# DOES CLIMATE CHANGE INCREASE THE RISK OF CHILD MARRIAGE? A LOOK AT WHAT WE KNOW— AND WHAT WE DON'T—WITH LESSONS FROM BANGLADESH AND MOZAMBIQUE

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# INTRODUCTION

Beauty (a pseudonym) does not know exactly how old she was when she got married. She is now around forty years old, and her oldest child, a son, is twenty-five. She lives in a rural village in Noakhali district in Bangladesh. In an interview with Human Rights Watch ("HRW"), Beauty said:

River erosion took our house, so we came here . . . We didn't know anyone, so we were vulnerable, so my husband was able to threaten us. He told my father, "I will marry your daughter, or I will burn your house down." My father had refused to give me to him because he already had a wife, but then he threatened us.<sup>1</sup>

Her husband eventually abandoned her and their three children to return to his first wife. As a single mother, Beauty relies on agricultural work to feed her children and often loses the chance to work due to regular flooding in her area. Even though tuition is waived for primary school in Bangladesh, she was forced to take her two daughters out of school after class five and class three,<sup>2</sup> as they could not afford to purchase school

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<sup>1</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY: CHILD MARRIAGE IN BANGLADESH 34 (2015), https://www.hrw.org/sites/default/files/report\_pdf/bangladesh0615\_web.pdf [https://perma.cc/G7DK-9TGL] [hereinafter HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY]. Polygamy is legal under some circumstances in Bangladesh.

supplies and uniforms. She arranged marriages for both daughters when they reached age fifteen, saying she knew "the right age to get married is 18," but that she did not have enough money to feed them.

While the rate of child marriage in Bangladesh is high across all parts of the country and all demographic groups, research shows that some girls are at higher risk than others. A heightened incidence of child marriage is associated with living in rural areas, receiving less education, and poverty.

Beauty's story raises questions about the role that riverbank erosion and extreme flooding—environmental changes exacerbated by climate change—may play in driving child marriage. Recent research suggests that there is a correlation between an increased risk of child marriage in Bangladesh and areas affected by natural disasters that are predicted to occur more often and/or with greater severity as a result of climate change.<sup>3</sup> In countries such as Bangladesh, where both child marriage rates and poverty levels are high, the impacts of climate change on income security and options for income generation, if not mitigated, may increase the incentive for families to marry their daughters off earlier than they otherwise would.

Perhaps the most pivotal injustice of climate change is that those *least* responsible for the emissions that contributed to climate change are and will be *most* impacted by the effects of climate change. As such impacts occur, certain populations including women and children are likely to be affected disproportionately.

<sup>2</sup> Bangladesh's education system is broken into three levels: primary school, secondary school (which is broken into junior secondary, high school, and higher secondary), and higher or tertiary education (post-secondary). Class five and three would be similar to grades five and three at a Western school. *See* ENCYCLOPEDIA BRITANNICA: BANGLADESH—EDUCATION, https://www.britannica.com/place/Bangladesh/Education [https://perma.cc/72PH-4NPS].

<sup>3</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, *supra* note 1; Margaret Alston et al., *Are Climate Challenges Reinforcing Child and Forced Marriage and Dowry as Adaptation Strategies in the Context of Bangladesh?*, 47 WOMEN'S STUD. INT'L F. 137 (2014) [hereinafter Alston, *Are Climate Challenges Reinforcing Child and Forced Marriage*]; Gayle Tzemach Lemmon, *Fragile States, Fragile Lives: Child Marriage Amid Disaster and Conflict* 7 (Council On Foreign Relations, Working Paper, 2014), https://www.cfr.org/sites/default/files/pdf/2014/06/WP\_Fragile\_States.pdf [https://perma.cc/P7WP-9MCZ] [hereinafter Lemmon, *Fragile States, Fragile Lives*]; ANITA SWARUP ET AL., PLAN INTERNATIONAL, WEATHERING THE STORM: ADOLESCENT GIRLS AND CLIMATE CHANGE (Sharon Goulds ed., 2011) https://planinternational.org/publications/weathering-storm#download-options [https://perma.cc/97LF-5TY6] [hereinafter SWARUP ET AL., WEATHERING THE STORM].

While child marriages are almost always the result of multiple interconnected factors, this Article will examine the existing evidence of a connection between the impacts of climate change and child marriage and analyze some of the research and monitoring gaps. Are existing climate change policies, as well as measures taken to reduce and eliminate child marriage, addressing this link? What are the human rights obligations of governments to protect girls from child marriage, including in times of disaster?

Part I of the Article summarizes the current state of research about the causes and consequences of child marriage, followed by a review of the available research on connections between child marriage and climate change. It will examine the extent to which evidence has been gathered on this topic and assess the different ways in which impacts of climate change have been found to influence decisions regarding child marriage. It will argue that, while there are significant gaps in the research, there is growing evidence that climate change may exacerbate the rate of child marriage.

Part II presents two country-specific case studies of the potential connection between climate change and child marriage in Bangladesh and Mozambique, two countries that are highly vulnerable to climate change and have rates of child marriage among the highest in the world. It also reviews laws and policies adopted by Bangladesh and Mozambique to cope with climate change and to reduce child marriage, and what lessons these efforts provide for other countries facing similar challenges.

Part III reviews relevant obligations of governments under international human rights law and within the international climate change regime. In Part IV, the Article proposes measures to ensure that climate change mitigation efforts are grounded in an understanding of the gendered ways in which climate change affects women and girls, including through increased child marriage, and that anti-child marriage efforts take into account the impacts of climate change.

#### I. Is There a Relationship Between Climate Change and Child Marriage?

# A. The Prevalence of Child Marriage, Its Drivers, and Consequences

According to the United Nations Children's Fund ("UNICEF"), over 700 million women around the world today were married before the age of eighteen. More than one-third of these women (over 250 million) were married before their fifteenth birthday.<sup>4</sup>

<sup>4</sup> UNITED NATIONS CHILDREN'S FUND, ENDING CHILD MARRIAGE: PROGRESS AND PROSPECTS (2014), https://www.unicef.org/media/files/Child Marriage Report 7 17 LR..pdf [https://perma.cc/EB8E-EAVN].

Nearly every two seconds, another girl under the age of eighteen is married—a total of about twelve million girls each year.<sup>5</sup>

Child marriage, defined as a marriage where at least one of the parties is under the age of eighteen,<sup>6</sup> occurs in every region of the world. Niger has the highest rate of child marriage in the world, with more than three-quarters of its girls married before age eighteen (seventy-six percent).<sup>7</sup> After Bangladesh, India has the highest rate of child marriage in Asia, with forty-seven percent of girls married by age eighteen.<sup>8</sup> Nicaragua has the highest rate in Latin America, with thirty-five percent of girls married by age eighteen.<sup>9</sup> Child marriage is also legal—and occurring—in the United States and in European countries including Spain, Italy, Belgium, Austria, and the United Kingdom.<sup>10</sup>

In the United States alone—where children can legally marry in forty-eight out of fifty states under some circumstances—an estimated 248,000 children were married

<sup>5</sup> GIRLS NOT BRIDES: ABOUT CHILD MARRIAGE, https://www.girlsnotbrides.org/about-child-marriage/[https://perma.cc/2XKQ-F8YN].

<sup>6</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, *supra* note 1, at 9. Boys also experience child marriage, but at far lower rates than girls.

<sup>7</sup> GIRLS NOT BRIDES: NIGER, https://www.girlsnotbrides.org/child-marriage/niger/ [https://perma.cc/8MGL-DFSG].

<sup>8</sup> UNITED NATIONS CHILDREN'S FUND, *Statistical Tables*, *in* THE STATE OF THE WORLD'S CHILDREN 2017: CHILDREN IN A DIGITAL WORLD 146, 182–85 (Dec. 10, 2017), https://data.unicef.org/wp-content/uploads/2018/03/SOWC-2017-statistical-tables.pdf [https://perma.cc/3X7D-CL9H] [hereinafter UNICEF *Statistical Tables*].

<sup>9</sup> GIRLS NOT BRIDES: NEPAL, https://www.girlsnotbrides.org/child-marriage/nepal/ [https://perma.cc/ZMF8-ULEC]; GIRLS NOT BRIDES: NICARAGUA, https://www.girlsnotbrides.org/child-marriage/nicaragua/ [https://perma.cc/P7TP-XU6Z].

<sup>10</sup> Heather Barr, European Parliament Committee Urges End to Child Marriage, HUMAN RIGHTS WATCH (April 16, 2018), https://www.hrw.org/news/2018/04/16/european-parliament-committee-urges-end-child-marriage [https://perma.cc/B8AW-M4ND]; Fraidy Reiss, Why Can 12-year-olds Still Get Married in the United States?, WASH. POST (Feb. 10, 2017), https://www.washingtonpost.com/posteverything/wp/2017/02/10/why-does-the-united-states-still-let-12-year-old-girls-get-married/?postshare= 701486850216167&utm\_term=.3c9f7be0912e [https://perma.cc/SU6F-2QYT]; Heather Barr, If You Don't Want Child Brides in Bangladesh, Don't Accept Them Here in Britain Either, HUMAN RIGHTS WATCH (Feb. 1, 2017), https://www.hrw.org/news/2017/02/01/if-you-dont-want-child-brides-bangladesh-dont-accept-them-here-britain-either [https://perma.cc/DHZ3-4L3M].

(mainly girls to adult men) between 2000 and 2010.<sup>11</sup> In eighteen states, children of any age can marry in some circumstances, with no absolute minimum age.<sup>12</sup>

The decision for a child to marry—whether made by parents, other family members, or a child her or himself—is often shaped by a web of intersecting factors, including poverty, access to education, social pressure and norms, harassment and intimidation, and the continued practices of dowry and brideprice.<sup>13</sup>

Poverty is a chief determinant of child marriage. According to the United Nations Population Fund ("UNFPA"), a girl whose family's income falls within the lowest

<sup>11</sup> Reiss, *supra* note 10. In May 2018, Delaware banned all child marriage, becoming the first American state to do so. *See* Heather Barr, *Delaware Ends Child Marriage; 49 to Go and Counting*, HUMAN RIGHTS WATCH (May 9, 2018), https://www.hrw.org/news/2018/05/10/delaware-ends-child-marriage-49-go-and-counting [https://perma.cc/58QC-J9UP]. New Jersey banned all child marriage the following month. Michael Stone, *New Jersey Becomes Second State to Issue Complete Ban on Child Marriage*, PATHEOS (June 25, 2018), https://www.patheos.com/blogs/progressivesecularhumanist/2018/06/new-jersey-becomes-second-state-to-issue-complete-ban-on-child-marriage/ [https://perma.cc/W5ZD-B3NN].

<sup>12</sup> TAHIRIH JUSTICE CTR. FORCED MARRIAGE [NITIATIVE, UNDERSTANDING STATE STATUTES ON MINIMUM MARRIAGE AGE AND EXCEPTIONS 2 (2018), https://www.tahirih.org/wp-content/uploads/2016/11/2018-State-Marriage-Age-Requirements-Statutory-Compilation.pdf [https://perma.cc/NCH4-LBQE]. This source notes that twenty states have no statutory minimum age of marriage. *Id.* Since the source's most recent update, two other states (New Jersey and Ohio) have set minimum ages of marriage. *See also* Laura A. Bischoff, *Ohio to Raise Marriage Age after Dayton Daily News Investigation*, SPRINGFIELD NEWS-SUN (Jan. 7, 2019), https://www.springfieldnewssun.com/news/ohio-raise-marriage-age-after-dayton-daily-news-investigation/8WZqMZmdjJq5dNCSEWEPZM/ [https://perma.cc/53WD-3R9Y]; Stone, *supra* note 11.

<sup>13</sup> For millions of girls, the decision to get married is often not a true full expression of choice, but rather the means either necessary or available to maintain or secure basic rights such as food and education. In such instances, agency may be exercised, but choice is largely lacking. In a seminal piece recasting child marriage as an adaptation strategy in a Kenyan pastoralist community, however, Caroline Archambault emphasized the need to avoid "prevailing binaries that distinguish violators from victims, patriarchy from female empowerment, tradition from modernity, and collective culture from individual rights." She noted that, while such tactics may effectively mobilize support, they often conceal the true structural factors that bring about child marriages and avert "attention from important policy interventions that could more effectively address the issue." Caroline S. Archambault, Ethnographic Empathy and the Social Context of Rights: "Rescuing" Maasai Girls from Early Marriage, 113 AM. ANTHRO. 632, 633 (2011) [hereinafter Archambault, Ethnographic Empathy]. Similar considerations arise when discussing climate change. Kasia Paprocki disclosed how "dystopic climate narratives" in Bangladesh fueled perceptions of "powerlessness, inferiority, dependency, and failure." Kasia Paprocki, Threatening Dystopias: Development and Adaptation Regimes in Bangladesh, 108 ANN. AM. ASSOC. GEOGRAPHY 955, 956 (2018); Kasia Paprocki, We Need to Change the Way We Talk About Climate Change, AL JAZEERA (Feb. 23, 2018), https://www.aljazeera.com/indepth/ opinion/bangladesh-climate-shithole-180223104247800.html [https://perma.cc/2SZB-CCG5].

quintile is more than twice as likely to marry before her eighteenth birthday as a girl whose family's income is within the highest quintile. In many countries where there is a high prevalence of child marriage, it is common for married girls to live with their husbands' families; for poor families this both creates disincentives to invest in daughters' education and incentives to marry girls off early to remove a financial burden.

Another key predictor of child marriage is education.<sup>15</sup> The longer a girl stays in school, the greater the likelihood that she will not marry as a child. According to UNFPA, girls "with only a primary education are twice as likely to marry or enter into a union under eighteen as are those with secondary or higher education. And girls with no education are three times as likely to marry before eighteen as those with secondary or higher education."<sup>16</sup> According to the United Nations Educational, Scientific and Cultural Organization, more than 130 million girls around the world were not in school in 2014.<sup>17</sup>

Girls face many barriers to education, including discriminatory practices by governments, schools, and educators, as well as harmful gender norms within their own communities. Poverty is a major barrier to education, and one that often disproportionately affects girls, due to gender discrimination—when families cannot afford to educate all of their children, they often prioritize boys. While many countries

<sup>14</sup> EDILBERTO LOAIZA & SYLVIA WONG, UNITED NATIONS POPULATION FUND, MARRYING TOO YOUNG: END CHILD MARRIAGE 35 (2012), http://www.unfpa.org/sites/default/files/pub-pdf/MarryingTooYoung.pdf [https://perma.cc/HDB6-PQPN] [hereinafter LOAIZA & WONG, MARRYING TOO YOUNG].

<sup>15</sup> In 18 of the 20 countries with the highest prevalence of child marriage, a girl's level of education was found to be the strongest predictor of the age she will marry. See INT'L CTR. FOR RESEARCH ON WOMEN, FACTSHEET: CHILD MARRIAGE AND EDUCATION (2006), https://www.icrw.org/files/images/Child-Marriage-Fact-Sheet-Education.pdf [https://perma.cc/AX98-S5R2].

<sup>16</sup> LOAIZA & WONG, MARRYING TOO YOUNG, *supra* note 14, at 34. Kate Hodgkinson notes the limited research considering how education specifically impacts child marriage rates: Does educating girls directly reduce their likelihood to enter into a child marriage, or is this correlation caused by indirect factors? Further exploration of these nuances could serve to inform efforts on keeping girls in school. KATIE HODGKINSON, UNDERSTANDING AND ADDRESSING CHILD MARRIAGE: A SCOPING STUDY OF AVAILABLE ACADEMIC AND PROGRAMMATIC LITERATURE FOR THE HER CHOICE ALLIANCE 36 (2016), https://www.her-choice.org/wp-content/uploads/2016/07/Her-Choice-Scoping-Study-Final-July-16.pdf [https://perma.cc/K5H7-GQQH] [hereinafter HODGKINSON, UNDERSTANDING AND ADDRESSING CHILD MARRIAGE].

<sup>17 32.1</sup> million were of primary school age (about 6 to 11 years old), 29.1 million were of lower secondary school age (about 12 to 14 years old), and 69.1 million were of upper secondary school age (about 15 to 17 years old). See United Nations Educ., Sci., & Cultural Org., Leaving No One Behind: How Far on the Way to Universal Primary and Secondary Education? 1 (2016), unesdoc.unesco.org/images/ 0024/002452/245238E.pdf [https://perma.cc/ZV6U-S2AD].

have eradicated tuition fees for primary education, associated costs—including exam fees, writing supplies, books, and uniforms—continue to keep many children out of school. For example, in Bangladesh, HRW found that even an exam fee equaling \$0.13 USD was unaffordable for some families.<sup>18</sup>

Social pressures and harmful gender norms sometimes encourage child marriage. In some communities, puberty is perceived as an indicator that a girl is ready to be married. <sup>19</sup> Child marriage is sometimes seen by families as a way to ensure that a girl does not engage in a romantic or sexual relationship outside of marriage, particularly in communities in which extra-marital relationships are seen as harming the reputation of the family or the ability of the girl to marry. <sup>20</sup>

Early pregnancies can lead to pressure for children to marry. In many countries, the stigma surrounding pregnancies that occur out of wedlock may cause unwed pregnant girls to feel they must get married urgently.<sup>21</sup> Boys who are expecting fathers may also be under pressure to marry.<sup>22</sup> Where this stigma is severe, even the fear of pregnancy may trigger a marriage among young people who are sexually active.<sup>23</sup>

<sup>18</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, *supra* note 1, at 48. Child labor also keeps many girls out of school, as they work to help their families survive. Sexual harassment drives some girls out of school. In areas affected by crisis or conflict, girls are often the first to be kept home as insecurity rises. Lack of adequate toilet facilities keeps many girls home, especially as they reach puberty and begin menstruation, causing them to miss school, fall behind, and too often drop out. *Id.* at 39, 43, 56, 109; *see also* Oni Lusk-Stover et al., *Globally, Periods are Causing Girls to be Absent from School*, WORLD BANK (Jun. 27, 2016), https://blogs.worldbank.org/education/globally-periods-are-causing-girls-be-absent-school [https://perma.cc/ZKL6-LLXK].

<sup>19</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 9.

<sup>20</sup> *Id.* at 25. For instance, HRW interviewed a mother in Bangladesh who said that she planned to let her daughter wait until she was twenty years old to marry—on one condition: "[I]f she is going to do something with some boy, to save myself I will have to get her married... Not all girls are good. To save their lives and dignity we have to get them married." *Id.* at 52.

<sup>21</sup> HUMAN RIGHTS WATCH, "OUR TIME TO SING AND PLAY:" CHILD MARRIAGE IN NEPAL 41 (2016), https://www.hrw.org/sites/ default/files/report\_pdf/nepal0816\_web.pdf [https://perma.cc/75TY-XQJZ] [hereinafter HUMAN RIGHTS WATCH, OUR TIME TO SING].

<sup>22</sup> BEN BAKER ET AL., PLAN UK, BEFORE THEIR TIME; CHALLENGES TO IMPLEMENTING THE PROHIBITION AGAINST CHILD MARRIAGE IN SIERRA LEONE 16 (2013), https://plan-uk.org/file/beforetheirtimereportpdf/download?token=-jpyqRik [https://perma.cc/FAM9-33X2] [hereinafter BAKER ET AL., BEFORE THEIR TIME].

<sup>23</sup> For example, Plan UK and HRW discuss this issue in Sierra Leone and Nepal, respectively. *See id.* at 16–17; HUMAN RIGHTS WATCH, OUR TIME TO SING, *supra* note 21, at 41–42.

In some communities, families that resist marrying their daughters off face harassment, intimidation, and even assault.<sup>24</sup> For example, HRW documented an instance in Bangladesh in which a boy feared his fourteen-year-old classmate would marry someone else, so he raped her "with the specific intention of forcing her to marry him."<sup>25</sup> While the girl was too afraid to tell her parents, they found out after she became pregnant as a result of the rape. Fearing that the family's reputation would be harmed if community members knew about the rape, the family did not report it to the police; instead, the girl dropped out of school, and her parents arranged a marriage to another man <sup>26</sup>

Many communities continue the practice of giving a dowry or brideprice at the time of a marriage. Dowry is a payment by the bride's family to the groom's family, while brideprice is a payment by the groom's family to the bride's family. Both practices have harmful consequences for girls and women, which may include violence and earlier marriage.<sup>27</sup>

The consequences of child marriage are profound and have lifelong impact. Child marriage is associated with an increased risk of experiencing medical problems, losing

<sup>24</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 9, 25, 56-59.

<sup>25</sup> Id at 56.

<sup>26</sup> Id. at 57.

<sup>27</sup> For instance, families may feel under pressure to accept a proposal that either comes too early or is from a family where a bride is at risk of abuse or misery if the family is unable to pay the necessary dowry for a "better" marriage. This pressure can be compounded by the fact that, in some cultures, the amount of dowry expected increases as the bride gets older. In such a context, girls may feel pressure to accept a proposal at a younger age to avoid placing difficult or impossible financial burdens on their families. Anger over a dowry promise which has not been kept, or a dowry lower than a groom's family wanted is sometimes a trigger for domestic violence. When brideprice is paid, wives sometimes find themselves barred from fleeing abuse because the groom's family has "paid for them" and would expect that money to be repaid if she left. Anger over the cost of an inadequate brideprice is sometimes a trigger for abuse of a young bride. See HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 60-61; Jamil Ddamulira Mujuzi, Bride Wealth (Price) and Women's Marriage—Related Rights in Uganda: A Historical Constitutional Perspective and Current Developments, 24 INT'L J.L. POL'Y & FAM. 414 (2010); REP. OF THE EXPERT GROUP MEETING OF THE UNITED NATIONS DIV, FOR THE ADVANCEMENT OF WOMEN & UNITED NATIONS ECON. COMM'N FOR AFRICA, GOOD PRACTICES IN LEGISLATION ON "HARMFUL PRACTICES" AGAINST WOMEN (May 29, 2009), http://www.un.org/womenwatch/daw/egm/vaw legislation 2009/Report%20 EGM%20harmful%20practices.pdf [https://perma.cc/KF7D-UTYG].

access to education, living in poverty, and being a victim of violence, including sexual violence, and abuse.  $^{28}$ 

Married girls are often under pressure to become pregnant immediately. They also often lack information about contraception and the agency that would allow them to access and use contraceptive supplies.<sup>29</sup> These factors lead to married girls often having early and closely spaced pregnancies. They are also at heightened risk of contracting sexually transmitted infections, being exposed to HIV, and having unwanted pregnancies.<sup>30</sup>

Early, repeated, and closely-spaced pregnancies before a girl's body is fully physically developed create serious medical risks, including the risk of death, for both girls and their babies.<sup>31</sup> Globally, young girls are more at risk during childbirth than women aged twenty through twenty-four: Death is five times more likely for those between the ages of ten to fourteen and two times more likely for those aged fifteen to nineteen.<sup>32</sup> Other common complications arising from early childbirth include fistula, hemorrhaging, low birth weight, and obstructed labor.<sup>33</sup>

There is often a sizable age difference between the husband and the bride in child marriage. Typically, the girl has moved into the husband's house, where she has new

<sup>28</sup> LOAIZA & WONG, MARRYING TOO YOUNG, supra note 14.

<sup>29</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, *supra* note 1, at 9; AMY FISCHER, CARE INT'L, HOPE DRIES UP? WOMEN AND GIRLS COPING WITH DROUGHT AND CLIMATE CHANGE IN MOZAMBIQUE (Johanna Mitscherlich ed., 2016), http://careclimatechange.org/wp-content/uploads/2016/11/El\_Nino\_Mozambique\_Report\_final.pdf [https://perma.cc/3D5W-LRFD] [hereinafter FISCHER, HOPE DRIES UP?].

<sup>30</sup> LOAIZA & WONG, MARRYING TOO YOUNG, supra note 14, at 11.

<sup>31</sup> Id. at 13.

<sup>32</sup> Andrea Nove et al., *Maternal Mortality in Adolescents Compared with Women of Other Ages: Evidence from 144 Countries*, 2 Lancet Global Health 156 (2014); World Health Organization, WHO GUIDELINES ON PREVENTING EARLY PREGNANCY AND POOR REPRODUCTIVE OUTCOMES AMONG ADOLESCENTS IN DEVELOPING COUNTRIES 2 (2011), http://apps.who.int/iris/bitstream/handle/10665/44691/9789241502214\_eng.pdf;jsessionid=A7DBFB7E39F6

http://apps.who.int/iris/bitstream/handle/10665/44691/9789241502214\_eng.pdf;jsessionid=A7DBFB7E39F6DBA136863EAD302F1639?sequence=1 [https://perma.cc/WVS8-ZRGU].

<sup>33</sup> Nawal M. Nour, *Child Marriage: A Silent Health and Human Rights Issue*, 2 REV. OBSTETRICS & GYNECOLOGY 51, 54 (2009).

responsibilities, a lack of decision-making power or independence, and is cut off from the support of her family and friends. These factors can heighten girls' vulnerability to abuse in the home.<sup>34</sup> Girls may also be at risk of abuse or abandonment if they fail to become pregnant or give birth to sons.<sup>35</sup>

Girls married at a young age face increased risk of domestic violence and physical, sexual, and psychological abuse, including rape.<sup>36</sup> A girl married before the age of eighteen is twice as likely to experience domestic violence than an adult bride.<sup>37</sup> In both India and the Dominican Republic, women who married before the age of fifteen were found to be more than three times more likely to have experienced spousal abuse in the previous year than women who had married over the age of twenty-five.<sup>38</sup>

Lack of access to education is both a cause and a consequence of child marriage. A combination of "domestic burdens, childbearing, and social norms" often makes it impossible for married girls to continue studying.<sup>39</sup> A World Bank study showed that every year of marriage under the age of eighteen was accompanied by a "6% decrease in the probability of literacy and secondary school completion."

When child marriage impedes access to education, it not only denies girls the right to education, but also restricts their employment opportunities and decreases their economic

<sup>34</sup> Rangita de Silva-de-Alwis, United Nations Children's Fund, *Child Marriage and the Law: Legislative Reform Initiative Paper Series* (UNICEF, Working Paper, Jan. 2008), https://www.un.org/ruleoflaw/files/Child Marriage and the Law[1].pdf [https://perma.cc/7PH8-SCR6]

<sup>35</sup> HUMAN RIGHTS WATCH, OUR TIME TO SING, supra note 21, at 40, 57–58.

<sup>36</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 72–78.

<sup>37</sup> Lauro Giovanna & Margaret E. Greene, *Child Marriage: A 'Universal' Issue*, A MENCARE BLOG (Oct. 11, 2013), https://mencarecampaign.wordpress.com/2013/10/11/child-marriage-a-universal-issue/ [https://perma.cc/X3NY-W7DY].

<sup>38</sup> Sunita Kishor & Kiersten Johnson, *Profiling Domestic Violence—A Multi-Country Study*, ORC MACRO (2004), https://dhsprogram.com/pubs/pdf/od31/od31.pdf [https://perma.cc/6MAV-X8WS].

<sup>39</sup> Silva-de-Alwis, Child Marriage and the Law: Legislative Reform Initiative Paper Series, supra note 34, at 36.

<sup>40</sup> ALISON M. GLINSKI ET AL., USAID, CHILD, EARLY, AND FORCED MARRIAGE RESOURCE GUIDE 9 (2015), https://www.usaid.gov/sites/default/files/documents/1865/USAID\_CEFM\_Resource-Guide.PDF [https://perma.cc/KKS4-NMDC] [hereinafter GLINSKI ET AL., CHILD, EARLY, AND FORCED MARRIAGE].

security.<sup>41</sup> Deprivation passes through the generations: The children of child brides are also "more likely to be poor and uneducated."<sup>42</sup>

# B. Research and Monitoring of Whether Climate Change Increases the Risk of Child Marriage

The UN's Intergovernmental Panel on Climate Change ("IPCC"), a body of leading climate scientists, notes that "[h]uman influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history." Their most recent report stated that "[h]uman activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels . . . Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate."

The impacts of this warming system have been experienced around the world. Climate scientists have attributed both the increasing frequency of specific extreme weather events (such as drought, flooding, and heat shocks) and the slow but steady change in long-term features of the environment (such as receding glaciers and melting permafrost) to rising temperatures caused predominantly by anthropogenic (i.e. human) sources. They predict that these and other observed climate changes will become more severe in coming years, stating with high confidence that "[r]obust global differences in temperature means and extremes are expected if global warming reaches 1.5°C versus 2°C above the pre-industrial levels." The IPCC noted, with high confidence, that

<sup>41</sup> BAKER ET AL., BEFORE THEIR TIME, supra note 22, at 18.

<sup>42</sup> Id.

<sup>43</sup> RAJENDRA K. PACHAURI ET AL., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014 SYNTHESIS REPORT 2 (Pachauri et al. eds., 2014), https://archive.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\_AR5\_FINAL\_full\_wcover.pdf [https://perma.cc/97GP-CZSP]

<sup>44</sup> Intergovernmental Panel on Climate Change, *Summary for Policymakers*, *in* Global Warming of 1.5°C, an IPCC Special Report on the Impacts of Global Warming 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emissions Pathways, in the Context of Strengthening the Global Response to the Threats of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty 6 (V. Masson-Delmotte et al. eds., 2018), https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15\_SPM\_version\_stand\_alone\_LR.pdf [https://perma.cc/FEZ4-7YSS] [hereinafter IPCC, *Summary for Policymakers*].

<sup>45</sup> Id. at 6, 10.

<sup>46</sup> Intergovernmental Panel on Climate Change, *Impacts of 1.5°C Global Warming on Natural and Human Systems*, in GLOBAL WARMING OF 1.5°C, AN IPCC SPECIAL REPORT ON THE IMPACTS OF GLOBAL WARMING OF

response "[w]arming of 1.5°C is not considered 'safe' for most nations, communities, ecosystems and sectors and poses significant risks to natural and human systems as compared to the current warming of 1°C."<sup>47</sup> Some of the increased risks and impacts that may be avoided by limiting global warming to 1.5 degrees Celsius are detailed by the IPCC<sup>48</sup> as follows:

Figure 1: Projected Impacts of Global Warming of 1.5 Degrees Celsius Versus 2 Degrees Celsius Above Pre-industrial Levels

Impacts	1.5 degrees Celsius	2 degrees Celsius	
Water Scarcity	496 million people exposed and vulnerable to water stress	586 million people exposed and vulnerable to water stress	
Coastal Cities	31–69 million people exposed to coastal flooding	32–79 million people exposed to coastal flooding	
Food Systems	Significant declines in crop yields avoided, some yields may increase	Average crop yields decline	
	32–36 million people exposed to lower yields	330–396 million people exposed to lower yields	
Health	Lower risk of temperature- related morbidity and smaller mosquito range	Higher risks of temperature-related morbidity and mortality and larger geographic range of mosquitoes	

<sup>1.5°</sup>C ABOVE PRE-INDUSTRIAL LEVELS AND RELATED GLOBAL GREENHOUSE GAS EMISSION PATHWAYS, IN THE CONTEXT OF STRENGTHENING THE GLOBAL RESPONSE TO THE THREAT OF CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT, AND EFFORTS TO ERADICATE POVERTY 177 (V. Masson-Delmotte et al. eds., 2018) [hereinafter IPCC, *Impacts of 1.5°C Global Warming*].

<sup>47</sup> Intergovernmental Panel on Climate Change, *Sustainable Development, Poverty Eradication and Reducing Inequalities, in* GLOBAL WARMING OF 1.5°C, AN IPCC SPECIAL REPORT ON THE IMPACTS OF GLOBAL WARMING OF 1.5°C ABOVE PRE-INDUSTRIAL LEVELS AND RELATED GLOBAL GREENHOUSE GAS EMISSION PATHWAYS, IN THE CONTEXT OF STRENGTHENING THE GLOBAL RESPONSE TO THE THREAT OF CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT, AND EFFORTS TO ERADICATE POVERTY 447 (V. Masson-Delmotte et al. eds., 2018) [hereinafter IPCC, *Sustainable Development, Poverty Eradication*].

<sup>48</sup> Id. at 453.

3,546–4,508 million people exposed to heat waves	5,417–6,710 million people exposed to heat waves
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These changes in the climate system are imposing an increasing burden on governments, especially in countries with limited resources, in their efforts to protect vulnerable populations and realize human rights. <sup>49</sup> Changing precipitation patterns, such as drought and shorter but more intense rainfall, can have negative direct and indirect impacts on health and can contribute to desertification and flooding, food insecurity, migration, and increased conflict. Indigenous populations, poor and socially marginalized individuals, women, and people with disabilities are often most affected.

A growing body of work has examined—and sought greater attention by policymakers—the many ways in which the effects of climate change have a disproportionate impact on women and girls.<sup>50</sup> Just a few examples of this disproportionate impact include: women and girls having greater responsibility for obtaining water, fuel, and food for their families, and facing new obstacles due to climate change; greater susceptibility of women and children to some forms of contamination diseases associated with climate change; escalations of violence against women and girls, including sexual violence, in the wake of disaster; and ways in which existing forms of

49 See Kirk R. Smith et al., Human Health: Impacts, Adaptation, and Co-Benefits, in Climate Change 2014: Impacts, Adaptation, and Vulnerability Part A: Global and Sectoral Aspects Contribution of Working Group II to the Fifth Assessment Reports of the Intergovernmental Panel on Climate Change 742 (C.B. Field et al. eds., 2014); Friedrich Soltau, Fairness in International Climate Change Law & Policy 32 (2009).

<sup>50</sup> See, e.g., Comm. on the Elimination of Discrimination Against Women, General Recommendation No. 37 on Gender-Related Dimensions of Disaster Risk Reduction in the Context of Climate Change, U.N. Doc. CEDAW/C/GC/37 (2018) [hereinafter General Recommendation No. 37]; Anne Barre et al., From Marrakesh to Marrakesh: The Rise of Gender Equality in the Global Climate Governance and Climate Action, in ROUTLEDGE HANDBOOK OF HUMAN RIGHTS AND CLIMATE GOVERNANCE 239–50 (Sébastien Duyck et al. eds., 2018); Joni Pegram, Overlooked and Undermined: Child Rights and Climate Change, in ROUTLEDGE HANDBOOK OF HUMAN RIGHTS AND CLIMATE GOVERNANCE 259–65 (Sébastien Duyck et al. eds., 2018); FISCHER, HOPE DRIES UP?, supra note 29; SWARUP ET AL., WEATHERING THE STORM, supra note 3, at 18; GERALDINE TERRY, CLIMATE CHANGE AND GENDER JUSTICE (Oxfam GB eds., 2009); IRENE DANKELMAN ET AL., ELIAMEP, GENDER, CLIMATE CHANGE AND HUMAN SECURITY LESSONS FROM BANGLADESH, GHANA AND SENEGAL 48 (Anna Grossman & Cate Owren eds., 2008), https://www.gdnonline.org/resources/WEDO\_Gender\_CC\_Human\_Security.pdf [https://perma.cc/52GT-JYX6] [hereinafter DANKELMAN ET AL., GENDER, CLIMATE CHANGE AND HUMAN SECURITY]; Fatma Denton, Climate Change Vulnerability, Impacts, and Adaptation: Why Does Gender Matter?, 10 GENDER & DEV. 10 (2002).

gender discrimination make it harder for women to access assistance and compensation provided to those affected by climate change and disasters.<sup>51</sup>

At the same time, there has been growing global attention to the impact and prevalence of child marriage, and a concerted push to end child marriage. This attention has included: a series of resolutions at the UN General Assembly and Human Rights Council calling for an end to child marriage; the creation of Girls Not Brides, a global network of organizations working to end child marriage; a series of "Girl Summits" in several countries and regions focused on ending child marriage (sometimes alongside a focus on ending female genital mutilation); the development of "national action plans" on ending child marriage in a number of countries; and a target in the Sustainable Development Goals, under which all countries are committed to ending child marriage by 2030.<sup>52</sup>

These two discussions have prompted growing attention by academics, international organizations, and journalists to the question of whether the impacts of climate change can increase the risk of child marriage. An oft-cited paper establishing this potential connection is Christopher Eldridge's 2002 piece, "Why was there no famine following the 1992 Southern African drought? The contributions and consequences of household responses", in which he noted that a few families had mitigated the impact of the drought by arranging earlier marriages for their daughters, driven by the fact that the union's brideprice would bring additional money or livestock.<sup>53</sup>

In 2009, Jonas Ø Nielsen published a book chapter advocating for a livelihood strategies analysis approach to be utilized to understand the connection between child marriage and adaptation measures taken in response to climate change, drawing from the

<sup>51</sup> HUMAN RIGHTS WATCH, SUBMISSION TO THE COMMITTEE ON THE ELIMINATION OF DISCRIMINATION AGAINST WOMEN ON "GENDER-RELATED DIMENSIONS OF DISASTER RISK REDUCTION AND CLIMATE CHANGE" 3–5, 7 (2016) https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiag97tvrTaAhUJIMAKHV10B04QFggtMAA&url=http%3A%2F%2Fwww.ohchr.org%2FDocuments%2FHRBodies%2FCEDAW%2FClimateChange%2FHumanRightsWatch.doc&usg=AOvVaw1pD6AC-fPqUmyb0h1hbUwb [https://perma.cc/4RPH-ZXBA].

<sup>52</sup> The fifth Sustainable Development Goal, which calls for gender equality and the empowerment of all women and girls, compels all countries to create such a plan to end all child marriage by 2030. *See* G.A. Res. 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development, 18 (Sept. 25, 2015).

<sup>53</sup> Christopher Eldridge, Why Was There No Famine Following the 1992 Southern African Drought? The Contributions and Consequences of Household Responses, 33 IDS BULL. 1, 3 (2002).

experiences of a village in Burkina Faso in response to a drought.<sup>54</sup> One year later, in a piece on the effects of climate change in Kenya's Rift Valley, Amy North discussed the potential use of "famine-brides" as a response measure to drought-induced poverty, citing the use of this practice in neighboring Uganda in response to both droughts and flooding.<sup>55</sup>

In 2011, Caroline Archambault detailed the social context in which Maasai girls in a Kenyan community were being married in order to consider how child marriage may also be used as an adaptation strategy to respond to livelihood insecurity, which is frequently linked to or exacerbated by climate change. The research found that "the combined forces of land and resource fragmentation and dispossession, which have been accelerated by recent land-tenure reforms, increased climactic instability, continued state neglect, and increasing population pressure" had made pastoralism an incredibly challenging lifestyle. Over the past few decades, livestock holdings had fallen below a level needed for subsistence; coupled with severe droughts—such as the drought that occurred in 2000 and decimated approximately eighty percent of cattle—it was difficult for many pastoralists in this community to provide for their families. In struggling to provide food and education for their children, many parents felt pressure to have their daughters marry young in order to reduce their family size and try to secure their daughter's future.

In 2014, Margaret Alston et al. drew a link between climate change, child marriage and the practice of dowry. Drawing from the results of their three-year research study in Bangladesh, they argued that economic crises largely induced by climate change caused an increase in child marriages. Because the amount of dowry expected increased as the bride gets older, girls were married at a younger age to reduce this burden.<sup>59</sup>

<sup>54</sup> Jonas Ø Nielsen, *Drought and Marriage: Exploring the Interconnection Between Climate Variability and SSocial Change Through a Livelihood Perspective, in* THE QUESTION OF RESILIENCE: SOCIAL RESPONSES TO CLIMATE CHANGE 159, 160–61 (Kirsten Hastrup ed., 2009).

<sup>55</sup> Amy North, *Drought, Drop Out and Early Marriage: Feeling the Effects of Climate Change in East Africa*, 24 BEYOND ACCESS: GENDER EDUC, & DEV. 6 (2010).

<sup>56</sup> Archambault, Ethnographic Empathy, supra note 13.

<sup>57</sup> Id. at 636.

<sup>58</sup> Id.

<sup>59</sup> Alston, Are Climate Challenges Reinforcing Child and Forced Marriage, supra note 3.

There is still little quantitative evidence, however, that establishes this link. Executive Director Mac Bain Mkandawire of Youth Net and Counselling, a Malawibased organization that campaigns for women's and children's rights, offers an explanation for why this emerging conversation lacks detailed figures. First, he notes that "no one has previously thought to connect the two issues and to ask the right questions." Secondly, governments in countries most affected by climate change do not necessarily have robust systems for monitoring, documenting, and responding to environmental changes, and affected locations are sometimes in remote and marginalized areas of the country. A photojournalist covering the issue told the *Guardian*, "[a]ll they [people in affected areas] knew was that the weather had changed and that where they used to be able to pay for their girls to go through school now they couldn't. And the only solution was for one or more daughters to get married."

Another challenge is the attribution of specific impacts to climate change. Climate impacts are complex and can be difficult to attribute at a local level. Not all natural disasters and extreme weather events are induced by climate change impacts. In some situations, an event may be partially attributed to climate change, its impacts may be exacerbated by climate change, or it may simply be the result of natural weather systems independent of climate change impacts.

The IPCC has, however, recognized that "[a] changing climate leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events." From 2000 to 2009, there were three times as many natural disasters around the world as from 1980 to 1989—and climate-related events accounted for almost eighty percent of this increase. 63

<sup>60</sup> Gethin Chamberlain, *Why Climate Change is Creating a Generation of Child Brides*, GUARDIAN (Nov. 26, 2017), https://www.theguardian.com/society/2017/nov/26/climate-change-creating-generation-of-child-brides-in-africa [https://perma.cc/YK5G-ZKPZ].

<sup>61</sup> Id.

<sup>62</sup> INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, MANAGING THE RISKS OF EXTREME EVENTS AND DISASTERS TO ADVANCE CLIMATE CHANGE ADAPTATION: A SPECIAL REPORT OF WORKING GROUPS I AND II OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 7 (Christopher B. Field et al. eds., 2012).

<sup>63</sup> Jennifer Leaning & Debarati Guha-Sapir, *Natural Disasters, Armed Conflict, & Public Health*, 369 N. ENGL. J. MED. 1836 (2013).

Countries with the highest rates of child marriage also rank among those vulnerable to climate change and natural disasters. However, there is currently no quantitative research about the specific nature of this relationship.

Figure 2: Climate Vulnerability of Countries with the Highest Rates of Child Marriage

Country	Rate of Child Marriage Ranking <sup>64</sup>	ND-GAIN Vulnerability Rankings*65	Human Development Index Ranking**66
Niger	1	181	189
Central African Republic	2	164	188
Chad	3	179	186
Bangladesh	4	149	136
Mali	5	173	182***

<sup>\*1</sup> is considered least vulnerable to climate change

<sup>\*\*1</sup> is considered to have the highest level of human development based on the index's

<sup>64</sup> These rankings are based on the 2017 UNICEF State of the World's Children Data. UNICEF does not provide rankings—they just report country by country data. The authors of this paper have reviewed the data for the proportion of girls married before the age of eighteen, compared countries, and derived this ranking from that analysis. *See* UNICEF *Statistical Tables*, *supra* note 8, at 182–84.

<sup>65</sup> The Notre Dame Global Adaptation Initiative's Vulnerability Ranking assesses three components (exposure to hazards, sensitivity to impacts of hazards, and adaptive capacity) across six sectors that support human life (health, food, ecosystems, human habitat, water, and infrastructure) to determine the "[p]ropensity or predisposition of human societies to be negatively impacted by climate hazards." This ranking assessed 182 countries for the year 2016. C. CHEN ET AL., UNIVERSITY OF NOTRE DAME GLOBAL ADAPTATION INDEX COUNTRY INDEX TECHNICAL REPORT 3 (2015) https://gain.nd.edu/assets/254377/nd\_gain\_technical\_document\_2015.pdf; NOTRE DAME GLOBAL ADAPTATION INITIATIVE: RANKINGS, https://gain.nd.edu/our-work/country-index/rankings/ [https://perma.cc/CBU8-EJW9] [hereinafter RANKINGS].

<sup>66</sup> The United Nations Development Programme's Human Development Index is a widely recognized ranking system based on the average longevity, education, and income of a country's population. The scores listed are for the year 2017. UNITED NATIONS DEVELOPMENT PROGRAMME: TABLE 1. HUMAN DEVELOPMENT INDEX AND ITS COMPONENTS, http://hdr.undp.org/en/composite/HDI [https://perma.cc/RHA8-CU2B] [hereinafter HUMAN DEVELOPMENT INDEX].

criteria

\*\*\*Multiple countries (including South Sudan, Guinea, and Burkina Faso) are tied for this ranking

According to the Notre Dame Global Adaptation Initiative's Climate Change Vulnerability Ranking, four of the five countries with the highest rates of child marriage were within the top ten percent of most climate vulnerable countries.<sup>67</sup> Although varying in their precise vulnerability rankings, a common thread among these countries is the fact that they are also among some of the poorest countries in the world, as demonstrated by their rankings on the Human Development Index. This poverty increases the risk of child marriage and makes both governments and communities less able to respond to climate change and its impacts. The IPCC notes that,

At approximately 1.5°C of global warming (2030), climate change is expected to be a poverty multiplier that makes poor people poorer and increases the poverty head count . . . Climate change alone could force more than 3 million to 16 million people into extreme poverty, mostly through impacts on agriculture and food prices . . . The most severe impacts are projected for urban areas and some rural regions in sub-Saharan Africa and Southeast Asia. 68

As environmental changes are influenced by a variety of complex factors, and a family or child's decision to enter into a child marriage may be influenced by multiple linked considerations, it is difficult to establish a conclusive connection between climate change and child marriage. As climate change continues to alter the frequency and severity of extreme weather events in the future, <sup>69</sup> however, understanding how child marriage rates can be impacted by disasters will be of immense importance.

While robust scientific data is still lacking, qualitative research in humanitarian settings suggest a correlation between high rates of child marriage and climate change.<sup>70</sup>

<sup>67</sup> Vulnerability measures a country's exposure, sensitivity, and ability to adapt to the negative impacts of climate change.

<sup>68</sup> IPCC, Impacts of 1.5°C Global Warming, supra note 46, at 244.

<sup>69</sup> PACHAURI ET AL., CLIMATE CHANGE 2014 SYNTHESIS REPORT, supra note 43.

<sup>70</sup> See, e.g., GIRLS NOT BRIDES, CHILD MARRIAGE IN HUMANITARIAN SETTINGS (2017), https://www.girlsnotbrides.org/wp-content/uploads/2016/05/Girls-Not-Brides\_Child-marriage-in-humanitarian-settings\_ENG.pdf [perma.cc/q3lv-q67y]; NIKKI VAN DER GAAG, IN DOUBLE JEOPARDY:

Lakshmi Sundaram, the Executive Director of Girls Not Brides, stated in 2017 that, "[i]n the last few years we've seen growing evidence that girls in humanitarian situations are particularly vulnerable to child marriage." HRW, in a 2015 study of child marriage in Bangladesh, reached a similar conclusion: "Families interviewed for this report indicated that a cyclone, another flood, an especially high or long flood, or the arrival of river erosion at their doorstep can push a family from a situation where they are barely managing to get from one day to the next to one where child marriage becomes part of a desperate survival strategy." 72

Natural disasters and extreme weather events, such as floods, tornadoes, hurricanes, and tsunamis, can quickly devastate an entire community or city. If a family's home is damaged or destroyed, they may face property damage and displacement. Spikes in violence against women and girls, including sexual violence, often occur after a disaster, and families sometimes see marriage as a way to protect girls from these threats.<sup>73</sup> Economic opportunities decrease and poverty is exacerbated. If schools are damaged or destroyed, children may lose access to education. These are all factors that can increase child marriage rates in a community or area,<sup>74</sup> particularly if the parents view early marriage as "a more palatable option" than these threats.<sup>75</sup> As USAID stated, "[a]ll of the major drivers of child marriage are heightened by the anxiety, uncertainty, and lack of control that exist in conflict and natural-disaster scenarios."<sup>76</sup>

ADOLESCENT GIRLS AND DISASTERS 76–78 (Sharon Goulds ed., 7th ed. 2013), https://plancanada.ca/file/planv4\_files/biaag/BIAAG2013ReportInDoubleJeopardyENG.pdf [perma.cc/l9xm-sxdh] [hereinafter VAN DER GAAG, IN DOUBLE JEOPARDY]; Lemmon, Fragile States, Fragile Lives, supra note 3.

<sup>71</sup> Sarwit Nasir, *Child Marriages Rising, But Brave Girls Fight Back*, KHALEEJ TIMES (Mar. 23, 2017), https://www.khaleejtimes.com/news/general/child-marriages-rising-but-brave-girls-fight-back [perma.cc/z2sl-rt43].

<sup>72</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 42.

<sup>73</sup> GIRLS NOT BRIDES, CHILD MARRIAGE IN HUMANITARIAN SETTINGS, supra note 70, at 3.

<sup>74</sup> Lakshmi Sundaram, *How Climate Change Drives Child Marriage*, NEWSDEEPLY (Nov. 6, 2017), https://www.newsdeeply.com/womenandgirls/community/2017/11/06/how-climate-change-drives-child-marriage [perma.cc/lqr9-kvrc]

<sup>75</sup> Lemmon, Fragile States, Fragile Lives, supra note 3, at 3.

<sup>76</sup> GLINSKI ET AL., CHILD, EARLY, AND FORCED MARRIAGE, supra note 40, at 12.

Child marriages have been reported as a response to famines, droughts, and floods—and their associated impacts—in the following instances:

- Uganda: Plan International reported that exchanging girls (to be married) for brideprice was a response to a food crisis associated with climate change.<sup>77</sup>
- Kenya, Sahel: Girls Not Brides stated that child marriage was used as a coping mechanism to provide "a safer or more food secure household for daughters" during droughts in Kenya and the Sahel (which occurred in 2010 and 2012, respectively).<sup>78</sup>
- Pakistan: Girls Not Brides, as well as Interact Worldwide and Plan International, reported an increased occurrence of child marriage following the 2010 Pakistan floods.<sup>79</sup>
- In South Sudan, the Guardian reported in 2017 that "[a] combination of violence and drought devastated last year's harvests, creating food shortages that have left 100,000 people facing famine and another one million at risk." This insecurity forced many families to marry off their girls. In some cases, girls were married so that their dowry could be used as a brideprice for their brother or father to marry someone. 81
- UNICEF noted that child marriage was used as a survival strategy in Niger in response to drought.<sup>82</sup>

<sup>77</sup> VAN DER GAAG, IN DOUBLE JEOPARDY, supra note 70, at 76.

<sup>78</sup> GIRLS NOT BRIDES, TAKING ACTION TO ADDRESS CHILD MARRIAGE: THE ROLE OF DIFFERENT SECTORS, BRIEF 7: AGRICULTURE, ENERGY, AND THE ENVIRONMENT 1 (Mar. 7, 2016), https://www.girlsnotbrides.org/wp-content/uploads/2016/03/7.-Addressing-child-marriage-Agriculture-and-the-Environment.pdf [perma.cc/hw4f-bahk].

<sup>79</sup> Id.; SWARUP ET AL., WEATHERING THE STORM, supra note 3, at 19.

<sup>80</sup> Gethin Chamberlain, South Sudan's Battle for Cattle is Forcing Schoolgirls to Become Teenage Brides, GUARDIAN (Jun. 8, 2017), https://www.theguardian.com/global-development/2017/jun/08/south-sudan-battle-for-cattle-is-forcing-schoolgirls-to-become-teenage-brides [perma.cc/m57g-ctav] [hereinafter Chamberlain, South Sudan], It is unclear how much of the food insecurity is due to the drought or is to be attributed to the country's ongoing civil war. See also Jan Selby et al., Climate Change and the Syrian Civil War Revisited: A Rejoinder, 60 POL. GEOGRAPHY 253 (2017); Peter H. Gleick, Climate, Water, and Conflict: Commentary on Selby et al. 2017, 60 POL. GEOGRAPHY 248 (2017); Colni Kelley et al., Commentary on the Syria Case: Climate as a Contributing Factor, 60 POL. GEOGRAPHY 245 (2017); Jan Selby et al., Climate Change and the Syrian Civil War Revisited, 60 POL. GEOGRAPHY 232 (2017);

<sup>81</sup> Chamberlain, South Sudan, supra note 80.

<sup>82</sup> Lemmon, Fragile States, Fragile Lives, supra note 3, at 6.

These instances suggest that the risk of child marriage may be increased by disasters—several of which may be linked to climate change. The following section examines country case studies in Bangladesh and Mozambique to further explore what the link between climate change and child marriage might be.

#### II. Case Studies

Bangladesh and Mozambique are highly vulnerable to climate change and have rates of child marriage among the highest in the world. Both countries have developed new policies within the last three years to address child marriage. Additionally, Mozambique was the first government in the world to create a Climate Change and Gender Action Plan in 2010. At

### A. Bangladesh

With a current population of over 167 million people, <sup>85</sup> Bangladesh is one of the most densely populated countries in the world. While Bangladesh has made impressive strides in reducing poverty levels, 24.3% of its population remains impoverished and another 12.9% lives in extreme poverty. <sup>86</sup> A deepening political crisis and growing human rights abuses threaten the country's progress. <sup>87</sup>

<sup>83</sup> Bangladesh and Mozambique have the fourth and ninth highest percentage of girls married by age eighteen, respectively. *See* UNICEF *Statistical Tables*, *supra* note 8, at 182–83. The ND-Gain Vulnerability Ranking, which ranks countries from least to most vulnerable to impacts of climate change, placed Bangladesh and Mozambique 149th and 146th, respectively, out of 181 countries assessed. RANKINGS, *supra* note 65.

<sup>84</sup> LORENA AGUILAR ET AL., INT'L UNION CONSERVATION OF NATURE GLOBAL GENDER OFFICE & AFRICAN FOUND. FOR SUSTAINABLE DEV. MOZAMBIQUE CHAPTER, CLIMATE CHANGE GENDER ACTION PLAN (PHASE II) FOR THE REPUBLIC OF MOZAMBIQUE (CCGAP:MZ) 6 (2014), https://portals.iucn.org/union/sites/union/files/doc/mozambique\_0.pdf [perma.cc/8vdt-shya] [hereinafter MOZAMBIQUE CLIMATE CHANGE GENDER ACTION PLAN].

<sup>85</sup> WORLDOMETERS: BANGLADESH POPULATION 2019, https://www.worldometers.info/world-population/bangladesh-population/ [perma.cc/dc6l-7mj3].

<sup>86</sup> Bangladesh Continues to Reduce Poverty but at Slower Pace, WORLD BANK (Oct. 24, 2017), https://www.worldbank.org/en/ news/feature/2017/10/24/bangladesh-continues-to-reduce-poverty-but-at-slower-pace [perma.cc/p2ep-f542].

<sup>87</sup> HUMAN RIGHTS WATCH, *Bangladesh*, in WORLD REPORT 2018: EVENTS OF 2017 65 (2018) https://www.hrw.org/world-report/2018/country-chapters/Bangladesh [perma.cc/vp7x-amup]; *Secret* 

Bangladesh is a "disaster-prone" country. Eighty percent of Bangladesh's lands are floodplains for the Ganges, Brahmaputra, Meghna, and several other minor rivers. <sup>88</sup> The seasonal flooding from these rivers often coincides with the cyclone season, and Bangladesh's location on the Bay of Bengal, which is "highly vulnerable to inundation from cyclone-induced storm surges," <sup>89</sup> further increases its vulnerability. <sup>90</sup>

Due to its geographic location, in an average year, one-quarter of Bangladesh is flooded. Every four to five years, a severe flood may engulf over sixty percent of the country. 91 Increased rainfall resulting from climate change has been found to further intensify the extent of flooding in Bangladesh. 92 In a global assessment of risk of exposure to flood, the 2018 Index for Risk Management placed Bangladesh within the top three of most at-risk countries. 93 While this flooding and the resulting destruction of

Detentions and Enforced Disappearances in Bangladesh, HUMAN RIGHTS WATCH (Jul. 6, 2017), https://www.hrw.org/report/2017/07/06/we-dont-have-him/secret-detentions-and-enforced-disappearances-bangladesh [https://perma.cc/knm6-2s6l]; Nyshka Chandran, Deep Political Tensions Underline Bangladesh Violence, CNBC (Jun. 9, 2016), https://www.cnbc.com/2016/06/09/deep-political-tensions-underline-bangladesh-violence.html [perma.cc/a5dx-wn2h]; Victor Mallet, Bangladesh Garment Trade Warns on Impact of Political Unrest, FIN. TIMES (Jan. 7, 2014), https://www.ft.com/content/ac162e66-7788-11e3-afc5-00144feabdc0 [perma.cc/2h7d-ygt7].

<sup>88</sup> Shafi Noor Islam, Deltaic Floodplains Development and Wetland Ecosystems Management in the Ganges—Brahmaputra—Meghna Rivers Delta in Bangladesh, 2 SUSTAINABLE WATER RES. MGMT. 237, 239 (2016); Jessica M. Ayers & Saleemul Huq, The Value of Linking Mitigation and Adaptation: A Case Study of Bangladesh, 43 ENVIL. MGMT. 753, 758 (2008).

<sup>89</sup> Susmita Dasgupta et al., Cyclones in a Changing Climate: The Case of Bangladesh, 6 CLIMATE & DEV. 96, 96 (2014).

<sup>90</sup> Ministry of Env't & Forests, Gov't of the People's Republic of Bangladesh, *Intended Nationally Determined Contributions (INDC)*, in U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE 54–55 (2015), https://unfccc.int/files/adaptation/application/pdf/all\_parties\_indc.pdf [perma.cc/2ewf-tujk] [hereinafter Bangladesh, *INDC*].

<sup>91</sup> Robert Glennon, *The Unfolding Tragedy of Climate Change in Bangladesh*, SCIENTIFIC AM. (Apr. 21, 2017), https://blogs.scientificamerican.com/guest-blog/the-unfolding-tragedy-of-climate-change-in-bangladesh/ [perma.cc/9]ils-2y49].

<sup>92</sup> Roy Brouwer et al., Socioeconomic Vulnerability and Adaptation to Environmental Risk: A Case Study of Climate Change and Flooding in Bangladesh, 27 RISK ANALYSIS 313, 314 (2007).

<sup>93</sup> INDEX FOR RISK MGMT., INFORM GLOBAL RISK INDEX: RESULTS 2018 (4th ed. 2018), http://www.inform-index.org/Portals/0/ InfoRM/2018/INFORM%20Annual%20Report%202018%20Web%20Spreads%20v2. pdf?ver=2017-12-20-141446-540 [perma.cc/cu8x-yqar].

crops has a devastating impact on food security, the fact that it occurs annually renders it a "foreseeable risk."

In addition to this known risk, however, Bangladesh also faces increasing droughts, storm surges, extreme temperatures, unpredictable rainfall, salinity intrusion, and ocean

acidification as a result of climate change and other environmental changes.<sup>94</sup> The 2018 Index for Risk Management also ranked Bangladesh as the nineteenth most at-risk country for physical exposure to earthquakes and the twelfth most at-risk country for physical exposure to tsunamis.<sup>95</sup>Together, these phenomena substantiate both the World Bank's labeling of Bangladesh as an "impact hotspot" and the IPCC's assertion that Bangladesh is one of the most vulnerable countries to climate change.<sup>97</sup>

Poor governance and inadequate policies and protections have compounded the problem, resulting in significant environmental degradation and other harms. 98 Many

<sup>94</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, *supra* note 1, at 41; Bangladesh, *INDC*, *supra* note 90, at 2.

<sup>95</sup> INDEX FOR RISK MGMT., INFORM GLOBAL RISK INDEX: RESULTS 2018, supra note 93.

<sup>96</sup> HANS JOACHIM SCHELLNHUBER ET AL., POTSDAM INST. FOR CLIMATE IMPACT RESEARCH & CLIMATE ANALYTICS, TURN DOWN THE HEAT: CLIMATE EXTREMES, REGIONAL IMPACTS, AND THE CASE FOR RESILIENCE 110 (World Bank, 2013), http://www.worldbank.org/content/dam/Worldbank/document/Full\_Report\_Vol\_2\_Turn\_Down\_The\_Heat\_%20Climate\_Extremes\_Regional\_Impacts\_Case\_for\_Resilience\_Print%20version\_F INAL.pdf [perma.cc/kx6f-s3f3].

<sup>97</sup> INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE ET AL., REPORT ON BANGLADESH: LAUNCH OF THE FIFTH ASSESSMENT REPORT (AR5) OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) 3 (2014), https://cdkn.org/wp-content/uploads/2014/05/Report-on-IPCC-outreach-events-Bangladesh-.pdf [perma.cc/56gm-6frn]. The IPCC's 2018 special report projected that by 2050, "damages and losses are expected for poor households [in Bangladesh] dependent on freshwater fish stocks due to lack of mobility, limited access to land and strong reliance on local ecosystems." See IPCC, Sustainable Development, Poverty Eradication, supra note 47, at 452. The IPCC report also projects that Bangladesh will experience more floods if the global average warming temperature increases to 2 degrees Celsius above pre-industrial levels instead of being limited to 1.5 degrees Celsius, and details how sea-level rise at either scenario will increase coastal flooding in several countries, including Bangladesh. See IPCC, Impacts of 1.5°C Global Warming, supra note 46, at 203, 231.

<sup>98</sup> See, e.g., Bangladesh: 20 Million Drink Arsenic-Laced Water, HUMAN RIGHTS WATCH (Apr. 6, 2016), https://www.hrw.org/news/2016/04/06/bangladesh-20-million-drink-arsenic-laced-water [perma.cc/6y4c-nkr8]; Tanzim Afroz & Shawkat Alam, Sustainable Shrimp Farming in Bangladesh: A Quest for an Integrated Coastal Zone Management, 71 OCEAN & COASTAL MGMT. 275 (2013).

Bangladeshis have little choice but to live in disaster-prone areas, increasing their vulnerability to the impacts of natural disasters.<sup>99</sup>

Bangladesh also has a high prevalence of child marriage. With fifty-nine percent of the country's girls wed by age eighteen and twenty-two percent married by age fifteen, Bangladesh has one of the highest rates of child marriage in the world, and the highest rate in Asia. <sup>100</sup> As of 2007, the median age gap between spouses in Bangladesh was nine years. <sup>101</sup> Poverty was the most frequently cited driver of child marriage in qualitative research that HRW conducted in 2014 on child marriage in Bangladesh. <sup>102</sup>

HRW found that people in Bangladesh interviewed for its report who were affected by cyclical flooding, cyclones, and in particular, river erosion, provided some evidence to suggest that being a victim of these three types of disasters increased pressure on families to marry off their daughters. <sup>103</sup> The evidence was most pronounced with regard to river erosion, for reasons related to the predictable and cataclysmic nature of this type of disaster. This potential connection between natural disasters and child marriage is discussed in greater detail below.

Discriminatory gender roles in Bangladesh<sup>104</sup> may cause girls to be disproportionately affected by poverty or displacement, which can be prompted or exacerbated by the impacts of climate change. Because social norms place expectations on a daughter to get married and go live with her husband and his family, while the sons remain at home and help support their parents, "when parents cannot afford to feed or educate all of their children, it is usually girls' futures that are sacrificed first." <sup>105</sup>

<sup>99</sup> DANKELMAN ET AL., GENDER, CLIMATE CHANGE AND HUMAN SECURITY, *supra* note 50, at 48. 100 GIRLS NOT BRIDES: BANGLADESH, https://www.girlsnotbrides.org/child-marriage/bangladesh/[perma.cc/4kbh-nweh].

<sup>101</sup> SARANGA JAIN & KATHLEEN KURZ, INT'L CTR. FOR RESEARCH ON WOMEN, NEW INSIGHTS ON PREVENTING CHILD MARRIAGE: A GLOBAL ANALYSIS OF FACTORS AND PROGRAMS (U.S. Agency for Int'l Dev., 2007), https://www.icrw.org/wp-content/uploads/2016/10/New-Insights-on-Preventing-Child-Marriage.pdf [perma.cc/rsj8-ynde] [hereinafter JAIN & KURZ, NEW INSIGHTS].

<sup>102</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 13.

<sup>103</sup> Id. at 40-45.

<sup>104</sup> Id. at 38.

<sup>105</sup> Id. at 13.

Research in Bangladesh echoes global findings about the link between access to education and child marriage. A 2012 study in Bangladesh found that, in comparing women with primary, secondary, and higher education against a woman who had received no formal education, women who had completed education were "respectively 24%, 72%, and 94% less likely to marry at a young age." <sup>106</sup>

Another factor driving child marriage in Bangladesh is the fact that, despite being banned in 1980,<sup>107</sup> providing a dowry is still a common practice. Dowries are often lower, or sometimes not demanded at all, for younger girls,<sup>108</sup> which creates an incentive for families to marry their daughters off early.<sup>109</sup> The one-time payment of a dowry in exchange for reducing family size is another incentive for financially struggling families to arrange early marriages for their daughters.<sup>110</sup> Organizations working in Dhaka's slums noted a high prevalence of girls leaving school to work, often as a maid or in the garment industry; most of these girls also married young, and few returned to school.<sup>111</sup>

In some instances, environmental degradation led to child marriage being used as a reactive adaptation measure. One girl interviewed by HRW said, "[w]hatever land my father had and the house he had went under the water in the river erosion and that's why my parents decided to get me married." She was married at age fourteen, just a few months after her family's home was lost. 112

A recent study compared the prevalence of child marriage in abasan and non-abasan communities in Bangladesh. An abasan community consists of low-cost housing that has

<sup>106</sup> S.M. Mostafa Kamal, Decline in Child Marriage and Changes in its Effect on Reproductive Outcomes in Bangladesh, 30 J. HEALTH POPULATION & NUTRITION 317 (2012).

<sup>107</sup> Dowry Prohibition Act, 1980 (Act No. 35/1980) (Bangl.).

<sup>108</sup> Sajeda Amin & Lopita Huq, Marriage Considerations in Sending Girls to School in Bangladesh: Some Qualitative Evidence 7 (Population Council, Working Paper No. 12, 2008), https://webcache.googleusercontent.com/search?q=cache:LAm1aiQB5DoJ: https://www.popcouncil.org/uploads/pdfs/wp/pgy/012.pdf+&cd=1&hl=en&ct=clnk&gl=us [https://perma.cc/K9JS-YMA2].

<sup>109</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 60.

<sup>110</sup> Sundaram, How Climate Change Drives Child Marriage, supra note 74.

<sup>111</sup> GIRLS NOT BRIDES, CHILD MARRIAGE IN HUMANITARIAN SETTINGS, supra note 70.

<sup>112</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 42.

been provided by the government for vulnerable populations in rural areas who have been displaced from their communities, largely due to environmental changes attributed to climate change. After surveying 9,000 girls between the ages of twelve and nineteen, the study found that girls living in abasan communities were twice as likely to enter into a marriage than those in non-abasan communities.

As discussed earlier in this paper, there is evidence of heightened risk of child marriage in the aftermath of extreme weather events which may have been exacerbated by the impact of climate change. In Bangladesh, HRW interviewed a number of girls and families who described child marriages in the wake of Cyclone Aila, a disaster which killed over 200 people and displaced more than 500,000 people in 2009. 114 One girl HRW interviewed went to live with her aunt and uncle after both of her parents were killed by the cyclone. Her aunt and uncle were injured from the collapse of their house during the cyclone, and it was difficult for them to keep their own two children in school. Within a year, a marriage was arranged for this girl, who was wed at age thirteen. 115

Two years earlier, Cyclone Sidr hit Bangladesh's southwest coast in 2007, killing an estimated 3,406 people and injuring more than 55,000 others. <sup>116</sup> Several organizations documented a rise in child marriages following this disaster. In a submission to the Office of the United Nations High Commissioner for Human Rights ("OHCHR"), World Vision UK noted that of the children under eighteen married within a five-year period, sixty-two percent married within the twelve months following Cyclone Sidr. <sup>117</sup> Plan International

<sup>113</sup> Sigma Ainul & Sajeda Amin, Population Council, Presentation at the Population Association of America 2015 Annual Meeting, Session 113: Environmental Change, Migration, and Adaptation: Environmental Vulnerability and Early Marriage in Southern Bangladesh (May 1, 2015), https://paa2015.princeton.edu/papers/151345 [perma.cc/nzj8-5vs3]; Holly G. Atkinson, *Adolescent Girls, Human Rights and the Expanding Climate Emergency*, 81 ANNALS GLOBAL HEALTH 323 (2015); Mustafa K. Mujeri, *Bangladesh Decent Work Statistical Indicators: A Fact-Finding Study* (Int'l Labour Office, Working Paper No. 64, 2004), https://www.ilo.org/wcmsp5/groups/public/@dgreports/@integration/documents/genericdocument/wcms 079516.pdf [perma.cc/y2nr-ab73].

<sup>114</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 43.

<sup>115</sup> Id. at 43.

<sup>116</sup> GOV'T. OF BANGL., CYCLONE SIDR IN BANGLADESH: DAMAGE, LOSS, AND NEEDS ASSESSMENT FOR DISASTER RECOVERY AND RECONSTRUCTION 5 (2008), https://reliefweb.int/sites/reliefweb.int/files/resources/F2FDFF067EF49C8DC12574DC00455142-Full Report.pdf\_[https://perma.cc/42VA-JEHJ].

<sup>117</sup> Submission from World Vision UK to the Office of the United Nations High Commissioner for Human Rights: Early Marriage in Humanitarian Crises (2013) (on file with the Office of the United Nations High

also found that the number of child marriages had increased after Cyclone Sidr; one girl they interviewed stated that "as many as 50% of the girls in her school dropped out because they got married." The Government of Bangladesh's Department of Environment also noted that girls are often forced into marriages when their schooling is interrupted by a flood, noting that the disruption often continues after the flood has ended as schools tend to be used as flood shelters for displaced families. 119

Child marriage may also be a response to slow-onset disasters in Bangladesh. For instance, the island of Kutubdia's shorelines have retreated by about a kilometer since the 1960s. In that time, rising sea levels have swallowed up residents' lands, displacing thousands. Nurul Haque, a farmer on Kutubdia, is one of many who have lost their land to the ocean. Nurul told the *New York Times* that, although he does not want to arrange a marriage for his thirteen-year-old daughter, he is considering it.<sup>120</sup>

HRW found that some families arranged marriages proactively in anticipation of an impending disaster, particularly in areas affected by river erosion, an event that is gradual, predictable, and catastrophic for those affected. As a charity worker explained to HRW:

Families think that if their house goes they'll have to go to another place and it will take time to get established and find a husband and meanwhile the girl is getting older and dowry is going up. Also, when they have a house, before it is taken [by the river], the in-laws families will think the family owns a house, which gives them more importance. After [the house is swept away] they might rent and that makes them less important and means less status for the girl [and less bargaining power in arranging a marriage].<sup>121</sup>

Commissioner for Human Rights), https://www.ohchr.org/Documents/Issues/Women/WRGS/ForcedMarriage/NGO/WorldVisionUK1.doc [https://perma.cc/EYM8-Y4XJ].

<sup>118</sup> SWARUP ET AL., WEATHERING THE STORM, supra note 3.

<sup>119</sup> CLIMATE CHANGE CELL, CLIMATE CHANGE, GENDER AND VULNERABLE GROUPS IN BANGLADESH 42 (CCC, DoE, MoEF, Component 4b, CDMP, MoFDM, 2008), https://core.ac.uk/download/pdf/48024281.pdf [https://perma.cc/W96F-XNKE].

<sup>120</sup> Nicholas Kristof, *Swallowed by the Sea*, N.Y. TIMES (Jan. 19, 2018), https://www.nytimes.com/2018/01/19/opinion/sunday/climate-change-bangladesh.html [https://perma.cc/CA34-9Y9Z].

<sup>121</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 42.

Some families chose to marry off several girls before disaster struck. One family interviewed by HRW had been watching a nearby river creep closer each year. Expecting to lose their home within the next few years, they arranged a marriage for their eldest daughter when she was only thirteen, so that they could begin arranging marriages for her three younger sisters. 122

# 1. Child Marriage Legislation

Under Bangladesh's Child Marriage Restraint Act ("CMRA"), the minimum legal age of marriage is eighteen for women and twenty-one for men. <sup>123</sup> A new amendment passed in March 2017, however, added an exception permitting younger girls to marry in vaguely-defined "special" circumstances with parental consent and permission from the courts. <sup>124</sup> The government previously stated this provision was to provide a response for "situations involving 'accidental or unlawful pregnancy' of unwed girls." <sup>125</sup> This provision does not contain a minimum age, effectively permitting girls of any age to marriage under some circumstances.

This provision makes Bangladesh unique in having moved backwards legislatively on child marriage at a moment when many other countries are passing laws to further restrict or entirely prohibit child marriage. This regression also contradicts pledges made by Bangladesh Prime Minister Sheikh Hasina at the London Girls Summit in 2014, where she committed to eliminate the marriage of girls under fifteen by 2021, reduce the number of girls aged fifteen to eighteen who marry by one-third in this timeframe, and

<sup>122</sup> Id. at 43.

<sup>123</sup> Child Marriage Restraint Act, 1929, entered into force Apr. 1, 1930 (Act No. 19/1929) (Bangl.).

<sup>124</sup> Shyikh Mahdi, *Child Marriage Restraint Act 2017: A Brief Review*, FUTURE LAW INITIATIVE (Feb. 27, 2017), https://futrlaw.org/brief-review-child-marriage-restraint-act-2017/ [https://perma.cc/4PAQ-U3EP]. While Rebecca Momin, Chair of Bangladesh's Parliamentary Children and Women Affairs' Committee, was quick to respond that the provision had been misinterpreted and that the "special circumstances" would be monitored by the courts, a spokesperson for the Child Rights Advocacy Coalition in Bangladesh stated, however, that "[m]any opportunists may try their luck in between the shortcomings of this law." Medhavi Arora & Ben Westcott, *Human Rights Groups Condemn New Bangladesh Child Marriage Law*, CNN WORLD (Mar. 3, 2017), https://www.cnn.com/2017/03/02/asia/bangladesh-child-marriage-law/index.html [https://perma.cc/5SL9-TGXT].

<sup>125</sup> Bangladesh: Legalizing Child Marriage Threatens Girls' Safety, HUMAN RTS. WATCH (Mar. 2, 2017), https://www.hrw.org/ news/2017/03/02/bangladesh-legalizing-child-marriage-threatens-girls-safety [https://perma.cc/95QA-8MST].

ultimately, to fully eradicate domestic child marriage by the year 2041. To achieve these goals, Hasina promised to revise the CMRA as well as develop a national plan of action to end child marriage. Despite this promise, Bangladesh's plan was not launched until August 2018. The Ministry of Women and Children Affairs has also implemented a multimedia campaign on ending child marriage and is supporting community-based clubs that discuss child marriage and other harmful social practices with adolescents. 128

This "special circumstances" provision has been widely criticized by domestic and international rights organizations, <sup>129</sup> as well as by the European Parliament. In a June 2017 resolution focusing on Bangladesh, the Parliament called for an amendment to the CMRA, stating "that the recently adopted Act is a step backwards for Bangladesh in its efforts to eliminate child marriage . . . [and] that this relaxation of the law undermines the Bangladesh government's own targets for the reduction of child marriage."<sup>130</sup>

In addition to weakening the law, the Bangladesh government is also failing to enforce the law where it should prevent child marriages. Worse yet, government officials are often complicit in permitting child marriages to go ahead. In addition to a lack of enforcement, HRW also found that government officials were actively facilitating child marriages by accepting bribes to produce false birth certificates. <sup>131</sup> In 2004, Bangladesh passed the *Birth and Death Registration Act 2004*, <sup>132</sup> which required a bride and groom to have birth certificates, allowing enforcement officials to verify a person's age and

<sup>126</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 5.

<sup>127</sup> Md Nahlan, *National Plan of Action Launched to End Child Marriage in Bangladesh*, DHAKA TRIBUNE (Aug. 2, 2018), https://www.dhakatribune.com/bangladesh/2018/08/02/national-plan-of-action-launched-to-end-child-marriage-in-bangladesh\_[https://perma.cc/445P-WCR5].

<sup>128</sup> Johura Akter Pritu, *Report: Number of Child Marriages Declines*, DHAKA TRIBUNE (Oct. 19, 2018), https://www.dhakatribune.com/bangladesh/nation/2018/10/19/report-number-of-child-marriages-declines [https://perma.cc/CJ3C-3XJ6].

<sup>129</sup> Arora & Westcott, *Human Rights Groups Condemn New Bangladesh Child Marriage Law, supra* note 124; *see also Bangladesh Child Marriage Law Could Violate Girls' Rights*, PLAN INT'L (Feb. 7, 2017), https://plan-international.org/news/2017-02-06-bangladesh-child-marriage-law-could-violate-girls-rights [https://perma.cc/954G-2TMM].

<sup>130</sup> Resolution on Bangladesh, Including Child Marriages, EUR. PARL. DOC. B8-0254 (2017).

<sup>131</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 9.

<sup>132</sup> *The Births and Deaths Registration Act, 2004: Unofficial Translation*, BANGL. GAZETTE (Dec. 7, 2004), https://www.refworld.org/pdfid/511b54192.pdf [https://perma.cc/N7K7-TGCX].

determine if they meet the legal minimum ages of marriage. By providing a means for families to circumvent the legal age for marriage set out in the CMRA, these government officials subvert the legitimate efforts of other officials to discourage child marriage. As a Bangladeshi community leader told HRW, "The best way to end child marriage is if people in the administration—the chair, the member, the police, the officer in charge, and the deputy member sit together and decide to end child marriage . . . If they do this, I am 100% certain they can end child marriage forever." 133

HRW also spoke with families who easily bypassed the legal system in other ways. For instance, after a complaint was filed that a twelve-year-old was to be wed to a twenty-five or twenty-six-year-old man, the parties simply went to the court of a neighboring town and signed an affidavit of marriage there. For another family, simply paying a lawyer's fee of 600 taka (approximately seven USD)<sup>134</sup> negated the requirement to show a birth certificate and allowed a girl to be married at age fourteen. HRW was also unable to locate a single instance in which an official or family member involved in facilitating a child marriage had faced sanctions. <sup>135</sup>

# 2. Climate Change Policies

Bangladesh's climate change policies, while incorporating gendered considerations, do not address a potential link between climate change and child marriage. Bangladesh's Climate Change Strategy and Action Plan ("BCCSAP") was originally released in 2008. After Prime Minister Sheikh Hasina took office in January 2009, however, the government updated and revised the document. While the revised document does not address the impacts of climate change on child marriage specifically, it discusses the obligation of the government to focus its adaptation efforts on marginalized populations. Regarding food security, social protection, and health, the BCCSAP aims "to ensure that the poorest and most vulnerable in society, including women and children, are protected

<sup>133</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 95.

<sup>134</sup> This conversion was calculated using the exchange rate at the time of writing (1 Bangladeshi Taka equals 0.012 US Dollar).

<sup>135</sup> HUMAN RIGHTS WATCH, MARRY BEFORE YOUR HOUSE IS SWEPT AWAY, supra note 1, at 119.

<sup>136</sup> MINISTRY OF ENV'T & FORESTS, GOV'T OF THE PEOPLE'S REPUBLIC OF BANGL., BANGLADESH CLIMATE CHANGE STRATEGY AND ACTION PLAN 2009 (2009), https://www.iucn.org/downloads/bangladesh\_climate\_change\_strategy\_and\_action\_plan\_2009.pdf [https://perma.cc/6SE8-Z939].

from climate change and that all programmes focus on the needs of this group for food security, safe housing, employment and access to basic services, including health."<sup>137</sup> The government also commits to "[i]ncrease the resilience of vulnerable groups, including women and children, through development of community-level adaptation, livelihood diversification, better access to basic services and social protection (e.g., safety nets, insurance) and scaling up)."<sup>138</sup> It also states that "[t]he needs of the poor and vulnerable, including women and children, will be mainstreamed in all activities under the Action Plan"<sup>139</sup> and includes the "[i]ntegration of gender consideration in all climate change management" as an objective in its discussion on capacity building and institutional strengthening.<sup>140</sup>

In 2013, Bangladesh published a Climate Change and Gender Action Plan ("ccGAP"). The ccGAP's overall objective is "[t]o mainstream gender concerns into climate change-related policies, strategies and interventions". Under the food security, social protection, and health pillar, the ccGAP fleshes out which concerns are to be emphasized, focusing predominantly on the agricultural sector. The 122-page document mentions child marriage twice: It lists "the negative impact of early marriages" as a barrier to education faced by girls and it cites the CMRA and *Dowry Prohibition Act* as examples of legislative reform responding to issues raised by the Committee on the Elimination of Discrimination against Women. The plan, however, does not comment on the existence of any link between the impacts of climate change and child marriage or include any discussion of how to reduce child marriage or mitigate risk that climate change impacts could drive child marriage.

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137 Id. at xvii.
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<sup>138</sup> Id. at 27.

<sup>139</sup> Id. at 27.

<sup>140</sup> Id. at 74.

<sup>141</sup> MINISTRY OF ENV'T & FORESTS, GOV'T OF THE PEOPLE'S REPUBLIC OF BANGL., BANGLADESH CLIMATE CHANGE AND GENDER ACTION PLAN (2013), https://cmsdata.iucn.org/downloads/iucn\_\_bangladesh\_climate\_change\_\_gender\_action\_plan\_\_1.pdf [https://perma.cc/CH8X-UK3X].

<sup>142</sup> Id. at x.

<sup>143</sup> Id. at 18.

Bangladesh's Seventh Five Year Plan (for the years 2016–2020) includes environment and climate change as one of its thirteen sectors of focus.<sup>144</sup> While this plan weaves child marriage prevention and response measures throughout it,<sup>145</sup> it does not discuss child marriage within its climate change sections.

# B. Mozambique

Mozambique is at high risk from droughts, floods, and coastal storms. 146 This treacherous trio causes a particular threat to the sixty percent of Mozambicans living in coastal communities dispersed along the country's extensive coastline. 147 Like Bangladesh, Mozambique is also highly susceptible to disasters, placing third in the World Risk Index's assessment of susceptible countries in 2016. 148 Bilateral development agency Irish Aid states that "[p]overty, weak institutional development and frequent extreme weather events make Mozambique especially vulnerable." 149

<sup>144</sup> GEN. ECON. DIV. PLANNING COMM'N, GOV'T OF THE PEOPLE'S REPUBLIC OF BANGL., SEVENTH FIVE YEAR PLAN FY2016–FY2020: ACCELERATING GROWTH, EMPOWERING CITIZENS 400–54 (2015), https://www.plancomm.gov.bd/wp-content/uploads/2015/11/7FYP\_after-NEC\_11\_11\_2015.pdf [https://perma.cc/FDQ8-S359].

<sup>145</sup> For instance, while discussing the role of government sectors—other than the health ministry—to improve nutrition, the plan noted that the Ministries of Women and Children Affairs, Health and Family Welfare, Primary and Mass Education, and Information could all draw attention to how child marriage, as well as early pregnancy and childbearing, negatively impact women's nutrition. *See id.* at 573.

<sup>146</sup> MOZAMBIQUE ACAD. OF SCI., NATIONAL CLIMATE CHANGE ADAPTATION AND MITIGATION STRATEGY (2015), https://www.cgcmc.gov.mz/en/policy-and-strategies/148-national-adaptation-and-mitigation-of-climate-change-strategy [https://perma.cc/L2BD-NXEZ].

<sup>147</sup> ROGER FEW ET AL., OXFORD POLICY MGMT., STRATEGIC RESEARCH INTO NATIONAL AND LOCAL CAPACITY BUILDING FOR DRM: MOZAMBIQUE FIELDWORK REPORT 12 (2015), https://www.ifrc.org/Global/Documents/Secretariat/Research/version-2/Mozambique%20Fieldwork%20Report.pdf [https://perma.cc/7ZWH-ESJG] [hereinafter ROGER FEW ET AL., STRATEGIC RESEARCH].

<sup>148</sup> PETER MUCKE ET AL., BÜNDNIS ENTWICKLUNG HILFT & UNITED NATIONS INSTITUTE FOR ENVIRONMENT AND HUMAN SECURITY WORLD RISK REPORT 2016 47 (2016) https://collections.unu.edu/eserv/UNU:5763/WorldRiskReport2016\_small\_meta.pdf [https://perma.cc/8DKW-5U58].

<sup>149</sup> IRISH AID RESILIENCE & ECONOMIC INCLUSION TEAM, MOZAMBIQUE CLIMATE ACTION REPORT FOR 2016 7 (2017), https://www.irishaid.ie/media/irishaid/allwebsitemedia/30whatwedo/climatechange/Mozambique-Country-Climate-Action-Report-for-2016.pdf [https://perma.cc/X6GA-PSCG].

In recent years, Mozambique has faced an increasing number of extreme weather events, some of which are related to climate change. For instance, between 2000 to 2012, Mozambique was struck by eleven cyclones, more than double the number it experienced between 1984 and 1997. Since the 1960s, annual levels of rainfall in Mozambique have decreased by 3.1% each decade, while the amount of extreme rainfall days has increased by 2.6% per decade. The 2018 Index for Risk Management found that Mozambique had the sixth highest frequency of droughts in the world, and correspondingly, the seventeenth and thirty-fifth highest amount of people affected by droughts (absolutely and relatively, respectively).

Extremely high levels of poverty have exacerbated the impacts of these climate hazards. The United Nations Development Programme's 2017 Human Development Index, a ranking system based on longevity, education, and income, placed Mozambique 180 out of 189 countries, affirming its position as one of the poorest nations in the world. <sup>154</sup> Indeed, seventy percent of the country's population lives below the poverty line, forty-four percent of which live in severe poverty. <sup>155</sup> The United Nations Development Assistance Framework noted that more than half of Mozambique's households are food insecure. <sup>156</sup> While just under three-quarters of children attend primary school, the attendance rates for secondary school plummet, with only fifteen percent of males and seventeen percent of females attending lower secondary school, and three percent of both

<sup>150</sup> See e.g., Christopher B. Field et al., Intergovernmental Panel on Climate Change, *Technical Summary*, in CLIMATE CHANGE 2014 IMPACTS, ADAPTATION, AND VULNERABILITY, PART A: GLOBAL AND SECTORAL ASPECTS 42 (Christopher B. Field et al. eds., 2014), https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-TS\_FINAL.pdf [https://perma.cc/WC6T-3ZPS].

<sup>151</sup> ROGER FEW ET AL., STRATEGIC RESEARCH, supra note 147.

<sup>152</sup> BRIDES OF THE SUN: MOZAMBIQUE, https://www.bridesofthesun.com/mozambique/[https://perma.cc/8D4M-3EEM].

<sup>153</sup> INFORM INDEX FOR RISK MGMT.: COUNTRIES—MOZAMBIQUE, http://www.inform-index.org/Countries/Country-profiles [https://perma.cc/B9YZ-AAQX].

<sup>154</sup> HUMAN DEVELOPMENT INDEX, supra note 66.

<sup>155</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>156</sup> IRISH AID RESILIENCE & ECONOMIC INCLUSION TEAM, MOZAMBIQUE CLIMATE ACTION REPORT FOR 2016, *supra* note 149, at 8.

males and females attending upper secondary school.<sup>157</sup>

Over the last few years, a series of devastating weather events ensued. In January 2015, flooding induced by extremely heavy rains led the Council of Ministers of Mozambique to declare an institutional red alert for central and northern Mozambique. Heavy rains flooded both the northern and central regions, killing 163 people, internally displacing nearly 53,000 people, and altogether affecting more than 370,000 people. Hozambique's National Institute for Disaster Management attributed the aggravation of flooding to climate change. How the was followed by "the worst drought in thirty-five years," which was caused by El Niño conditions. Over two million people were experiencing food insecurity and nutrition deficiency in Mozambique, and more than thirty-nine million people were affected in total across the African continent. How the series of the

The pernicious influences of these two events led Germanwatch to list Mozambique as the country most affected by climate change on its 2015 Global Climate Risk Index. <sup>162</sup> Unfortunately, a third event—a tropical cyclone named Dineo—occurred in February 2017.

"Strong winds exceeding 160km/h and torrential rains killed seven people, injured fifty-five, displaced more than 100,000 and affected overall more than 600,000 Mozambicans. According to the National Institute of Disaster Management, 20,000 mudmade huts were partially or completely destroyed, their fragile leaf roofs being blown

<sup>157</sup> UNICEF Statistical Tables, supra note 8, at 171.

<sup>158</sup> UNITED NATIONS HUMANITARIAN COUNTRY TEAM, MOZAMBIQUE FLOODS 2015: RESPONSE AND RECOVERY PROPOSAL 4 (2015), https://reliefweb.int/sites/reliefweb.int/files/resources/Response%20and% 20Recovery%20Proposal%20to%20Floods%20in%20Mozambique%202015\_Final.pdf [https://perma.cc/FG56-PH8K].

<sup>159</sup> ROGER FEW ET AL., STRATEGIC RESEARCH, supra note 147.

<sup>160</sup> Tom Bowker, *Climate Change Blamed as New Flood Plains Plague Mozambique*, BLOOMBERG (Apr. 16, 2015), https://www.bloomberg.com/news/articles/2015-04-16/climate-change-blamed-as-shifting-flood-plains-plague-mozambique [https://perma.cc/B2NY-9UBM].

<sup>161</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>162</sup> SONIA KREFT, DAVID ECKSTEIN & INGA MELCHIOR, GERMANWATCH, GLOBAL CLIMATE RISK INDEX 2017: WHO SUFFERS MOST FROM EXTREME WEATHER EVENTS? WEATHER-RELATED LOSS EVENTS IN 2015 AND 1996 TO 2015 4 (Joanne Chapman-Rose & Daniela Baum eds., 2016), https://germanwatch.org/sites/germanwatch.org/files/publication/16411.pdf [https://perma.cc/D42Y-NBBS].

away, more than 1,600 classrooms were affected, seventy health facilities were affected, 137,000 fruit trees were lost and 29,000 hectares of precious agricultural lands were left empty, damaging the crops that were expected to be harvested in April 2017."<sup>163</sup> Additionally, heavy rains flooded the provinces of Cabo Delgado, Nampula, and Niassa in February 2018, affecting approximately 80,000 people. <sup>164</sup>

Mozambique has the ninth highest prevalence of child marriage in the world, with forty-eight percent of girls wed by age eighteen and fourteen percent married by age fifteen. <sup>165</sup> Although the prevalence of child marriage has declined, as in many high prevalence countries, the rapidly increasing population makes it difficult for this to translate into an actual reduction in the total number of girls marrying. <sup>166</sup> In Mozambique, nearly half (forty-five percent) of the population is younger than fifteen. <sup>167</sup>

According to the International Center for Research on Women, location was "the most important factor associated with child marriage in Mozambique." <sup>168</sup> UNICEF noted that the marrying age for girls was younger in rural areas than in urban areas. <sup>169</sup> Girls Not Brides found that in the north, "traditional practices aimed at children from ten to thirteen years contribute to child marriage by emphasising [*sic*] the subordination of a girl to her husband and elders, and signifies a girl moving into adulthood and towards marriage," while in the south, pregnancy was found to be a leading cause of child marriage. <sup>170</sup> Interestingly, between 1997 and 2011, both Nampula Province (a northeastern province)

<sup>163</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>164</sup> Arimando Domingos, *Mozambique: Floods Displace Thousands in Mozambique*, CAJNEWS AFRICA (Feb. 20, 2018), https://allafrica.com/stories/201802200635.html [https://perma.cc/93RU-ZS8Z].

<sup>165</sup> UNICEF Statistical Tables, supra note 8, at 183.

<sup>166</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>167</sup> INDEXMUNDI: MOZAMBIQUE DEMOGRAPHICS PROFILE 2018, https://www.indexmundi.com/mozambique/demographics\_profile.html [https://perma.cc/Q8ZQ-E58Y].

<sup>168</sup> JAIN & KURZ, NEW INSIGHTS, supra note 101.

<sup>169</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>170</sup> Press Release, Girls Not Brides, Mozambique Launches National Strategy to End Child Marriage (Apr. 11, 2016), https://www.girlsnotbrides.org/press-release-mozambique-launches-national-strategy-to-end-child-marriage/ [https://perma.cc/9BYB-MMSC].

and Maputo Province (the southernmost province) saw a ten percent increase in the number of pregnancies for girls under age fifteen.<sup>171</sup>

Poverty remains a determining factor of child marriages in Mozambique. With each woman having an average of five children, <sup>172</sup> many families struggle to have enough food. Arranging a marriage for a daughter is sometimes seen as "offering her a chance to be supported by a new husband unencumbered by a large family." <sup>173</sup> Extreme weather events have also been reported to contribute to a family's decision to marry off their daughters early. CARE International found that the recent drought caused families to lose their homes, lands, and livelihoods, and as a result, many parents arranged marriages for their daughters to provide a source of income, or simply "to reduce the number of mouths to feed." <sup>174</sup>

In some cases, changing rainfall patterns may have increased child marriage rates. A Nampula fisherman and father of eleven shared with Brides of the Sun how the changing rain patterns had impacted his livelihood. The lack of rain had made a nearby estuary dry up, forcing him to travel greater distances to try and catch fish. While he also grew cassava, corn, and other vegetables on his farm, the lack of rain had stymied their production too. One of his daughters was married to a fellow student at age thirteen. While he had not wanted her to get married so young, with so many other mouths to feed, he felt he was left with little choice: "If I was able to feed my children, I wouldn't have pushed her to get married so young," he explained.<sup>175</sup>

#### 1. Child Marriage Legislation

Similar to Bangladesh, Mozambique's law governing child marriage, the Family Law Statute, contains an exception permitting children to marry. <sup>176</sup> In Mozambique, this

172 INDEXMUNDI; MOZAMBIQUE DEMOGRAPHICS PROFILE 2018, supra note 167.

<sup>171</sup> Id.

<sup>173</sup> BRIDES OF THE SUN: MOZAMBIQUE, supra note 152.

<sup>174</sup> Sundaram, How Climate Change Drives Child Marriage, supra note 74.

<sup>175</sup> BRIDES OF THE SUN; CARLINA, https://www.bridesofthesun.com/carlina/ [https://perma.cc/227W-T7D5].

<sup>176</sup> Boletim Da República, I Série—Numero 34, REPUBLICA DE MOCAMBIQUE (Aug. 25, 2004), http://jafbase.fr/docAfrique/Mozambique/Lei%2010.2004%20-%20Lei%20da%20Familia.pdf [perma.cc/6MUL-HWDJ].

exception permits children age sixteen or seventeen to marry with parental consent.<sup>177</sup> There is no requirement to obtain consent from those entering the marriage, nor is judicial review required for children to wed.<sup>178</sup> In a 2016 policy brief, Plan International advocated that Mozambique's Family Law Statute be amended to remove this exception; however, they noted that an alternative (and less preferred) approach would be to amend the Family Law Statute to require judicial approval of any marriage of children.<sup>179</sup>

Mozambique has taken steps to reduce child marriage, including the adoption of a National Strategy on Prevention and Fight against Child Marriage<sup>180</sup> in December 2015 and the launch of a National Strategy for the Prevention and Combating of Early Marriage (2015–2019) in April 2016.<sup>181</sup> Girls Not Brides, an international network of NGOs working to end child marriage, through their partners in Mozambique assisted in the creation of this strategy, which Girls Not Brides called "an ambitious across-the-board plan to prevent and combat child marriage by 2019."<sup>182</sup> Girls Not Brides cautioned, however, that the real test would come in implementation, stating: "No real change comes from a piece of paper alone and the coming months will determine the fate of the national strategy, be it gathering dust on a shelf somewhere, or transforming girls' lives across the country."<sup>183</sup>

177 Id.

178 PLAN INT'L, POLICY BRIEF: ENDING CHILD MARRIAGE IN MOZAMBIQUE: GAPS AND OPPORTUNITIES IN LEGAL AND REGULATORY FRAMEWORKS 4 (2016) https://www.girlsnotbrides.org/wp-content/uploads/2016/11/PLAN\_18\_policy\_brief\_mozambique\_final.pdf [perma.cc/9Q76-SXXD] [hereinafter PLAN INT'L, ENDING CHILD MARRIAGE].

179 Id. at 6.

180 REPUBLICA DE MOCAMBIQUE, ESTRATEGIA NACIONAL DE PREVENÇÃO E COMBATE DOS CASAMENTOS PREMATUROS EM MOÇAMBIQUE (2016-2019), APROVADA NA 42º SESSÃO ORDINÁRIA DO CONSELHO DE MINISTROS A 01 DEZ 2015 (2015), http://www.unicef.org.mz/wp-content/uploads/2016/02/ESTRATEGIA-NACIONAL-DE-PREVENCAO-E-COMBATE-DOS-CASAMENTOS-PREMATUROS-EM-MOCAMBIQUE.pdf [perma.cc/B5KD-M63T].

181 Estratégia Nacional De Prevenção E Combate Aos Casamentos Prematuros (2016-2019), UNICEF (Apr. 11, 2016), http://www.unicef.org.mz/estrategia-nacional-de-prevençao-e-combate-aos-casamentos-prematuros-2016-2019/ [perma.cc/8F65-7QGT].

182 Albino Francisco & Persilla Muianga, *Mozambique's National Strategy on Child Marriage: A Ray of Hope for Girls*, GIRLS NOT BRIDES (Apr. 11, 2016), https://www.girlsnotbrides.org/mozambiques-national-strategy-on-child-marriage-a-ray-of-hope-for-girls/ [perma.cc/B2K5-DZMV].

183 Id.

Despite being passed in 2015 and 2016, there is little information available on the plans' implementation progress; as such, it remains to be seen how effective these plans have been or will be. Other developments, however, include the adoption of statutes on children's rights, <sup>184</sup> family law, and domestic violence. <sup>185</sup>

# 2. Climate Change Policies

Mozambique's National Climate Change Adaptation and Mitigation Strategy ("NCCAMS"), approved in November 2012, is a planning document for the years 2013 to 2025. The NCCAMS has three central themes: adaptation and climate risk management; mitigation and low carbon development; and cross-cutting issues. Similar to the BCCSAP, this strategy emphasizes the importance of reducing climate vulnerability. While this plan was created after the adoption of a Climate Change and Gender Action Plan, the NCCAMS only mentions the plan once in passing as another instrument that is working to reduce vulnerability to climate change.

In 2007, following a push by the Global Gender and Climate Alliance for a gender perspective to be included in all climate change policies, Mozambique's National Plan for the Advancement of Women 2007–2009 determined that "women, environment and agriculture" was an area of critical intervention. <sup>189</sup> Three years later, Mozambique

<sup>184</sup> Boletim Da República, I Série—Numero 28, REPUBLICA DE MOCAMBIQUE (July 9, 2008), http://www.africanchildforum.org/clr/Legislation%20Per%20Country/Mozambique/mozambique\_children\_2008\_pr.pdf, at 1 [perma.cc/UT7Q-GEG3].

<sup>185</sup> PLAN INT'L, ENDING CHILD MARRIAGE, supra note 178, at 4, 6.

<sup>186</sup> MOZAMBIQUE ACAD. OF SCI., NATIONAL CLIMATE CHANGE ADAPTATION AND MITIGATION STRATEGY, *supra* note 146. This strategy was to be implemented through Climate Change Action Plans released for 2013 to 2014, 2015 to 2019, and 2020 to 2025.

<sup>187</sup> GOV'T OF MOZAMBIQUE, NATIONAL CLIMATE CHANGE ADAPTATION AND MITIGATION STRATEGY 9–10 (2012), https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/mozambique\_national\_climate\_change\_strategy.pdf [perma.cc/S6WA-E68H].

<sup>188</sup> MOZAMBIQUE CLIMATE CHANGE GENDER ACTION PLAN, supra note 84.

<sup>189</sup> LEISA PERCH & ROSALY BYRD, RIO+ WORLD CTR. FOR SUSTAINABLE DEV., A CASE STUDY ON THE MOZAMBIQUE STRATEGY FOR GENDER, ENVIRONMENT AND CLIMATE CHANGE 2 (United Nations Dev. Programme, 2014).

released its Strategy for Gender, Environment, and Climate Change,<sup>190</sup> followed shortly thereafter by the Climate Change and Gender Action Plan,<sup>191</sup> "making Mozambique's the first government in the world to create such a policy and program for implementation."<sup>192</sup> In 2014, Mozambique released an updated version of this plan.<sup>193</sup> A study about the action plan found that "[a]cknowledging that both gender and environment are transversal issues, the Strategy acts to build bridges and identify priorities and interventions that can take advantage of existing synergies to create a broader multisectoral response for complex challenges like climate change."<sup>194</sup> The action plan only mentions child marriage twice: firstly, to state how it exacerbates HIV/AIDS rates in certain parts of Mozambique,<sup>195</sup> and secondly, to note that the Family Law Statute bans marriage under the age of eighteen.<sup>196</sup>

### C. Summary

As a result of environmental vulnerability and high levels of poverty, research suggests that child marriages may have been used in Bangladesh and Mozambique as an adaptation measure in response to the impacts of both natural and slow-onset disasters. However, the existing evidence for this relationship is not reflected in the countries' climate change and child marriage laws and policies, which by and large do not acknowledge any potential link between climate change and child marriage.

In Bangladesh, a lack of enforcement of the minimum age of marriage, coupled with a newly added exception that undermines the minimum age of marriage for girls, has failed to prevent and eradicate child marriage. While its climate change plans consider

192. Id.

193 Id.

196 Id. at 42.

<sup>190</sup> MINISTÉRIO PARA A COORDENAÇÃO DA ACÇÃO AMBIENTAL, ESTRATÉGIA E PLANO DE ACÇÃO DE GÉNERO, AMBIENTE E MUDANÇAS CLIMÁTICAS (2010), http://cebem.org/cmsfiles/publicaciones/ Estrategia genero ambiente.pdf [perma.cc/HT23-A6B4].

<sup>191</sup> MOZAMBIQUE CLIMATE CHANGE GENDER ACTION PLAN, *supra* note 84. The authors at the time of writing were unable to locate a copy of this plan.

<sup>194</sup> PERCH & BYRD, A CASE STUDY ON THE MOZAMBIQUE STRATEGY FOR GENDER, ENVIRONMENT AND CLIMATE CHANGE, *supra* note 189, at 2.

<sup>195</sup> MOZAMBIQUE CLIMATE CHANGE GENDER ACTION PLAN, supra note 84, at 31.

gendered impacts, they do not address how child marriage rates may be affected by the impacts of climate change. Similar to Bangladesh, Mozambique's child marriage legislation contains an exception permitting some children to marry. The Government of Mozambique has created several plans to respond to both climate change and child marriage, but those plans do not make a link between the two issues in either sector.

# III. Domestic Obligations Under International Law

### A. International Human Rights Law

Under international human rights law, all governments have obligations to protect the rights of girls and women. Several international human rights instruments speak out, either directly or indirectly, against child marriage. Monitoring committees of some treaties are also beginning to consider the impacts of climate change within their mandates.

# 1. The Convention on the Elimination of All Forms of Discrimination Against Women ("CEDAW")

Article 16(1) provides equal rights to men and women to enter into marriage and provides an equal right to "choose a spouse and to enter into marriage only with their free and full consent." Article 16(2) states that "[t]he betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage and to make the registration of marriages in an official registry compulsory." <sup>198</sup>

In 1994, the Committee on the Elimination of Discrimination against Women released General Comment No. 21 on "Equality in marriage and family relations," which affirmed the equal right of men and women to enter into marriage when both parties have

<sup>197</sup> See, e.g., International Covenant on Civil and Political Rights art. 23(2)–(3), Mar. 23 1976, 999 U.N.T.S. 171; International Covenant on Economic, Social and Cultural Rights art. 10(1), Jan. 3, 1976, 993 U.N.T.S. 3; Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriage art. 1–3. 16, Dec. 9, 1964, 521 U.N.T.S. 231; Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery art. 1(c)(i), 2, Apr. 30, 1957, 226 U.N.T.S. 3; G.A. Res. 217 (III) A, art. 16 (1)–(2), Universal Declaration of Human Rights (Dec. 10, 1948).

<sup>198</sup> Convention on the Elimination of All Forms of Discrimination Against Women, Sept. 3, 1981, 1249 U.N.T.S. 13.

freely and fully consented. <sup>199</sup> In 2014, this Committee and the Committee on the Rights of the Child released a joint general recommendation on harmful practices, including child marriage. <sup>200</sup> In 2018, the Committee on the Elimination of Discrimination against Women released a General Recommendation to address "[g]ender-related dimensions of disaster risk reduction in the context of climate change." <sup>201</sup> The Center for International Environmental Law ("CIEL") noted that this is "the first document adopted by a human rights treaty body that directly and authoritatively interprets how States must integrate international human rights obligations into climate action." <sup>202</sup> This recommendation notes that "[s]ituations of crisis exacerbate pre-existing gender inequalities" and urges States to take action to address "existing and new risk factors for gender-based violence against women—including domestic violence, sexual violence, economic violence, human trafficking and forced marriage—within the context of disaster risk reduction and climate change."

# 2. The Convention on the Rights of the Child ("CRC")

Article 1 of the CRC defines a child as "every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier." <sup>204</sup>

<sup>199</sup> Comm. on the Elimination of Discrimination against Women, General Recommendation 21: Equality in Marriage and Family Relations, U.N. Doc. A/49/38 (1994).

<sup>200</sup> Comm. on the Elimination of Discrimination Against Women & Comm. on the Rights of the Child, Joint General Recommendation No. 31 of the Committee on the Elimination of Discrimination against Women/General Comment No. 18 of the Committee on the Rights of the Child on Harmful Practices, U.N. Doc CEDAW/C/GC/31-CRC/C/GC/18 (2014).

<sup>201</sup> General Recommendation No. 37, supra note 50.

<sup>202</sup> Oliva Bonner, *Tackling Gender Disparity at the Intersection of Human Rights and Climate Change*, CTR. FOR INT'L ENVT'L L. (Mar. 13, 2018), http://www.ciel.org/gender-disparity-intersection-human-rights-climate-change/ [https://perma.cc/9VK8-KKKX]; *see also* CTR. FOR INT'L ENVTL. LAW & GLOB. INITIATIVE FOR ECON., SOC. & CULTURAL RIGHTS, STATES' HUMAN RIGHTS OBLIGATIONS IN THE CONTEXT OF CLIMATE CHANGE (2018), http://www.ciel.org/wp-content/uploads/2018/01/HRTBs-synthesis-report.pdf [https://perma.cc/BUX7-38YT] [hereinafter CIEL & GI-ESCR, STATES' HUMAN RIGHTS OBLIGATIONS].

<sup>203</sup> General Recommendation No. 37, supra note 50, at \$\quad 2\$, \$\quad 57(a)\$.

<sup>204</sup> Convention on the Rights of the Child art. 1, Sept. 2, 1990, 1577 U.N.T.S. 3. As Bangladesh's laws and policies do not have a uniform definition of the child, there are conflicting legal minimum ages of children for marriage under different national laws. This system is further confused by a national legal framework that provides different legal provisions for people from different religious faiths. *See* Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, U.N. Doc. CRC/C/BGD/CO/4 (2009); TAHRAT NAUSHABA SHAHID, THE FOUND. FOR L., JUSTICE, & SOC'Y, ISLAM

In a 2004 General Comment, the Committee on the Rights of the Child urged state parties to "review and, where necessary, reform their legislation and practice to increase the minimum age for marriage with and without parental consent to eighteen years, for both girls and boys."<sup>205</sup> Additionally, Article 24(3) compels state parties to "take all effective and appropriate measures with a view to abolishing traditional practices prejudicial to the health of children."<sup>206</sup>

The Committee on the Rights of the Child has repeatedly used its Concluding Comments to raise concerns about child marriage, including issues such as the prevalence of child marriage in Nepal and Lebanon,<sup>207</sup> gaps between legislation and implementation in Nepal,<sup>208</sup> the impact of child marriage on the health of girls in India, Kuwait, and Bangladesh,<sup>209</sup> the need to raise the age of consent in Costa Rica,<sup>210</sup> the compatibility of

AND WOMEN IN THE CONSTITUTION OF BANGLADESH: THE IMPACT ON FAMILY LAWS FOR MUSLIM WOMEN 2 (2013), https://www.fljs.org/sites/www.fljs.org/files/publications/Tahrat.pdf [https://perma.cc/L2UQ-KJE2]; HUMAN RIGHTS WATCH, "WILL I GET MY DUES . . . BEFORE I DIE? HARM TO WOMEN FROM BANGLADESH'S DISCRIMINATORY LAWS ON MARRIAGE, SEPARATION, AND DIVORCE" (2012), https://www.hrw.org/sites/default/files/reports/bangladesh0912ForUpload.pdf [https://perma.cc/5WA7-UK85].

205 Comm. on the Rights of the Child, General Comment No. 4 Adolescent Health and Development in the Context of the Convention on the Rights of the Child, ¶ 16, U.N. Doc. CRC/GC/2003/4 (2004).

206 Convention on the Rights of the Child art. 24(3), Sept. 2, 1990, 1577 U.N.T.S. 3.

207 Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Nepal, U.N. Doc. CRC/C/15/Add.261 (2005); Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Lebanon, ¶ 16, U.N. Doc. CRC/C/Add.54 (1996).

208 Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Nepal, U.N. Doc. CRC/C/15/Add.57 (1996).

209 Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Bangladesh,¶¶ 15, 28, 63, 67, U.N. Doc. CRC/C/BGD/CO/4 (2009); Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: India, ¶ 32, U.N. Doc. CRC/C/15/Add.115 (2000); Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Kuwait, ¶ 28, U.N. Doc. CRC/C/15/Add.96 (1998).

210 Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Costa Rica, ¶¶ 27–28, U.N. Doc. CRC/C/CRI/CO/4 (2011).

the CRC and customary laws in Nigeria,<sup>211</sup> and the differing age of marriage for males and females in Nepal and Guatemala.<sup>212</sup> The Committee also expressed its concern to Nepal about how its 2015 earthquake may impact child marriage. The Committee recommended that Nepal "[u]ndertake an assessment of the impact of the 2015 earthquakes on girls' vulnerability to child marriage and apply those findings to guide the implementation of measures to address the increased risk of child marriages."<sup>213</sup>

### **B.** International Climate Change Law

The United Nations Framework Convention on Climate Change ("UNFCCC"),<sup>214</sup> adopted in 1992, defines its ultimate objective in Article 2 as the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."<sup>215</sup>

While the Convention itself does not mention human rights, two of the UNFCCC's subsequent agreements have incorporated human rights into the climate agenda. First, in 2010, the Cancun Agreements emphasized "that Parties should, in all climate change related actions, fully respect human rights." Second, the Paris Agreement on Climate Change was adopted in 2015. Its Preamble acknowledges that because

<sup>211</sup> Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Nigeria, ¶ 8, U.N. Doc. CRC/C/15/Add.61 (1996).

<sup>212</sup> Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Nepal, ¶ 12 U.N. Doc. CRC/C/15/Add.57 (1996); Comm. on the Rights of the Child, Consideration of Reports Submitted by States Parties Under Article 44 of the Convention, Concluding Observations of the Committee on the Rights of the Child: Guatemala, ¶ 15, U.N. Doc. CRC/C/Add.58 (1996).

<sup>213</sup> Comm. on the Rights of the Child, Concluding Observations on the Third to Fifth Periodic Reports of Nepal, ¶¶ 39, 40(d), U.N. Doc. CRC/C/NPL/CO/3-5 (2016).

<sup>214</sup> United Nations Framework Convention on Climate Change, S. Treaty Doc No. 102-38, May 9, 1992, 1771 U.N.T.S. 107.

<sup>215</sup> Id. at art. 2.

<sup>216</sup> Framework Convention on Climate Change, Report of the Conference of the Parties on its Sixteenth Session, held in Cancun from 29 November to 10 December 2010 ¶ 8, U.N. Doc. FCCC/CP/2010/7/Add1 (2011). According to Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, this was "the first explicit reference to human rights in the UN climate regime." DANIEL BODANSKY, JUTTA BRUNNEE & LAVANYA RAJAMANI, INTERNATIONAL CLIMATE CHANGE LAW 310 (2017).

[C]limate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.<sup>217</sup>

This is the first international environmental treaty to explicitly recognize the importance of protecting human rights, including women's rights and children's rights, in the context of the international response to climate change.<sup>218</sup>

Under the UNFCCC, state parties identified as least developed countries ("LDCs") can submit National Adaptation Programmes of Action ("NAPAs"), which are documents that allow LDCs to report their urgent and immediate needs relating to climate adaptation.<sup>219</sup> The UNFCCC's financial mechanism provides limited funding, which countries can apply for to assist in the implementation of such adaptation measures.<sup>220</sup>

Only four percent of NAPAs address a link between human rights and climate change, <sup>221</sup> and very few consider the impacts on women or children in their priority

<sup>217</sup> U.N. Framework Convention on Climate Change, Adoption of the Paris Agreement, 21, U.N. Doc. FCCC/CP/2015/L9/Rev 1 (2015) [hereinafter Adoption of the Paris Agreement].

<sup>218</sup> As Bodansky, Brunnée, and Rajamani note, however, by referring to "respective obligations," it does not infer any new human rights obligations for states. BODANSKY, BRUNNEE & RAJAMANI, INTERNATIONAL CLIMATE CHANGE LAW, *supra* note 216, at 312.

<sup>219</sup> U.N. CLIMATE CHANGE: FREQUENTLY ASKED QUESTIONS ABOUT LDCs, THE LEG AND NAPAS, https://unfccc.int/adaptation/ knowledge\_resources/ldc\_portal/items/4743.php [https://perma.cc/B8AF-QKFA].While the authors have chosen to follow the practice of the United Nations in using this classification of countries, the authors acknowledge that this term may be considered problematic, particularly in imposing a Western framework of development to assess a country.

<sup>220</sup> For more information on the conditions to receive funding, see GLOBAL ENV'T FACILITY, ACCESSING RESOURCES UNDER THE LEAST DEVELOPED COUNTRIES FUND (2011), https://www.thegef.org/sites/default/files/publications/23469\_LDCF\_1.pdf [https://perma.cc/7GSU-QPBC].

<sup>221</sup> SÉBASTIEN DUYCK, MARY ROBINSON FOUND., INCORPORATING HUMAN RIGHTS INTO CLIMATE ACTION: VERSION 2 4 (2016), https://www.mrfcj.org/wp-content/uploads/2016/05/Incorporating-Human-Rights-into-Climate-Action-Version-2-May-2016.pdf [https://perma.cc/7TAW-8KCD].

adaptation projects.<sup>222</sup> Uganda's NAPA provides a positive example of how this connection can be made. It notes that "famine marriage" is used as a coping strategy, where "[i]n times of food crisis, some parents distressfully marry off their daughters to secure dowry for survival... This fuels early marriages, drop out of schools and exposure to sexually transmitted infections and related reproductive complications."<sup>223</sup>

There is also a recent but growing body of international guidance explicitly linking the risk of child marriage to the vulnerabilities created by crises, including crises that may be exacerbated by climate change. Since 2013, the UN General Assembly has issued three resolutions on Child, Early, and Forced Marriage. The first resolution, adopted in 2013,<sup>224</sup> called for a report and panel discussion on child, early, and forced marriage globally, indicating a shift to examine child marriage in the human rights arena.<sup>225</sup> The second resolution, adopted in 2014, recognized that child marriage is a practice that violates human rights, that is linked to other practices that threaten other human rights, and that child marriage "is itself a barrier to development and helps to perpetuate the cycle of poverty and that the risk of child, early and forced marriage is also exacerbated in conflict and humanitarian crisis situations."<sup>226</sup>

<sup>222</sup> DANKELMAN ET AL., GENDER, CLIMATE CHANGE AND HUMAN SECURITY, *supra* note 50, at 19; EMILY POLACK, CHILDREN IN A CHANGING CLIMATE, CHILD RIGHTS AND CLIMATE CHANGE ADAPTATION: VOICES FROM KENYA AND CAMBODIA 14 (Anna Garvander et al. eds., 2010) https://www.preventionweb.net/files/13119\_CCCReportFinal1.pdf [https://perma.cc/73SV-TKFM]. For instance, Bangladesh's NAPA recognizes that both women and children are among the most vulnerable populations and that, as such, "any attempt to adapt or to cope with the adverse impacts of climate change will need to have special emphasis on protecting and helping these most vulnerable groups." However, neither women nor children are identified as stakeholders or actors in the listed possible adaptation measures. Instead, there is a single measure proposed to "[i]ncrease the resilience of vulnerable groups, including women and children." GOV'T OF THE PEOPLE'S REPUBLIC OF BANGL. MINISTRY OF ENV'T & FORESTS, NATIONAL ADAPTATION PROGRAMME OF ACTION (NAPA) UPDATED VERSION 34, 40 (Nilufa Islam et al. eds., 2009), https://nefcoc.int/resource/docs/napa/han02 pdf [https://nerma.cc/NG4O-XGG81\_Mozambique's NAPA does

https://unfccc.int/resource/docs/napa/ban02.pdf [https://perma.cc/NG4Q-XGG8]. Mozambique's NAPA does not mention gendered impacts or children at all in its sixty-two-page document. MINISTRY FOR THE CO-ORDINATION OF ENVTL. AFFAIRS, NATIONAL ADAPTATION PROGRAMME OF ACTION (NAPA) (2007), http://unfccc.int/resource/docs/napa/moz01.pdf [https://perma.cc/6E9P-6862].

<sup>223</sup> THE REPUBLIC OF UGANDA, CLIMATE CHANGE UGANDA NATIONAL ADAPTATION PROGRAMMES OF ACTION 45 (Florence Luziraa et al. eds., 2007), https://unfccc.int/resource/docs/napa/uga01.pdf [https://perma.cc/8WDK-NDM3].

<sup>224</sup> G.A. Res. 68/148 (Dec. 18, 2013).

<sup>225</sup> HODGKINSON, UNDERSTANDING AND ADDRESSING CHILD MARRIAGE, supra note 16, at 44.

<sup>226</sup> G.A. Res. 69/156 (Dec. 18, 2015).

In 2016, the UN General Assembly adopted a subsequent resolution that expanded this provision to recognize that child marriage "can increase during humanitarian emergencies, situations of forced displacement, armed conflict and natural disaster" as well as acknowledging "the importance of addressing the increased vulnerability of women and girls to sexual and gender-based violence and exploitation in those situations."<sup>227</sup> This resolution also recommended that States improve their collection of data on harmful practices, disaggregated by a number of key factors, including geographic location.<sup>228</sup>

This shift demonstrates the General Assembly's growing awareness that the environment in which a girl or woman lives may impact her likeliness to enter into a child marriage. While these documents provide hope that present and future efforts will better examine these interconnections, incorporating those intentions into domestic and international actions and policies may be harder to do.

The Sendai Framework for Disaster Risk Reduction 2015–2030,<sup>229</sup> adopted at the Third UN World Conference on Disaster Risk Reduction in 2015, presents an example of a missed opportunity to address child marriage. This framework, which "aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health,"<sup>230</sup> contains four priority areas—the first of which is understanding disaster risk. While the framework notes that both women and children are disproportionately affected by disasters,<sup>231</sup> and implores for a gender perspective to be included in all policies,<sup>232</sup> the only specific gendered reference speaks to building women's capacity to "secure alternate means of livelihood in post-disaster situations."<sup>233</sup>

<sup>227</sup> G.A. Res. 71/175 (Dec. 19, 2016).

<sup>228</sup> Id. at ¶ 16.

<sup>229</sup> UNITED NATIONS, SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030 (2015).

<sup>230</sup> Id. at ¶ 16.

<sup>231</sup> *Id.* at  $\P 4$ ,  $\P 20$ .

<sup>232</sup> Id. at ¶ 19(d).

<sup>233</sup> Id. at ¶ 36(a)(i).

Leading up to the creation of the implementation guidelines for the Paris Agreement in December 2018, human rights and women's rights activists advocated for the inclusion of strong human rights references in these guidelines.<sup>234</sup> While the guidelines adopted at COP24 do not explicitly reference human rights, they do reinforce the need for states to integrate gender considerations in their climate policies, such as while planning their national climate change action plans (Nationally Determined Contributions) and communicating adaptation information and action (Adaptation Communications).<sup>235</sup> Independent of the Paris Agreement and the implementation guidelines adopted at COP24, however, all parties to the UNFCCC are bound by their respective human rights obligations when implementing the Paris Agreement and determining their domestic climate policies.

#### **CONCLUSION**

This Article has laid out the existing evidence that the impacts of climate change may increase the risk of child marriage. While the existing research is both recent and largely qualitative or anecdotal, it is consistent—and growing. Much more extensive research and monitoring, including quantitative studies, is needed to fill the gaps.

While the exact impact of climate change on child marriage needs further study, existing international obligations require governments to: (1) ensure that their response to climate change includes specific attention and monitoring of the impact of climate change on women and girls, including any risk that climate change impacts will exacerbate or undermine efforts to end child marriage; and (2) ensure that efforts to end child marriage are crafted to respond to the ways in which the impacts of climate change may heighten the vulnerability of children to early marriage.

As child marriage is influenced by multiple factors and climate change mitigation requires work across several sectors, there are numerous channels and opportunities for

<sup>234</sup> See Press Release, Ctr. For Int'l Envtl. Law, One Step Closer to Katowice: Slow Progress on Paris Agreement Implementation Guidelines at Bonn Climate Meeting (May 10, 2018), http://www.ciel.org/news/one-step-closer-katowice-slow-progress-paris-agreement-implementation-guidelines-bonn-climate-meeting/ [https://perma.cc/J2AJ-Y66T]; WOMEN GENDER CONSTITUENCY, KEY DEMANDS (2018), http://womengenderclimate.org/wp-content/uploads/2018/12/COP24-WGC-Demands\_Finallitedesign.pdf?blm\_aid=41509 [https://perma.cc/QQ3N-8QJ5].

<sup>235</sup> CTR. FOR INT'L ENVIL. LAW, REPORT FROM THE KATOWICE CLIMATE CONFERENCE: PROMOTING HUMAN RIGHTS IN CLIMATE ACTION AT COP-24 2–3 (2018), https://www.ciel.org/wp-content/uploads/2018/12/HRCC\_Roundletter\_COP24\_December2018.pdf [https://perma.cc/G9S2-7546].

action. After analyzing international efforts, UNFPA distilled five key ideas for working towards the eradication of child marriage: empowering girls through skill-building and knowledge; eliminating all associated costs with education; transforming social norms; financially incentivizing and enabling families to keep their daughters in school; and calling for strong legislation, as well as the enforcement of that legislation.<sup>236</sup>

Efforts to eradicate child marriage should also assess and monitor climate change impacts. For instance, do national action plans focusing on eradicating child marriage acknowledge climate change? When prioritizing different parts of the country for antichild marriage initiatives, are decision-makers taking into consideration which areas of the country are most affected by climate change? Are such initiatives being adapted to reach populations displaced by natural disasters and impacted by climate change? Is the prevalence of child marriage in populations affected by climate change being monitored? These are a few of the many ways in which climate change concerns can begin to be integrated into anti-child marriage efforts.

Just as child marriage efforts need to consider climate change concerns, anti-child marriage efforts—and the rights of women and girls more broadly—should also be incorporated into climate change mitigation and adaption planning. Under international human rights law, climate change policies should consider how to accommodate, reduce, and strive to eliminate the differing gendered impacts of climatic changes on women and girls.

In an open letter from the United Nations High Commissioner for Human Rights to all states participating in the 2018 climate change negotiations, Michelle Bachelet warned that "human rights are under threat from a force which challenges the foundations of all life, as we know it, on this planet we share." She argued that states have a human rights obligation to enable adaptation and to strengthen their mitigation commitments.<sup>237</sup> Without additional mitigation efforts, the current policies in place project global temperature increases in 2100 ranging from 3.1–3.5 degrees Celsius above pre-industrial

<sup>236</sup> See LOAIZA & WONG, MARRYING TOO YOUNG, supra note 14, at 51–53.

<sup>237</sup> Open Letter from Michelle Bachelet, U.N. High Comm'r for Human Rights 1 (Nov. 21, 2018), https://www.ohchr.org/Documents/Issues/ClimateChange/OpenLetterHC21Nov2018.pdf [https://perma.cc/J3SK-PCK3].

levels.<sup>238</sup> This is greatly above the two degrees Celsius goal—with a further call to limit the increase to 1.5 degrees Celsius—agreed upon in the Paris Agreement.<sup>239</sup>

International human rights treaty bodies, such as the committees that implement CEDAW and CRC, have started to ask countries questions about climate change.<sup>240</sup> This should happen more consistently and should be included in future general comments and recommendations. United Nations human rights experts, including Special Procedures, should also consider the intersection of climate change impacts and child marriage throughout their work. Governments should implement the commitments enshrined in the preamble of the Paris Agreement to respect children's and women's rights when taking climate action and should work to integrate the principles of the preamble into the forthcoming revision of their Nationally Determined Contributions due in 2020.<sup>241</sup>

In a 2015 report on the impact of climate change and human rights in Kenya, HRW detailed how climate change adaptation policies could incorporate a rights-based approach, including a focus on equality and non-discrimination, the progressive realization of economic, social and cultural rights, ensuring free and meaningful participation, and accountability.<sup>242</sup> There are several ways in which such a rights-based approach could be applied to climate change and child marriage. For example, governments should ensure that women and girls are adequately represented in community consultations as part of planning processes. All planning documents on climate change and natural disasters should consider how to mitigate harm and protect

<sup>238</sup> Ottmar Edenhofer et al., *Technical Summary*, *in* CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, CONTRIBUTION OF WORKING GROUP III TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 26 (Ottmar Edenhofer et al. eds., 2014); *see also* CLIMATE ACTION TRACKER: TEMPERATURES, https://climateactiontracker.org/global/ temperatures/ [https://perma.cc/V5RE-DGCF].

<sup>239</sup> Adoption of the Paris Agreement, supra note 217, at art. 2(1)(a).

<sup>240</sup> For example, both committees have expressed concerns about the disproportionate impacts on women and children in vulnerable situations impacted by climate change, advocated for their participation in climate-related decision making, and call for women and children's rights to be integrated into climate action. *See* CIEL & GI-ESCR, STATES' HUMAN RIGHTS OBLIGATIONS, *supra* note 202, at 8–10.

<sup>241</sup> NATIONALLY DETERMINED CONTRIBUTIONS (NDCS), https://unfccc.int/process/the-parisagreement/nationally-determined-contributions/ndc-registry#eq-1 [https://perma.cc/X7J6-PNSC].

<sup>242</sup> HUMAN RIGHTS WATCH, "THERE IS NO TIME LEFT": CLIMATE CHANGE, ENVIRONMENTAL THREATS, AND HUMAN RIGHTS IN TURKANA COUNTY, KENYA 32 (2015), https://www.hrw.org/report/2015/10/15/there-no-time-left/climate-change-environmental-threats-and-human-rights-turkana [https://perma.cc/3AUC-WYXZ].

the rights of women and girls, including specific measures relating to the prevention of child marriage as well as assisting already-married children. Prioritizing access to education for girls among adaptation actions can also help prevent child marriages.

As Bangladesh, Mozambique, and other developing countries respond to harms that could result from climate-related impacts—including increased child marriage rates—questions of responsibilities and resources arise.<sup>243</sup> The framework of common but differentiated responsibilities recognizes that states have differing responsibilities based on both their contribution to global environmental degradation and their differing financial resources and capacities.

Climate justice-related concerns have been a focal point of many climate change discussions over the last several years. Similarly, ending child marriage is also a priority of the international community, demonstrated by the UN General Assembly's passing of three resolutions on child, early, and forced marriages since  $2014^{244}$  and the inclusion of a target of ending child marriage in the Sustainable Development Goals. Although some of the countries most affected by climate change also have a high prevalence of child marriage, little research has examined the relationship between these two issues.

Existing climate planning strategies, as well as measures taken to reduce and eliminate child marriage, should be examined: Can they better address any links? New climate change planning policies should explicitly consider gendered implications of their proposals, including child marriage. Organizations and governments striving to reduce and eliminate child marriage should further consider how the effects of climate change may be a contributing factor. Incorporating these concerns into both domestic level policies and international agreements will serve to increase awareness and spark further dialogue on the appropriate measures needed to respond to this gendered implication of climate change.

<sup>243</sup> NOTRE DAME GLOBAL ADAPTATION INITIATIVE: BANGLADESH, https://gain-new.crc.nd.edu/country/bangladesh [https://perma.cc/998V-9W9B]. For instance, Bangladesh played a very minimal role in the historical emissions that led to the immense effects their country is experiencing today. Additionally, the ND-GAIN ranks Bangladesh as the thirty-third most vulnerable country and the twenty-fifth least ready country. In this light, it is neither fair nor possible to expect them to shoulder the burden of adapting to climate change today and in the future.

<sup>244</sup> G.A. Res. 71/175 (Dec. 19, 2016), *supra* note 227; G.A. Res. 69/156 (Dec. 18, 2015), *supra* note 226; G.A. Res. 68/148 (Dec. 18, 2013), *supra* note 224.

<sup>245</sup> G.A. Res. 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development 18 (Sept. 25, 2015), *supra* note 52.