Want for All - Discussions on the Post-2015 Development Agenda*, 2015.

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*This document, which is updated annually, contains the text of fundamental instruments and documents that guide the work of UNESCO. Chief among these is the UNESCO Constitution, which came into force in November 1946 and defines UNESCO's mandate, governance, and structure. Additional documents include a list of Member States and Associate Members, various regulations and procedures, and agreements between UNESCO and its partners in the international community. Delegates should use this resource to make themselves familiar with the boundaries of UNESCO's purview, particularly with respect to peace and security. Additionally, this document will give delegates a more concrete understanding of the relationship between the Executive Board, the General Conference, and the Secretariat. Finally, this document clearly delineates the intended relationship between UNESCO and the UN system as well as other specialized organizations and agencies.*

United Nations Educational, Scientific and Cultural Organization. (2014). *2014-2017: Approved Programme and Budget (37 C/5)*. Retrieved 23 August 2015 from: <http://unesdoc.unesco.org/images/0022/002266/226695e.pdf>

*This document is one of two guiding documents for UNESCO's work in the coming years. It provides a comprehensive overview of UNESCO's programs and initiatives for 2014-2017. This official document includes technical details about the funding and direction of UNESCO's major programs and program-related services. Delegates should review this document to ensure that any proposals are necessary and consistent with UNESCO's current work. Delegates may also use this resource for information about special funds and budget restrictions.*

United Nations Educational, Scientific and Cultural Organization. (2014). *2014-2021: Medium-Term Strategy (37 C/4)*. Retrieved 31 August 2015 from: <http://unesdoc.unesco.org/images/0022/002278/227860e.pdf>

*This resource complements the approved program and budget document highlighted above. It provides a comprehensive overview of the Executive Board and Secretariat's joint vision for UNESCO from 2014-2021, as approved by the 37<sup>th</sup> General Conference. This document provides unique insights into the "evolving international environment and development landscape" as well as the principles guiding UNESCO's work for the near future. It highlights UNESCO's overarching objectives and global priorities. Most significantly, the document defines UNESCO's nine strategic objectives for 2014-2021. Delegates should look to this document to ensure that their proposals support these strategic objectives. Finally, the document provides guidance for partnerships and collaborative efforts within the UN system and beyond.*

United Nations Educational, Scientific and Cultural Organization. (2014). *Partnerships* [Website]. Retrieved 23 August 2015 from: <https://en.unesco.org/partnerships>

*This website will provide an introduction to UNESCO's rich network of partners, including NGOs, IGOs, the private sector, the media, and other international networks. Delegates should review this resource to gain a deeper understanding of how UNESCO works with these groups to implement its programs and how these groups influence UNESCO's agenda. Additionally, this site includes regularly updated links to news articles of interest and special events. Delegates should pay special attention to the section on UNESCO's "Comprehensive Partnership Strategy."*

United Nations Educational, Scientific and Cultural Organization. (2014). *Annual Report 2013*. Retrieved 23 August 2015 from: <http://unesdoc.unesco.org/images/0022/002271/227146e.pdf>

*This document, the most recently published edition of UNESCO's Annual Report, represents a comprehensive review of the organization's recent work. The publication highlights significant milestones achieved during the 37<sup>th</sup> Session of the General Conference, including campaigns to safeguard cultural heritage that was threatened by armed conflict and efforts to promote the recognition of culture for sustainable development. The document highlights UNESCO's role in leading the new UN Plan of Action on the Safety of Journalists and the Issue of Impunity, as well as its work implementing programs for the International Year of Water Cooperation. Delegates should review this document to gain a deeper understanding of UNESCO's current priorities, initiatives, and challenges. The annexes of the report also include detailed information about*

*recent accessions and ratifications to international instruments under UNESCO, partnerships signed in 2013, and a representative list of intangible cultural heritage formally recognized by the organization.*

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## I. Education for All: Strengthening Rural Education

### *Introduction*

As stated in *Transforming Our World: the 2030 Agenda for Sustainable Development* (2015), one of the primary goals of the United Nations (UN) as a whole is the achievement of equitable and universal access to education.<sup>77</sup> In its role as the UN's primary specialized agency for education, the UN Educational, Scientific and Cultural Organization (UNESCO) has affirmed education's crucial role as a driver of development; a vehicle for the realization of human rights; and an essential prerequisite for peace, tolerance, and human security.<sup>78</sup> Globally, despite significant progress over the past 25 years, 58 million school-age children remain out of school and 100 million do not complete primary education, with the world's poorest children being four times more likely not to attend school at all.<sup>79</sup> Since 1990, UNESCO has led international efforts to improve education through the Education for All (EFA) movement and its successor, the Education 2030 Agenda Framework for Action (FFA).<sup>80</sup>

A fundamental challenge in the provision of equitable education is the disparity between urban and rural communities in their access to quality and equal education across all age groups, particularly in developing states.<sup>81</sup> As outlined by the International Fund for Agricultural Development (IFAD), there is an intrinsic relationship between rurality and poverty, with 70% of the world's poorest residing in rural communities.<sup>82</sup> There is consistent evidence that location can be an indicator of the likelihood of a child receiving full, if any, education.<sup>83</sup> Children and young adults in developing rural areas face the multifaceted challenges of access to education, equity of education between differing groups within rural communities, and the quality of teaching provided often being lower than that of their urban counterparts or not appropriate for the unique needs of the community.<sup>84</sup> These challenges are intrinsically linked to the socioeconomic conditions of rural communities and are not only partially caused by the poverty that is so prevalent, but may also contribute to its continuation.<sup>85</sup> When assessing the rural-urban divide in education capacity, it is important to understand the contextual factors that intersect and form "mutually reinforcing disadvantages" such as language, ethnicity, religion, and gender.<sup>86</sup> Investing in education for rural communities will contribute to the achievement of the Sustainable Development Goals (SDGs) by building rural capacity to escape poverty, namely through diversifying assets and livelihoods, increasing access to health and safety information, and ensuring long-term economic and personal security.<sup>87</sup> As outlined in Target 7 of Goal 4, sustainable development, peace and security, and respect for human rights require equitable and quality education that emphasizes the knowledge and skills needed to promote such ideals.<sup>88</sup>

### *International and Regional Framework*

UNESCO's work around education is grounded in a rights-based approach predicated upon Article 26 of the *Universal Declaration of Human Rights* (UDHR) (1948) and Articles 28 and 29 of the *Convention on the Rights of the Child* (CRC) (1989), which outline that every child has the human right to education that allows them to reach their fullest potential.<sup>89</sup> Article 29 of the CRC, in particular, highlights the ability of education to promote a free, peaceful society that fully respects rights, equality, and expression.<sup>90</sup>

<sup>77</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>78</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015, p. 1.

<sup>79</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 1.

<sup>80</sup> *Ibid.*; UNESCO, *The global education community adopts and launches Education 2030 Framework for Action*, 2015.

<sup>81</sup> UN FAO, *Education for Rural People: The role of education, training and capacity development in poverty reduction and food security*, 2009, p. x.

<sup>82</sup> UN IFAD, *Rural Poverty Report 2011*, 2011, pp. 171-172.

<sup>83</sup> UNESCO, *Rural People*, 2015.

<sup>84</sup> UN FAO, *Education for Rural People: The role of education, training and capacity development in poverty reduction and food security*, 2009, p. xiv.

<sup>85</sup> *Ibid.*, p. 4.

<sup>86</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, p. 9.

<sup>87</sup> UN FAO, *Education for Rural People and Food Security: The role of education, training and capacity development in poverty reduction and food security*, 2009, p. x.

<sup>88</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>89</sup> Inter-Agency Commission for WCEFA, *Meeting Basic Learning Needs: A Vision for the 1990s*, 1990, p. 30; World Education Forum, *The Dakar Framework for Action – Education for All: Meeting Our Collective Commitments*, 2000, p. 1.

<sup>90</sup> UN General Assembly, *Convention on the Rights of the Child (A/RES/44/25)*, 1989.



The concept of education as a human right fuelled the EFA movement, which was formally launched in 1990 in Jomtien, Thailand, as a result of the adoption of the *World Declaration on Education for All*.<sup>91</sup> EFA initially focused on primary education and reducing illiteracy in developing countries, but it later evolved into “a global commitment to provide quality basic education for all children, youth and adults.”<sup>92</sup> The relatively broad objectives of the *World Declaration on Education for All* were given greater clarity and urgency in 2000 with the adoption of the *Dakar Framework for Action*.<sup>93</sup> In Dakar, through the drafting of six overarching goals with a focus on government-led implementation strategies, the EFA agenda was formalized and given greater specificity in terms of actionable objectives.<sup>94</sup> EFA did not formally set either international or national policy itself; rather, it was designed as a commitment to achieve quality basic education through expanding access to education, removing fees, improving the quality and relevance of education, eliminating gender disparities, and increasing literacy skills.<sup>95</sup> These goals have been implemented through a network of programs, coordinating mechanisms, and forums with a range of stakeholders, including but not limited to national governments, international and regional aid agencies, civil society and non-governmental organizations (NGOs), and research and policy forums.<sup>96</sup>

Generally, EFA operated within the broader context of the Millennium Development Goals (MDGs), the UN’s primary targets for international development since 2000, and both frameworks share the same 2015 deadline.<sup>97</sup> Although technically separate frameworks, the work done under EFA directly contributed to the success of the MDGs, particularly MDGs 1 and 2 on the eradication of extreme poverty and the achievement of universal primary education.<sup>98</sup> As the UN transitions from the MDGs to the SDGs at the end of 2015, education will remain a cornerstone of the development agenda.<sup>99</sup> SDG 4 recognizes the crucial role education can play in building sustainable societies and fostering the environment needed for creativity, security, and development.<sup>100</sup>

Alongside the UN’s development agenda, the EFA movement underwent a period of reflection and transition.<sup>101</sup> In May 2014, participants at the annual Global EFA Meeting adopted the *Muscat Agreement*, the culmination of a joint UNESCO and United Nations Children’s Fund (UNICEF) consultation process that contributed to planning for the post-2015 education agenda by informing the education targets of the SDGs.<sup>102</sup> The *Muscat Agreement* noted that although there had been significant progress in key areas, a large majority of states, particularly low- and middle-income states, would fall far short of meeting the EFA goals by the 2015 deadline.<sup>103</sup>

Therefore, at the World Education Forum in May 2015, UNESCO Member States, partners, and UN co-conveners adopted the *Incheon Declaration*, reaffirming the international community’s commitment to developing education through the Education 2030 agenda, the successor to EFA.<sup>104</sup> The overarching goal of Education 2030 is the achievement of SDG 4: “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”<sup>105</sup> The *Incheon Declaration* outlines a series of “ambitious and holistic” objectives that form the core of Education 2030, including moving towards nine years of compulsory, free education; achieving complete gender equality in education; and eliminating all forms of marginalization in regards to access to education.<sup>106</sup> Education 2030 will be directed, implemented, and coordinated through the *Education 2030 Framework for Action*,

<sup>91</sup> Inter-Agency Commission for WCEFA, *Meeting Basic Learning Needs: A Vision for the 1990s*, 1990, p. 33.

<sup>92</sup> UNESCO, *Education for All: History*, 2015.

<sup>93</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2002*, 2002, p. 100.

<sup>94</sup> *Ibid.*, pp. 100-102.

<sup>95</sup> UNESCO, *Education for All: History*.

<sup>96</sup> UNESCO, *Education for All: Partners*, 2015.

<sup>97</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2007*, 2007, p. 3; UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 3.

<sup>98</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2007*, 2007, p. 3.

<sup>99</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>100</sup> *Ibid.*

<sup>101</sup> UNESCO, *Education for All: Education 2030*, 2015.

<sup>102</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 281; UNESCO, *2014 GEM Final Statement: The Muscat Agreement*, 2014, pp. 1-2.

<sup>103</sup> UNESCO, *2014 GEM Final Statement: The Muscat Agreement*, 2014, pp. 1-2.

<sup>104</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015, p. 1; UNESCO, *Education for All: Education 2030*.

<sup>105</sup> World Education Forum, *Education 2030: Incheon Declaration and Framework for Action*, 2015, p. 6.

<sup>106</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015, pp. 7-8.

which was formally adopted and launched on 4 November 2015 at a high-level meeting convened in conjunction with the 38<sup>th</sup> UNESCO General Conference.<sup>107</sup>

### *Role of the International System*

As set out in the *Dakar Framework for Action*, UNESCO was the lead UN body in “coordinating EFA partners and maintaining their collaborative momentum.”<sup>108</sup> Following a structural reorganization in 2011, the UNESCO Director-General chaired the EFA Steering Committee, comprised of 19 Member States, UN partners, civil society actors, and other stakeholders that oversaw EFA projects, offered guidance, and crucially discussed the transition from EFA to Education 2030.<sup>109</sup> UNESCO also convenes the EFA High-Level Forum, designed to “mobilize political support for EFA beyond the education community.”<sup>110</sup> As the global EFA coordinator, UNESCO’s priorities in terms of fulfilling the EFA goals included creating stronger links between national, regional, and international actors; strategic monitoring of programs; strengthening relevant knowledge bases; and advocating for the program as a whole.<sup>111</sup> It will continue to carry out these responsibilities for the Education 2030 agenda, thereby serving “as a focal point for education within the overall SDG coordination architecture.”<sup>112</sup>

In an operational sense, UNESCO administers a variety of programs and initiatives under the EFA and Education 2030 banners in coordination with a number of relevant UN agencies and partners, including UNICEF, with which UNESCO has developed policy dialogue on rights-based approaches to EFA and Education 2030; the United Nations High Commissioner for Refugees (UNHCR), which has developed an education data management system; the Food and Agriculture Organization of the United Nations (FAO), which has conducted a number of studies into utilizing education to develop rural employment; and the World Bank, which has provided financial support for a number of rural education capacity-building projects.<sup>113</sup> NGOs and civil society actors also play a significant role in achieving education objectives, primarily through on-the-ground initiatives, advocacy networks, and lobbying; they are given structure and representation through the Collective Consultation of NGOs on EFA (CCNGO/EFA).<sup>114</sup> As a whole, UNESCO also partners with the private sector through public-private partnerships (PPPs) for the purposes of research, norm-setting projects, and operational-level initiatives.<sup>115</sup>

The issue of funding streams for the variety of projects associated with both EFA and Education 2030 has been consistently highlighted as a cause for concern; accordingly, the *Oslo Declaration (2015)* established the International Commission on the Financing of Global Education Opportunities, composed of leaders and experts and reporting to the Secretary-General, to explore means of utilizing current funding streams more effectively and to investigate new methods for involving the private sector and non-traditional partnerships in upcoming programs.<sup>116</sup> Funding rural education projects is largely the responsibility of national governments, for which the EFA High-Level Steering Committee proposed that a minimum of 15-20% of annual national budgets be spent on education-related objectives.<sup>117</sup> However, despite a significant shift in the ratio of domestic education spending to international aid since 2000, insecure national economies and a lower tax base have prevented many developing states from becoming self-sufficient in their investment in education systems.<sup>118</sup> Furthermore, UNESCO has expressed concern that many countries still do not feature education prominently in their budgeting or take into consideration the

<sup>107</sup> UNESCO, *The global education community adopts and launches Education 2030 Framework for Action*, 2015.

<sup>108</sup> World Education Forum, *The Dakar Framework for Action – Education for All: Meeting Our Collective Commitments*, 2000, p. 10.

<sup>109</sup> UNESCO, *Education for All: EFA Steering Committee*, 2015.

<sup>110</sup> UNESCO, *Decisions adopted by the Executive Board at its 187<sup>th</sup> session*, 2011, p. 12; UNESCO, *Report on the Role for UNESCO as Global Coordinator and Leader of Education for All (EFA) (187 EX/8 Part 1)*, 2011, pp. 1-2.

<sup>111</sup> UNESCO, *Report on the Role for UNESCO as Global Coordinator and Leader of Education for All (EFA) (187 EX/8 Part 1)*, 2011, pp. 1-2.

<sup>112</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015.

<sup>113</sup> UNESCO, *Education for All: International Organizations*; UNICEF, *A Human Rights-Based Approach to Education for All*, 2007, pp. vii-ix; UNHCR, *2012-2016 Education Strategy*, 2012, p. 41; UN FAO, *Education for Rural People*; The World Bank, *Education for All*.

<sup>114</sup> UNESCO/CCNGO, *Working Procedures*, 2012, pp. 1-2.

<sup>115</sup> UNESCO, *UNESCO-Private Sector Partnerships: Making a Difference*, 2006.

<sup>116</sup> Norway, *Chair’s Statement – The Oslo Declaration*, 2015, pp. 1-2.

<sup>117</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. 241-243.

<sup>118</sup> *Ibid.*, p. 243.

unique needs and concerns of certain disadvantaged communities, including rural ones.<sup>119</sup> During policy discussions related to the Education 2030 agenda, UNESCO called for a “renewed commitment” from governments to provide adequate and well-targeted funding as a matter of priority, suggesting that, as mentioned above, 20% of national budgets be allocated towards education.<sup>120</sup>

### *Access to Education in Rural Communities*

Of fundamental importance to both EFA and the Education 2030 agenda, and of particular relevance to rural communities, is ensuring access to education across all levels: pre-primary, primary, secondary, post-secondary, and adult education.<sup>121</sup> As stated in paragraph 6 of the *Incheon Declaration*, expanding access is a key objective that must be pursued across all levels in a way that is inclusive and equitable, allowing fair and equal access to education for all people.<sup>122</sup> Limited access to education results from a number of factors, including financial, physical, and cultural barriers, and can lead to rural communities being marginalized due to “institutionalized disadvantages.”<sup>123</sup> It is important to remember that these factors do not operate in isolation, but are generally mutually reinforcing.<sup>124</sup>

### *Financial Barriers to Education in Rural Communities*

For children living in rural areas, location can compound extant disadvantages, particularly in terms of economic barriers to a full education.<sup>125</sup> Marginalized or remote regions, including remote rural areas, are often characterized by high levels of poverty, and evidence suggests that being born into the poorest 20% of national households is strongly associated with receiving the lowest “educational opportunity.”<sup>126</sup> This is either due to households being unable to afford typically fee-paying education, such as pre-primary or secondary education, or because economic factors push children into pastoral employment far earlier.<sup>127</sup> Education is often prohibitively expensive; even where a state does not charge tuition, such as Cambodia or Malawi, the costs associated with schooling, such as textbooks and transport, can pose significant difficulties to rural families.<sup>128</sup> According to research presented by the *Rural Poverty Report*, rural households in developing countries are generally more susceptible to economic shocks, given the relatively fewer assets upon which they may rely during crises.<sup>129</sup> Consequently, there is often a greater expectation of younger children to contribute to household income or agricultural work, which limits their opportunities for education or excludes them from being considered for education whatsoever.<sup>130</sup> Rural children, due to the relative prevalence of poverty in developing rural areas, are also more vulnerable to early childhood malnutrition and stunting, which have been shown to cause psychological impairments in later life to the detriment of academic ability.<sup>131</sup>

Since the MDGs placed a significant focus on universal access to primary education, there has been progress from national governments in abolishing primary school tuition fees.<sup>132</sup> In Burundi, for example, evidence shows that 41% of the poorest households would not have been able to send children to primary education were it not for tuition abolishment in 2006, with a particular benefit to children in poorer rural areas.<sup>133</sup> However, UNESCO has suggested that as a result of the MDGs becoming the “dominant development agenda,” there has been an “excessive emphasis on universal primary education” on the part of national governments and donors, to the exclusion of other levels of education.<sup>134</sup> For example, most pre-primary and upper-secondary schools in developing countries continue to

<sup>119</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 248.

<sup>120</sup> UNESCO, *Position Paper on Education Post-2015*, 2014, p. 8.

<sup>121</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. xii-xvi.

<sup>122</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015, pp. 3-4.

<sup>123</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, p. 175.

<sup>124</sup> *Ibid.*, p. 48.

<sup>125</sup> *Ibid.*, p. 142.

<sup>126</sup> *Ibid.*, p. 151.

<sup>127</sup> *Ibid.*, pp. 164-166.

<sup>128</sup> *Ibid.*, pp. 166.

<sup>129</sup> UN IFAD, *Rural Poverty Report 2011*, 2011, pp. 16-17.

<sup>130</sup> UN EFA GMR, *Education for All Global Monitoring Report 2010*, 2010, pp. 168.

<sup>131</sup> Makoka & Masibo, *Is there a threshold level of maternal education sufficient to reduce child undernutrition? Evidence from Malawi, Tanzania and Zimbabwe*, 2015, pp. 1-5.

<sup>132</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, p. 166.

<sup>133</sup> The World Bank & Burundi, *Republic of Burundi: Public Expenditure Management and Financial Accountability Review*, 2008, p. 57.

<sup>134</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. xiv-xv.

charge fees.<sup>135</sup> In contrast to the expiring MDGs, however, SDG Target 1 of Goal 4 and the *Incheon Declaration* have now set the objective of providing at least 12 years of free primary and secondary education across all Member States, including at least nine compulsory years.<sup>136</sup>

National governments have introduced a number of measures to alleviate economic barriers to education in rural communities, including abolishing direct costs and protecting such measures in national constitutions.<sup>137</sup> Legislative protection of tuition abolishment is particularly prevalent in low-income states in sub-Saharan Africa, where free education is a popular election agenda, although these types of policies are often partially dependent on external funding.<sup>138</sup> Nonetheless, in nearly all cases of fee abolition, enrolment rates generally increase with a particular advantage to those who are normally disadvantaged the most, including rural female or disabled students.<sup>139</sup>

#### *Physical Barriers to Education in Rural Areas*

For children in rural and remote communities, access can simply mean traversing the physical distance between themselves and the nearest school.<sup>140</sup> Children in rural areas of lower population density are often the farthest from roads, transport links, and schools within a reasonable distance of their homes.<sup>141</sup> “Distance penalties” severely affect the enrolment rate in primary education for rural children due to a number of reasons, including but not limited to fear for safety across long commutes, differing cultures in other villages, and the time cost associated with children who are also often expected to contribute to family labor.<sup>142</sup> In a study from Mali, collected data showed that in villages for which the nearest school was over two kilometers away, school attendance was around one quarter of that in those villages with a school in their community.<sup>143</sup>

The causes of remoteness often correspond with wider inequalities between rural and urban areas, particularly in regards to developed transport links or infrastructure.<sup>144</sup> Although some governments have used cash transfer incentives in remote areas to encourage school enrolment to a limited degree of success, reducing distances to schools in rural communities often requires significant infrastructure investment.<sup>145</sup> UNESCO has consistently called upon national governments to invest in education infrastructure in a diversified manner, including in rural communities where location disadvantages still exist.<sup>146</sup> In an example of successful investment in underserved communities, Egypt’s Education Enhancement Program, in partnership with UNICEF, embarked on a large-scale construction program in the mid-1990s to reduce the physical distances between rural children and schools.<sup>147</sup> The net result of this program was a consistent increase in primary school enrolment in rural communities.<sup>148</sup> Nonetheless, as noted in the most recent *EFA Global Monitoring Report*, developing rural areas still have significant infrastructural disadvantages when compared to many urban schools and this progress must be continued.<sup>149</sup>

#### *Addressing Barriers to Access for Marginalized Groups*

A fundamental part of the overall vision of the Education 2030 agenda and the SDGs is providing the capacity for equitable education regardless of gender, age, or disability.<sup>150</sup> In rural settings, where basic education infrastructure is underdeveloped and the opinion of compulsory education is often lower, this can prove a great challenge.<sup>151</sup> For

<sup>135</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 65.

<sup>136</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015; World Education Forum, *Incheon Declaration: Education 2030*, 2015, pp. 3-4.

<sup>137</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 84.

<sup>138</sup> *Ibid.*; UNESCO, *The introduction of free primary education in sub-Saharan Africa*, 2003, p. 14.

<sup>139</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 84.

<sup>140</sup> *Ibid.*, p. 177.

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

<sup>142</sup> Lehman, *Shortening the Distance to Education for All*, 2013, p. 2; The World Bank, *World Development Report 2012: Gender Equality and Development*, 2012, p. 112.

<sup>143</sup> Lehman, *Shortening the Distance to Education for All*, 2013, p. 2.

<sup>144</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, p. 176.

<sup>145</sup> *Ibid.*, pp. 89, 171.

<sup>146</sup> *Ibid.*, p. 187.

<sup>147</sup> Iqbal & Riad, *Increasing Girls’ School Enrolment in the Arab Republic of Egypt*, 2004, pp. 2-3.

<sup>148</sup> *Ibid.*, p. 8.

<sup>149</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 92.

<sup>150</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015; Iqbal & Riad, *Increasing Girls’ School Enrolment in the Arab Republic of Egypt*, 2004, p. 8.

<sup>151</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

example, in areas of sub-Saharan Africa, 70% of the poorest girls have never attended primary education and in Egypt, rural girls are 50% less likely to attend school than their urban counterparts.<sup>152</sup> Ensuring girls in rural areas have equal access to education requires overcoming a number of factors. Specifically, socially entrenched discrimination, generally prevalent in societies where gender parity is already relatively low, often negatively affects girls' demand for education.<sup>153</sup> In some cases, this discrimination can create a negative opinion of girls' education, associated with fears of girls becoming "unmarriageable" or drawn away from parents' supervision.<sup>154</sup> The physical distances between rural communities and schools also affect girls' enrolment in education, either because of a more pronounced fear for girls' security in the face of gender-based violence or due to a greater expectation of girls to perform household labors, which reduces the amount of time available for study.<sup>155</sup> UNESCO's Global Partnership for Girls' and Women's Education has launched a number of initiatives, in conjunction with national governments and private corporations, aimed at reducing gender inequality in rural education, including organizing advocacy campaigns to combat discriminatory social norms, creating gender-sensitive curricula, and providing funds to incentivize girls' enrollment.<sup>156</sup> The civil society group Global Campaign for Education, which partners with UNESCO under EFA, has reported extensively on gender discrimination in education and is calling upon Member States to include all-age education in their reporting to the United Nations Committee on the Elimination of Discrimination against Women (CEDAW).<sup>157</sup> Rural children with disabilities continue to face marginalization in regards to their education, with rural schools and infrastructure often not being accessible.<sup>158</sup> Furthermore, children with disabilities may require adapted teaching methods or other special considerations; however, teachers in rural communities often lack the required training or resources to provide appropriate accommodations.<sup>159</sup>

### *Quality of Education in Rural Communities*

Even when rural children are able to access education, there is often a clear disparity between the quality of education available to them and that available to their urban counterparts.<sup>160</sup> In order to achieve the SDG targets on equity in education, increasing access to schooling must therefore be combined with a commitment to improving the standards and quality of that schooling.<sup>161</sup>

Teachers in rural schools can often be poorly trained, supported, and remunerated.<sup>162</sup> "Urban bias," which renders teachers less inclined to move to remote or poorly serviced rural schools, often means experienced teachers are recruited for urban positions with locally trained replacements being underqualified and underprepared for their roles.<sup>163</sup> School facilities themselves often lack basic resources, including amenities such as toilets, water, or heating, and educational materials such as textbooks or paper.<sup>164</sup> The result of this lack of resources, both human and material, is that rural children face significant obstacles even within the classroom and many struggle to acquire "basic skills."<sup>165</sup> In studies conducted in Pakistan, only half as many children from rural classrooms could read a basic story as those in wealthier, urban classrooms.<sup>166</sup> Basic arithmetic skills are also shown to be lower generally in classrooms from rural communities when compared with urban.<sup>167</sup> Similarly, the Ghanaian Ministry of Education has recognized that a lack of adequate resources in remote rural settings has directly resulted in "high rates of absenteeism, high attention deficits and very low pass rates."<sup>168</sup>

<sup>152</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 165; UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, p. 142.

<sup>153</sup> UN FAO & UNESCO, *Education for rural development: towards new policy responses*, 2003, p. 85.

<sup>154</sup> *Ibid.*

<sup>155</sup> The World Bank, *World Development Report 2012: Gender Equality and Development*, 2012, p. 176.

<sup>156</sup> UNESCO, *Better Life, Better Future: UNESCO Global Partnership for Girls' and Women's Education*, 2014, pp. 1-4.

<sup>157</sup> Global Campaign for Education, *Gender Discrimination in Education*.

<sup>158</sup> UN ILO, *Empowering people with disabilities for rural development*, 2011, pp. 2-4.

<sup>159</sup> *Ibid.*

<sup>160</sup> UN EFA GMR, *Education for All Global Monitoring Report 2010*, 2010, pp. 195-197.

<sup>161</sup> World Education Forum, *The Dakar Framework for Action – Education for All: Meeting Our Collective Commitments*, 2000, p. 13.

<sup>162</sup> UN FAO & UNESCO, *Education for rural development: towards new policy responses*, 2003, pp. 89-90.

<sup>163</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2009*, 2009, p. 175

<sup>164</sup> UN FAO & UNESCO, *Education for rural development: towards new policy responses*, 2003, p. 151.

<sup>165</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. 191-192.

<sup>166</sup> *Ibid.*

<sup>167</sup> *Ibid.*

<sup>168</sup> Emerging Innovation, *Quality Rural Education in Rural Ghana*, 2013.

In order to counter this supply-side disparity in rural education, UNESCO has suggested a number of strategies in partnership with international, regional, and national actors. UNESCO has called upon national governments to decentralize educational governance in order to respond more effectively to regional disparities in needs whilst also providing necessary supervision in underserved rural areas.<sup>169</sup> Complementing this, UNICEF has suggested “revising budget allocations...to reflect schools most in need,” effectively targeting those in the most underdeveloped rural areas.<sup>170</sup> UNESCO has also initiated pilot PPPs designed to bring amenities, such as renewable energy sources, to rural schools and to increase education monitoring systems in developing regions.<sup>171</sup> Furthermore, supply-side shortages have provided opportunities for NGOs and civil society to contribute, and there are a number of independent organizations working to improve the resources of schools in rural communities.<sup>172</sup> Examples include Room to Read, which provides reading materials and teacher training in rural schools; Tender Heart, which has constructed school buildings in rural India; and Aid for Africa, a collective of charity organization projects working for girls’ education in rural sub-Saharan African communities.<sup>173</sup>

#### *Relevant and Inclusive Education for Rural Communities*

The *Dakar Framework for Action* urged an improvement not only of inputs, but also of the processes of teaching and learning, including making relevant and inclusive curricula that will, for example, provide rural children with the skills, training, and knowledge required in a predominantly agrarian society.<sup>174</sup> Given that almost “70% of the poor in developing countries live in rural areas and depend on agriculture for their livelihoods,” this contextualized approach has the capacity to help rural children “master cognitive, physical and social skills,” whilst increasing relevancy to local lifestyles.<sup>175</sup>

The FAO/UNESCO Education for Rural People (ERP) initiative aims to provide policy research on increasing food security in rural communities through “improved access to quality education and skills training.”<sup>176</sup> Despite recognizing that simply inserting agriculture into primary curricula may provoke resistance “if viewed only [as] preparing students to be farmers,” ERP has called upon education authorities to develop rural curricula that prepares students for a “knowledge-based economy,” wherein the skills they learn can be utilized to develop local solutions to local crises.<sup>177</sup> This requires flexibility from centralized education authorities to include local knowledge in “participatory curriculum development.”<sup>178</sup> ERP has also conducted research into the positive effect that non-formal vocational training can have on rural people.<sup>179</sup> Skills training in rural areas, particularly targeted at school dropouts or young adults, can expand employment opportunities and self-sufficiency through the inclusion of relevant work-based education.<sup>180</sup>

#### **Conclusion**

Widely recognized as a human right, education forms a substantial part of the post-2015 development agenda and continues to garner significant international attention.<sup>181</sup> Despite some progress since the inception of EFA, communities in developing rural areas still face large challenges in regards to their capacity to access quality, relevant, and equal education.<sup>182</sup> A number of mutually reinforcing factors continue this marginalization, including

<sup>169</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. 212-215.

<sup>170</sup> UNICEF, *Global Initiative on Out-of-School Children: Ghana Country Study*, 2011, p. 108.

<sup>171</sup> UNESCO, *UNESCO-Private Sector Partnerships: Making a Difference*, 2006, pp. 24-25; UNESCO, *Ford Foundation and UNESCO*, 2015.

<sup>172</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, p. 92.

<sup>173</sup> Room to Read, *Literacy*; Tender Heart, *Our Projects*; Aid for Africa, *Charity Organizations that work in Education*.

<sup>174</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, p. 206.

<sup>175</sup> UN FAO & UNESCO, *Education for rural development: towards new policy responses*, 2003, pp. 178-188.

<sup>176</sup> UN FAO, *Education for Rural People: The role of education, training and capacity development in poverty reduction and food security*, 2009, pp. 68-70.

<sup>177</sup> *Ibid.*

<sup>178</sup> *Ibid.*, p. 31.

<sup>179</sup> *Ibid.*

<sup>180</sup> *Ibid.*, p. 77.

<sup>181</sup> UNESCO, *Education for All: Education 2030*; UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015, pp. 221-228.

<sup>182</sup> UN EFA GMR Team, *Education for All Global Monitoring Report 2015*, 2015.

the correlation between rurality and poverty.<sup>183</sup> UNESCO, through both the EFA goals and the Education 2030 agenda, has attempted to create the environment necessary for education in rural areas to be equitable and inclusive with respect to communities that often have very specific needs and concerns.<sup>184</sup> As the international community concludes a period of reflection on lessons learned and is reinvigorated around a new agenda, delegates should be mindful of the complex causes of the rural education deficit and the “needs-based” approach that is tailored towards rural communities.<sup>185</sup>

### ***Further Research***

It is crucially important that delegates are aware of relevant on-going developments, as the overarching EFA goals have very recently transitioned into the Education 2030 agenda and FFA. Delegates should remain up to date on how the Education 2030 agenda will specifically address rural communities. How will practical programs and partnerships change, expire, or develop in the face of this? How does UNESCO’s role in education advocacy, information sharing, and coordination change? Furthermore, how do rural communities specifically fit into the broader education discussions and are they receiving enough attention? How can UNESCO work with the private sector, regional actors, and NGOs to implement the Education 2030 agenda through the FFA?

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<sup>183</sup> UN IFAD, *Rural Poverty Report 2011*, 2011, pp. 171-173; UNESCO, *The Right to Education*, 2015.

<sup>184</sup> World Education Forum, *Incheon Declaration: Education 2030*, 2015, p. 1.

<sup>185</sup> UNESCO, *Education for All: Education 2030*; UN EFA GMR Team, *Education for All Global Monitoring Report 2010*, 2010, pp. 60-62.

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*Education for Rural People is a flagship collaboration between FAO and UNESCO originally developed under EFA and focused on research and policy guidance regarding education in rural communities and its relationship to sustainable food & agriculture. This report examines the relationship between food insecurity and education, particularly regarding the objective of utilizing education as a means to create a self-sufficient workforce both within and outside of agriculture. It also serves as a useful introduction to the ERP initiative as a whole and the broad objectives of the collaboration.*

United Nations, Education for All Global Monitoring Report Team. (2010). *Education for All Global Monitoring Report 2010*. United Nations Educational, Scientific and Cultural Organization. Retrieved 19 July 2015 from: <http://unesdoc.unesco.org/images/0018/001866/186606E.pdf>

*This annual report was the primary document for assessing and evaluating the EFA program in 2010. In the ten years after Dakar, progress towards meeting the EFA goals had largely excluded the world's poorest countries, which led the EFA Global Monitoring Report Team to focus this report on the importance of reaching vulnerable populations and combating inequality through inclusive education. Although some statistical information will be out of date, the theme of "Reaching the Marginalized" gives delegates a thorough understanding of the issues facing rural education and marginalized communities as a whole, as well as the socioeconomic causes for this.*

United Nations, Education for All Global Monitoring Report Team. (2015). *Education For All Global Monitoring Report 2015*. United Nations Educational, Scientific and Cultural Organization. Retrieved 19 July 2015 from: <http://unesdoc.unesco.org/images/0023/002322/232205e.pdf>

*This annual report is the latest monitoring report on the EFA program. Attention is given to individual initiatives and a broader discussion on the EFA program as a whole. As the final annual EFA Global Monitoring Report, Part 1 serves as an overall retrospective on the EFA program, analyzing each objective individually, with Part 2 serving as a projection of the post-2015 agenda and the overarching themes that may be addressed. This report offers delegates a crucial overview of EFA, an introduction to the new education agenda, and an assessment of the challenges in rural education.*

United Nations Educational, Scientific and Cultural Organization. (2011). *Report on the Role for UNESCO as Global Coordinator and Leader of Education for All (EFA) (187 EX/8 Part 1)*. Retrieved 23 August 2015 from: <http://unesdoc.unesco.org/images/0021/002111/211172e.pdf>

*This report from the UNESCO Director-General provides delegates with an essential understanding of UNESCO's mandate and structural position within EFA and the wider education agenda. It provides an overview of the structures of the various governing bodies within EFA. Through this, delegates will be able to understand UNESCO's relation to other international bodies and national governments, as well as the responsibilities of its lead role within EFA, which UNESCO will continue within Education 2030.*

United Nations, General Assembly, Forty-fourth session. (1989). *Convention on the Rights of the Child (A/RES/44/25)*. Adopted on the report of the Third Committee (A/45/753). Retrieved 20 August 2015 from: <http://undocs.org/A/RES/44/25>

*This historic convention outlines the fundamental rights of children that have underpinned the education agenda, including EFA and Education 2030, since 1990. Of particular relevance are Article 28, outlining the right of a child to education on the basis of equal opportunity, and Article 29, which notes education's role in allowing children to develop to their fullest potential and also to contribute to the development of a free, peaceful society that respects human rights. Whilst the education agenda has expanded since this convention, delegates should understand the historical background to the contemporary debates.*



United Nations, General Assembly, Seventieth session. (2015). *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. Retrieved 10 November 2015 from: <http://undocs.org/A/RES/70/1>

*This is the full text of the 2030 Agenda for Sustainable Development, adopted in September 2015 as the successor development agenda to the MDGs. By reviewing this document concurrently with the Education 2030 agenda and FFA, delegates will be able to understand the wider context of rural education and the role of education in the post-2015 development agenda. This document will guide the UN and its development bodies over the next 15 years and delegates need to be aware of its objectives, challenges, and initiatives.*

United Nations, International Fund for Agricultural Development. (2011). *Rural Poverty Report 2011: New Realities, New Challenges: New Opportunities for Tomorrow's Generation*. Retrieved 19 July 2015 from: <http://www.ifad.org/rpr2011/report/e/rpr2011.pdf>

*This annual report, published by IFAD, assesses ongoing programs and areas of improvement related to rural economies and infrastructure. The report identifies four key issues for rural economic growth, the third of which is the importance of “invest[ing] in education to enable women, men, young people and children to develop the skills they need to take advantage of new economic opportunities.” Whilst IFAD has no formal links with UNESCO, of particular interest are the conclusions drawn between pages 171-179 on agricultural education and utilizing rural people as engines of local growth.*

The World Bank. (2012). *World Development Report 2012: Gender Equality and Development*. Retrieved 25 August 2015 from: <https://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936222006/Complete-Report.pdf>

*This annual report from the World Bank assesses the role of women in developing countries. Although the report is far-reaching and covers a number of issues, of particular relevance to delegates should be pages 106-116, which provide insight into women's role in education in the developing world and the unique challenges they face in accessing education, including in rural communities. This is particularly useful for understanding the issues of remoteness for women in rural communities and how physical distances can marginalize women with respect to education.*

World Conference on Education for All. (1990). *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*. Retrieved 26 August 2015 from: <http://unesdoc.unesco.org/images/0012/001275/127583e.pdf>

*This declaration, adopted in Jomtien in 1990, was the original founding document for the EFA movement. Also included is the associated Framework for Action. Although much of the statistical information will now be out of date, this document provides delegates with insight into the original motivations of the EFA movement and allows delegates to chart its transition to the program of today.*

World Education Forum. (2000). *The Dakar Framework for Action – Education for All: Meeting Our Collective Commitments*. Retrieved 20 August 2015 from: [http://www.unesco.at/bildung/basisdokumente/dakar\\_aktionsplan.pdf](http://www.unesco.at/bildung/basisdokumente/dakar_aktionsplan.pdf)

*Adopted at the World Education Forum in April 2000, the Dakar Framework for Action was the reinvigoration of the Education for All agenda that originally began at Jomtien. This Framework for Action outlines the six overarching goals of the EFA movement and the practical challenges and commitments required. It defines the operational aspects of the EFA agenda from 2000-2015 and is a fundamental document in understanding the objectives and methods of the movement.*

World Education Forum. (2015). *Education 2030: Incheon Declaration and Framework for Action*. Retrieved 10 November 2015 from: [http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/ED/pdf/FFA\\_Complet\\_Web-ENG.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/ED/pdf/FFA_Complet_Web-ENG.pdf)

*This source contains the two documents underpinning the Education 2030 agenda: the Incheon Declaration and the newly adopted FFA. The Incheon Declaration outlines the general objectives of Education 2030, the successor agenda to EFA. It affirms education's paramount importance as part of the SDGs and formalizes the international community's commitment to education beyond 2015. Whilst this document is focused on overarching themes, with limited specific mention of rural education, understanding both the objectives and the principal structure of the post-2015*

*education agenda will be vital for delegates' understanding of the current situation. Adopted and launched on 4 November 2015, the FFA will guide global efforts to implement the Education 2030 agenda and achieve SDG 4.*

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## II. Promoting Women in Science

### *Introduction*

According to the recent data from the United Nations (UN) Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS), women conduct only 30% of global scientific research and development.<sup>186</sup> This statistic shows a gender disparity within science, technology, engineering, and mathematics (STEM) educational and employment opportunities, as well as within education and the workforce overall, that constitutes a human rights issue as emphasized in the *Beijing Declaration and Platform for Action* (1995).<sup>187</sup> The lack of women in STEM careers and gender disparity in STEM education also hinder economic and social development.<sup>188</sup> More girls and women in STEM fields would increase capacity for research, development, and implementation of scientific and technological discoveries for innovative products and applications beneficial to all.<sup>189</sup> Careers in STEM fields provide a level of stability and income that would help elevate women and their families out of poverty, boosting global economic growth.<sup>190</sup> Importantly, more women in STEM careers would mean more scientific researchers with unique perspectives, developing new technologies, and collecting more scientific data to address crucial obstacles to sustainable development, such as climate change.<sup>191</sup>

Numerous barriers prevent women from entering or accessing STEM fields at various levels of education, obtaining STEM positions, and maintaining careers in STEM fields.<sup>192</sup> Girls and women face challenges such as gender stereotyping and cultural or societal norms that discourage involvement in STEM fields and careers.<sup>193</sup> The biggest hindrance to addressing these barriers is the lack of data on how these barriers discourage girls and women from participating in STEM fields and on when these barriers cause girls and women to abandon STEM education and careers.<sup>194</sup> UNESCO has a key role to play in addressing, promoting, and keeping girls and women in STEM fields through developing means to obtain the missing data and coordinating efforts on a macro-level for the promotion and retention of women in science.<sup>195</sup> UNESCO was established to promote education and scientific research, and as of 2008, it has recommitted itself to empowering girls and women in these two fields through innovative initiatives and collaboration with the UN System, the private sector, and civil society.<sup>196</sup>

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<sup>186</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UNESCO Institute for Statistics, *Women in Science*, 2015.

<sup>187</sup> UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, p. 8.

<sup>188</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>189</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>190</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2; UNESCO, *Gender and Science: Women, agents of change*, 2015; Pollack, Why Are There Still So Few Women in Science?, *The New York Times Magazine*, 2013.

<sup>191</sup> UNESCO, *Gender and Science: Promoting women's participation in policy-making processes*, 2015; UNESCO, *Gender and Science: Women, agents of change*, 2015; UN-Women, *Gender Equality and Sustainable Development: World Survey on the Role of Women in Development 2014*, 2014, p. 12.

<sup>192</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 1; UN-Women, *The Beijing Platform for Action Turns 20: Education and Training of Women*, 2015; National Girls Collaborative Project, *Statistics: State of Girls and Women in STEM*, 2015.

<sup>193</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, p. 46.

<sup>194</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013.

<sup>195</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; ECOSOC, *Discussion on the theme of the eighteenth session of the Commission on Science and Technology for Development, "Managing the transition from the Millennium Development Goals to the sustainable development goals: the role of science, technology and innovation"* (E/2015/78), 2015, p. 2.

<sup>196</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UNESCO, *UNESCO's Promise: Gender Equality – a Global Priority*, 2014, p. 1; UNESCO, *Gender and Science: Supporting women scientists: mentoring, networks and role models*, 2015.

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

The basis for equal access to equitable education is found in Article 26 of the *Universal Declaration of Human Rights* (1948) and Article 13 of the *International Covenant on Economic, Social and Cultural Rights* (1966), which establish education as a universal human right.<sup>197</sup> The *World Declaration on Education for All*, adopted by the World Conference on Education for All in 1990, further expands upon the need for protecting and promoting basic education for all children and adults, but does not directly address the need for gender parity in education or outline steps necessary to encourage advanced education for women.<sup>198</sup>

In the context of retaining women within STEM fields, the International Labour Organization’s (ILO) *Declaration on fundamental principles and rights at work* (1998) establishes that Member States must protect key workers’ rights, including the right to non-discrimination within the workforce.<sup>199</sup> Although not specifically targeted for women, the *Declaration on fundamental principles and rights at work* does provide a foundation of protection against discrimination as well as the right to inclusion in the workforce by committing Member States to upholding its fourth principle: “elimination of discrimination in respect of employment and occupation.”<sup>200</sup> In many cases, women are far more likely to be the recipients of gender-based discrimination, and therefore government policies and policies within the private sector should focus on embracing equality and diversity in the workplace.<sup>201</sup>

The International Conference on Population and Development (ICPD) *Programme of Action* (1994) addresses issues regarding girls and women in education, acknowledging that the lack of educated women in the workforce hinders economic and political development.<sup>202</sup> The *Programme of Action* encourages Member States to empower women to make meaningful contributions to sustainable development, especially through science; to promote women’s education and skill development for employment; to eliminate discrimination against women by society and employers; and to provide women with options for childcare.<sup>203</sup>

The Fourth World Conference on Women, held from 4-15 September 1995, adopted the *Beijing Platform for Action* (BPfA), which is a comprehensive approach to address women’s empowerment across all aspects of society.<sup>204</sup> Based on the ideals found in several UN documents, including the *Convention on the Elimination of All Forms of Discrimination against Women* (1979) and the *Declaration on the Right to Development* (1986), the BPfA emphasizes the right of all persons to self-determination and equal participation in societal and cultural development.<sup>205</sup> The BPfA states that the inclusion of women in every aspect of society is a human right that will have positive economic, social, and political outcomes for all communities.<sup>206</sup> Also, it addresses the need for action to be taken regarding the gender gap persisting in all levels of education.<sup>207</sup> The BPfA provides six “strategic objectives and actions” as recommended guidelines for Member States to implement with regards to the thematic issue of “education and training of women.”<sup>208</sup> The third strategic objective and action, “Improve women’s access to vocational training, science and technology, and continuing education,” presents approaches appropriate for national governments to promote women in science.<sup>209</sup> Some of the suggested approaches include revamping educational curricula to reflect and support women; focusing science and vocational education on inclusion and retention; and utilizing agricultural fields of study as means to encourage larger groups of women to study science and

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<sup>197</sup> UN General Assembly, *Universal Declaration of Human Rights (A/RES/217 A (III))*, 1948; UN General Assembly, *International Covenant on Economic, Social and Cultural Rights (A/RES/2200 (XXI))*, 1966.

<sup>198</sup> World Conference on Education for All, *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*, 1990, p. 3.

<sup>199</sup> UN ILO, *Declaration on fundamental principles and rights at work*, 1998.

<sup>200</sup> UN ILO, *Elimination of discrimination in respect of employment and occupation*, 2015.

<sup>201</sup> *Ibid.*

<sup>202</sup> UN ICPD, *Programme of Action: Adopted at the International Convention on Population and Development*, 1994, pp. 29-30.

<sup>203</sup> *Ibid.*, pp. 30-31.

<sup>204</sup> UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, p. 8.

<sup>205</sup> *Ibid.*; UN General Assembly, *Convention on the Elimination of All Forms of Discrimination against Women (A/RES/34/180)*, 1979; UN General Assembly, *Declaration on the Right to Development (A/RES/41/128)*, 1986.

<sup>206</sup> UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, pp. 9-11.

<sup>207</sup> *Ibid.*, p. 44.

<sup>208</sup> *Ibid.*, pp. 49-50.

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

technology.<sup>210</sup> Unfortunately, these suggestions lack monitoring systems as well as means of support or funding sources for Member States.<sup>211</sup>

Established in 2000, the Millennium Development Goals (MDGs) focus on the elimination of poverty through economic development, which includes targeting sections of the international community at high risk for ending up in poverty, such as women and children.<sup>212</sup> In the context of promoting women in science, “Goal 2: Achieve Universal Primary Education”, and “Goal 3: Promote Gender Equality and Empower Women,” reinforce the need for Member States to focus on policy and initiatives that promote gender parity in primary education and equitable accessibility to the workforce.<sup>213</sup> The MDGs thus far have resulted in an increase in primary education levels for both boys and girls, and 80% of adult women in the world are literate; yet, there are still gender disparities in education.<sup>214</sup>

The newly adopted Sustainable Development Goals (SDGs) will replace the MDGs at the end of 2015.<sup>215</sup> The SDGs build upon the work already achieved under the MDGs through focusing on global sustainable development.<sup>216</sup> Several goals and targets are particularly relevant to promoting girls and women in science, including SDG 4, “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” and SDG 5, “Achieve gender equality and empower all women and girls.”<sup>217</sup> Various targets associated with SDGs 4 and 5 focus on equal access to education and eliminating discrimination against women and girls.<sup>218</sup> Target 5 of “Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work” commits to achieving equal pay and productive employment for all women and men, including youth and persons with disabilities.<sup>219</sup> Target 5 of “Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation” addresses the overall need for more scientific and technological research in order to rectify growing issues in sustainable development.<sup>220</sup> Promotion and retention of women in STEM careers will allow Member States to achieve this goal.<sup>221</sup> Non-governmental organizations (NGOs) focused on women in science and can be a conduit for the achievement of Targets 6, 7 and 8 of Goal 17, which aim to strengthen partnerships for science, technology, and innovation, especially for the benefit of developing countries.<sup>222</sup>

UNESCO’s first *Priority Gender Equality Action Plan* (GEAP I), which lasted from 2008 until 2013, established gender equality as one of two main global goals for UNESCO and set out an overarching strategy pursuant to which UNESCO would advance gender equality in its work with Member States.<sup>223</sup> Having taken effect in 2014, the second *Priority Gender Equality Action Plan* (GEAP II) will provide the framework for gender mainstreaming in UNESCO’s work until 2021.<sup>224</sup> The goal of GEAP II is to strengthen UNESCO’s ability to enable “women and men from all walks of life to contribute to and enjoy the benefits of sustainable development and peace,” while ensuring “a positive and lasting impact on the achievement of women’s empowerment and gender equality around the globe.”<sup>225</sup> Promoting women in science is a key focus of UNESCO’s Major Programme II: Natural Science, which has identified four objectives or “expected results” for GEAP II: to build capacity of women in science, including through promoting women scientists as role models; to strengthen networks of women scientists; to collect sex-disaggregated data and information on relevant policy instruments that will enhance understanding of barriers to women’s participation in science; and to enhance women’s participation as leaders in science.<sup>226</sup>

<sup>210</sup> UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, pp. 49-50.

<sup>211</sup> *Ibid.*

<sup>212</sup> UN DPI, *Millennium Development Goals and Beyond 2015: Background*, 2015.

<sup>213</sup> *Ibid.*; UN DPI, *Millennium Development Goals and Beyond 2015: Goal 3: Promote Gender Equality and Empower Women*, 2015; UN-Women, *The Beijing Platform for Action Turns 20: Education and Training of Women*, 2015.

<sup>214</sup> UN-Women, *The Beijing Platform for Action Turns 20: Education and Training of Women*, 2015.

<sup>215</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>216</sup> *Ibid.*

<sup>217</sup> *Ibid.*

<sup>218</sup> *Ibid.*

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

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

<sup>221</sup> *Ibid.*; UNESCO, *Gender and Science: Women, agents of change*, 2015.

<sup>222</sup> UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015.

<sup>223</sup> UNESCO, *Priority Gender Equality Action Plan 2014-2021*, 2014, p. 6.

<sup>224</sup> *Ibid.*

<sup>225</sup> *Ibid.*, p. 13.

<sup>226</sup> *Ibid.*, pp. 33-34.



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

UNESCO is invested in the promotion and retention of girls and women in STEM fields and careers because it promotes gender equality and sustainable development simultaneously for Member States, which will facilitate achievement of the SDGs.<sup>227</sup> UNESCO supports women in science through mentoring programs, networking initiatives, and celebrating the achievements of women in STEM fields in hopes of promoting role models for future generations.<sup>228</sup> One example of creating role models and networking opportunities is UNESCO's partnership with L'Oréal Corporate Foundation to create the For Women in Science Programme, which was established in 1998.<sup>229</sup> This program highlights and celebrates the achievements of women in science and annually awards five women for their contributions to the advancement of scientific research.<sup>230</sup> Additionally, UNESCO aids in the administration of the Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World, which are annual awards given to women in various fields of science from five different regions representing the developing world.<sup>231</sup> UNESCO also works in partnership with the Organization for Women in Science for the Developing World to support the awarding bodies the Elsevier Foundation and the World Academy of Sciences (TWAS) for the advancement of science in developing countries.<sup>232</sup>

UNESCO supports the triennial International Conference for Women Engineers and Scientists, which was established in 1964 as a forum for women in STEM fields.<sup>233</sup> In 2002, the International Conference for Women Engineers and Scientists established the International Network of Women Engineers and Scientists (INWES), which is an international network of various organizations targeting women in STEM fields to provide a consistent base for STEM conferences for women, a united advocacy partnership for women in STEM fields, and a means of sharing information pertaining to women in STEM fields.<sup>234</sup> The 2014 International Conference for Women Engineers and Scientists was held in conjunction with the annual conference for the Society of Women Engineers, which is an organization dedicated to encouraging girls and women in engineering fields and providing a networking platform for women engineers.<sup>235</sup> The 2014 International Conference for Women Engineers hosted over 7,000 participants and representatives from the private sector, NGOs, and educational institutions as an opportunity to network and support women in STEM fields.<sup>236</sup>

### ***Challenges to Encouraging Women in Science***

A fundamental challenge to identifying how to encourage and retain girls and women in STEM fields and careers is the lack of specific data on what barriers exist between women and STEM.<sup>237</sup> On a global level, thanks in large part to programs created to further the MDGs, there has been an increase in women attending university, girls receiving primary educations, and women's literacy rates.<sup>238</sup> However, what these results do not indicate are the quality and equity of the education the girls and women are receiving; whether these girls and women are remaining within the education system to earn diplomas, degrees, and advanced degrees; and what types of fields women are choosing for their education and career paths.<sup>239</sup> Moreover, statistics do not reveal the challenges facing girls and women

<sup>227</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015; Global Fund for Women, *Ignite: Women Fueling Science and Technology: A Global Fund for Women Project*; Irina Bokova, *Director-General, UNESCO*, 2015.

<sup>228</sup> UNESCO, *Gender and Science: Supporting women scientists: mentoring, networks and role models*, 2015.

<sup>229</sup> UNESCO, *Gender and Science: 2015 L'Oréal-UNESCO For Women in Science Awards*, 2015.

<sup>230</sup> UNESCO, *Gender and Science: For Women in Science Programme*, 2015.

<sup>231</sup> UNESCO, *Gender and Science: Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World*, 2015.

<sup>232</sup> *Ibid.*

<sup>233</sup> UNESCO, *Natural Sciences: 15<sup>th</sup> International Conference for Women Engineers and Scientists: Leadership, Innovation, Sustainability*, 2011.

<sup>234</sup> UNESCO, *Gender and Science: Strengthening networks of women scientists worldwide*, 2015; INWES, *About Us*, 2013.

<sup>235</sup> Society of Women Engineers, *The SWE Story*, 2015.

<sup>236</sup> Society of Women Engineers, *About WE14 + ICWES16*, 2014.

<sup>237</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UNESCO, *Gender and Science: STEM and Gender Advancement (SAGA)*, 2015.

<sup>238</sup> UN-Women, *The Beijing Platform for Action Turns 20: Education and Training of Women*, 2015.

<sup>239</sup> *Ibid.*; National Girls Collaborative Project, *Statistics: State of Girls and Women in STEM*, 2015.

throughout their education and careers, especially if their chosen education and career path is in a STEM field.<sup>240</sup> Many girls and women enter STEM fields and later change majors to non-STEM fields or do not continue with the higher education necessary to pursue a STEM career.<sup>241</sup>

One barrier faced by women and girls is educational and workplace discrimination once in a STEM field, which causes many women to abandon their STEM careers within five years of commencing work.<sup>242</sup> Gender stereotyping is a root cause of the various forms of discrimination women face in education and in the workplace.<sup>243</sup> Gender stereotyping develops around the cultural or societal concepts of the traditional roles of women, which can cause women and girls to abandon STEM fields and careers.<sup>244</sup> Gender stereotyping is manifest in educational course material, which often lacks any female representation and fails to mainstream gender, resulting in girls losing interest and removing any incentive for schools to adopt gender-sensitive teaching materials.<sup>245</sup> Teasing and bullying from peers and lack of intervention on behalf of the teachers to prevent bullying are forms of discrimination against girls and women, which can result from gender stereotypes.<sup>246</sup> Many girls are discouraged from pursuing fields of science at an early age because of teasing or bullying.<sup>247</sup> The absence of female students in STEM fields can perpetuate the misconception that girls and women are unable to understand the complexity of STEM fields.<sup>248</sup> Teasing and bullying follow girls throughout the educational process and into their STEM careers, and many women leave STEM fields because of the lack of support on their behalf to change misconceptions.<sup>249</sup> Some women leave their STEM careers in order to have children and do not subsequently return to their careers for lack of childcare options.<sup>250</sup> Adoption of cultural and societal norms regarding the role of women can even affect pay through lack of national or company policies ensuring women earn as much as their male counterparts.<sup>251</sup> Additionally, many girls and women do not pursue STEM fields because there is a lack of celebrated women role models excelling in these areas from within their culture or society.<sup>252</sup>

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<sup>240</sup> Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>241</sup> UN-Women, *The Beijing Platform for Action Turns 20: Education and Training of Women*, 2015; National Girls Collaborative Project, *Statistics: State of Girls and Women in STEM*, 2015; UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>242</sup> Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; Yurkiewicz, Study shows gender bias in science is real. Here's why it matters, *Scientific American*, 2012.

<sup>243</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>244</sup> Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014.

<sup>245</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2; UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, p. 45.

<sup>246</sup> UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2; Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014.

<sup>247</sup> *Ibid.*

<sup>248</sup> Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; UN-Women, *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology*, 2011, p. 2.

<sup>249</sup> Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013; Yurkiewicz, Study shows gender bias in science is real. Here's why it matters, *Scientific American*, 2012.

<sup>250</sup> Yurkiewicz, Study shows gender bias in science is real. Here's why it matters, *Scientific American*, 2012; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013.

<sup>251</sup> Vedantam, Salary, Gender and the Social Cost of Hagglng, *The Washington Post*, 2007; Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014; Welsh, Science: These Are The 7 Things Keeping Women Out Of Science Careers, *Business Insider*, 2013.

<sup>252</sup> Pollack, Why Are There Still So Few Women in Science?, *The New York Times Magazine*, 2013; Schulte, Study: Uncivil work environment pushing women out of the engineering field, *The Washington Post*, 2014.

### *Innovative Approaches to Including Women in Science*

To further its efforts to promote girls and women in STEM programs under GEAP II, UNESCO launched the STEM and Gender Advancement (SAGA) campaign in 2015.<sup>253</sup> The Advisory Committee met for the first time in September 2015 to discuss the first stage for this new initiative, which will collect and analyze data to help develop and implement solutions to target women and girls in STEM fields.<sup>254</sup> SAGA's Advisory Committee is composed of experts within STEM fields who come from either the UN System or internationally recognized science boards and associations.<sup>255</sup> SAGA is the first UNESCO initiative with macro-level solutions to address the systematic causes of the gender gap in STEM fields.<sup>256</sup> The current mission of SAGA is twofold: first, to gather data on STEM education and career fields from every Member State and identify information pertaining to women; and second, to assess gaps in the data relating to women in STEM fields and to develop new indicators.<sup>257</sup> SAGA will then be able to identify solutions targeting gender gaps in STEM fields and track the success of these solutions.<sup>258</sup>

UNESCO also has partnerships within the UN System and with NGOs that promote women in STEM fields on a micro-level. For example, UNESCO partners with the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) in furtherance of the goals set out in the *World Declaration on Education for All*.<sup>259</sup> In 2013, UNRWA and UNESCO partnered with SciGirls, an independent effort to bring STEM education to girls who have limited access to equipment and teaching materials.<sup>260</sup> Through the partnership, 45 Palestinian girls in Amman, Jordan, aged 14 to 16, gained hands-on exposure to STEM education with state-of-the-art equipment, a curriculum in which the girls had full participatory experiences, and a chance to be a part of an ongoing robotics club.<sup>261</sup> Some examples of UNESCO's partnerships with NGOs include the African Association of Women in Geoscience and the African Women in Mathematics Association, which work to educate African girls and women about STEM education and career fields.<sup>262</sup> These NGOs have detailed missions to promote, retain, and educate girls and women throughout the African continent in the fields of mathematics and geosciences, as well as to incorporate policymakers and educational systems into their efforts.<sup>263</sup>

Civil society has led efforts to promote women in STEM fields, while also working to change cultural and workplace perceptions of women in science.<sup>264</sup> International groups reaching out to girls and women in STEM fields include the Anita Borg Institute through the Grace Hopper Conference, Finding Ada through the Ada Lovelace Day, and the Organization for Women in Science for the Developing World.<sup>265</sup> The Grace Hopper Celebration (GHC) of Women in Computing Conferences focuses on building up the presence of women in computing and technological fields through collaboration, mentoring, and exchanges of information.<sup>266</sup> The GHC continues to receive acclaim in this endeavor since women technologists are becoming scarce in much of the developed world, and the number continues to dwindle in countries like the United States.<sup>267</sup> Ada Lovelace Day is an international celebration of women in STEM fields and their accomplishments, which is spearheaded by Finding Ada.<sup>268</sup> Finding Ada was built on a pair of studies conducted by psychologist Penelope Lockwood, which found women respond positively when they see other women achieving, and therefore in order to encourage the next generation, women in STEM-related

<sup>253</sup> UNESCO, *Gender and Science: STEM and Gender Advancement (SAGA)*, 2015.

<sup>254</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UNESCO, *Gender and Science: STEM and Gender Advancement (SAGA)*, 2015.

<sup>255</sup> UNESCO, *Gender and Science: STEM and Gender Advancement (SAGA)*, 2015.

<sup>256</sup> *Ibid.*

<sup>257</sup> *Ibid.*

<sup>258</sup> *Ibid.*

<sup>259</sup> UNRWA, *Bringing Stem to UNRWA Girls*, 2014; UNRWA, *UNRWA Strengthens Partnership with UNESCO*, 2014.

<sup>260</sup> UNRWA, *Bringing Stem to UNRWA Girls*, 2014.

<sup>261</sup> *Ibid.*

<sup>262</sup> UNESCO, *Gender and Science: Strengthening networks of women scientists worldwide*, 2015.

<sup>263</sup> African Association of Women in Geoscience, *Objectives*, 2011; African Women in Mathematics Association, *Mission*, 2012.

<sup>264</sup> Anita Borg Institute, Grace Hopper Conference, *About*, 2015; Finding Ada: Ada Lovelace Day, *About*, 2015; Organization For Women In Science For The Developing World, *What is OWSD?*, 2015; Society of Women Engineers, *About WE15*, 2015.

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

<sup>266</sup> Anita Borg Institute, Grace Hopper Conference, *About*, 2015.

<sup>267</sup> Henn, *When Women Stopped Coding*, *National Public Broadcasting*, 2014.

<sup>268</sup> Finding Ada: Ada Lovelace Day, *About*, 2015.

fields must be celebrated as role models.<sup>269</sup> The Organization for Women in Science in the Developing World (OWSD), established in 1987, focuses on the training, career advancement, and networking cooperation of women in STEM-related fields, and it provides this support throughout all stages of a woman’s career in science.<sup>270</sup>

### **Conclusion**

In light of GEAP II and the adoption of the SDGs, UNESCO has devoted increased attention to promoting women in science as a critical aspect of achieving gender equality and sustainable development.<sup>271</sup> Yet, there remain large gaps in available data with regards to the barriers facing women and girls in science.<sup>272</sup> Even though UNESCO is promoting women in science through micro-level partnerships, there is still a lot to accomplish with regards to implementation of the BPfA, the ICPD *Programme of Action*, and GEAP II on a macro-level.<sup>273</sup> UNESCO and its partners must continue their efforts to ensure that women, who represent “half of humanity,” are contributing to the scientific and technological research needed to combat “the various challenges – such as climate change, biodiversity loss, freshwater management, health of the oceans, developing green industries and societies – of advancing sustainable and equitable development.”<sup>274</sup>

### **Further Research**

As delegates begin to conduct their research on this topic, they should keep these questions in mind: Are there any groups or entities with which UNESCO could collaborate in order to fill in data gaps while conducting the SAGA initiative? How can UNESCO address the challenges of gender-based discrimination and gender stereotyping? With reference to the SDGs and the BPfA, what is the relationship between sustainable development and promoting women in science? Can UNESCO become a platform for new macro-level initiatives to promote women and girls in STEM fields? If so, what would these initiatives look like and with which actors would UNESCO partner to implement them?

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<sup>269</sup> Finding Ada: Ada Lovelace Day, *About*, 2015.

<sup>270</sup> Organization For Women In Science For The Developing World, *What is OWSD?*, 2015.

<sup>271</sup> UNESCO, *Priority Gender Equality Action Plan 2014-2021*, 2014, p. 32; UN General Assembly, *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*, 2015; Global Fund for Women, *Ignite: Women Fueling Science and Technology: A Global Fund for Women Project: Irina Bokova, Director-General, UNESCO*, 2015.

<sup>272</sup> UNESCO, *Gender and Science: STEM and Gender Advancement (SAGA)*, 2015.

<sup>273</sup> UNESCO, *Priority Gender Equality Action Plan 2014-2021*, 2014, p. 32; UN Fourth World Conference on Women, *Beijing Declaration and Platform for Action*, 1995, pp. 47-54; UN ICPD, *Programme of Action: Adopted at the International Convention on Population and Development*, 1994, pp. 30-31; Society of Women Engineers, *About WE15*, 2015; UNRWA, *Bringing Stem to UNRWA Girls*, 2014; African Association of Women in Geoscience, *Objectives*, 2011; African Women in Mathematics Association, *Mission*, 2012.

<sup>274</sup> UNESCO, *Gender and Science: Women, agents of change*, 2015; UN-Women, *Commission on the Status of Women to promote women’s and girls’ access to education, training, science & technology*, 2011, p. 2.

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*This study reveals aspects of discrimination against women in science, which constitutes a key challenge to promoting and maintaining women in STEM-related fields. Focusing on women in the United States within engineering, the study narrows the scope in order to find root causes of discrimination and potential solutions. Through interviews, statistical analysis, and qualitative research, the study examines and assesses workplaces for women in STEM careers. Students will want to review this study and the subsequent links for their research to aid in their understanding of the challenge of discrimination against women in science.*

United Nations Educational, Scientific and Cultural Organization. (2014). *Priority Gender Equality Action Plan 2014-2021*. Retrieved 31 August 2015 from: <http://unesdoc.unesco.org/images/0022/002272/227222e.pdf>

*GEAP II is the second action plan devised by UNESCO to promote gender equality and mainstream gender throughout every sector under its mandate. This strategic document sets out results that UNESCO intends to achieve by the end of GEAP II in 2021 with respect to advancing gender equality. Delegates will find that Major Programme II is the most relevant to the topic; however, information on gender mainstreaming throughout other aspects of UNESCO's work will be helpful to further their research.*

United Nations Educational, Scientific and Cultural Organization. (2015). *Gender and Science: Women, agents of change* [Website]. Retrieved 18 July 2015 from: <http://www.unesco.org/new/en/natural-sciences/priority-areas/gender-and-science/>

*"Gender and Science" is a priority area for UNESCO within the natural science division of the UNESCO framework. This website provides a starting point for delegates beginning their research on this topic. In addition to addressing the need for promoting women in science, the site also illustrates UNESCO's involvement in the topic, the initiatives taken by UNESCO, and how the issue falls under UNESCO's area of concern. The site provides several links to further information regarding the importance of women in science.*

United Nations Educational, Scientific and Cultural Organization. (2015). *STEM and Gender Advancement (SAGA)* [Website]. Retrieved 30 August 2015 from: <http://www.unesco.org/new/en/natural-sciences/priority-areas/gender-and-science/improving-measurement-of-gender-equality-in-stem/stem-and-gender-advancement-saga/>

*UNESCO developed and implemented the first initiative to address the systematic causes of gender disparity within STEM fields, known as SAGA. SAGA is currently in its beginning stages, so this website emphasizes the holistic mission and a rough outline of the predicted stages set out by the Advisory Committee and Steering Committee. The professionals serving on both committees can be found on the website as well. Delegates are encouraged to revisit this site as SAGA progresses to help further their research on UNESCO's efforts regarding this topic.*

United Nations Entity for Gender Equality and the Empowerment of Women. (2011). *Commission on the Status of Women to promote women's and girls' access to education, training, science & technology* [Backgrounder]. Retrieved 20 July 2015 from: <http://www.un.org/womenwatch/daw/csw/csw55/press/EN-CSW-backgrounder.pdf>

*This backgrounder, prepared for media use in advance of the 55<sup>th</sup> session of the Commission on the Status of Women, reveals the main reasons for the UN to address the topic of promoting women in science and explains why this topic is a pressing issue on the UN's agenda. The largest challenge to promoting women in science, gender stereotyping, is discussed within the context of the UN, along with solutions and approaches taken by UN bodies. The backgrounder presents the statistics associated with the topic, highlighting the longstanding importance of this issue. This topic in the context of the UN and the highlighted points throughout the backgrounder will provide students with a foundation for their research moving forward.*

United Nations Entity for Gender Equality and the Empowerment of Women. (2015). *The Beijing Platform for Action Turns 20: Education and Training of Women* [Website]. Retrieved 30 August 2015 from: <http://beijing20.unwomen.org/en/in-focus/education-and-training>

*UN-Women has compiled current statistics and UN reports regarding the education of girls and women. The most important aspects of this website include updates on the status of the MDGs regarding the achievement of targeted goals and the continuing gender disparity beyond primary education. Included in the website are references to civil society groups dedicated to education and development of girls. Also found is the source link for the UNESCO Institute for Statistics' report regarding women in science. Delegates should utilize this website in furthering their research about the overall international effort of achieving equal access to education for girls and women.*

United Nations, Fourth World Conference on Women. (1995). *Beijing Declaration and Platform for Action*. Retrieved 29 August 2015 from:

[http://www.unwomen.org/~media/headquarters/attachments/sections/csw/pfa\\_e\\_final\\_web.pdf](http://www.unwomen.org/~media/headquarters/attachments/sections/csw/pfa_e_final_web.pdf)

*With regards to this topic, the BPfA is the most crucial aspect of this document. It provides both general and in-depth information pertaining to women in education and science. Also provided are suggested approaches and actions for governments and other stakeholders to promote women in science. Delegates should review this document in order to see what suggested actions and frameworks already exist to promote women in science.*

United Nations, General Assembly, Seventieth session. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development (A/RES/70/1)*. Retrieved 24 October 2015 from: <http://undocs.org/A/RES/70/1>

*In September 2015, Member States adopted 17 SDGs that will shape the post-2015 development agenda. The SDGs and the accompanying declaration indicate the importance of science and gender equality to sustainable development through multiple targets dedicated to improving scientific knowledge generation, facilitating technology transfer, and achieving the equal participation of girls and women at school and in the workforce. Delegates should note that UNESCO contributed significantly to the consultative processes that defined these goals, which the UN and Member States will strive to achieve by 2030.*

United Nations, International Labour Organization. (2015). *Elimination of discrimination in respect of employment and occupation* [Website]. Retrieved 30 August 2015 from:

<http://www.ilo.org/declaration/principles/eliminationofdiscrimination/lang--en/index.htm>

*The ILO outlines the four principles found within the Declaration on fundamental principles and rights at work in order to fully convey the meanings and purpose behind each. This website is the breakdown of the fourth principle. The breakdown includes an in-depth look at of the forms of discrimination within the workplace and the necessity for their elimination. While conducting their research, delegates should review the forms of discrimination discussed on this website in order to apply it to this topic.*

Welsh, J. (2013, October 16). Science: These Are The 7 Things Keeping Women Out Of Science Careers. *Business Insider*. Retrieved 17 July 2015 from: <http://www.businessinsider.com/7-things-keeping-women-out-of-science-2013-10>

*In this article, Welsh addresses seven challenges women face while in a STEM field. Although not a scientific article, the data used by Welsh is from Finding Ada and from anecdotal sources of women in STEM careers. Each of the challenges is given a brief description and example to illustrate how it occurs in practice. Delegates will want to review these challenges, especially when researching innovative approaches to encouraging and maintaining women in STEM-related fields.*

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### III. Protecting World Heritage Sites against New and Emerging Threats

*“Heritage is inextricably linked to the most pressing challenges facing humanity: climate change and natural disasters, loss of biodiversity, safe water, conflicts, unequal access to food, education and health, migration, urbanization, social marginalization and economic inequalities.”*<sup>275</sup>

#### **Introduction**

World Heritage Sites (WHS) represent the natural and cultural legacy inherited from the past.<sup>276</sup> World Heritage is defined as cultural or natural heritage of outstanding universal value regardless of the territory in which it is located.<sup>277</sup> In 1994, the United Nations Educational, Scientific and Cultural Organization’s (UNESCO) Global Strategy expanded the definition to include not just tangible cultural heritage such as monuments, archaeological sites, objects like paintings, sculptures, and manuscripts as well as natural heritage but also heritage that reflects outstanding “human coexistence with the land,” “human interaction,” “cultural coexistence,” “spirituality,” and “creative expression.”<sup>278</sup> The preservation of WHS is especially important as they provide a source of inspiration and a cultural context for current and future generations.<sup>279</sup> WHS are also sources of revenue for the territories in which they are located, employment opportunities, and sources of renewable and sustainable natural resources and may therefore even help crisis ridden communities to recover.<sup>280</sup>

Unfortunately, WHS are under threat from both natural and man-made dangers.<sup>281</sup> Currently, 48 properties are included on the List of World Heritage in Danger, of which 30 are cultural sites and 18 are natural sites.<sup>282</sup> The threats include, but are not limited to climate change, armed conflict, and natural non-manmade disasters.<sup>283</sup> Armed conflict has been recognized as a threat to World Heritage since the significant destruction of cultural heritage during both World War I and II and resulted in the adoption of *The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict* (1954).<sup>284</sup> Climate change was first brought to the attention of the World Heritage Committee in 2005 at its 29<sup>th</sup> session.<sup>285</sup> According to the International Union for Conservation of Nature (IUCN), 35 of the 228 natural WHS are currently impacted by the effects of climate change.<sup>286</sup> Climate change does not only pose a current challenge to properties but will likely become more severe in the years to come.<sup>287</sup> Additionally, natural non-manmade disasters represent an extreme case of the threats World Heritage is exposed to everyday.<sup>288</sup> Due to the unpredictability of natural disasters, conservation of sites can be particularly difficult.<sup>289</sup> The International Council on Monuments and Sites notes that many of the mitigation strategies for natural disasters are linked to general conservation strategies.<sup>290</sup> Therefore, studying the vulnerability of sites to disasters and the ways to prepare for these events offers lessons for everyday conservation.<sup>291</sup>

Protecting World Heritage for future generations is one of the primary objectives of UNESCO.<sup>292</sup> However, due to the nature of the threats posed by armed conflict, climate change, and natural disasters to World Heritage it is difficult, if nearly impossible, to determine the future properties that may come under threat and protect them.<sup>293</sup>

<sup>275</sup> UNESCO, *2014 – 2021 Medium Term Strategy*, 2014, p. 24.

<sup>276</sup> UNESCO, *About World Heritage*, 2015.

<sup>277</sup> UNESCO, *Constitution of the United Nations Educational, Scientific and Cultural Organization*, 1945.

<sup>278</sup> UNESCO, *Report of the Expert Meeting on the "Global Strategy" and thematic studies for a representative World Heritage List*, 1994.

<sup>279</sup> UNESCO, *About World Heritage*, 2015.

<sup>280</sup> UNESCO, *Disaster Risk Reduction*, 2015.

<sup>281</sup> UNESCO, *World Heritage in Danger*, 2015.

<sup>282</sup> UNESCO, *World Heritage List*, 2015.

<sup>283</sup> UNESCO, *World Heritage in Danger*, 2015.

<sup>284</sup> UNESCO, *Armed Conflict and Heritage*, 2015; UNESCO, *The Hague Convention on the Protection of Cultural Property in the Event of Armed Conflict*, 1954.

<sup>285</sup> UNESCO, *Climate Change and World Heritage*, 2015.

<sup>286</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

<sup>287</sup> UNESCO, *Climate Change and World Heritage*, 2015.

<sup>288</sup> ICOMOS, *Heritage at Risk*, 2007.

<sup>289</sup> *Ibid.*

<sup>290</sup> *Ibid.*

<sup>291</sup> *Ibid.*

<sup>292</sup> UNESCO, *Constitution of the United Nations Educational, Scientific and Cultural Organization*, 1945.

<sup>293</sup> UNESCO, *Heritage at Risk*, 2015.

This is why many best practices adopted at preserving WHS rely on risk preparedness and disaster risk reduction (DRR).<sup>294</sup>

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

There are many international agreements and conventions that provide the framework for the protection of the World's Heritage. They include, but are not limited to: *Constitution of the United Nations Educational, Scientific and Cultural Organization* (1945); *The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict*, (1954); the *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property* (1970); and, the *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972).

Article 1 of the UNESCO Constitution calls for the conservation of the world's inheritance of books, works of art, and monuments of history and science but it does not specifically define heritage nor does it outline how UNESCO would assist Member States in its protection.<sup>295</sup> Therefore, in 1972, the international community adopted the *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972), which defined heritage, formalized the actions of UNESCO, and established the World Heritage Committee (WHC).<sup>296</sup> It granted the WHC the responsibility to record and publish the "World Heritage List" and "List of World Heritage in danger."<sup>297</sup> Additionally, the *Convention Concerning the Protection of the World Cultural and Natural Heritage* established the World Heritage Fund to assist Member States with various conservation activities and disaster response measures.<sup>298</sup> The Convention linked the protection of World Heritage to the establishment of long-lasting peace, which forms much of the work of UNESCO.<sup>299</sup>

Recognizing the need to address specific threats to cultural heritage, UNESCO in 1954 adopted *The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict* and thereby established obligations for Member States to protect cultural property in times of armed conflict.<sup>300</sup> Additionally, Member States agreed to introduce military regulations in times of peace to ensure the protection of cultural heritage in times of war.<sup>301</sup> After the conflicts of the 1980s and 1990s, the Hague Convention was reviewed and improved and changed the landscape of international law.<sup>302</sup> Specifically, it was determined that the Convention lacked implementation mechanisms to adequately protect property that was destroyed or damaged.<sup>303</sup> In 1999, Article 5 of the Second Protocol to The Hague Convention was adopted and called "for the preparation of inventories" of property, "planning of emergency measures," and "protection against fire" and "structural collapse."<sup>304</sup> Additionally, the Second Protocol called for the movement of movable cultural property during conflict to safer locations and to designate specific authorities responsible for the protection of property.<sup>305</sup> The Second Protocol also specifies that sanctions be imposed if any party violates the Hague Convention and defines the conditions when individual criminal responsibility will apply.<sup>306</sup> Lastly, the Second Protocol established the Intergovernmental Committee for the Protection of Cultural Property in the Event of Armed Conflict to ensure the proper implementation of the Convention.<sup>307</sup>

In order to address the fact that moveable cultural property often is subject to looting and illicit trafficking in times of armed conflict the *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer*

<sup>294</sup> ICOMOS, *Heritage at Risk*, 2007; UNESCO, *Disaster Risk Reduction*, 2015.

<sup>295</sup> UNESCO, *Constitution of the United Nations Educational, Scientific and Cultural Organization*, 1945, p. 6.

<sup>296</sup> UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, 1972.

<sup>297</sup> *Ibid.*, pp. 4- 6.

<sup>298</sup> *Ibid.*, p. 12.

<sup>299</sup> UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, 1972.

<sup>300</sup> UNESCO, *The Hague Convention on the Protection of Cultural Property in the Event of Armed Conflict*, 1954.

<sup>301</sup> *Ibid.*

<sup>302</sup> UNESCO, *Armed Conflict and Heritage*, 2015.

<sup>303</sup> UNESCO, *Second Protocol to The Hague Convention on the Protection of Cultural Property in the Event of Armed Conflict*, 1999.

<sup>304</sup> *Ibid.*

<sup>305</sup> *Ibid.*

<sup>306</sup> UNESCO, *Armed Conflict and Heritage*, 2015.

<sup>307</sup> *Ibid.*

*of Ownership of Cultural Property* was adopted in 1970.<sup>308</sup> The Convention requires Member States to take preventative measures such as inventories, trade monitoring, export certificates, penal or administrative sanctions, and campaigns through educational means.<sup>309</sup> Furthermore, it provides restitution provisions in Article 7 (b) (ii) to recover and return cultural property and requires Member States to pay just compensation to an innocent purchaser of the property after it was looted.<sup>310</sup> Additionally, the convention embodied the international cooperation principle consistent with the UNESCO Constitution.<sup>311</sup>

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

UNESCO is particularly important in detailing the state of conservation at each site and ensuring that the *Convention Concerning the Protection of the World Cultural and Natural Heritage* is efficiently applied.<sup>312</sup> Member States have an obligation to periodically report to UNESCO on their conservation efforts at each site.<sup>313</sup> This reporting mechanism allows UNESCO to track the appropriate implementation of the *Convention Concerning the Protection of the World Cultural and Natural Heritage* and to propose possible future protection measures.<sup>314</sup> The reporting mechanism allows for the facilitation of information sharing between Member States.<sup>315</sup> UNESCO collects the data in periodic reports to allow for the ability to capitalize on Member States' lessons and experiences, and UNESCO disseminates this information to other Member States and their site managers to enhance their own conservation programs.<sup>316</sup>

Strategic Objective 7 of UNESCO's *Medium Term Strategy* (2014) aims for promoting cross-cultural understanding and building peace by leveraging the world's cultural heritage through strengthening conservation and safeguarding measures.<sup>317</sup> UNESCO also helps Member States to build better management strategies through facilitating information sharing on best practices.<sup>318</sup> Additionally, UNESCO strengthens national capabilities to promote the benefits and value of heritage.<sup>319</sup> Furthermore, UNESCO collects data to build a better understanding of the threats to World Heritage and to develop emergency measures in response, in particular the threat posed by conflict.<sup>320</sup> In addition, UNESCO supports Member States in environmental conservation and disaster risk management strategies.<sup>321</sup>

UNESCO collaborates with other international and regional organizations with similar objectives in accordance with Article 13 of the *Convention Concerning the Protection of the World Cultural and Natural Heritage*.<sup>322</sup> UNESCO also collaborates with non-governmental organizations (NGOs) such as the International Commission on Monuments and Sites (ICOMOS) and the International Center for the Study of the Preservation and Restoration of Cultural Property (ICCROM).<sup>323</sup> For assistance with implementing programs, UNESCO may request help from organizations such as the Center for the Study of the Preservation and Restoration of Cultural Property, the International Council of Monuments and Sites, and the IUCN, as well as other private or public bodies.<sup>324</sup>

WHC is the UNESCO's primary decision-making body in things related to the *Convention Concerning the Protection of the World Cultural and Natural Heritage*; it is responsible for the Convention's implementation, the

<sup>308</sup> UNESCO, *Armed Conflict and Heritage*, 2015.

<sup>309</sup> UNESCO, *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property*, 1970; Heritage for Peace, *UNESCO Convention 1970*.

<sup>310</sup> UNESCO, *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property*, 1970.

<sup>311</sup> *Ibid.*

<sup>312</sup> UNESCO, *Reporting and Monitoring*, 2015.

<sup>313</sup> *Ibid.*

<sup>314</sup> *Ibid.*

<sup>315</sup> UNESCO, *Periodic Reporting*, 2015.

<sup>316</sup> *Ibid.*

<sup>317</sup> UNESCO, *2014 – 2021 Medium Term Strategy*, 2014, p. 24.

<sup>318</sup> *Ibid.*

<sup>319</sup> *Ibid.*

<sup>320</sup> *Ibid.*

<sup>321</sup> *Ibid.*

<sup>322</sup> UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, 1972, p. 8.

<sup>323</sup> UNESCO, *Our Partners*, 2015.

<sup>324</sup> UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, 1972, p. 8.

ultimate decision on the composition of the World Heritage list, and oversees the reports on the state of conservation of inscribed properties.<sup>325</sup> In contrast, the World Heritage Centre of UNESCO undertakes the day-to-day management of the *Convention Concerning the Protection of the World Cultural and Natural Heritage*.<sup>326</sup> The Centre coordinates on World Heritage, it organizes annual sessions of the WHC, and carries out initiatives and programs aiming at protecting and conserving World Heritage such as emergency assistance, long-term conservation programs, management planning, technical assistance, professional training, and education and awareness building.<sup>327</sup>

In 2011, the WHC adopted the World Heritage Capacity Building Strategy that solicited applications from World Heritage properties that had demonstrated new ways of management and selected the Historic Town of Vigan as best practice example.<sup>328</sup> The WHC shared the site managers' reflections on the state of conservation and their conservation programs and efforts with other properties as a means to encourage Member States and managers to adopt best practice strategies and reflect on areas for potential improvement.<sup>329</sup>

In 2007, the WHC adopted the *Strategy for Risk Reduction at World Heritage Properties* through input collaboration with the World Heritage Center and other partner institutions.<sup>330</sup> This collaboration established key objectives: to increase support on multiple levels in order to lessen risks; employ education, knowledge, and creativity for disaster prevention; ensure the monitoring and identification of risks for disasters; and, increase preparation for disasters overall.<sup>331</sup> In addition to this strategy, WHC and partner institutions have conducted technical workshops on managing risk for heritage sites.<sup>332</sup>

The *Strategy for Risk Reduction at World Heritage Properties* also reiterated that according to the *Convention Concerning the Protection of the World Cultural and Natural Heritage* international assistance to Member States whose properties are on the List of World Heritage in Danger should be granted.<sup>333</sup> This funding is given under the World Heritage Fund of the WHC as well as through other emergency funds.<sup>334</sup> This assistance is given to Member States in order to respond to disasters in either Emergency Assistance or Conservation and Management Assistance.<sup>335</sup> Emergency Assistance should be only be given if there is imminent danger from a disaster, whether man-made or natural, to mitigate impacts to the site.<sup>336</sup> Conservation and Management Assistance is provided when the threat to the site is no longer imminent.<sup>337</sup>

### ***Armed Conflict***

Armed conflict poses an emerging threat to World Heritage. The current situation in Syria and Iraq, especially with the destruction of the temples at Palmyra, reveals the difficulty with protecting heritage in times of armed conflict where the nature of the armed conflict is increasingly complex and difficult to mitigate.<sup>338</sup> It is estimated that \$2 billion dollars in antiquities has been looted from Syria since the beginning of the conflict in 2011.<sup>339</sup> UNESCO's efforts have been focused on monitoring the situation, mitigating the destruction through facilitating national and international awareness raising efforts, and through technical assistance and capacity-building for national stakeholders and beneficiaries.<sup>340</sup> A similar approach has been adopted to respond to the illicit trafficking of cultural property in Iraq.<sup>341</sup> The Security Council unanimously adopted resolution 2199 (2015) in February 2015, which,

<sup>325</sup> UNESCO, *The World Heritage Committee*.

<sup>326</sup> UNESCO, *World Heritage Centre*.

<sup>327</sup> UNESCO, *World Heritage Center Activities*, 2015.

<sup>328</sup> UNESCO, *Sharing best practices in World Heritage Management*, 2012.

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

<sup>330</sup> UNESCO, *Reducing Disasters Risks at World Heritage Properties*, 2015.

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

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

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

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

<sup>335</sup> *Ibid.*

<sup>336</sup> *Ibid.*

<sup>337</sup> *Ibid.*

<sup>338</sup> Jeffries, Stuart, *Isis's destruction of Palmyra: 'The heart has been ripped out of the city'*, 2015.

<sup>339</sup> Heritage for Peace, *Damaged Heritage*, 2013.

<sup>340</sup> UNESCO, *UNESCO-EU: Launch of the Emergency Safeguarding of the Syrian Heritage project*, 2014.

<sup>341</sup> UNESCO, *Illicit Trafficking of Cultural Property in Iraq*, 2014.

among other concerns, condemned the destruction of cultural heritage in Iraq and Syria due to the actions of the Islamic State of Iraq and the Levant (ISIL) and other terrorist organizations.<sup>342</sup> The resolution calls on Members States with the help of UNESCO to prevent the trade in Iraqi and Syrian cultural property and other cultural heritage artifacts that have been illegally removed and to ensure their safe passage back to their place of origin.<sup>343</sup> Unfortunately, in spite of these actions, World Heritage in Iraq and Syria continues to be threatened.<sup>344</sup>

While The Hague and other conventions as well as the World Heritage List itself cover all aspects of tangible cultural heritage, one issue of great importance that is often overlooked is natural heritage properties or sites.<sup>345</sup> Natural heritage properties are of unique and outstanding universal value from the perspective of science, conservation or aesthetic.<sup>346</sup> Natural heritage sites consist of natural features, formations that constitute habitats of threatened species, and precisely delineated natural areas.<sup>347</sup> Of 197 natural heritage properties, 18 are considered to be in danger today.<sup>348</sup> Particularly, every culturally protected natural heritage property in the Democratic Republic of the Congo, Ethiopia, Guinea, Honduras, and the Solomon Islands is considered to be threatened today.<sup>349</sup> Natural properties are especially endangered during times of armed conflict when they can be damaged before, during, and after the conflict.<sup>350</sup> The destructions potentially caused by conflict on natural heritage not only result in a loss to national parks and wildlife habitats, but are a loss of vital natural resources such as forests and water supplies for entire populations.<sup>351</sup>

### *Climate Change*

The impacts of climate change have yet to be fully realized, and yet, there are already sites that are experiencing challenges.<sup>352</sup> Oceanic natural heritage sites support tourism, food security, shoreline protection, and biodiversity; the effects of climate change specifically affect each of these areas and damage the integrity of the site.<sup>353</sup> Coastal sites will face particular challenges due to sea level rise and increased frequency and severity of extreme weather events caused by climate change.<sup>354</sup> For example, Venice is one of 136 UNESCO WHS that will be underwater if temperatures rise.<sup>355</sup> Ocean acidification is one of the issues that climate change poses on natural heritage as it threatens the integrity of ocean ecosystems and the ability of many organisms to live in them.<sup>356</sup> The IUCN notes that rising sea temperatures are causing coral reef bleaching and ocean acidification is restricting coral growth and survival.<sup>357</sup> Eventually, the changing chemistry of the tropical ocean will stop coral reef growth, and sites such as the Great Barrier Reef in Australia will, and already are experiencing damages.<sup>358</sup> In addition, rising sea levels will contribute to larger storm surges in the event of a natural disaster, which will further threaten WHS along coastal areas and in vulnerable locations.<sup>359</sup> Climate change can also affect underground archaeological evidence and historic buildings.<sup>360</sup>

The challenge to protect WHS against climate change will be to properly identify complex potential problems and to develop intervention mechanisms to limit the damages.<sup>361</sup> This will require assessing vulnerabilities and conducting

<sup>342</sup> UN Security Council, *Threats to international peace and security caused by terrorist acts (S/RES/2199)*, 2015.

<sup>343</sup> *Ibid.*

<sup>344</sup> UNESCO, *UNESCO Director-General condemns the destruction of the Arch of Triumph in Palmyra - "Extremists are terrified of history"*, 2015.

<sup>345</sup> USAID, *From the American People: Biodiversity Conservation and Crisis, Key Issues for Consideration*, 2008, p. 2.

<sup>346</sup> UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, 1972.

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

<sup>348</sup> UNESCO, *World Heritage List*, 2015.

<sup>349</sup> *Ibid.*

<sup>350</sup> USAID, *From the American People: Biodiversity Conservation and Crisis, Key Issues for Consideration*, 2008, p. 2.

<sup>351</sup> *Ibid.*

<sup>352</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

<sup>353</sup> UNESCO, *Ocean Acidification*, 2015.

<sup>354</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

<sup>355</sup> Climate Central, *Sea Level Rise Threatens World's Cultural Treasures*, 2014.

<sup>356</sup> UNESCO, *Ocean Acidification*, 2015.

<sup>357</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

<sup>358</sup> UNESCO, *Ocean Acidification*, 2015.

<sup>359</sup> Climate Central, *Sea Level Rise Threatens World's Cultural Treasures*, 2014.

<sup>360</sup> ICOMOS, *World Heritage in Danger*, 2009.

<sup>361</sup> UNESCO, *Climate Change Adaptation for Natural World Heritage Sites: A Practical Guide*, 2014.

studies to determine the resilience or sensitivity to a climate change related event and then assessing the risk to WHS.<sup>362</sup> Even rough estimates from climate predictions could provide a starting point in order to develop climate change adaptation strategies.<sup>363</sup> However, since climate change was brought to the attention of the WHC in 2005, few concrete actions have been taken.<sup>364</sup> According to IUCN, global efforts must be undertaken to fully stop the threat imposed by climate change.<sup>365</sup> However, threats to sites can be mitigated.<sup>366</sup> In 2014, UNESCO published a guide to Climate Change Adaptation for Natural WHS to assist Site Managers in understanding the threat and developing management responses.<sup>367</sup> Nevertheless a year later, the IUCN report identified 35 sites that have been impacted by climate change and where problems will intensify if action is not taken.<sup>368</sup>

### *Natural Disasters*

Natural disasters are not a new challenge faced by WHS.<sup>369</sup> However, the emerging threat of climate change and the likelihood of the increased frequency and intensity of natural disasters necessitate the need to develop timely responses.<sup>370</sup> Natural disasters can be broken down into two categories: climatic events, e.g. storms, and geophysical events, e.g. earthquakes.<sup>371</sup> Natural disasters can be especially difficult to predict in general due to the unpredictability of future weather and climatic events.<sup>372</sup> This is one of the important reasons why mitigating the impacts and improving preparedness are important to safeguard World Heritage.<sup>373</sup> Many lessons can be learned in the aftermath of a natural disaster in order to develop future responses. For example, monuments that survive natural disasters with minimal damage provide a means to study how they withstood the disaster and these can be applied to mitigation strategies of other monuments.<sup>374</sup>

In order to ensure that property is adequately protected, properties must be assessed for risk in order to build effective risk management strategies.<sup>375</sup> The *Strategy for Reducing Risks from Disasters at World Heritage Properties* was prepared by the WHC, ICCROM, ICOMOS, and the IUCN.<sup>376</sup> General conservation strategies, such as improving structural integrity of sites can potentially prevent damages by natural disasters.<sup>377</sup> The threats to World Heritage are different amongst moveable and non-moveable cultural property as moveable property can potentially be brought to safety before an event occurs.<sup>378</sup> Movable property includes archives, library collections, furniture or statues.<sup>379</sup> For example, when a flood threatens a WHS and there are proper evacuation procedures in place, low lying and movable property can be transported to areas above the floodwaters.<sup>380</sup> However, if strategies are not in place before a disaster occurs, then the property is at risk of being damaged.<sup>381</sup> Nevertheless, the potential damage done to non-movable properties can be, if not fully avoided at least minimized by installing security protocols for floods, and conducting renovations and retrofittings.<sup>382</sup>

### *Conclusion*

Predicting and addressing future threats to WHS requires international collaboration and information sharing that is within the scope of UNESCO. The challenges posed by armed conflict, climate change, and natural disasters are not

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<sup>362</sup> UNESCO, *Climate Change Adaptation for Natural World Heritage Sites: A Practical Guide*, 2014.

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

<sup>364</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

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

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

<sup>367</sup> UNESCO, *UNESCO publishes a practical guide on climate change adaptation for natural World Heritage Sites*, 2015.

<sup>368</sup> IUCN, *Climate change and dams threaten natural World Heritage, warns IUCN*, 2015.

<sup>369</sup> ICOMOS, *Heritage at Risk*, 2007.

<sup>370</sup> *Ibid.*

<sup>371</sup> *Ibid.*

<sup>372</sup> *Ibid.*

<sup>373</sup> Global Heritage Fund, *Principal Threats to Heritage*, 2015.

<sup>374</sup> ICOMOS, *Heritage at Risk*, 2007.

<sup>375</sup> *Ibid.*

<sup>376</sup> *Ibid.*

<sup>377</sup> *Ibid.*

<sup>378</sup> *Ibid.*

<sup>379</sup> *Ibid.*

<sup>380</sup> *Ibid.*

<sup>381</sup> *Ibid.*

<sup>382</sup> *Ibid.*



the only challenges that Member States will face in protecting and conserving World Heritage for current and future generations. However, many of the measures to respond to one threat can translate into responsive measures to another threat. DRR and mitigation strategies are of utmost importance. As pointed out by ICOMOS, risk reduction strategies for natural disasters are linked to general conservation strategies.<sup>383</sup> Many of the responses by UNESCO to these challenges and towards DRR such as information sharing, unfortunately, are at times are reactive. In recent years, UNESCO has attempted to build proactive measures for protecting World Heritage. These include the strategies discussed in the Medium Term Strategy and initiatives such as the sharing of best practices amongst WHS. Ultimately, the threats that WHS face are complex and dynamic, and the ability of the international community to respond to these threats and ensure the lasting legacy of the world's heritage will require equally sophisticated measures.

### ***Further Research***

Understanding some of the threats facing World Heritage and the unique challenges they pose, how can the existing international and regional framework be applied to develop preparation strategies for future threats? What are the limitations of the existing framework in protecting World Heritage? Especially in the face of new conflicts like Syria and Iraq, UNESCO, as well as official governments, seem incapable of protecting priceless cultural heritage. Therefore, delegates should consider the following: What possible cooperation can occur between UNESCO and other UN entities that have more experience in acting in conflict areas? What are new legal mechanisms that can be employed against practices related to the destruction of heritage in conflict or by certain groups? How can Member States react to the dangers climate change poses to cultural heritage? What are potential solutions and their effectiveness, as well as cost? Can Member States ensure the protection of World Heritage against all threats? How can mitigation and disaster risk reduction strategies be applied to a wide range of threats? Intangible heritage, such as traditional ways of life, are also threatened by particularly climate change and armed conflict. How can intangible World Heritage be incorporated into the framework of protecting World Heritage?

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<sup>383</sup> ICOMOS, *Heritage at Risk*, 2007.

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*The Convention's three main objectives are: conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. The CBD lays the groundwork for the conservation of biodiversity within Members States and for the protection of biodiversity under various threats at World Heritage Sites. As climate change will have lasting effects on natural World Heritage Sites, understanding the steps that can be taken by the international community to respond to these challenges will be important. Climate change will further threaten the integrity of biological diversity in many of the world's protected sites and many of the adaptation strategies taken by the international community in the past will be applicable to the challenges posed by climate change.*

International Council on Monuments and Sites. (2007). *Heritage at Risk, Cultural Heritage and Natural Disasters*. Retrieved 21 September 2015 from:

[http://www.icomos.org/risk/2007/natural\\_disasters/HR\\_Special\\_2007\\_Disasters\\_ebook\\_20091116.pdf](http://www.icomos.org/risk/2007/natural_disasters/HR_Special_2007_Disasters_ebook_20091116.pdf)

*The ICOMOS Heritage at Risk report details many of the challenge that natural disasters impose on World Heritage. It is important to understand these risks in order to develop appropriate response mechanisms. This document is one of the most comprehensive in the literature describing the vulnerabilities of sites to natural disasters and the responses taken to prevent and mitigate its effects.*

International Council on Monuments and Sites. (2009). *World Heritage in Danger*. Retrieved 26 August 2015 from:

<http://whc.unesco.org/document/106357>

*This is a compendium of key decisions on the conservation of cultural heritage properties on the UNESCO List of World Heritage in Danger. It is the most up to date comprehensive review of past Committee decisions that have been compiled. This ICOMOS report identifies eight major categories of threats and therefore provides a broad understanding of the treats to World Heritage. In addition to highlight the threats, the report also highlights the Monitoring and Management measures that have been taken to preserve World Heritage. Due to its broad scope, this report is important to understand many of the challenges that World Heritage faces.*

United Nations, Educational, Scientific and Cultural Organization. (n.d.). *The World Heritage Committee* [Website]. Retrieved 11 November 2015 from: <http://whc.unesco.org/en/committee/>

*Because the World Heritage Committee is responsible for implementing the World Heritage Convention, it is important to understand how the Committee functions and the work it does; this source provides a great introduction to this matter. As this source explains, the Committee has several important roles including reviewing and approving requests for assistance, deciding inclusion to the World Heritage List, and reviewing when additional actions are needed to protect vulnerable properties. In addition to detailing membership and the rules of the Committee as well, this source is insightful as it provides links to events of the Committee.*

United Nations, Educational, Scientific and Cultural Organization. (1954). *The Hague Convention on the Protection of Cultural Property in the Event of Armed Conflict*. Retrieved 20 July 2015 from:

<http://unesdoc.unesco.org/images/0008/000824/082464mb.pdf>

*The Hague Convention is largely informed by the lessons learned in the Second World War. It is informed by the idea that damage to cultural property means damage to cultural heritage of all mankind. Essentially, this convention established that cultural property of any nationality has universal cultural value to all. The Convention calls upon Member States to adopt provision and policies in times of peace that would protect and respect culture and cultural property in times of war and armed conflict.*

United Nations, Educational, Scientific and Cultural Organization. (1972). *Convention Concerning the Protection of the World Cultural and Natural Heritage*. Retrieved 20 July 2015 from: <http://whc.unesco.org/archive/convention-en.pdf>

*The Convention is the cornerstone of UNESCO's ongoing work in protecting World Heritage. The Convention established a list that identifies properties around the world of significant World Cultural and Natural Heritage to be protected for all time. The Convention lays the framework for UNESCO World Heritage Center at promoting cooperation among Member States to protect World Cultural and Natural Heritage. The Convention established the World Heritage Fund to assist Member States in the protection of listed World Heritage Sites and to meet urgent conservation need of properties that are listed in danger. The Convention outlines the steps that UNESCO can take and the obligations of the Member States to the convention in protecting World Heritage.*

United Nations Educational, Scientific and Cultural Organization. (2001). *Convention on the Protection of the Underwater Cultural Heritage*. Retrieved 25 August 2015 from:

<http://www.unesco.org/new/en/culture/themes/underwater-cultural-heritage/2001-convention/official-text/>

*The Convention is based on four main principles: the obligation to preserve underwater cultural heritage; underwater preservation; no commercial exploitation of this heritage; and, cooperation among States to protect this heritage, to promote training in underwater archaeology, and to raise awareness of the importance of sunken cultural property. As the ocean becomes increasingly more acidic and ocean temperature rises, this will put an added strain on the integrity of sunken culture. Ocean Acidification threatens under water cultural heritage both sunken heritage and natural heritage. Ocean Acidification intensifies with the activities that cause climate change and will threaten heritage in and near the ocean.*

United Nations Educational, Scientific and Cultural Organization. (2007). *Strategy for Reducing Risks from Disasters at World Heritage properties*. [WHC-07/31.COM/7.2]. Retrieved 25 August 2015 from:

<http://whc.unesco.org/archive/2007/whc07-31com-72e.pdf>

*Disaster Risk Reduction (DRR) is an important response undertaken by UNESCO and other international organizations aimed at protecting and preserving the world's natural and cultural heritage. DRR strategies can be applied to a wide array of threats that are imposed on World Heritage Sites. The purpose of this strategy is to strengthen protection of World Heritage by assisting Member States to integrate heritage concerns into national disaster reduction policies. Also, it provides guidance to integrate DRR into World Heritage strategic planning and management.*

United Nations Educational, Scientific and Cultural Organization, General Conference. (2014). *2014 – 2021 Medium-Term Strategy (37 C/4)*. Retrieved 20 July 2015 from:

<http://unesdoc.unesco.org/images/0022/002278/227860e.pdf>

*The Medium-Term Strategy was approved by the UNESCO General Conference to identify the areas of strategic importance and define the Organization's goals for the next eight years. The Medium-Term Strategy focuses on the existing framework, such as the obligation of the Organization in the Constitution, and how the Organization can improve upon past success to implement future objectives that will achieve desirable outcomes. In particular, Strategic Objective 7 is of importance to the topic of Protecting World Heritage Sites and calls upon Member States to advance dialogue and inclusiveness in order to promote and protect cultural heritage. The Medium-Term strategy provides the objectives of the Organization and the steps the Organization endeavors to undertake to meet the challenges of the next seven years.*

United Nations, Educational, Scientific and Cultural Organization. (2014). *Climate Change Adaptation for Natural World Heritage Sites: A Practical Guide*. Retrieved 20 July 2015 from: <http://whc.unesco.org/en/news/1128/>

*As this guide highlights throughout, one of the main challenges facing World Heritage Sites is from climate change. Because of this, climate change is an increasingly important risk to manage and mitigate. While doing so may seem an insurmountable task, especially as it relates to changing overall global action on climate change, this guide seeks to address this issue by outlining concrete and actionable steps that can be implemented by those responsible for managing sites. This source is therefore very important for delegates as it helps to explain some of the practical steps that can be undertaken and gain an understanding of the barriers to their implementation.*



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