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WE ARE NOT INVISIBLE: The Impacts of Climate Change on Young Persons with Disabilities

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We Are Not Invisible

The Impacts of Climate Change on Young Persons with Disabilities

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ABBREVIATIONS

CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
COP	Conference of the Parties
CRC	Convention on the Rights of the Child
CRPD	Convention on the Rights of Persons with Disabilities
GBV	Gender-Based Violence
HIV	Human Immunodeficiency Virus
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IPCC	Intergovernmental Panel on Climate Change
IPV	Intimate Partner Violence
IRC	International Rescue Committee
JCPD	Jamaica Council for Persons with Disabilities
OHCHR	Office of the United Nations High Commissioner for Human Rights
SDGs	Sustainable Development Goals
SRH	Sexual and Reproductive Health

SRHR	Sexual and Reproductive Health and Rights
STI	Sexually Transmitted Infection
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Childrens' Emergency Fund
UNISDR	United Nations International Strategy for Disaster Reduction
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization



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1 EXECUTIVE SUMMARY

Climate change is one of the most pressing global challenges of our time. It is leading to more frequent and more extreme weather events worldwide, threatening access to arable land and clean air and water and placing the health and well-being of billions at risk. Yet, as changes to the climate demand new strategies for development that support community resilience, the experiences and voices of children and young persons with disabilities remain largely invisible to policymakers. Their invisibility not only increases the risks climate changes pose to children and young persons with disabilities but also represents a significant gap in the collective response to environmental crises. This policy paper aims to shed light on the multifaceted impacts of climate change on young persons with disabilities. It highlights the stark absence of intersectional research that takes age (among other factors) into account, as well as accessible, inclusive, and disability-sensitive planning and responses to climate crises. The paper reveals a systemic failure to include the voices of young people in climate-related discussions and planning efforts, even as they are the ones who will be forced to contend with the consequences of climate change long into the future.

The findings and recommendations discussed in more detail below are based upon an extensive literature review of the academic and gray literature and limited consultations with young persons with disabilities and their non-disabled peers.

Key findings include the following:

- **There is an urgent need for more research that takes an intersectional approach and seeks to understand the barriers children and young persons of different age, sexual orientation and gender identity, disability identity or impairment type, race, ethnicity, citizenship status, and a host of other social factors face participating in discussions about climate change and receiving necessary protection and services in the event of climate-related disasters;**
- **Inaccessible infrastructure in schools, public transportation, humanitarian shelters, and health care service providers makes it difficult if not impossible**

for children and young persons with disabilities and their caregivers to find safe shelter and necessary services when disasters occur, and limit their ability to avoid extreme flooding, drought, fire, or climate change-related weather events;

- **Climate change and related displacement can increase the vulnerability of children and young persons with disabilities to violence, including sexual and gender-based violence and child trafficking; and**
- **Existing climate change planning and responses fail to take into account the barriers children and young persons with disabilities are likely to face in accessing information about disaster preparation, such as evacuation routes and timing, finding accessible and inclusive classrooms, and meeting everyday needs such as clean water, safe and clean toilets, and sufficient nutritious food.**

In sum, governments and climate advocates must do more to ensure that children and young persons with disabilities are fully represented in all aspects of climate change planning and response. This paper calls for a paradigm shift towards more inclusive, equitable, and responsive climate action. It proposes a series of recommendations for policymakers, civil society, and the international community to ensure that the rights, needs, and contributions of children and adolescents with disabilities are recognized and integrated into all aspects of climate change discourse and action. Most importantly, it insists on the critical inclusion of the voices and perspectives of children and young people with disabilities directly in decision-making processes related to climate change policies and actions.

By advocating for an inclusive policy framework, this paper contributes to the ongoing dialogue on climate change that pushes for a world where young persons with disabilities are not only visible but are also active agents in shaping a sustainable and just future. Through detailed analysis and actionable insights, this policy paper aims to inform, inspire, and catalyze change toward more inclusive and effective climate policies and practices, ensuring that no one is invisible in this global fight against climate change.

2 INTRODUCTION

CLIMATE CHANGE IS HAVING PROFOUND EFFECTS ON THE WORLD IN WHICH WE LIVE

The world and its environment are continually changing due to extreme weather events caused by climate change, upending millions of lives. Scientific evidence suggests a link between climate change and natural disasters like hurricanes, floods, droughts, and wildfires (see, e.g., [U.S. Environmental Protection Agency, 2023](#); [N.A.S.A, Jan. 2024](#)). Warmer temperatures and changing rainfall patterns contribute to the formation and intensification of hurricanes and the melting of glaciers and avalanches. At the same time, rising sea levels increase storm surges and coastal flooding (Id.).

How climate change affects the globe and its inhabitants can vary, depending on factors such as geographic location, severity of events, what types of natural disasters are occurring, and how governments or citizens respond to them. Climatic issues that we are bound to experience more of can include intensifying heat waves, problems regarding the rising sea level and the shrinking of ice sheets, increased humidity, more recurring wildfires, and heightened storms, for example (Adhoot et al., 2015). Environmental disasters do not solely affect the ecosystem, but they also disturb any social, economic, or natural systems set in place that we rely on, further impacting global food security, employment, damaging urban infrastructure, and causing significant harm to human health (Grantham Institute, n.d.).

Researchers estimate as much as 85% of the world's population is affected by the consequences of climate change (Timsit & Kaplan, 2021). In 2020 alone, around 3.5 billion people experienced record-breaking heat, while another 1.81 billion people faced risks related to flooding. Researchers have warned that climate change-related extreme weather is likely to become more common in the future (Hausfather, 2023; Rentschler et al., 2022).

An estimated 100 million children worldwide are affected by disasters each year (Ducy et al., 2021). As many as 43.3 million children under the age of 18 have been displaced from their homes or experienced disruption to household livelihoods, and millions more are

contending with food shortages, inadequate housing, and increased vulnerability to infectious diseases (UNHCR Refugee Data Finder, 2023). Children with disabilities are among those most vulnerable to the impacts of climate change. Forced displacements, unsanitary living conditions, increased likelihood of physical harm and psychological trauma, lack of proper resources to maintain healthy diets, and a lack of access to education are just a few effects of how climate change is impacting those with disabilities (see, e.g. Kosanic et al., 2019; Jodoin et al., 2020a; UNDRR, 2023).

"I know that if there were to be an earthquake, I would die because no one worries about the evacuation of persons with disabilities."

Alejandra, Age 24
Mexico

Extreme weather events can cause damage to infrastructure and local surroundings, creating obstacles for persons with mobility and/or vision impairments, such as uprooted trees or fallen powerlines. Deteriorating roads and bridges create safety hazards and can prevent persons with disabilities from reaching safe shelter (Jodoin et al., 2020a). Inaccessible early warning systems also create challenges for persons with disabilities who may need more time or assistance to safely evacuate in the event of a dangerous weather event. Someone with hearing issues might have had to leave hearing aids behind, or someone with vision impairments might have been unable to gather everything they needed to help them see. Other concerns that might come up can include the location of shelters nearby, availability of certain supplies, equipment, medicine, and any other form of healthcare, as well as the ability to acquire aid promptly. There are many factors to consider when making sure that those with disabilities have adequate and necessary supplies, services, or information made obtainable to them.

¹Interviews were conducted in the native language of speakers, including English, Spanish, and Mandarin Chinese. Quotes from participants in the focus groups in Spain (which included participants from Latin America) and Taipei have been translated into English by the interviewers. Translations are meant to capture the meaning and content of what was said but may not be exact.

There are also instances of extreme heat events that are causing more injuries or deaths to occur, as well as putting lower-income people out of work, possibly leaving them without money to pay for air conditioning and increasing chances of heat-related illness (*Climate Change and the Health of People with Disabilities, 2023*). These negative influences on the health alone of those with disabilities are becoming more anticipated due to more recurring and extreme events of weather-related disasters such as heat waves, wildfires, and higher temperatures, thus causing an increase in risks of disease, injury, undernutrition, compromised work capacity, and mortality (Gaskin et al., 2017). Increased inequalities and marginalizations due to climate change are perilous and help fuel the threat of adverse impacts on the health of those with disabilities. These disparities are a pressing issue of the 21st century, and the way in which the world responds will have vast impacts on the well-being of our world and our future generations (Watts et al., 2018).

Climate Change

The United Nations Framework Convention on Climate Change defines climate change as *“a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”*

(United Nations Framework Convention on Climate Change, n.d.)

As extreme weather becomes more common it will likely amplify already adverse effects. It is therefore essential for policymakers and other stakeholders to take action now to mitigate future impacts of climate change and best support those most vulnerable and affected. There needs to be worldwide work done to best support persons with disabilities when confronted with climate change issues and their impacts on their lives. Not only does this work need to be done after any climate event occurs, but it has to happen during and before any issue comes to light. Barrier issues look different all across the world depending on people’s needs. Overall, it should start with educating others about these issues in order to bring more awareness about them and lay the groundwork for a safer and more equitable future.

CHILDREN WITH DISABILITIES EXPERIENCE THE IMPACTS OF CLIMATE CHANGE IN DISTINCT WAYS

An estimated 240 million children are living with some type of disability, which is around 1 in 10 children in the world (United Nations, n.d.d). Most of them are likely to live in the developing world and be exposed to the effects of climate change to a greater degree than their nondisabled peers (UNDRR, 2023; Eckstein, et al., 2021; OECD, n.d.; Ngcamu, 2023). There is widespread recognition that the burden of climate change is being borne most heavily by those who are already vulnerable, including those living in poverty and those with disabilities (Id.). Persons with disabilities, including children, are over-represented among the world's poorest, with more than 80 percent living in the Global South (*Disability and Development Report*, 2018; UN Report, 2018; WHO, 2011).

Poverty on its own has impacts on children's access to healthy and nutritious food, ability to attend school, and access to necessary healthcare and assistive devices (*Disability and Development Report*, 2018; Conceição, 2022). Children with disabilities living in resource-poor countries are likely to face multiple challenges to safe and healthy development, including the inability to safely gather food or clean water, restricted access to safe sanitation practices, displacement, and the like. But poverty also leads to vulnerability to natural disasters and an inability to adapt and recover from extreme weather events such as drought or flooding. According to the Global Climate Risk Index 2021, eight of the ten countries most affected by the impacts of extreme weather events in 2019 were low or lower-middle income countries, with half among the Least Developed Countries (Eckstein, et al., 2022; see also Intergovernmental Panel on Climate Change, 2018).

Understanding Disability

The United Nations Convention on the Rights of Persons with Disabilities recognizes persons with disabilities as including *“those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.”*

(Convention on the Rights of Persons with Disabilities, Art. 1, 2006)

Disabled persons frequently encounter different barriers in life that might affect their ability to respond to climate-related emergencies, obtain information about any prevention methods ahead of time, and access critical information, resources, or services (Kosanic et al., 2019). For instance, there might be a lack of early warning responses or evacuation

notices and plans, especially in formats accessible to all, which could include captions or audible messages. People from a lower-income background might not have the necessary equipment to receive important messages, such as phones, computers, or even access to the Internet (Engelman et al., 2022). They also might not be made aware of any local disaster risk reduction plans created to help them in emergencies.

In a survey of persons with disabilities conducted by the UN Office for Disaster Risk Reduction (UNDRR), 56% of respondents reported that they were not made aware of or did not have access to any disaster risk information made in accessible formats available in their communities (UNDRR, 2023).² This was the case even though nearly two-thirds of respondents reported they would have at least some difficulty evacuating a dangerous situation immediately (Id.).

² Although the introduction to the survey recognizes that children with disabilities are significantly affected by climate change and are a particularly vulnerable group, just five percent of the respondents were below the age of 18 and none of the recommendations explicitly called for age-appropriate actions. See UNDRR, 2023, <https://www.undrr.org/report/2023-gobal-survey-report-on-persons-with-disabilities-and-disasters>, Annex 2.

Barriers can be easier to overcome if we take the time to account for all different types of disabilities and how we can best prepare when reacting to climate change and its disastrous effects. Even with the resources that are currently in place, a significant amount do not consider persons with disabilities, and a multitude of ableist assumptions are omnipresent in society. These assumptions can be seen through the physical infrastructure, such as disaster planning, how aid is mobilized, and when the public is informed about anything regarding natural disasters (Engelman et al., 2022).

INTERSECTIONALITY

It is also important to consider how social factors such as sexual orientation and gender identity, race, religion, citizenship status, income, and rural or urban location, can change the experiences of those who have disabilities, including children, and potentially create intersecting vulnerabilities. Identities are complex and very diverse and need to be carefully considered when thinking about how to be inclusive and how they might intersect with those who have disabilities. It is best to gather information and opinions from all types of people to help create spaces of inclusivity and ensure a more positive and safe future. People have varying experiences in life, especially if they are a part of other marginalized groups, so it is important to listen to them to make sure that their needs and concerns are accounted for, especially coming from those who are disabled. It is necessary to be able to have diverse groups of people express any and all concerns that they might have and to fight for equity for all regarding the problem of climate change and its effects on persons with disabilities.

The following sections discuss the ways in which two factors, gender and diversity in disability type, can impact the way people experience climate change and its effects.

Climate Change and Persons with Albinism

The effects of climate change are global but their impact on persons with disabilities can vary substantially depending on disability identity. The increased sunlight and UV radiation exposure caused by climate change has led to a rise in cases of skin cancer, a type of cancer that disproportionately affects people with albinism. Due to the increasing amounts of sun exposure, people with albinism have to take more precautions than most to stay safe, including buying sun protection products, wearing protective clothing, and staying indoors. This can be particularly difficult for children and adolescents who are reluctant to stand out among their peers, and in many cases face long walks to school, and classrooms and playgrounds unprotected from the sun (A. Herbert, personal communication). Parents of children with albinism in Kenya have reported that their children refuse to wear protective clothing and give it away to friends so as to fit in.

Sunscreen and protective clothing in multiple sizes for growing children can also be extremely expensive for families of persons with albinism, adding economic burdens on families living in or near poverty. At the same time, older children and adults with albinism are often limited in the amount of time they can spend outdoors during daylight, making it difficult to generate sustainable income from farming or other outdoor work activities.

"If I, [a person with albinism], cannot afford a bottle of sunscreen to protect myself from the rays of the sun, I will not be able to walk a long distance to go to school... the quality of education I will receive will not be top notch."

Alan Herbert, Personal Communication, February 14, 2024

Persons with albinism also face unique risks due to the rising intensities and frequencies of climate disasters due to climate change. Many have difficulty seeing which makes visual warning signs of climate emergencies or disasters inaccessible. They may also face difficulty locating accessible shelters which can accommodate the need for sun protection. Shelters often lack sun protection which increases the risk to persons with albinism of sun exposure related health problems.

Report by the Independent Expert on the enjoyment of human rights by persons with albinism, 2018

Gender

Gender can lead to significant differences in how children and young persons with disabilities experience the impacts of climate change (UN Women, 2022). In general, women and girls face social exclusion in many developing regions due to cultural and economic barriers which restrict their mobility outside their households and immediate communities and may limit their access to technologies like mobile phones (Fong, 2022). This can mean a lack of access to early warning systems during disasters and climate variability forecasts. There is evidence that women die in disasters at a higher rate than men due to women's social exclusion and other factors (UNEP, 2011; UN Women, 2022). For example, during a cyclone in Bangladesh in 1991, 90% of the people who died in this disaster were women (Abedin et al., 2013). This is because men would often pass along warnings and information about the event to other men in public places but very seldom would do the same for the rest of the family. Many women died while waiting for their male relatives to return and transport them to safe spots because they were not permitted to leave the house without their accompaniment (Abedin et al., 2013).

There is also evidence that women use and manage natural resources differently than men do, and their disadvantages may worsen due to the decrease or loss of natural resources (Abedin et al., 2013). For instance, the primary producers of basic foods in developing countries are rural women, and the agricultural sector is highly vulnerable to climate change factors like more intense droughts and changes in precipitation, which threaten the level of food security and the ability of families to survive (see, e.g. UN Women, 2022; World Council of Churches, 2023).

In the aftermath of disasters girls are frequently forced to leave school to help their families with rebuilding or gathering water. Climate change has led to further gender inequalities, including impacting girls' school attendance, increasing their vulnerability to violence and exploitation, and disrupting access to sexual and reproductive health supplies and services (Devonald et al., 2022, 82). Girls and young women with disabilities are also more vulnerable to violence during climate-related emergencies, especially in humanitarian shelters (OHCHR, 2020).

As one group of researchers noted, “Women, children, and older persons with disabilities are particularly vulnerable to discrimination, exploitation, and violence, including gender-based violence, and they may have difficulty accessing support and services that could reduce their risk and vulnerability” (Saxton & Ghenis, 2018, 9). Negative climate change factors can cause them to face “triple discrimination” which includes limited support from governmental services.

Disability Identity and Impairment Type

Diversity among disabilities can lead to very different vulnerabilities to climate change and extreme weather. Hurricane Katrina in the United States impacted 155,000 disabled people, including those who were blind or deaf, those who relied on wheelchairs, canes, or crutches, those with service animals, and those who required mental health care. People with sensory impairments suffered from displacement or damage because they were not properly informed about the situation and were not instructed on how to evacuate appropriately. People with other types of disabilities were also displaced due to the lack of accessible bathrooms and suitable beds. They also faced difficulties regarding accessible housing, food and water availability, healthcare services, work opportunities, and financial security during the reconstruction process. Persons with diverse disabilities were more susceptible to vector-borne or water-borne infections as well as mental health issues, including post-traumatic stress disorder, following catastrophic events caused by climate change (Kosanic, 2022).

Impact of Climate Change on Wheelchair Users in Taiwan

We conducted interviews with four individuals from the Taipei New Vitality Association for Independent Living in Taiwan: Lin, Xiao Qi, Yukih, Pupuy, and Ke Wei. We found that climate change disproportionately impacts individuals using wheelchairs in Taiwan. During their conversations, all mentioned that extreme weather conditions caused by climate change had created significant inconveniences in their lives and limited their mobility.

For example, extreme cold and heat caused the batteries of their wheelchairs to run out quickly while excessive rainfalls often result in waterlogged streets, making it challenging for them to navigate. Additionally, they expressed concerns about potential equipment damage due to exposure to extreme weather conditions.

"The rain damages my electric wheelchair, and the frequency of extreme rainfall in Taiwan limits my ability of independent living."

Chun-Chieh Lin
Founder of the Taipei New Vitality Association for Independent Living
Osteogenesis Imperfecta
Taiwan

"Due to the extreme heat, it's easy to get sunburned as it's hard to move your hands and feet. In recent years, the extreme weather changes require me to rely on air conditioning, which makes it difficult to engage in outdoor activities and increases financial burden."

Xiao Qi, Age 38
Muscular Dystrophy
Taiwan

"I don't like to go out on rainy days because I struggle with maintaining my body's balance and the slippery floors make me fall easily."

Ke Wei, Age 27
Cerebral Palsy
Taiwan

In a study published by Global Voices, the author pointed out that hurricanes, storms, landslides, and earthquakes are among the many natural disasters that frequently strike Jamaica. However, the blind and deaf communities were having a hard time accessing the materials that the Jamaica Council for Persons with Disabilities (JCPD) library offers, which has led to a lack of awareness of climate change. The author further pointed out that the communication/warning system and disaster preparedness measures taken in Jamaica were

inaccessible to persons who are blind, deaf, and/or have vision impairments. Many deaf residents did not know there was an emergency and they were unable to access information through the systems provided because all of them require the ability to hear (Steward, 2023).

Research conducted in Indonesia found that students with intellectual disabilities can learn about climate change and the significance of their role in taking care of the environment. The study, limited to individuals with intellectual disabilities with an IQ of less than 65, aimed to raise awareness of climate change by utilizing photosynthesis experiments with different light intensities to help students improve their science process skills. Although it takes more time to do so, learning how light intensity affects the process of photosynthesis and answering questions from the teachers allows the students with intellectual disabilities to understand climate change more thoroughly, including how it impacts our lives and the effects it potentially brings (Manullang et al., 2021).

METHODOLOGY

This report aims to discuss the impacts of climate change on children and young persons with disabilities. We focused our research on collecting academic literature and gray literature focused on climate change and persons with disabilities, specifically children and young people, which includes young people up to the age of 24. We conducted our academic literature search through databases such as Web of Science, PubMed, and Academic Search Complete.

Additionally, we divided our search to focus on the UNICEF clusters: Health, Education, Child Protection, Sexual Reproductive Health and Gender-Based Violence, Water, Sanitation, and Hygiene (WASH).

Sample Search Terms		
"Climate Change"	Disab*	child*
"Climate Change"	Disab*	Gender or sex
"Climate Change"	Disab*	Youth
"Climate Change"	Disab*	Youth
"Environmental Degradation"	Disab*	
"Climate Change"	"Human rights"	Disab*
Disab*	"Disaster"	"Education"
Adolescen*	disab*	migrat*
sex*	"Climate change"	Disab*
impair*	"Climate change"	"Mental health & child"
disab*	"humanitarian"	"refugee"

We also conducted a search for gray literature to find supplemental research and reports on current impacts and policies. We used material from non-governmental organizations, including United Nations agencies, Save the Children, the Pacific Disability Forum, the Committee on the Rights of Persons with Disabilities, Trinity College, the Harvard Law School Project on Disability, and the like. As we conducted our literature review, we selected articles focused on quantitative and qualitative findings of the impacts of climate change and organized them by UNICEF cluster.

We found that the research disproportionately focuses on health, while topics like nutrition, education, water, sanitation, and hygiene are less likely to be represented. We also found that research concerning both disability and climate change frequently failed to consider diversity among persons with disabilities, especially with respect to age and gender. Brief references to persons with disabilities as a vulnerable group were common, without significant discussion, and references to children, youth, adolescents, and/or young persons with disabilities were very limited.

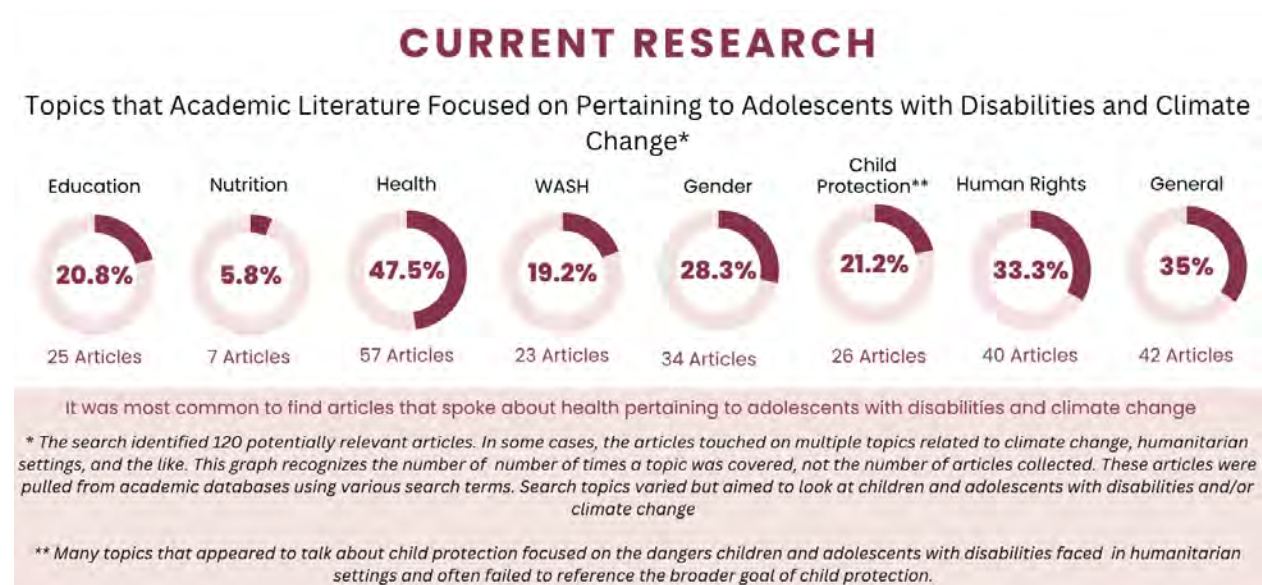


Figure 2.1 | Methodology

The search identified 120 potentially relevant articles. In some cases, the articles touched on multiple topics related to climate change, humanitarian settings, and the like. Many articles discussed multiple topics relevant to our research. This graph recognizes the number of times a topic was covered, not the number of articles collected.

Furthermore, we conducted consultations with young persons with disabilities in Spain and Taipei and representative organizations in Kenya and Cambodia. The consultations intended to include the voices of young persons with disabilities and understand their everyday experiences in the face of weather extremes and other impacts of climate change. One of the guiding principles of the Convention for Persons with Disabilities is the inclusion of persons with disabilities in decision-making spaces. We wanted to ensure that we provided the space for persons with disabilities to share their lived experiences.



Figure 2.2 | Locations of Focus Groups

In the upcoming sections of this report, we discuss UNICEF’s core areas of humanitarian work concerning education, WASH (water, sanitation, and hygiene), child protection, and health. These are fundamental human rights that everyone should have access to and be able to maintain in their lives. Each specific section will provide examples of how persons with disabilities are being impacted by climate change in relation to the core area and, in turn, how that affects the quality of their lives.

3 NORMATIVE FRAMEWORK

“States Parties shall take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with other children.”

Convention on the Rights of Persons with Disabilities (CRPD), Article 7

There is a robust legal framework recognizing and protecting the rights of persons with disabilities. However, the implementation of that framework in the context of climate change has been slow. This section reviews the key instruments laying out the rights of children and young people with disabilities, beginning with the Convention on the Rights of Persons with Disabilities (CRPD) and the Convention on the Rights of the Child (CRC). In addition to these, the Paris Agreement and others clarify how these rights may be impacted by climate change and what additional measures must be taken to ensure the full realization of all rights for children and young people with disabilities.

Figure 3.1 | Legal Frameworks

Mechanism	Obligation
Convention on the Rights of Persons with Disabilities	<p>Women with disabilities (Art. 6)</p> <p>Children with disabilities (Art. 7)</p> <p>Accessibility (Art. 9)</p> <p>Right to Life (Art. 10)</p> <p>Situations of risk and humanitarian emergencies (Art. 11)</p> <p>Personal mobility (Art 20)</p>

	<p>Education (Art. 24)</p> <p>Health (Art. 25)</p> <p>Habilitation and rehabilitation (Art. 26)</p> <p>Work and employment (Art. 27)</p> <p>Adequate standard of living and social protection (Art. 28)</p> <p>Participation in political and public life (Art. 29)</p>
<p>Convention on the Rights of the Child</p>	<p>Life, Survival and Development (Art. 6)</p> <p>Refugee status and humanitarian protection (Art. 22)</p> <p>Children with a disability (Art. 23)</p> <p>Health and Health Services (Art. 24)</p> <p>Adequate Standard of Living (Art. 27)</p> <p>Education (Art. 28)</p>
<p>Convention on the Elimination of All Forms of Discrimination against Women</p>	<p>Human Rights and Fundamental Freedoms (Art. 3)</p> <p>Education (Art. 10)</p> <p>Work and Employment (Art. 11)</p> <p>Health (Art.12)</p> <p>Equality in Economic and Social Life (Art. 13)</p>

<p>International Covenant on Civil and Political Rights (ICCPR)</p>	<p>Self-determination (Art. 1)</p> <p>Rights Recognition (Art. 2)</p> <p>Equality in Social and Political Rights (Art. 3)</p> <p>Right to Life (Art. 6)</p> <p>Child Protection (Art. 24)</p> <p>Political Participation (Art. 25)</p>
<p>International Covenant on Economic, Social, and Cultural Rights (ICESCR)</p>	<p>Self-determination (Art. 1)</p> <p>Realization of Rights (Art. 2)</p> <p>Equality in economic, social and cultural rights (Art. 3)</p> <p>Work and Employment (Art. 6)</p> <p>Adequate Standard of Living (Art. 11)</p> <p>Highest Attainable Standard of Physical and Mental Health (Art. 12)</p> <p>Education (Art. 13)</p>
<p>Paris Agreement</p>	<p>“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.” (Preamble, Par. 12)</p>

<p>Sendai Framework</p>	<p>“Managing the risk of disasters is aimed at protecting persons and their property, health, livelihoods and productive assets, as well as cultural and environmental assets, while promoting and protecting all human rights, including the right to development.” (Guiding Principles, Paragraph C)</p> <p>“Disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible, and non-discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. A gender, age, disability, and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted.” (Guiding Principles, Paragraph C)</p>
<p>Sustainable Development Goals</p>	<p>End hunger, achieve food security and improved nutrition, and promote sustainable agriculture (Goal 2)</p> <p>Ensure healthy lives and promote well-being for all at all ages (Goal 3)</p> <p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Goal 4)</p> <p>Ensure availability and sustainable management of water and sanitation for all (Goal 6)</p> <p>Ensure access to affordable, reliable, sustainable and modern energy for all (Goal 7)</p> <p>Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all (Goal 8)</p> <p>Reduce inequality within and among countries (Goal 10)</p>

Take urgent action to combat climate change and its impacts (Goal 13)

CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES (CRPD)

The Convention on the Rights of Persons with Disabilities broadly protects the rights of persons with disabilities. Article 7 is specific to children with disabilities and calls on all States Parties to “take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with all other children”. It also calls on States Parties to ensure that children with disabilities can freely express their views on matters that affect them, which would include topics such as climate justice and activism.

The CRPD primarily addresses climate-related issues within Article 11, which requires States to “take, in accordance with their obligations under international law, including international humanitarian law and international human rights law, all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters” (United Nations, 2006). In their Concluding Observations, the Committee has largely focused its attention under Article 11 to disaster risk reduction and often refers to the Sendai Framework as a recommendation (Harvard Law School Project on Disability, 2023). The Sendai Framework, however, only addresses disaster risk reduction, which focuses on response and recovery approaches. The Committee has not separately addressed climate change to a significant extent beyond climate-induced disasters, nor has it spoken to the particular needs of children with disabilities in the face of climate change, such as with respect to health, nutrition, education, water, and other basic human rights.

In its input to the Committee on its proposed draft general comment on Article 11, the United Nations Children’s Fund (UNICEF) pointed out that all implementation of Article 11 of the CRPD must be in line with the Convention on the Rights of the Child (CRC) (United Nations Children’s Fund, 2023d). Increased coordination between CRPD and CRC mechanisms will

strengthen the efforts to monitor and promote the rights of children with disabilities in situations of risk and humanitarian emergencies.

CONVENTION ON THE RIGHTS OF THE CHILD (CRC)

Like the CRPD, the Convention on the Rights of the Child broadly protects the human rights of all children, including the right to grow up in a safe and nurturing environment, and to receive humanitarian assistance whenever necessary (Preamble, Article 22). In 2023, the UN Committee on the Rights of the Child released a general comment specific to climate change: *General Comment No. 26 (2023) on children's rights and the environment, with a special focus on climate change*. It highlighted how climate change impacts specific rights under the Convention, including the right to non-discrimination (Art. 2), the best interests of the child (Art. 3), the right to life, survival, and development, the right to education (Arts. 28 and 29), and more.

The Committee confirmed that States Parties are responsible for ensuring a clean, healthy, and sustainable environment to respect and fulfill children's rights. Importantly, the Committee noted that, "The obligation to respect children's rights requires States to refrain from violating them by causing environmental harm. They shall protect children against environmental damage from other sources and third parties, including by regulating business enterprises" (UN Committee on the Rights of the Child, 2023). Additionally, States Parties must facilitate the meaningful participation of children in environmental decision-making (Id.).

CONVENTION ON THE ELIMINATION OF ALL FORMS OF DISCRIMINATION AGAINST WOMEN (CEDAW)

The Convention on the Elimination of All Forms of Discrimination Against Women promotes and protects the rights of women and girls including in the context of a changing climate. In 2018, the Committee on the Elimination of Discrimination Against Women adopted "*General Recommendation No. 37 (2018) on the gender-related dimensions of disaster risk reduction in the context of climate change*." The General Recommendation established that

all of the protections contained in the CEDAW need to be applied to all stages of climate change and disaster prevention. The Committee highlighted specific areas of concern, including how climate change can negatively impact access to education and health care services, and exacerbate gender-based violence. The Recommendation establishes that States Parties must ensure that all climate change and disaster plans or policies are “gender responsive and grounded in human rights-based principles” (UN Committee on the Elimination of Discrimination against Women, 2018).

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The rights of persons with disabilities have received limited attention under the UNFCCC. This Framework obligates States to “ensure disability-inclusive, rights-based mitigation and adaptation” and include the rights of persons with disabilities in future decisions by “creating a constituency for persons with disabilities at the climate negotiations” (United Nations, 1994). At the 21st Conference of the Parties (COP21), States Parties to the UNFCCC adopted the Paris Agreement to combat climate change and invest in sustainable initiatives. Under the *Paris Agreement*, the Preamble states that “[p]arties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights,” including the right of “persons with disabilities” (United Nations, 2018).

The 28th Conference of the Parties to the UNFCCC (COP28) had a Disability Caucus, an informal group representing the disability movement and organized by the International Disability Alliance and other organizations. Due to their advocacy effort, the COP 28 main outcome document explicitly refers to persons with disabilities by acknowledging that “Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights...persons with disabilities” (United Nations Framework Convention on Climate Change, 2023). Nevertheless, there is still much more that can be done; in the final statement by the Disability Caucus, Juan Angel De Gouveia highlighted that “80% of States Parties to the Paris Agreement do not include any reference to persons with disabilities in their Nationally Determined Contributions” (De Gouveia, 2023).

The Caucus called for action, including guaranteeing the full and effective participation of persons with disabilities in UNFCCC processes and decisions.

INTERNATIONAL COVENANT ON CIVIL AND POLITICAL RIGHTS (ICCPR)

Under the ICCPR, States are obligated to promote and protect civil and political rights, including the right to life. In General Comment No. 36, the Committee affirmed the States Parties' obligations in regard to the right to life and recognized that "Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life" (UN Human Rights Committee, 2019). The Committee established the State Parties obligation to respect and ensure the right to life, in particular the right to life with dignity, "on measures taken by States parties to preserve the environment and protect it against harm, pollution and climate change caused by public and private actors" (UN Human Rights Committee, 2019).

Additionally, in 2022, the Human Rights Committee found that Australia's failure to adequately protect indigenous Torres Islanders against the impact of climate change violated their rights to enjoy their culture and be free from interference with their private life, family, and home. The Committee highlighted that the obligation of States Parties to respect and ensure the right to life extends to "reasonably foreseeable threats and life-threatening situations that can result in loss of life," including climate change impacts and environmental degradation, as they are some of the most serious threats to the ability for present and future generation to enjoy the right to life (UN Human Rights Committee, 2022).

INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL, AND CULTURAL RIGHTS (ICESCR)

By ratifying the ICESCR, States commit to taking individual steps and participate in international cooperation to the maximum of their available resources to achieve the full realization of the economic, social, and cultural rights guaranteed by ICESCR. The rights protected include the right to health, adequate housing, education, water, food, and culture

(United Nations, 1966). The Committee on Economic, Social and Cultural Rights has not issued any comments on climate change, but in 2018, the Committee released its first public statement addressing climate change in response to the Intergovernmental Panel on Climate Change (IPCC) Special Report on 1.5C. The statement describes the implications of climate change on rights protected under the ICESCR. It acknowledges that climate change already affects many rights guaranteed under the Covenant, including the right to health, food, water, and sanitation. Under the Covenant, States Parties are required to respect, protect, and fulfill human rights for all, including their own populations and outside their territory (UN Committee on Economic, Social, and Cultural Rights, 2018). Lastly, the Committee “noted that a failure to prevent foreseeable harm to human rights caused by climate change, or a failure to mobilize the maximum available resources in an effort to do so, could constitute a breach of this obligation” (UN Committee in Economic, Social, and Cultural Rights, 2018). The Committee has stated they will continue to review the impacts of climate change on economic, social, and cultural rights and provide States guidance on how to fulfill their obligations in climate mitigation and adaptation efforts.

THE SENDAI FRAMEWORK

The Framework recognizes that, “Disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible, and non-discriminatory participation” (United Nations, 2015). Persons with disabilities are identified as “critical in the assessment of disaster risk and in designing and implementing plans” (United Nations, 2015). The Framework empowers persons with disabilities to lead and promote universally accessible response and recovery approaches. Furthermore, to align with the Sendai Framework principles, States should recognize individuals with disabilities as active contributors and leaders of inclusive disaster risk reduction.

The UN Office of Disaster Risk Reduction also released the 2022-2025 Strategic Framework. It explicitly states how to have a disability-inclusive disaster risk reduction, requires all policies to integrate a disability perspective, and emphasizes the need for increased leadership and advocacy on disability-inclusive disaster risk reduction (United Nations, 2021).

4 HEALTH

“My symptoms are hugely impacted by the changes in temperature. I tend to faint when there are heat waves, and going out in the summer is impossible. It is very hard to explain to people because it is invisible. As time goes on, I find myself more isolated at home.”

Naima, Age 23,
Valencia, Spain

Impacts of climate change on the health of children and young persons with disabilities are at heightened risk of worsening of health, injury, diseases, malnutrition, and even death (Jodoin et al., 2020). During slow and sudden-onset climate change events, young persons with disabilities are affected both physically and mentally (Jodoin et al., 2020). Having access to health care and mental health support become a challenge as young people with disabilities are largely marginalized by policy climate related planning. Locations of health care facilities, higher expenditures, and social exclusions contribute to the barriers young persons with disabilities face in receiving care (Zuurmond et al., 2016).

CLIMATE CHANGE AND THE RIGHT TO HEALTH

Article 25 of the CRPD states that persons with disabilities have a right to the highest attainable standard of health without any discrimination (see also ICESCR, Art. 12). States Parties are required to take all appropriate measures to ensure persons with disabilities have access to health care services that are age and gender-sensitive. Articles 7 and 9 contribute to this discussion on children with disabilities and their accessibility to health care in climate change settings.

**UNICEF's 2022–2025 Strategy Focus on Health in Climate Environment, Energy
and Disaster Risk Reduction**

"We will reduce the health impact of climate and environmental degradation on children by addressing related risks in primary health care and strengthening climate-resilient and environmentally sustainable healthcare facilities."

(UNICEF, 2022a)

Although the rights to health and accessible healthcare services have been acknowledged throughout multiple policy sources, there is still a lack of action and implementation for children and young persons with disabilities. According to a UNICEF report on children with disabilities, half of the population of all persons with disabilities are unable to afford health care. Persons with disabilities are 50 percent more likely than others to experience catastrophic health expenditures (2022). Those living in poverty are likely to be significantly less able than others to afford healthcare. Attitudinal and economic barriers, such as poverty, inadequately trained healthcare professionals, and physical inaccessibility, were frequently reported to be some of the major barriers to healthcare access for children with disabilities in low and middle-income Sub-Saharan African countries (UNICEF Fact Sheet: Children with Disabilities, 2022b).

Children with disabilities are often excluded and overlooked when it comes to strategic health planning, even though they may have higher healthcare needs (Missing Billion Initiative, 2022). Evidence has shown that disaster management plans rarely deal with or attempt to factor in the emergency health needs of those with mobility and sensory impairments. Additionally, for the disabled community, research has shown that there are a limited range of health services provided in disaster settings (Boon et al., 2011).

The Importance of Attention to Accessibility During Disasters

The Great Hanshin-Awaji earthquake of 1995 in Kobe, Japan, provided lessons in disaster planning that had been overlooked before the earthquake. Parents of children with physical, intellectual, and psychosocial disabilities were surveyed and voiced concern for the need for specialized facilities to care for persons with disabilities, especially children. The parents had noted that the emergency shelters were ill-equipped for children who had special needs, forcing families to move elsewhere and creating further pressure on families and already traumatized children (Takada, 2012).

Similarly, in a report on people with albinism affected by Cyclone Freddy of East and Southern Africa in 2023, those affected reported healthcare professionals had little awareness about how to assist or provide care to persons with albinism. For example, care packages did not include products to meet the specific needs for persons with albinism, such as sun protection, and the resettlement centers were unprotected from the sun allowing heat to accumulate inside tents, causing discomfort to their skin (UNGA, 2023).

Children with Disabilities and Accessible Healthcare Services

Children with disabilities have higher healthcare needs than their non-disabled peers yet face significant barriers to accessing services (Missing Billion Initiative, 2022). Especially in climate disaster settings, getting access to assistive devices, specific medications, and transportation can become costly as they are limited due to planning being directed toward general populations.

The geographic location and climate conditions of an area can create challenges in accessibility. In rural areas of seclusion, for example, knowledge of where to find healthcare and rehabilitation services due to limitations of institutions and distance are given factors. Information on healthcare in printed materials is frequently not accessible for all children with disabilities, and this limits their ability to learn about healthcare options and make informed decisions about their health (Adugna et al., 2020).

In Kenya, transportation can be difficult to navigate depending on the conditions of the terrain and the overall accessibility of routes, especially for those using assistive devices, such as wheelchairs (Zuurmond et al., 2016). In Zambia, roads are often blocked and become inaccessible due to heavy rainfalls and floods (Adguna et al., 2020). The destruction and damage to infrastructure and nature further create inadequate access to receiving and getting care.

The unavailability of healthcare services in rural and remote areas can be particularly challenging for persons with disabilities. In an interview with the founder of Black Albinism, it was noted that sun and skin protection products for their treatments and protection were costly and far beyond the means of many (In Kenya, a bottle of sunscreen costs \$35, where local people are making \$2-3 daily). Healthcare services are scarce and often located far from rural communities, making regular visits challenging for families. This situation is particularly hazardous for individuals with albinism, who must travel under the sun, thereby increasing their exposure to harmful solar radiation. Moreover, there is a lack of awareness among communities and the individuals themselves about protective measures for those with albinism (A. Herbert, Personal Communication, February 14, 2024).

The stigma surrounding disability directly influences how children get care and can be amplified in climate-related settings. This can be seen through caregivers who may feel embarrassed and ashamed about the child's condition, making efforts to keep the child's condition a secret and avoid seeking any medical help. A report on healthcare professionals in sub-Saharan Africa highlights the negative attitudes of workers hindering the accessibility to healthcare services for children with disabilities: "One participant in Uganda reported a case where a nurse would not provide HIV-related services such as blood tests to a girl with a physical disability due to misconceptions that youth with physical disabilities were not sexually active" (Adguna et al., 2020). These encounters demonstrate the further vulnerabilities and heightened exclusions these children would face in climate change settings because of the pre-existing outlooks of the communities.

In areas where there is a lack of education, the biomedical health needs of a child with a disability are not fully understood. With this, healthcare workers are often unsure of referral

pathways and display poor communication on the next steps for these children (Adguna et al., 2020). Engaging with medical services and seeking treatments is less common and may be sought in traditional cultural ways (Zuurmond et al., 2016).

In general, children and adolescents with disabilities face increased barriers when accessing and getting health treatment and healthcare services, from challenges in mobility to stigma around being in public. A survey conducted in Turkana, Kenya, found that families who had children with disabilities were less likely to access key health services because of stigma and shame, as well as increased inability to travel far away to get service (Zuurmond et al., 2016). Climate changes only exacerbate these challenges by disrupting physical environments and heightening sensitivities to weather, posing increased health impacts to vulnerable populations.

Active participation of children with disabilities in identifying and describing the barriers they face, specifically in climate change settings, is crucial to developing inclusive planning of healthcare.

HEALTH RISKS OF CLIMATE CHANGE FOR CHILDREN WITH DISABILITIES

As stated by UNICEF, “Children are cognitively, physiologically, and physically more vulnerable to climate impacts and environmental pollutants” (UNICEF, 2022a). Children have impacted the environment the least, yet they are the most vulnerable to its effects. In addition, because of their less-developed physiology and immune systems, they will experience the most intense effects from climate change (OHCHR, n.d.b). Climate change poses a significant risk to the spread and transmission of disease through exacerbating weather-related impacts and changing natural ecosystems (Boon et al., 2011). This can increase the instances of vector-borne diseases such as malaria and dengue, as well as diarrheal diseases, through increased contamination of water sources. According to the WHO, infectious disease transmission is a great risk after natural disaster-related emergencies—often from contaminated water and water-borne diseases (WHO Water and Sanitation in Humanitarian Emergencies, n.d.). Extreme weather disturbances can cause emergency scenarios for human populations and can easily spread disease and illness—especially among

persons with disabilities or pre-existing vulnerabilities. According to Boon et al., children and adolescents with disabilities are more likely to have issues accessing health care and more likely to contract diseases during climate-related disasters, as many have weakened immune systems that make them more susceptible to contracting diseases.

Even with slow onset climate changes, the worsening of health and higher risk of injury, disease, death, malnutrition, water, and vector-borne diseases are prevalent (Jodoin et al., 2020). For children with preexisting health conditions and long-term chronic illnesses such as asthma, increased exposure to air pollutants is likely to intensify symptoms gradually (Jodoin et al., 2020). In 2016, a combination of indoor and outdoor air pollutants were associated with the 543,000 deaths among children under the age of 5. Children have higher breathing rates which makes them more likely to have respiratory problems and infections (OHCHR, n.d.b). In sudden-onset disaster settings, higher rates of illness, injuries, and death are shown in children with disabilities. Take for instance heatwaves, because children adapt at a slower rate they may experience heat rashes, heat-related cramps, exhaustion, disease, respiratory illness, stroke and even death (OHCHR, n.d.b). Additional barriers children may face could include not being able to comprehend the nature of the disaster, being unable to escape, losing essential medications/assistive devices during impact, and not having proper access or aid in the recovery process (Pacific Disability Forum, 2022).

As outlined previously, children and adolescents with disabilities already face increased barriers to accessing health services—but the case of climate change exacerbates the vulnerability of this group. A study conducted in 2024 found that “the disproportionate effects of climate change are likely to exacerbate pre-existing inequities in social determinants of health,” such as heightening the barriers faced by persons with disabilities as opposed to how other population groups experience situations (Greenwald et al., 2024). When looking at specific health impacts, “increased heat exposure is directly linked to morbidity and mortality associated with heat stress” (Greenwald et al., 2024).

Children with disabilities are also likely to face barriers to accessing clean water after disasters. One study in Bangladesh found that many children with disabilities were unable to carry water for themselves in times of emergency, causing them to utilize contaminated

water sources as their only option (Scherer et al., 2021). This increases the risk of diarrheal disease and other water-borne illnesses that can easily spread throughout refugee camps or other areas with shared water sources.

Impact of Climate Change on Nutritional Health

According to a UNICEF Press Release, children with disabilities are “25 percent more likely to be wasted and 34 percent more likely to be stunted” (UNICEF Kosovo Press Release, 2021). Children with disabilities frequently experience malnutrition, which has been seen to be especially true for children with difficulties seeing, playing, and walking (UNICEF Kosovo Press Release, 2021). Climate change impacts pose a significant threat to nutrition and accessing food for populations, especially children and adolescents with disabilities. As outlined in a study conducted in 2014, “changes in climate conditions could have an impact on undernutrition through affecting future crop yields” (Ishida, 2014).

With constant changes in weather and climate, many populations are seeing drought conditions and flooding on farmlands, rendering food sources lower than usual. When looking at the impacts on disabilities, adolescents with physical disabilities might be unable to farm the land to grow food for themselves or travel far distances to retrieve food if places around them run out of food sources. In Turkana, Kenya, children with disabilities were found to be more likely to be malnourished in comparison to children without disabilities (Zuurmond et al., 2016). Due to the stigma surrounding their disabilities, many children can be shunned and are often forced to eat in solitude or after everyone else. When food production is lowered due to the impacts of climate change, they are more likely to be excluded from food offerings and might be undernourished as a result of this stigma and neglect (Zuurmond et al., 2016).

MENTAL HEALTH IMPACTS OF CLIMATE CHANGE

There is substantial evidence that climate change is having a significant effect on the mental health of adolescents and young people generally, increasing levels of anxiety, depression, and post-traumatic stress disorders, among other things, and potentially interfering with cognitive development in very young children (see, e.g. [Clayton, et al., 2023](#);

Van Nieuwenhuizen, et al., 2021). Indeed, some researchers have described the climate crisis as “the biggest global health threat of our century” (McGushin, et al., 2022).

In the wake of climate-related disruptions, children have shown signs of psychological stress through behavioral and emotional responses (Ducy et al., 2021). A large sample of cross-sectional research collected from a variety of disaster cases reported that 5-15% of children showed signs of significant mental health symptoms of varying anxieties and depression following disaster exposure (McDermott, 2014). Research suggests that children cannot fully understand the impacts of a disaster due to their immature stages of psychological development. This limits their coping mechanisms, and as a response, they develop mental health problems (Takada, 2012). Experiencing a natural disaster before the age of 5 is associated with an increased risk of anxiety disorder into adulthood, as the embedding of real-life experienced narratives increases their social awareness of climate change (Hrabo et al., 2017). As extreme anxieties become prevalent, various conditions, such as post-traumatic stress disorder (PTSD), will present in their lifetimes (Takada, 2012).

Traumatic climate impacts and gradual loss of natural environments can also cause people to experience ecological grief due to the changing ways of life (UNGA, 2023). Additionally, emotional distress caused by environmental change can lead to losing the sense of oneself in connection to seasonal rhythms (Hrabo et al., 2017).

However, there is less evidence on the ways in which climate change is affecting the mental health and feelings of well-being among young persons with pre-existing disabilities. Some studies have shown that children with disabilities suffer from higher risks of problems in their mental health, such as PTSD. Children are more vulnerable to PTSD from exposure to natural disasters caused by climate change. Taking the example of an Earthquake of 7.8 magnitude that happened on April 16th of 2016, with an epicenter in Portoviejo, Ecuador (Manabi’s province), we can see how an already vulnerable population was completely affected by the destruction of the earthquake. Due to the human and infrastructure loss, it is considered one of the most devastating earthquakes in the history of Ecuador. Children with disabilities were highly affected, mostly regarding their mental health, as they suffered from PTSD. In a study conducted by the Pontifical Catholic University of Ecuador, girls are 2.4 times

more likely to present with PTSD in comparison to other studies presented in Chile that emphasize that girls are 3.6 times more likely than men to suffer from PTSD and panic disorders, and 8.5 times to increase the risk of having it (Hernandez, 2019).

Exposure to climate change and climate-related disasters has been found to influence the presence of mental health crises among children, especially in low and middle-income countries (Sharpe & Davison, 2022). Thordardottir et al. found that 16 years after an avalanche, childhood survivors experienced PTSD symptoms, which can impact their overall well-being and ability to participate in school activities fully (2016). Moreover, the current study also found there is inadequate support for children and their caregivers following a disaster to prevent long-term sequelae, including potential effects on education.

Increased psychological distress and impaired mental health have also been associated with a range of climate impacts, such as slow-onset events of droughts and climate-induced migrations (Jodoin et al., 2020). In a study on children with developmental disabilities and the impacts of a wildfire in Northern California, it was found that psychological distress was present and was documented through reminders of the disaster in interviews. Displacement from homes and disruptions of routine created behavioral reactions through increased stress due to triggered emotions of anxiety, loss, and grief (Ducy et al., 2021). With displacement, separation from their traditional surroundings and local communities can impact their cultural identity and access to familiar support systems, affecting their emotional well-being (OHCHR, n.d.b). Additionally, research on general populations showed isolation, loneliness, and enabling of adaptation during displacements can be associated with the heightened risk for the development of depression and suicidality (Hrabo et al., 2017). Within the year of the study, it was reported that these children still exhibited behavioral changes a full year after coping with the disaster, suggesting the long-lasting psychological effects in their lives (Ducy et al., 2021).

Children with Intellectual and Psychosocial Disabilities in Emergencies

Like others, children and young persons with intellectual and psychosocial disabilities often feel distressed while trying to cope with the disruptions of nature. In some cases, they face greater challenges fully grasping or navigating the complexities of a situation, which can

have significant impacts on their mental health. A person with intellectual disabilities may have obstacles in conceptual, social, and practical adaptations to a given situation. Medications, especially those often prescribed to children with psychosocial disabilities, can change the body's ability to regulate heat, leading to increased vulnerability to extreme heat conditions (Jodoin et al., 2020). In a clinical examination of children with autism spectrum disorder who witnessed or were a victim of disaster, violence, and physical and sexual abuse, 12 out of 18 of the participants were clinically diagnosed with PTSD. Within a second clinical study on terror attacks, a group of adolescents with learning disabilities compared to that of non-clinical controls were found to have significantly higher PTSD scores. Researchers argue that with pre-existing psychiatric impairments, the processing of post-crises has hindered coping with the meaning of traumatic events (Stough et al., 2017). With varying disabilities, more research needs to be done in specifics in order to better understand and support the needs of these children.

Research also needs to be attentive to the differences among children and young persons with intellectual and psychosocial disabilities. For example, one study of both disabled and non-disabled adults found that while all study participants demonstrated adverse psychological outcomes the closer they were to the site of a disaster, persons with schizophrenia adapted to the trauma by processing events through pre-existing delusional patterns (Person et al., 2007).

“As a person with autism, [weather] changes affect me a lot. When there are changes in the temperature, it impacts my routine, which causes me more anxiety, and I cannot be stable. It makes us constantly alert.”

Judith, Age 24
Catalonia, Spain

Young persons with disabilities are not a homogenous group; each individual has a varying degree of resilience to climate shocks (Taylor et al., 2022). The availability of comprehensive mental health services and treatment can play a significant role in protecting against new and long-lasting trauma. For example, in one study of persons with psychosocial disabilities who had been in residential facilities at the time of a disaster, researchers

concluded that when persons with psychosocial disabilities can receive comprehensive services in post-flood and hurricane settings, and maintain consistent treatment, they were able to maintain stable levels of functioning even after disaster (Taylor et al., 2022). Study participants who were actively in treatment before the natural disasters but whose treatment was disrupted, showed declines in well-being. Researchers attributed the decline in their well-being after disasters to staff failing to take extraordinary measures to ensure care (Person et al., 2007).

Children with intellectual, developmental, and psychosocial disabilities have been largely excluded from studies on trauma-focused cognitive behavioral therapies; evidence of the effectiveness of these therapies is thus limited (Stough et al., 2017). It is important to restate the need for comprehensive disaster planning for persons with intellectual and psychosocial disabilities to better protect them and ensure they have access to proper assistance.

Disaster Planning and Response for Children with Disabilities

There are limited guidelines covering how to prepare for mental health supports and trauma treatment after climate-related disasters, especially for children and young persons with disabilities. Mental Health Psychosocial Support (MHPSS) has incorporated guidelines in humanitarian responses and has shown improved function amongst populations. However, new methods of treatment need to be discussed in direct response to climate change and intersectional approaches to children with disabilities.

Trauma-focused cognitive behavior therapy (TF-CBT) is a therapy program that assists children and adolescents in recovering from trauma while also providing interventions to guardians to help progress their well-being. This provides inclusivity in areas of intellectual and developmental disability, racial socialization, commercial sexual exploitation, LGBTQ, military, and foster care of children. This program is recognized for being successful in treating common mental health problems. However, therapy of children with disabilities and the impacts of climate change on them may be understudied (Stough et al., 2017). It seems that the duality of community stigma on mental health and the lack of trauma-trained clinicians' experience in treating children with disabilities contribute to this (Stough et al.,

2017). Vital information would be obtained in developing good strategies for the specifics of treating these children with disabilities. Intervention programs such as the TF-CBT could give guidelines on treatment strategies in climate change settings in correspondence to MHPSS.

Ensuring that crisis responses are culturally appropriate as well as accessible is essential. When a crisis arises in parts of the world, foreign aid from other countries contributes to the help of humanity. When it comes to trauma support, challenges arise. The flock of Western aid and medicine is often seen in humanitarian settings as they may be viewed as the most resourceful and advanced. A case on the 2004 Sri Lanka tsunami focuses on Western aid treating PTSD in Sri Lankan children, describing the findings and challenges. In contrast to physical aid, psychological aid is complex, and reactions and coping mechanisms are not fundamentally understood the same around the world (Watters, 2010). Trauma counselors had used Western techniques on the Sri Lankan children and found they were not responding in the ways they had hoped. An additional example could reflect on culturally appropriate settings. One-on-one therapy is common in Western countries but may not be appropriate in others. Group-based interventions in climate disaster settings may be beneficial for most as it may provide comfort and reduce burdens on individuals (Devonald et al., 2022). Counselors arriving in foreign countries should have a mandatory understanding of the country's background and the culture of the people they will be assisting to have effective treatment (RESPN, n.d.). Children with disabilities may be especially vulnerable to psychological treatment from foreign aid as children without disabilities have had barriers to getting these services effectively.

Disaster planning also must take into account the need for specialized medications which support the well-being of children with disabilities. During emergencies, getting basic necessities and resources is essential. Persons with disabilities are more likely to need medication to have stability in their functioning of everyday life, deeming it a necessity. In climate disaster settings, obtaining medication on a supply chain distribution level can be difficult due to inaccessible delivery routes. With the lack of management supplies beforehand, dangerous withdrawals from abrupt discontinuation of medication are likely (Taylor et al., 2022). A look into people with pre-existing psychiatric illnesses shows that they experience high levels of PTSD. With the lack of medications during disaster settings, this

becomes challenging for disabled persons, caregivers, and the people around them as medication withdrawals become relevant. In the U.S., the Strategic National Stockpile aids during public health crises but is shy about containing psychotropic medications (Person et al., 2007). The consideration of adding and funding specific medications to the stockpile is critical to ensuring the well-being of all persons with disabilities.

Preparedness Amongst Communities

Preparedness before and after disasters is crucial in ensuring the security for assistance amongst children with disabilities. This also pertains to these children's families, caregivers, teachers, and mental health service providers.

In reports associated with fire and earthquake disasters, a common theme amongst families caring for disabled children was the lack of knowledge or access to disability-related services. There was found to be anxiety in the family dynamic during these emergencies, as there was already pressure to manage the complexities of the disaster (Ducy et al., 2021). In the context of emergency shelters, families of the Great Hanshin earthquake with physically, intellectually, and emotionally disabled children expressed concern for the need for specialized facilities in times of crisis (Takada, 2012). In unfamiliar settings, where resources are not geared towards people without disabilities, there is added pressure on these families to meet the needs of their children, creating further isolation in this community. Ensuring these families that they can help their children navigate the impacts of climate change is essential. Children with disabilities need greater assistance in resiliency and excessive support in helping them adapt in the face of adversities (UNICEF, 2023c).

An extension to accessing mental health care is in school settings. Teachers' roles are vital as school is where a large portion of time is spent and where knowledge is gained. Teachers can have crucial roles in pre and post-disaster settings for children with disabilities. In an exploration of the challenges associated with the aftermath of Hurricane Ike, researchers recommended extensive hands-on and experiential learning for preparedness in future climate-related disasters to minimize added anxiety to this vulnerable population (Ducy et al., 2011). Even in the aftermath of a disaster, hands-on and experiential learning applications are said to facilitate a better understanding of the nature of the disaster for these

children (Ducy et al., 2017). Implementing these practices could prove to be a better improvement in mental health struggles in climate change settings.

SEXUAL AND REPRODUCTIVE HEALTH

Sexual and reproductive health and rights (SRHR) are recognized as critical human rights for all, including children and young persons with disabilities (Committee on Economic, Social, and Cultural Rights, General comment no. 22, 2016). However, these rights are often not respected for persons with disabilities (UNFPA & WHO, 2009; WHO, 2023b). Despite principles of non-discrimination and equality being cornerstones of the right to access SRH services and information, persons with disabilities often cannot access SRH information and resources due to social stigmas and stereotypes, high rates of poverty, lack of accessible information and lack of autonomy (UN, 2019; UNFPA & WHO, 2009; WHO, 2023). Adolescents and women with disabilities are not only disproportionately unable to access these services, but these services are important for them as they are at a higher risk for sexual health-related problems such as unplanned pregnancies and STIs (UNFPA & WHO, 2009; Women Deliver, 2021). They are also more likely to be subjected to procedures like forced sterilization (UN, 2019; UNFPA & WHO, 2009).

SRH care is also significantly important for adolescents with disabilities because many are going through puberty, and it is an important time in one's life to learn about reproductive health (UNFPA & WHO, 2009). When adolescents are not given access to SRH care and information, there is an increased likelihood that they will be exposed to unsafe sexual practices that may lead to accidental pregnancy, STIs, HIV, and unsafe abortion (Inter Agency Working Group [IAWG], 2018).

Climate change is exacerbating these social barriers that already limit SRH access for adolescents with disabilities. Climate change globally is limiting sexual and reproductive health care (SRH), making it unavailable or increasingly hard to access (Women Deliver, 2021). Adolescents may also be exploited or trafficked, creating an increased risk to their SRH, such as a risk of pregnancy, STI, HIV, etc. (IAWG, 2018). It can be seen that climate change impacts SRH services through the destruction caused by climate change-related disasters and

preventing students with disabilities from attending school. Adolescents with disabilities, adolescents caring for persons with disabilities, very young adolescents (under 14), adolescents in poverty, and young women all face an increased risk of sexual exploitation and/or an increased risk that they will not have access to SRH services in the wake of disasters (IAWG, 2018).

Disruption to Sexual and Reproductive Health Services & Barriers to Accessing Sexual and Reproductive Health Care

One aspect of climate change that significantly impacts SRH services is climate change-related disasters. Climate change is increasing the intensity and frequency of extreme weather events, and the impact of these climate-caused disasters is being seen in various countries such as the Philippines, Pakistan, the U.S., and Puerto Rico, where SRH services are being impacted (NASA, n.d.; Women Deliver, 2021). This is having a significant effect on SRH services and facilities, leading to them being destroyed, limiting supplies of contraceptives and materials for menstrual products, destroying medical records, and leaving patients unable to get supplies like medications for HIV (Women Deliver, 2021). What this indicates is that climate change creates large disruptions to SRH services, making them increasingly difficult to access and exacerbating the barriers to those with disabilities, who already have limited access.

	Bangladesh Shasthyo Suroksha Karnasuchi (SSK)	Indonesia Jaminan Kesehatan Nasional (JKN)	Mongolia Social Health Insurance (SHI)	Thailand Universal health coverage (UHC)	Viet Nam Social Health Insurance (SHI)
Family planning	No	Yes	Limited	Yes	No
Emergency contraception	No	No	No	Yes	No
Menstrual regulation	No	No	No	Yes	No
Cervical cancer screening	No	Yes	Yes	Yes	No
Sexually transmitted infection diagnosis	Yes	Yes	Partial	Yes	Limited

Figure 4.1 | Financing of Sexual and Reproductive Health and Rights in Five Asian Countries

Adolescents with disabilities face substantial barriers in accessing SRH, especially due to climate change's exacerbation of preexisting social inaccessibility. It has been highlighted globally by multiple studies that the main source of SRH information for adolescents and adolescents with disabilities is school (Devonald et al., 2022; Qi et al., 2023; Leekuan et al., 2023; Mcharo et al., 2021). However, those with disabilities face a multitude of barriers to getting comprehensive sexuality education because they are one of the most socially disadvantaged groups of adolescents and, thus, are disproportionately unable to access education (Devonald et al., 2022; Jones et al., 2022).

Even where young persons with disabilities are otherwise able to attend schools, climate change-related disasters such as earthquakes or tornadoes can destroy schools or accessibility features entirely (Stough et al., 2020). Disasters like these have a major impact on adolescents' ability to attend school and disproportionately disadvantage certain groups of people. Several studies highlight the additional barriers that climate change imposes on children with disabilities, which make them less likely to be enrolled in schools, less likely that families receive disability-related instructional support, and increasingly likely to have inequitable access to schools (Stough et al., 2020). Based on climate change's disruption to SRH care and services, limited access to comprehensive sexuality education for adolescents with disabilities, and lack of accessibility to SRH for those with disabilities, we can presume that climate change contributes to societal inequities and creates compound effects that limit adolescents with disabilities access to SRH.

Socio-Economic Barriers' to Accessing SRH

As noted above, climate change disproportionately affects women as well as vulnerable populations like youth and persons with disabilities, particularly through increasing socio-economic disadvantages (Segal & Giudice, 2022; Women Deliver, 2021; OECD, n.d.). Climate change is forcing an increasing amount of women and girls into poverty; about 70% of people who fall below the poverty line are women (Segal & Giudice, 2022; Women Deliver, 2021). Socio-economic disadvantage can lead to risky sexual behaviors and a lack of access to SRH care. For some, including adolescents and persons with disabilities,

transactional sex is the only means to obtain or afford sunscreen or menstrual products (A. Herbert, Personal Communication, February 14, 2024; UNFPA, 2022).

People in poverty additionally are also frequently not able to afford SRH care, such as HIV testing, emergency contraception, and STI diagnoses (WHO, et al. 2023). This effect is heightened for adolescents as they are 3 times more likely than those over 25 to be unemployed, leaving them less likely to be able to afford care for unexpected illnesses like STIs, and it also can prevent them from accessing a variety of SRH services, information, and products (WHO et al., 2023).

This is also true for families caring for a child with disabilities who are often vulnerable due to disabilities frequently being associated with social, structural, and financial disadvantages (Boon et al., 2011b). This socio-economic status decreases access to education and thus SRH education, which lessens people's ability to afford health and hygiene products and often means they live far from SRH services without access to transportation (Stein & Stein, 2021; Women Deliver, 2021).

Lack of Research Pertaining to Accessibility of Sexual Reproductive Health for Adolescents with Disabilities

Despite there being some information pertaining to SRH's accessibility for adolescents with disabilities, there is still a significant need for more information and research. There is much more to be researched about how intersectional identities increase vulnerability to barriers in accessing SRH care, especially for those with diverse sexual orientation and gender identities (Women Deliver, 2021). While there is general knowledge that adolescents face many stigmas and laws that limit their SRH care, there was much less research regarding the intersectionality of disability and adolescence, especially in the context of climate change and humanitarian disasters (Women Deliver, 2021). What sources there are focus almost exclusively on climate change's impact on women and girls. In contrast, men and boys have been notably absent from the conversation about SRH care and comprehensive sexuality education. It is also important to note that while literature and research about climate change's impact on SRH care exists, much information is still missing, particularly regarding the long-term effects of climate change.

5 EDUCATION

Children with disabilities have the right to an education on an equal basis with all other children (UNCRPD, Art. 24). Yet children with disabilities are less likely than their peers to attend school, less likely to complete primary or secondary education, and less likely to possess basic literacy skills (UNESCO Institute for Statistics, 2018). In Cambodia, for example, one in every two school-aged children with disabilities are out of school, compared with one in fourteen non-disabled children (Id.). The education gap between children with and without disabilities increases over time as adolescents with disabilities are less likely to stay in school as they advance through grades (Male and Wodon, 2017). This can lead to significant impacts on their ability to earn income as adults (WHO, 2011). Climate change and disruptions to education caused by extreme weather, disasters, forced displacement, and the like, present an overwhelming barrier to children with disabilities realizing their right to education and threaten their future earning potential.

This section focuses on education access in crisis contexts. It is imperative to recognize the multifaceted challenges that students with disabilities face realizing the right to an inclusive education in the face of climate change. The climate crisis not only disrupts traditional educational settings but can also pose unique health risks for children and young persons with disabilities. The section below discusses the impacts of climate change on physical infrastructure, particularly school facilities, and student health and well-being. It also discusses the role of schools in ensuring students with disabilities are fully included in disaster preparedness and response.

CLIMATE CHANGE AND DISRUPTIONS TO EDUCATION

According to UNICEF statistics, nearly 40 million children experience education disruptions each year, which can be detrimental to their learning and development (Diallo, 2020). A leading cause of students being out of school is due to climate disasters. The increasing frequency and severity of extreme weather events can significantly disrupt the educational infrastructure, causing school closures, interruptions to transportation systems, and damage to educational facilities (Peek & Stough, 2010). This disruption

disproportionately affects students with disabilities, who often rely on consistent routines and specialized support services, and those who require accessible facilities (Peek & Stough, 2010).

There are several ways in which these disruptions can occur. First, natural disasters such as hurricanes, floods, or earthquakes can completely destroy school buildings, rendering them inaccessible or unsafe for children with disabilities. According to Lindsay et al., 8% of children with chronic conditions in the U.S. transferred to another school because of flooding, which destroyed their school infrastructure (2022). Similarly, the 2017 Northern California wildfires led to the closing and even the destruction of schools. Children and teenagers missed school from a week to more than a month because of the wildfires (Stough et al., 2017).

Poorly adapted infrastructures and a lack of accessible learning materials are significant obstacles to educational continuity. This is particularly true in rural and remote areas (SADPD, 2012). In Uganda, in a study focused on children with cerebral palsy, researchers found that just one-third of those who were school-age attended school (compared with more than three-fourths of their non-disabled peers) (Andrews, et al., 2019). They also lacked access to assistive devices in part because families were unable to afford the cost of traveling to health centers (Id.). In Haiti, a country that experiences earthquakes, landslides, and flooding, about 15% of the entire population is estimated to have a disability. UN estimates that 200,000 Haitian children have mental and physical disabilities (OHCHR, 2011). However, only 4% of children with disabilities were in school and there is no evidence showing that the Haiti government is making progress to resolve this problem (Baraniy & Louis, 2016). In the aftermath of natural disasters, for children with disabilities, not only is attending school challenging due to distance or accessibility, but also the mental toll it takes (Baraniy & Louis, 2016).

Climate change-induced disasters can also result in the loss of crucial educational and medical records. These documents are vital for tailoring education to the specific needs of children with disabilities. When these records are lost, it becomes challenging for new teachers to create appropriate educational plans and provide necessary support (Peek & Stough, 2010).

School staffing challenges during and after disasters can also create disruptions and present barriers to inclusive education (Peek & Sough, 2010). The school system itself may experience significant disruptions, with teachers and other essential school staff being overwhelmed or displaced. This can lead to a lack of stability in educational services, making it difficult for children with disabilities to receive the necessary support and accommodations required to learn effectively (Peek & Sough, 2010). After the Northern California wildfires, most parents of children with disabilities observed that their children had a regression in their skills, while some suffered significant health setbacks, including three who required hospitalization (Ducy et al., 2021). Students with disabilities were among the most severely affected by COVID-19's disruption of schools and communities. States across the U.S. saw declining graduation rates for students with disabilities for the class of 2021 compared to the class of 2020, as students relied on at-home education (Blad, 2022).

CHILDREN WITH DIVERSE IMPAIRMENTS ARE LIKELY TO EXPERIENCE DISRUPTIONS DIFFERENTLY

Children with disabilities may face additional challenges in accessing education due to their unique needs and circumstances. The impact of a child's disability on their ability to attend school can vary depending on the specific challenges they face.

Children with mobility impairments, for example, may face significant challenges in accessing education due to the impacts of climate change (Black et al., 2022). Mobility issues can prevent a child from reaching school after a flood, causing the path to school to be too muddy for a child to navigate on their own without their family member (Devonald, et al., 2020). Children with chronic medical conditions, such as asthma, and complex and multiple disabilities can also face limitations on their ability to use public transportation or even be outside during certain weather conditions, like forest fires (Black, et al., 2022).

Extreme weather can also present a barrier for children and young persons with disabilities and make it difficult for them to leave their homes. For instance, persons with higher-level spinal cord injuries struggle to regulate their body temperature properly. This is because their ability to dilate blood vessels, produce sweat, and shiver is affected.

Additionally, individuals with any level of spinal cord injury are more sensitive to changes in temperature due to limited mobility, sensory issues, and dependence on external devices (Taylor et al., 2022). This difficulty in regulating temperature may hinder their ability to attend school regularly and participate in classroom activities, especially during extreme heat conditions.

Furthermore, the economic impact of climate change, such as disruptions to the economy, directly affects the ability of children to attend school, compounding the barriers faced by children with disabilities (Muurlink, 2010). Limited resources and financial instability can make it even more challenging for families to provide the necessary support and accommodations for their children's education.

CHILDREN WITH DISABILITIES ARE LEFT OUT OF DISASTER PLANNING AND EDUCATION IN SCHOOLS

Children with disabilities are excluded from school disaster planning and education. The UNISDR reported a lack of available emergency management or response guidance specifically addressing the assistance of children with disabilities in schools (Stough, 2020). General disaster or crisis plans that do not consider individual learning and physical differences could put some students at a greater risk if a plan needs to be implemented (Boon et al., 2012). The research found that this situation exists in developed and developing countries alike today. Research findings indicate a deficiency in preparation for children with disabilities, either due to a lack of planning or planning that fails to address all facets of disability-related requirements (Ronoh, 2017).

Teachers and school administrators may lack sufficient training and knowledge on how to include and support students with disabilities in school-related emergencies appropriately. Learning materials and instructional methods specifically designed for students with disabilities are scarce (Humanity & Inclusion, 2015). As mentioned by Peek & Sough, there is a persistent global shortage of special education teachers, particularly in the United States, which makes it hard to provide adequate support and guidance for children with disabilities during emergencies (2010). The absence of specialized personnel exacerbates

the lack of appropriate disaster planning and education for these students. This highlights the urgent need for comprehensive training and increased resources in this area.

The needs of children with disabilities frequently go unnoticed, and their viewpoints and abilities in emergencies are not given sufficient consideration. The literature often lacks the direct perspectives of children with disabilities themselves. Their voices are not frequently reported despite calls for the participation of marginalized populations in disaster risk reduction efforts. Their capabilities and barriers in disasters are not fully understood.

However, research indicates that students with disabilities can actively engage in disaster education. Creative methods, such as drawing maps and choosing survival kit items, have been employed to evaluate students' understanding of hazards. Successful training initiatives, particularly documented in gray literature, highlight the efficacy of these approaches (Stough, 2020). In Japan, instances have been reported where students with physical disabilities effectively protected themselves and sought assistance during school-day disasters.

EDUCATION ON THE MOVE

Children across the world are being displaced due to climate disasters (UNESCO, n.d.). This climate displacement has a myriad of impacts on education including children frequently being unable to attend school or having to learn in different environments, such as refugee camps (UNICEF, 2023e; UNESCO, n.d). Often, in refugee camps and areas of resettlement the infrastructure required for education is damaged, school supplies unavailable, and there are few trained teachers (Battle, 2014). The primary focus in many humanitarian settings is on meeting the health needs of refugees; much less attention is paid to ensuring access to education, especially inclusive education (Pearce, 2015). Globally it is estimated that 61% of refugee children don't attend school, and children with disabilities make up 15-20% of those children (De Wet-Billings & Mabetha, 2023).

For children with disabilities, climate displacement poses additional challenges to accessing education as refugee camps frequently fail to provide the resources and services needed to make education accessible to children with disabilities (Battle, 2014). A study on

refugees in South Africa found that only 21.54% of refugee children with disabilities attended school (De Wet-Billings & Mabetha, 2023). A study of Palestinian adolescents with disabilities living in Jordan found that there were few services for those with disabilities, especially those living in refugee camps (Odeh, et al., 2021). Students attending mainstream schools reported major challenges which prompted many to drop out (Id.). Educational support within the camps were underfunded, with teachers often going unpaid and assistive devices and supportive equipment generally unavailable (Id.).

Not surprisingly given the many barriers they face, displaced adolescents with disabilities have reported a lack of interest in staying in school beyond primary level and many experienced social isolation (Odeh, et al., 2021). In sum, climate disasters and climate changes which result in migration and displacement are disproportionately limiting access to education for children and young persons with disabilities, with potentially profound lifetime consequences for their social and economic health and well-being.

6 CHILD PROTECTION

Child protections are implemented to support the full enjoyment of human rights by all children, including children with disabilities. Child protection includes the prevention of, and response to, exploitation, abuse, neglect, harmful practices, and violence against children” (UNICEF, 2021b). There is substantial evidence that children with disabilities are alarmingly more vulnerable to violence than their non-disabled peers. At younger ages, they are three to four times as likely to be subjected to violence and neglect, and girls are significantly more at risk of sexual violence and exploitation (UN Special Representative of the Secretary-General on Violence Against Children, 2022.). By the age of 18, as many as two-thirds of girls and one-third of boys with intellectual disabilities are likely to have been sexually abused (Id.).

Figure 6.1 | Children With Disabilities Protection Statistics

Child maltreatment in general is all too common. In the U.S. alone, close to 40 percent of children in a 2011 survey were found to have experienced maltreatment at the hands of an adult, with very young children most at risk (Evans, et al., 2023). Climate change, with its potential to disrupt and displace families, separate caregivers from children with disabilities, and increase the stresses of poverty and food insecurity, is likely to present a substantial risk to the safety and well-being of children and adolescents with disabilities, while straining protection systems. Indeed, a recent analysis of data from child protection services in the U.S. concluded that temperature increases caused a corresponding increase in rates of child maltreatment (Evans, et al., 2023).

The following section discusses these findings and relates the effects of a changing climate on the maltreatment and exploitation of children with disabilities.

“Whilst the climate crisis does not appear to create new forms of violence, it does exacerbate pre-existing drivers, socioeconomic inequalities, and harmful social norms.”

(End Violence Against Children, 2022b)

VULNERABILITIES TO EXPLOITATION

Child Labor

Climate change is already significantly impacting livelihoods and living conditions, exacerbating poverty, and vulnerability for many who have limited resilience, fewer adaptation options, and less access to institutional support structures (ILO, 2023). These hardships of family finances have contributed in part to the increase in child labor due to climate change (End Violence Against Children, 2022c). The increase in child labor is accompanied by a decrease in the level of education achieved or access to education entirely. Child labor can have harmful effects on all children and lead to violence or neglect but for children with intellectual, psychological, emotional, and developmental disabilities child labor can have far greater consequences (UNICEF ROAS, n.d.). Because children with disabilities are often not registered at birth, they can be invisible to child protection systems, including support systems for the prevention of child labor (UNICEF ROAS, n.d.).

Food insecurity is a crucial compounding effect of the lack of sustainable resources for families and can be a driver of child labor. Food programs at schools may help deter these adverse effects of food insecurity, but often, they are not long-term programs and do not extend past the event of a disaster (Devonald et al., 2020). Food insecurity itself creates barriers to access to education because it hinders the ability to concentrate on studies but when it is extreme and associated with child labor, education is often unattainable. The support systems put in place in educational settings become inefficient because they neglect those children with disabilities who are already facing barriers to accessing education and the further barrier of forced child labor (UNICEF ROAS, n.d.).

Child Trafficking and Exploitation

Heightened stresses on families caused by climate change allow for human traffickers and criminal organizations to exploit children, increasing the risk of forced labor and trafficking (OSRSG, 2022). Children with disabilities who must rely on families and caregivers can be at greater risk of trafficking when families are unable to provide the care they need. UNICEF South Asia reported that studies in Bangladesh, India, and Pakistan showed that

children with disabilities were at times exploited by their own parents or family members, sometimes to generate sympathy while begging (2022; p.5). The social stigmas around disabilities allow families to exploit their children because their disability can be commodified. The targeting of children with disabilities as forced beggars are used by many organized crime groups and gangs in many cases the mutilation of children with and without disabilities is done to create further public sympathy (UNICEF ROSA, 2022; UNICEF ROSA, n.d.; UNFPA, 2018).

When children with disabilities are separated from their families and caregivers, for example through removal to residential institutions, the risk of trafficking and neglect can be extremely high. Investigators from Disability Rights International have discovered children with disabilities living in horrific conditions in residential institutions in Ukraine, among other places, with no oversight or protection from families or government agencies (Disability Rights International, 2023b). When the current conflict with Russia began, many of these children were left behind, and abandoned without caregivers or any sources of support (Id.; Disability Rights International, 2023a). Trafficking, kidnapping, and sexual exploitation have been tragically common (Id.). Children with disabilities in institutional settings, have a higher risk because of the removal of family and caregivers and have a “limited capacity to assess risks and make decisions” (UNICEF ROSA, 2022; p.2).

Climate migration and climate-related disasters can force families into extreme poverty, and the pressure to meet basic needs can be overwhelming. To survive, families might have to rely on all members, including their children, to contribute economically. This situation is particularly challenging for children with disabilities, who may be pushed into the workforce to help support their families. The labor environments are usually dangerous and unsuitable for children, especially for those with disabilities. The lack of protective measures and regulations in these settings only increases the risk of harm and exploitation. Data from 31 countries show that 16% of children with learning disabilities are exposed to hazardous working conditions compared to 12% of children without any functional disabilities (UNICEF 2021, p. 109). Such work can include manual labor in unsafe conditions, exposure to harmful substances, and long working hours, all of which can have detrimental effects.

Sexual Violence

Sexual violence can be a component of both child labor and trafficking and children with disabilities face similar increased invulnerability associated with climate change (OSRSG, 2022). Children with disabilities are perceived as being “asexual or nonsexual” and are left vulnerable to the neglect of SRH and sexual violence and abuse (UNFPA, 2018). The classification as nonsexual serves as justification for the neglect of SRH services and SRHR as detailed in earlier sections of this report. However, this neglect is not only a health crisis but also a child protection crisis. The prevention of education and resources is a form of violence itself because it allows for sexual violence perpetrated against these children to continue. “In one study by the African Child Policy Forum of violence against children with disabilities, nearly every young person (between ages 18 and 24) who was interviewed had been sexually abused at least once and most more than once in their lifetimes” (UNFPA, 2018; p.25). The fact that it is every young person not only young women or girls shows the social neglect of the sexual violence perpetrated against young men and boys that are often assumed to be non-existent. Young men and boys with disabilities experience sexual violence at alarming rates and report it at higher levels than those without disabilities regardless of gender but little research into men and boys’ experiences with sexual violence is available (UNFPA, 2018).

Gender-Based Violence

Girls and young women with disabilities experience more risk of neglect and violence than boys or young men with disabilities. Neglect of girls and young women with disabilities can lead to increases in gender-based violence (GBV) because of the lack of social support for reporting cases. Climate change-induced depletion of natural resources can make it more difficult for young women and girls who are victims of GBV to access these resources. As collecting water can lead girls and young women to travel long distances, the opportunities to encounter GBV are amplified, especially for girls and young women with disabilities (End Violence Against Children, 2022c). GBV’s relation to IPV is prevalent with the “...estimate [that] child marriage has doubled in the worst affected areas, accompanied by a 27% increase in FGM, seen as a pre-requisite for marriage” (End Violence Against Children, 2022c). This doubling in child marriages in areas affected by climate change events is in hopes of trying to provide a better standard of living for either the daughter that was married or the family of

the child bride (End Violence Against Children, 2022c). Girls with disabilities who are married as children often experience abuse from their in-laws, who feel that they are unable to perform their responsibilities.

Caregivers for children with disabilities can also face increased burdens protecting their children from the risks of gender-based violence. Because of social stigma surrounding disabilities, many women with disabled children, especially if young, are often left without a greater community support system. Zuurmond et al. reports from an interview with a mother of a child with a disability that she fears leaving her child alone because of the risk of injury, so she took the child with her to dig a well far from the village after flash flooding destroyed their pumping system (2016). As caregivers face more frequent climate-related disasters such as flash flooding, their ability to protect their children from harm decreases and may lead them to become victims of violence. In another case study from Flab et al., in observing the violence in patriarchal head-of-households, the inability to complete one's responsibilities was seen as justifying violence against a female spouse (2022). In these cases, not only did children suffer in general, but also young mothers of children with disabilities and young women with disabilities who were unable to fulfill their responsibilities faced intensified levels and occurrences of violence. One of the main reasons for violence in Flab et al. and Zuurmond was centered around food and either the inability of the women to provide it or the restriction of food as a punishment (2022; 2016). As food insecurity levels are already present in many parts of the world, the risk for regions experiencing rising levels of climate change effects can multiply the levels of IPV.

7 NUTRITION

Many children live in situations where they are not only at risk from weather events but also suffer from a lack of crucial health factors, namely nutrition. Where climate change places the availability of nutritious food at risk, children with disabilities are likely to face significant consequences. Children in general are more vulnerable to malnutrition than adults due to their incomplete physiological and cognitive development and dependence on a parent or caregiver but children with disabilities may be particularly at risk (Arpin, 2021).

Children with pre-existing disabilities may have particular dietary needs and/or may be impacted differently by limited access to nutritious foods. Malnutrition may result in a cycle of worsening nutrition, health, and disability (Groce et al., 2014).

The following section discusses the increased risks of food insecurity for children with disabilities in the face of climate, and the resulting consequences of malnutrition and vulnerability to disease.

FOOD INSECURITY

Persons with disabilities are affected by many factors; one of them is food insecurity, and children with disabilities are at higher risk. Based on a study from Trinity's Department of Clinical Speech and Language Studies, approximately 44% of the population of the Central African Republic has experienced food insecurity (2020). Dr Caroline Jagoe, Assistant Professor in Clinical Speech and Language Therapy, says, "Food insecurity and disability have an underappreciated but complex and triadic relationship with situations of risk" (2023).

Figure 7.1 | Location of Food Insecurities Caused by Climate Change

LOCATION OF WORST CASES OF FOOD INSECURITY CAUSED BY CLIMATE CHANGE



Food insecurity that occurs in most low and middle-income countries comes as a result of humanitarian emergencies. At the same time, food insecurity can also lead to different conflicts causing even war (Trinity College Dublin, 2023).

Figure 7.2 | Example of the Percentage of Affected Children by Food Insecurity in Different Countries Until 2021

Country	Percentage of Affected Children
Nigeria	8 million
Madagascar	500,000 (Under five years of age), and 110,000 severe cases
Afghanistan	9,729,000, and 1.1 million (At risk of death)
Democratic Republic of the Congo	2.4 million (Under five years of age), and 700,000 from severe cases

Despite significant assistance from numerous donors to these countries in 2021, the needs of the children were not fully met. The challenges and requirements for persons with disabilities living in crisis conditions have escalated. Additionally, managing resources for everyone has become increasingly difficult. Therefore, the support and contributions these families receive are vital, especially in worsening conditions such as food insecurity (UNICEF, 2022b).

Extreme weather events associated with climate change have worsened food insecurity. In some cases, it has served as a barrier to food availability, impacting children's right to have a diverse diet that is essential for their development and growth. In 2020, parts of Africa, South Asia, and the Middle East were affected by floods and extremely heavy rains, raising food insecurity (Lancet Child Adolescent Health, 2021). Families limited by their location's resources are more prone to difficulties in accessing food. The presence of a child with a disability increases their vulnerability, affecting factors such as malnutrition that hinder

a child's growth and development. This situation can lead to a rise in diarrheal diseases, which impair the body's ability to use food and absorb nutrients (GH, 2017).

MALNUTRITION

Malnourished children can be identified by stunting, meaning they are shorter than average for their age, and being underweight, which means they weigh less than what is typical for their age. The deficiencies of micronutrients and macronutrients may cause harm, especially for children with cognitive and sensory impairments. Iron deficiency, in particular, greatly affects children with learning, behavioral, and cognitive impairments. Mild malnutrition puts children at a higher risk of suffering from hearing loss. Malnutrition can also be fatal for very young children. The Lancet Commission on Climate Change's report found that food insecurity results from extreme weather events and changes such as temperature shifts and variations in rainfall, leading to malnutrition in sub-Saharan Africa and South Asia. As a consequence, there has been an increase in deaths of children under 5 years old and expected pregnancy complications (Arpin, 2021).

Food shortages can cause illness with disproportionate effects among children with disabilities. If children with disabilities consume unfamiliar food without knowing the correct preparation methods, they risk ingesting toxins that could cause irreversible neurological damage. Children who already present a physical disability, if they do not get a high-quality diet, might be affected by pressure sores caused by immobility that can become infected in the future (Groce et al., 2014)

In the case of displacement due to weather events, children with disabilities can be affected by food shortages. The stigma surrounding disability may lead to children with disabilities either not being fed or receiving less food, as resources are intentionally restricted in settings where resources for these children are already scarce (Reilly, 2010). In Nepal and Yemen, children with cerebral palsy and injured palates could not find special food required for their diet or medication (Reilly, 2010). Also, persons with visual impairments were constantly being tricked during food distribution, getting less food (Id.).

In the case of a weather-related emergency, there are many children with disabilities who might be highly affected due to the lack of knowledge of their pre-existing feeding disorders. An example of this is children with neurological disabilities. It is common for Children with neurological disabilities to frequently contend with gastrointestinal disorders interfering with their nutritional status. In the case of a climate emergency, it would be challenging to manage a regime that could be efficient for the contribution of their nutritional diet. Due to their feeding process, there should be strict timing when they are fed, especially for those who are tube-fed (Romano et al., 2018). Another example is children and adolescents with Down Syndrome, who may present high risk of problems related to nutrition. If there is a disaster, children and adolescents with disabilities might need a health supervisor to monitor their diet. It is important to monitor their nutrition due to issues of well-being and their risk of developing undernutrition (Nordstrom et al., 2020).

MALNUTRITION AND VULNERABILITY TO DISEASE

Malnutrition caused by climate-related events can increase the risk of disease and infection for children with disabilities. During a climate emergency, children with disabilities are at a higher risk of infection as their immune systems may be compromised (WHO, n.d.b). Children can suffer from impaired developmental, physical, and mental growth. They can suffer from clinical or subclinical micronutrient deficiencies or suffer from weight loss. In poorer countries, the micronutrients and dietary quality is worsening. Children begin by eliminating meat and vegetables from their meals and eventually progress to skipping one or two meals a day (WHO, n.d.b).

For children with disabilities, the risk is even higher. For example, warmer weather increases food poisoning and food-borne diarrheal diseases, affecting many children. During floods, water might get contaminated. During droughts, there is an increase in the concentration of pathogens in raw water causing it to have poor quality. Consequent malnutrition and reduced food availability increase the risk of children getting extreme diarrheal diseases of morbidity and mortality. They may survive illness from infectious diseases but later die from malnutrition (GH, 2017).

There are countries that present higher vulnerability for children with disabilities due to their diversity, climate variety, and geographic size. One example is India. One researcher noted that India is undergoing enormous change: Climate change poses an overwhelming stressor that will magnify existing health threats, with potentially significant impacts for children with and without disabilities (Bush, 2011, p.766). In India in 2017, malnutrition was the predominant cause of death in children under 5 years old in every state of the country. During the same year, in low and middle-income countries, the risk of malnutrition was even higher than in higher-income countries (The Lancet Child & Adolescent Health, 2017). Malnutrition was predominant in the states of Bihar, Assam, Rajasthan, and Uttar Pradesh. The rate between the states previously mentioned varied between 6% to 8% (The Lancet Child & Adolescent Health, 2017).

Figure 7.3 | Consequences of Malnutrition in India in 2017

Low Birthweight	21.4%
Child Stunting	39.3%
Child Wasting	15.7%
Child Underweight	32.7%
Anemia in Children	59.7%

Currently, the rate of malnutrition between the gaps of prevalence or improvement depends on the state. While there has been an increase in food security that started in the '60s with the Green Revolution, India still presents one of the highest prevalence of undernutrition in its children's population (The Lancet Child & Adolescent Health, 2017).

8 WATER, SANITATION, AND HYGIENE

The right to water, sanitation, and hygiene (WASH) was recognized as a human right by the UN in 2010 due to its importance and relevance to human rights (UN Water, n.d.c). WASH holds relevance in almost all areas of people's lives, impacting health, ability to attend school, and dignity (WHO, n.d.c). For adolescents and young people, access to WASH is a crucial factor in their ability to get an education and start a healthy life (UNICEF, n.d.a). WASH holds the same importance for individuals with disabilities, yet they experience added barriers to WASH access that are not consistently recognized or acknowledged (International Disability Alliance, n.d.; UNICEF, n.d.e). Despite its importance, access to WASH is not guaranteed for many. Globally, 2.2 billion people do not have access to safe drinking water, and almost half of the global population is unable to access safe sanitation (UNICEF, n.d.f). Lack of access to clean water, sanitation facilities, and hygiene can have profound consequences for children, including children with disabilities. Unsafe water, sanitation, and hygiene are responsible for the deaths of around 1,000 children under 5 every day (WHO, 2023b).

Climate change is posing an additional threat to WASH. Lower levels of rain in many areas are causing water sources to run dry (UNICEF, n.d.h). Other regions are experiencing increasingly heavy rainfall, which is leading to damaged water sources, sanitation facilities, and contamination of water sources (UNICEF, n.d.h). According to the UN report *Water Security for All*, "approximately 74 percent of natural disasters between 2001 and 2018 were water-related, including droughts and floods (UN: *Water Security for All*, n.d.). The frequency and intensity of these events are expected to increase due to climate change. The following sections discuss the potential impacts for children with disabilities in more detail.

WATER

According to the UN, access to clean water is a human right (UN Water, n.d.). However, this is not something that everyone currently has access to throughout the world. Climate change can both lead to and compound water scarcity by changing precipitation patterns and increasing water demand. Many changes in climate are felt through water—droughts, floods,

and rising sea levels—and extreme weather events can damage vital water and sanitation infrastructure and services in homes, communities, schools, health-care facilities, and food supplies (UNICEF Water Security for All, 2021).

Access to clean water and sanitation services impact the life of a child by protecting them from illness, providing hydration and nutrition, and allowing them the right to safe cleaning and bathing services. Where school children do not have convenient access to water, they may have to leave or skip school to go collect water sources (Water.org, n.d). When schools do not provide water or sanitation services, many girls are unable to attend school while they are menstruating (Id.).

Persons with disabilities face increased barriers in water collection and distribution (White et al., 2016). In Malawi, water access was the most commonly reported challenge among children and adults with disabilities. These challenges included difficulties accessing stored water for drinking, bathing, and handwashing, as well as barriers to collecting water” (White et al., 2016). Groce et al. reports that “many people with physical impairments are unable to collect water for themselves. Some cannot carry water the distance required, others find well walls and water taps too high” (Groce et al., 2011). When children have to travel far distances or it takes them increased amounts of time to collect water, they lose time from school and some have reported reduced cognitive abilities due to a lack of access to appropriate WASH facilities in schools and communities (Situation Analysis of the Water, Sanitation, and Hygiene (WASH) Sector in Relation to the Fulfillment of the Rights of Children and Women in Afghanistan, 2013). Risks associated with unavailable water or unsafe and unclean water fall disproportionately on certain population groups, such as women, girls, older people, and disabled people. They are often excluded from full participation in public spaces, workplaces, and education by inadequate or non-existent WASH facilities (UN Water, n.d.).

Barriers like these, in physical collection, stigma, and hardships utilizing water services can be more significant depending on the type of disability and/or the age of the person. Children often need help going to the bathroom or getting water themselves when they are

young, which can be particularly difficult for those with physical disabilities. According to a UNICEF fact sheet,

Children with disabilities are 12 percent less likely to have improved drinking water than children who do not have disabilities and 8 percent less likely to have improved sanitation facilities in their households.

(UNICEF Fact Sheet: Children with Disabilities, 2022)

Climate change impacts, such as flooding, can cause toxic materials to float around in water sources and public settings and make it hard for people to access clean and safe water for consumption and other uses, including bathing and laundering (WHO Water and Sanitation in Humanitarian Emergencies, n.d.). Research by Cisse found that “water-related infectious diseases are a major cause of mortality and morbidity worldwide, and climate change effects will exacerbate the challenges for the public health sector for both food-borne and water-borne diseases” (2019).

SANITATION AND HYGIENE

It is recognized by the UN that sanitation (which encompasses a wide range of services, facilities, infrastructure, etc.) is a human right (UNICEF, n.d.a; UN, n.d.c). Everyone has the right to affordable, accessible sanitation that is not only hygienic but also protects one’s dignity (UN, n.d.c). However, it is apparent that for particularly vulnerable groups, such as persons with disabilities and adolescents, these needs are not being met. This issue is apparent globally.

20,000 households in Bangladesh found that while their facilities were able to be accessed by persons with disabilities, 47% of them stated that it was difficult to use sanitation facilities without coming into contact with feces.

(Scherer et al., 2021)

Many persons with disabilities who face barriers to finding adequate housing are forced to live in urban slums and informal settlements that often lack proper access to sanitation and WASH services, especially services that are accessible

(UNHCHR, 2020). A study conducted focusing on low and middle-income countries found

that many persons with disabilities reported physical barriers in addition to societal barriers to sanitation facilities (Groce et al., 2011). This included difficulty opening bathroom doors, lack of a bar to use for balance, steps that prevent people with physical impairments from entering facilities, facilities too small for wheelchair users, and more (Groce et al., 2011).

Difficulties accessing sanitation facilities are only exacerbated by climate change. Climate change has a multitude of effects, such as rising sea levels and an increased likelihood and intensity of severe weather events and natural disasters, such as flooding, drought, and typhoons, which can damage sanitation facilities (UNICEF, n.d.h; Freedman, 2014). Disasters such as hurricanes are increasing in severity and frequency due to climate change. Several studies have stated that climate change intensified Hurricane Harvey by 15–38% (Gutnik & Roth, 2018). This increased likelihood of severe weather events can damage sanitation facilities, leaving even fewer options for persons with disabilities who, in many cases, are less likely to be able to travel far distances to reach them (UNICEF, n.d.e). It is also worth noting that these climate change-related effects and disasters differ depending on geographic location. For example, Sub-Saharan Africa is expected to experience effects like temperature warming, drought, and rising sea levels. In contrast, Southeast Asia is expected to experience effects like extreme precipitation events, damaging cyclones, and extreme temperatures (Gutnik & Roth, 2018).

The lack of accessibility for persons with disabilities extends to children and adolescents with disabilities. It can be understood that adolescents with disabilities face these physical barriers to accessing sanitation due to the same physical accessibility barriers. Adolescents also face the barrier of accessing bathrooms in schools. In most countries that have accessibility data, there is a focus on inclusive infrastructure and learning materials over accessible bathrooms (UNICEF, 2022b). Of half of the countries that had data available, less than a quarter of their schools had disability-accessible toilets (UNICEF, 2022b).

“We need to beg for the school to renovate a restroom for people with disabilities and it is without a door and everyone could see me when we use it. Going to the bathroom in extremely cold weather is hard, because I have trouble taking my clothes off.”

Chun-Chieh Lin

Founder of the Taipei New Vitality Association for Independent Living
Osteogenesis Imperfecta

A consequence of inaccessible toilets is that many persons with disabilities are forced to defecate in public by going alone in the dark (Groce et al., 2011). Research shows that in addition to sanitation facilities already being inaccessible and thus leading to public defecation, climate change is also reducing access to sanitation facilities like restrooms. Extreme weather events are happening frequently as a result of climate change, and these events can cause heavy rainfall, rising sea levels, and severe cyclones, which damage sanitation infrastructure (Water Aid, n.d.). Public defecation creates a real danger (especially for women) of physical violence, accidents, and rape, and it also further stigmatizes people with disabilities (Groce et al., 2011).

Social stigmas exacerbate these physical barriers as there are a multitude of stigmas about people with disabilities, especially regarding their use of the bathroom and sanitation facilities. There are fears that persons with disabilities contaminate water supplies, will take “too long” when using sanitation facilities and services, and beliefs that they should not even be allowed in the same area as others—let alone use washrooms and sanitation facilities (Groce et al., 2011; Scherer et al., 2021). These stigmas are largely unaddressed and create dangerous, unhygienic circumstances for people with disabilities as they are either forced to resort to open defecation or wait to use WASH services until after dark because of the stigma (Groce et al., 2011). What results are situations where people with disabilities face vulnerable circumstances due to the risk of accident or violence. It is clear that stigmas about persons with disabilities pertaining to sanitation facilities inhibit their access to WASH services.

STIGMAS SURROUNDING ADOLESCENTS WITH DISABILITIES USING WASH SERVICES

Adolescents with disabilities are at a particularly vulnerable point in time in regard to social barriers such as stigma and bullying regarding their disability. According to the UN Special Representative of the Secretary-General on Violence Against Children, “Children with disabilities, out of fear or as a result of lack of information, may feel pressed to conceal their suffering, afraid of stigmatization, harassment or reprisals and might not be able to make a complaint or report the incident of violence they suffer, and they may believe they could lose the support of their caregivers and the attention and love of the individuals they depend on” (UN, n.d.d). This is a time in their lives when people are particularly self-conscious already due to puberty and growing up, and combined with disability, many adolescents feel isolated and alone. Looking at water collection, Groce et al. outlines that there are often fears that disabled individuals would contaminate water sources for others in the community by using them (2011). This can prevent adolescents from using water collection facilities or motivating them to only use these at night, creating hardships for them and their families due to stigma and social barriers.

Lack of Research and Attention to Accessible Sanitation Facilities

It was notable while researching the impacts of climate change on children and adolescents with disabilities, that there is a lack of research and consideration given to this demographic when it comes to sanitation facilities. In most cases, WASH facilities are not built with accessibility in mind, and there was a stark lack of research pertaining to sanitation access for persons with disabilities (Wilbur et al., 2022). One study that reviewed international WASH guidance found that during COVID-19, a third of guidance documents did not mention persons with disabilities, and those that did often only referenced them once (Wilbur et al., 2022). Similarly, a case study in Cambodia and Bangladesh found that only 4% of policy documents pertaining to WASH guidelines referenced children with disabilities (Scherer et al., 2021).

Not only is the invisibility of persons with disabilities reflected in the research, but it is also reflected in policies as well as a lack of information for caregivers. Noticeable gaps in research were especially prevalent when it came to the long-term effects of climate change, such as the loss of arable land, increase in temperatures and flooding, and decrease in air quality. There is an overall lack of attention and awareness of these problems, which results in adolescents and young persons with disabilities not being taken into account when designing sanitation facilities. With better-highlighted priorities for adolescents and children with disabilities within the policy framework regarding WASH, members of these vulnerable groups would have better access to water and sanitation facilities overall.

9 HUMANITARIAN, REFUGEE, AND DISASTER SETTINGS

Out of the 33.4 million newly displaced people in 2019, 70% were due to climate-related disasters.

(CARE, Disaster Risk and Humanitarian Action)

Climate change is increasingly recognized as a key driver of migration, as it causes extreme weather events and environmental instability. These climatic changes, ranging from devastating hurricanes and floods to prolonged droughts or rising sea levels, force many to flee their homes in search of safer and more stable environments. This phenomenon, known as *climate migration*, is not just a physical movement but is also a risky and uncertain transition, particularly for the most vulnerable populations like children with disabilities. In 2021, 7.3 million children were displaced primarily due to weather-related events such as storms and floods (Internal Displacement Monitoring Centre, 2022).

Children with disabilities in refugee camps are especially vulnerable to stigmatization, exclusion, isolation, and violence (Crea et al, 2022). Stigma and discrimination can lead to physical violence, exploitation, and abuse, especially for children with disabilities in refugee or displacement camps. Parents of these children may also face harassment and exclusion, while

the children themselves might avoid schools and community spaces due to discrimination (Women's Refugee Commission 2008, p. 12).

Children with disabilities already face barriers to realizing their basic rights as they navigate a world that may not be fully accessible or accommodating to their needs. Guidelines, initiatives, and strategies for disaster risk management frequently fail to accommodate the needs of children with disabilities. Not only does this lead to their exclusion, but also to the exclusion of organizations representing them, from the planning and creation of disaster preparedness and evacuation protocols. For example, in emergency situations, alert systems may not incorporate sign language or audio messages, and children with disabilities might find themselves unable to escape hazards due to evacuation routes that are not disability-friendly. Additionally, temporary accommodations, educational institutions, evacuation sites, and healthcare facilities often do not meet accessibility standards, such as the lack of ramps. The instability and unpredictability of migration further exacerbate these pre-existing inequalities and leave children with disabilities more isolated and less protected. While on the move, children with disabilities are increasingly vulnerable to a range of protection risks, including violence, exploitation, and abuse.

RISK OF DISPLACEMENT

Climate change increases the risk of forced displacement. Starting with extreme weather events, such as degradation impacting the livelihood and survival of children and adolescents with disabilities, or other events, such as droughts, cyclones, or unusually warm or cold ocean temperatures (UNHCR, 2021).

An estimated 80 percent of persons with disabilities live in low or middle-income countries which are bearing the brunt of climate change (WHO, 2022; OECD, n.d.). Persons with disabilities who live in these countries suffer from all kinds of barriers. In case of displacement or forced displacement, persons with disabilities and their families are often unprepared due to the lack of accessible warning systems or programs that could alert them in advance. If these communities have persons with physical disabilities, they might be unable to move them out, usually because of the absence of support or inaccessible routes. For

people with visual or physical disabilities, it might be more difficult to accommodate in a shelter or evacuation center due to their inaccessibility (UNICEF, 2021).

For example, in the Philippines Bacita De La Rosa, who is physically disabled and uses a wheelchair, described how a typhoon and the subsequent flooding it caused created a need to evacuate her house which was flooding (Strother, 2018). But she faced a number of barriers evacuating, such as accessing medical supplies, caregivers, or assistive devices (Strother, 2018).

In a disaster, persons with disabilities are often abandoned or left behind (UNICEF, n.d.b.). Perhaps because many are unable to evacuate, persons with disabilities suffer a mortality rate of two to four times higher than non-disabled people (UNICEF, n.d.b.). The risks for children with disabilities are magnified. Children are separated from pillar networks for their development, and instead, they have to face specific threats to their lives (DIPAS, 2022). Adolescents tend to respond with efforts to protect their families, communities, and environments. They are incredibly vulnerable to any type of abuse or violence. In case of displacement due to a natural disaster or a conflict, adolescents are more likely to suffer from discrimination, poverty, trafficking, or detention (UNICEF, n.d.b.).

"In case of an emergency, there is not an evacuation plan for people with disabilities; there is no priority and efficiency in evacuating persons with disabilities. There are many things to improve."

John Esteban, Age 24
Colombia

There are other cases like the one in Somalia. Besides having internal conflicts, this country has intense flows and ebbs caused by weather events. Children with disabilities, being the most vulnerable, are impacted by factors like displacement, basic needs services, or food insecurity (UNICEF; McGovern, 2023).

This climate-caused need to migrate is seen in countries such as the Philippines. One woman, Bacita De La Rosa, who is physically disabled and uses a wheelchair, described how a typhoon and the subsequent flooding it caused created a need to evacuate her house which was flooding (Strother, 2018). There are additional barriers to evacuating that she identified.

However, what De La Rosa's story emphasizes is that people with disabilities need to evacuate or seek refuge because of climate disasters.

Between 2016 and 2021, nearly 135 million children were displaced from their homes due to weather-related events. Approximately 20,000 children are displaced per day (UNICEF; McGovern, 2023). Most of these children were children with visual impairments, and most of the weather events were storms and floods.

Countries like China, India, and the Philippines are some of the most affected countries by storms and floods; 6.4 million in China, 6.7 million in India, and 9.7 million children suffer from displacement due to weather events (Zahidi, 2023). Although some of these countries have evacuation plans, in case of an actual evacuation, it is unclear how many of these children will evacuate in case of a weather crisis. Some island development states have a higher proportion of having their children displaced compared to the number of children in their countries' populations. Furthermore, displacement caused by wildfires due to an increase in climate change has affected high and low-income countries, with an estimated 810,000 children being displaced (UNICEF, 2023). Currently, there is not enough data that mentions displacements related to droughts. There is no global estimation and the information that has been gathered is incomplete.

In countries in which disaster risk is high, it is more difficult to implement plans of adaptation, preparedness, evacuation, or mobility options. However, it is crucial for the basic needs and services of children, and even so for children with disabilities who are at greater risk (UNICEF, 2023a).

REFUGEES

Refugees and internally displaced persons are often highly exposed and vulnerable to climate-related shocks and environmental degradation (UNICEF, 2021, p.2). The problem with most people who live with disabilities is that when they have to go to a refuge, they are left behind or excluded. They are exposed to risks of protection, harassment, exploitation, discrimination, and physical and psychological violence. The reality of children with disabilities who are refugees is that they suffer from torture, kidnaps, violence, sexual violence, and

general massacres. They have seen how their houses have been destroyed and how their families have been killed. Some of the refugee children with physical disabilities have become disabled while they are refugees (James, 2014). Some of the Syrian kids who receive help at the Centre of Tortured Victims express that most of the time, they want to protect and care for their parents. Sometimes, they stay up at night being vigilant, or sometimes, they even keep their traumatic experiences to themselves to not worry their parents (James, 2014).

Case Study in Dadaab, Kenya

In a refugee camp in Dadaab, Kenya, children with disabilities were tied up, and they would suffer verbal abuse from other people from their community. In many cases, they cannot access food, health services, basic necessities, or even a refuge to survive. In refugee camps, there were barriers and limitations, such as infrastructure and lack of access to places like clinics, schools, toilets, or clean water. This affects the lives of the refugee children with disabilities who have suffered traumatic experiences and go to a refugee camp looking for a better place (Reilly et al.).

Mary, a Zimbabwean Refugee

There is the case of Mary, who is a refugee from Zimbabwe living in the UK with her son; when she asked to be placed in an accessible home, she was placed on the second floor of a building. Her case is not far from others with the same problem. Due to the laws existing in that country, there is a complex relationship between providing asylum related to disabilities. There is no specific line that provides information about who is a refugee and who is an asylum seeker. It is common that there is no explanation of human rights for people who are disabled (Amas, 2010).

In some cases, the reality of children with disabilities who are trying to escape a situation of conflict may not even be able to reach a place of refuge. The International Rescue Committee (IRC) made visible the story of 40 children with disabilities who were trying to find a new place of refuge. They were stopped at sea and sent to detention centers. Most of these detention centers do not have appropriate measures of protection or sanitation, putting children with disabilities at higher risk (IRC, 2020).

Most of the children who were seeking a better place in Europe and went through the sea usually arrived in terrible conditions after weeks. Some of the rest of the passengers die

before they arrive, making the ride traumatic for children who already come from traumatic experiences (Garofalo, 2020).

GENDER-BASED VIOLENCE IN HUMANITARIAN SETTINGS

Migration settings such as refugee and displacement camps are dangerous environments where gender-based violence (GBV) risks are alarmingly high. Women with disabilities have experienced higher levels of intimate partner violence and/or sexual non-partner violence compared to women without disabilities (Hossain, Mazedo et al., 2020, p.2). This disparity is indicative of the compounded discrimination faced by those with disabilities, who are often perceived as easy targets due to their physical or psychological impairments. During the pandemic, “73% of refugee and displaced women and girls reported an increase in domestic violence, 51% reported an increase in sexual violence, and 32% reported an increase in early and forced marriage across several humanitarian and post-conflict settings in Africa” (UNICEF 2022, p 15).

In humanitarian settings, girls with disabilities often face high risks of experiencing sexual violence, while boys with disabilities are more at risk of physical violence (Devonald et al., 2022, p. 82). Regardless of gender, children with disabilities are twice as likely to be beaten as children without disabilities, and those with difficulties controlling their behavior are found to be the highest at risk (UNICEF 2021, p. 103).

The risk of violence can be a product of insecure housing. The temporary and often overcrowded shelters lack privacy and security measures. It can also be attributed to the breakdown of social networks. Displacement often results in the fragmentation of community and family structures that typically provide support and protection. Without these networks, children become more isolated and are at an increased risk of GBV. This risk is even higher for children with disabilities who may rely heavily on these networks for assistance or advocacy.

Limited access to services in refugee and displacement camps significantly impacts the safety of children with disabilities. Essential services such as healthcare, legal aid, or psychosocial support are often limited or non-existent. Inaccessible public transportation

systems or lacking infrastructure can create additional obstacles to accessing protective services (UNICEF 2022, p.9). The lack of disability-specific services and accommodations further marginalizes children with disabilities and makes it difficult for them to receive the appropriate care and support in the aftermath of violence. For example, refugees with communication disabilities had faced limitations in accessing GBV support since most of the services rely on verbal communication (Marshall & Barrett, 2017, 47). Unfortunately, because of this, the prevalence of GBV in climate migration settings is often underreported, particularly among girls with disabilities.

TRAFFICKING IN HUMANITARIAN SETTINGS

Children with disabilities are also more susceptible to trafficking in climate migration settings. The intersection of disability and displacement creates a greater risk of trafficking in various forms, including sexual exploitation, forced labor, or recruitment into armed groups (United Nations Office on Drugs and Crime, 2020). Traffickers may specifically target children with disabilities, perceiving them as easier to control and less likely to be able to seek help or escape. Additionally, the physical and psychological challenges faced by children with disabilities can make them more dependent on others, which traffickers may manipulate for exploitation. Also, children with disabilities may require specialized care and assistance, which may be limited or unavailable during migration. This scarcity can force families to make desperate choices and entrust their children to individuals or groups promising care or transportation, only to find their children trafficked (United Nations Office on Drugs and Crime, 2020).

STIGMA, DISCRIMINATION, AND MARGINALIZATION IN HUMANITARIAN SETTINGS

All migrating children are susceptible to stigma, discrimination, marginalization, and xenophobia, typically due to differences in language, culture, race, or stereotypes that label migrants and refugees as “helpless victims” of crises. When children with disabilities are also migrants, they can encounter intensified discrimination stemming from their migration status, race, ethnicity, gender, language skills, or other factors. If these children are perceived

as different because of their mobility or disabilities, they are at an even higher risk of having their rights infringed upon in various ways.

This increased stigma and discrimination can potentially lead to further isolation. The extent of this discrimination can vary depending on the type of disability. A large proportion of children and young people with disabilities have personally felt discriminated against or harassed because of their disability (UNICEF 2021, p. 142). Some studies show that children with intellectual or psychosocial disabilities are particularly vulnerable to discrimination and stigma compared to children with physical disabilities (Women's Refugee Commission 2008, p. 12).

Gender norms can also present a barrier to girls with disabilities receiving services in humanitarian settings. In a case study on caregivers of children with disabilities in Kenya during humanitarian settings, there were documented cases of caregivers not providing access to medical or health care to girls with disabilities at the same levels as those with boys with disabilities (Zuurmond et al., 2016). In urban areas, caregivers may hesitate to allow girls with psychosocial or other disabilities to migrate independently, as they fear for their safety (UNICEF 2022, p. 18; Odeh, et al., 2021). Isolation can hinder children with disabilities having access to vital services, education, or even protection mechanisms.

During displacement or while attending temporary schools or in refugee camps, persons with disabilities face unique challenges that must be addressed to ensure their access to quality education. Unfortunately, stigma and negative attitudes toward children with disabilities prevent children from reporting abuses or receiving adequate services post-violence. Children reporting abuse are often discredited, particularly girls with intellectual or psychosocial disabilities. In some cases, due to misconceptions and stereotypes about their sexuality, family members and communities do not believe girls with disabilities who claim to be sexually abused (UNICEF 2022, p. 16). This data highlights a critical gap in support and protection for climate-migrant children with disabilities who face multiple forms of discrimination.

WASH IMPACTS IN HUMANITARIAN SETTINGS

Specifically looking at humanitarian settings, children in regions grappling with prolonged conflict and crises are at heightened risk and often denied their basic rights (IRC, 2023, September 13b). This is seen through limited access to clean water and increased impact on children, as they are more vulnerable to disease and water-based illness. The International Rescue Committee reports that children under 15 are 3 times more likely to die from water and sanitation-related diseases in fragile and conflict-related settings (IRC, 2023, September 13b).

Refugee camps can also increase challenges and barriers for adolescents with disabilities to access health services. In a refugee camp in Ethiopia, caregivers raised concerns about privacy and the dignity of girls with disabilities in washing and toileting due to severe needs and requiring assistance in these tasks, something that refugee camps are often ill-equipped to address and help with (Adolescent Girls with Disabilities in Humanitarian Settings, Girlhood Studies). Accessing WASH resources during humanitarian crises can be especially difficult because individuals with disabilities are exposed with increased frequency to new people and have to adapt to new situations where they might be introduced to other adolescents or adults.

Persons with disabilities also experience impacted access to sanitation facilities when in humanitarian settings. While there is a lack of research regarding sanitation access for people displaced specifically due to climate change and climate disasters, there is literature that clearly identifies a lack of access to sanitation facilities for refugees and people who are displaced. One study, which evaluated 21 refugee camps and settlements in 21 countries, found that there were low levels of waste disposal facilities, low levels of sanitation privacy, and significantly lower levels of access to basic sanitation (Calderón-Villarreal et al., 2022).

Human Rights Watch conducted interviews with refugees in Lebanon, Syria, and Greece, which revealed that refugees with disabilities struggle with long lines and inaccessible facilities when attempting to get access to sanitation (HRW, 2020). Another study focusing

on climate change in the Pacific Islands found no information on toilets or hygiene in evacuation centers (Pacific Disability Forum, 2022).

It can be inferred based on this research that in humanitarian settings such as displacement, people with disabilities are often not able to access sanitation facilities and services. Persons with disabilities are among those most likely to be denied access to clean water because of hardships in physical collection, stigma surrounding their disability, and inability to use/difficulty in using services provided in humanitarian crises (White et al., 2016; Groce et al., 2011).

When climate change contributes to humanitarian disasters, such as the extreme flooding seen in Bangladesh and the extreme heat and drought in Turkana, Kenya, children with disabilities are placed at an increased risk of being denied WASH services and access to clean water (Scherer et al., 2021; Zuurmond et al., 2016). Collecting and having access to water is one of the hardest challenges during humanitarian crises, something that has been greatly exacerbated by climate change with droughts and increased instances of natural disasters. Caretakers also reported increased difficulties and stressors put on them when having to provide water for their dependents during humanitarian crises when disabled individuals were unable to retrieve it for themselves (White et al., 2016). This included having to take time out of work or household activities to collect water for others.

SRH IMPACTS IN HUMANITARIAN SETTINGS

In crisis/humanitarian situations, adolescents' needs, including that of SRH, are frequently overlooked (IAWG, 2018). A study from 2009-2012 found that only 3.5% of proposals for humanitarian funding were proposals for adolescent SRH, and most of them were left unfunded (IAWG, 2018). The effects of climate change and climate-change-related disasters disrupt adolescents' lives and their access to education, specifically in regard to SRH (Devonald et al., 2022). There is a significant need for more research on the accessibility of SRH in humanitarian contexts (Tanabe et al., 2015).

NUTRITIONAL IMPACTS IN HUMANITARIAN SETTINGS

Feeding practices in refugee camps or humanitarian settings are of significant concern. Many times, children with disabilities are treated as infants, and these assumptions lead to them being restricted to liquid diets, even for those children who need solid food to eat. This can lead to malnutrition and, in severe cases, death.

The situation in refugee centers is usually deplorable. Children with disabilities who live in refugee centers do not have a good diet and frequently present as suffering acute malnutrition. According to the Integrated Food Security Phase Classification (IPC, 2023, May 17a) Acute Malnutrition Analysis 2022, there is no specific information about children with disabilities. However, there is an estimate of 36,590 children between 6 to 59 months of age across all refugee centers who suffered from malnutrition and needed immediate treatment between February 2022 to January 2023.

An example taken from the IPC tells us about Susan's suffering. Susan is a woman who lives in a refugee center in Uganda with her ten children. Two of them are disabled. She failed to produce breast milk due to her sickness, getting her children sick as well. These types of refugees are impacted by the environment, leaving them with inaccessible land to make their own food to grow and also giving them diseases such as malaria, pneumonia, or acute diarrhea (IRC, 2023, May17a).

10 PARTICIPATION AND VOICES OF PERSONS WITH DISABILITIES

"Persons with disabilities are invisible; in Latin America, there are no rights for persons with disabilities."

Alejandra, Age 24
Mexico

Despite the likely impacts of climate change on young persons with disabilities, they have few opportunities to participate in climate debates or activism.

"The marginalized status of persons with disabilities precludes their active participation in social networks and local governance, muting their voices in local decision-making related to climate change adaptation."

(Auerbach et al., 2023)

They should be taking on leadership roles, given that they know what is going to be best for those who have a disability, rather than someone who is able-bodied making any policy recommendations.

"Only they know what they need. They can take part in policymaking to make better policies and can set their own needs."

Nisai, Age 20
Cambodia

Persons with disabilities, especially children and young people, should play a leading role in the assessment, design, and implementation of disaster risk reduction measures and other forms of climate preparedness (Uzair et al.). Not only that, but governments at all levels should take on a disability rights approach to climate governance. This emphasizes the importance of acknowledging and safeguarding the substantive and procedural rights that persons with disabilities hold during the creation, implementation, observance, and evaluation of any climate programs and policies, and would go far toward ensuring all

governments make certain that climate solutions will help garner more accessible and inclusive societies (Jodoin et al., 2020). This will not only help to facilitate a society that is better equipped to handle natural disasters and their disastrous effects but one that is inclusive to all and has the best interests of everyone in mind, children in particular, as they are our future and will eventually hold power in decision-making. Having active voices speaking out on this complex issue and participating in conversations about our climate is just the beginning of working to ensure the rights and lives of persons with disabilities are just and equal compared to those without disabilities.

There are a handful of organizations, treaties, and statements that touch on the importance of including those with disabilities regarding climate justice. For example, there is the recent COP 28 conference coming from the UNFCCC. In it, there was a specific day based on capacity-building for rights-based climate action. This day included talks about how to integrate a rights-based participatory approach regarding climate change and how to best involve small organizations, children, those with disabilities, etc., and for them to actively engage in these discussions about our environment (UNFCCC 5th Capacity-Building, 2023a).

The Paris Agreement stated that climate change is a concern all over the world and that governments should respect, highlight, and keep in mind their necessary obligations regarding human rights pertaining to those such as children, migrants, persons with disabilities, and those in vulnerable situations (*Paris Agreement*, 2015). The UN's Sustainable Development Goals (SDGs) are an ongoing process to help change the world for the better by 2030. Although the SDGs brought up those with disabilities 11 times in total, stating that it is important to advocate for more inclusivity, better access to green spaces, education, employment, and transportation, and to continue to uphold their rights as human beings, there is little specificity protecting the participatory rights of young persons with disabilities.

Despite these documents highlighting persons with disabilities and the importance of including them in discourses surrounding climate action, there was very minimal acknowledgment in general in these documents. This acknowledgment included very small subsections about the inclusivity of vulnerable groups, with those with disabilities being

lumped under this category. However, besides the CRPD, there was no main overall focus and talk about persons with disabilities and how climate change might affect them.

In terms of children being involved in advocacy, there was a statement that was brought forth by the younger generation who created the Global Youth Statement of 2023, a declaration for climate justice. In it, they include persons with disabilities in small subsections and advocate for them. They write that they should be included in action for climate empowerment, national adaptation plans, and access to healthcare (*COP 28 Global Youth Statement*, 2023b). Despite this, there was not an overall focus regarding those with disabilities; it merely mentioned in a few subsections that they should be involved in any decision-making processes as well as keeping in mind that they are part of those who are most vulnerable to climate change, and to keep them in mind when thinking about those who are most affected.

Some research has pointed to the barriers children and young persons with disabilities face in exercising agency and voice (see, e.g., Odeh, et al., 2021). In qualitative research with adolescent refugees with disabilities living in Jordan, researchers found there were varying capacities for adolescents to speak out and voice their concerns. Where social supports exist, including national and community organizations of persons with disabilities, inclusive schools, and nongovernmental organizations with awareness of disability rights, children and adolescents with disabilities as well as their caregivers were more likely to advocate for themselves and their rights (Id.). By comparison, where there are few overall organizations providing support and rights awareness for adolescents with disabilities, they are more likely to experience social isolation and discrimination (Bani Odeh et al., 2021).

In general, young people, especially those with disabilities, need to voice their concerns, opinions, and demands regarding any aspects having to do with impacts caused by climate change. There needs to be more representation, participation, and conversation coming from young people in order to best plan and equip them for the future, particularly for those who feel or are unable to speak on their behalf. Overall, there are few organizations or statements that have been brought forth to the public. It is detrimental for there to be ongoing work in advocating for persons with disabilities and the creation of better-suited

policies. The world and its citizens have to start making the necessary changes to help disability-led climate action prosper, with the first step being education among those who are not aware of this issue.

11 RECOMMENDATIONS AND GOOD PRACTICES

GENERAL

Policy-makers, planners, community leaders, and educators should work with organizations of persons with disabilities, especially those led by young people, to spread awareness of the disproportionate impacts of climate change on children and young people with disabilities.

Education in communities about how climate change is adversely and disproportionately impacting persons with disabilities is crucial and understanding that this looks different for everyone is of notable importance. With that said, there should be more overall inclusion and participation of persons with disabilities in climate policy creation and advocacy. Not only that, but there has to be more intensive and far-reaching research regarding the intersection of climate change and persons with disabilities.

By understanding how climate change affects those with disabilities, it is also recommended that one create a support system that one can turn to in times of need or emergencies. This can include family, friends, coworkers, neighbors, as well as caretakers. Having this system in place allows for better emergency planning by being able to count on these people and their assistance, any emotional support one can derive from them, as well as being able to communicate and have access to information that one with disabilities normally might not during instances of disasters (*Climate Change and the Health of People with Disabilities*, 2023). Not only that, but knowing if one's community has any disability organizations or programs meant to help alleviate any issues during extreme events is pivotal, and it is important to sign up or be a part of these local arrangements (*Climate Change and the Health of People with Disabilities*, 2023).

To garner more support from young people, whether with disabilities or not, it is imperative to be able to reach out to them and educate them on platforms where they are most active, such as social media apps like Instagram, TikTok, or Twitter. This allows for more outreach to occur, thus increasing the chances of knowledge being spread and raising awareness of how climate change affects persons with disabilities.

POLICY & GUIDELINES

Governmental and non-governmental organizations need consistent guidance on the protection of persons with disabilities against climate change, specifically children.

Currently, there is no across-the-board guidance on climate change regarding persons with disabilities, specifically children. While the United Nations has specific guidelines for mitigation and adaptation to climate change, the recommendations regarding persons with disabilities do not extend further than inclusion in decision-making spaces and ensuring the protection of the rights of persons with disabilities in climate action. Several UN Committees, including the Committee on the Rights of the Child, have recognized the threat climate change poses to human rights and stated the obligations states have to ensure they take action to prevent foreseeable harm caused by climate change (Harvard Law School Project on Disability, 2023).

Additionally, the Harvard Law School Project on Disability found that in a five-year period (17th-27th sessions), the Committee on the Rights of Persons with Disabilities adopted concluding observations for 61 State parties, but only 7 of them mentioned “climate change.” The Committee has not consistently raised climate change in its concluding observations; thereby, they are missing opportunities to monitor States Parties’ fulfillment of climate-related CRPD obligations (Harvard Law School Project on Disability, 2023).

CHILDREN WITH DISABILITIES AS THE FOCUS OF CLIMATE CHANGE POLICY

In the framework created by UNICEF to address child protection strategies in climate change, they cite the need for “making children the center of climate change strategies and

response plans” (2021b). This is a crucial component applicable to many different marginalized groups and is necessary to adequately address the varying needs of children with disabilities with climate change frameworks. “80% of States Parties to the Paris Agreement do not include any reference to persons with disabilities in their Nationally Determined Contributions” (Felix, 2023). With the absence of representation of either the “child” or the “disability” perspective, there is a need for both these groups to be at the forefront of policy and detailing their experiences and areas that are not being effectively addressed. Children with disabilities are one of the most affected sub-identities by climate change and often need specialized policies and resources that are not being met by current policy.

One good practice of the inclusion of children within climate policy frameworks is a group of child climate activists who worked on General Comment No.26 for the UN. The implication of this framework, it set a precedent that “...specifies the responsibility of States not only to protect children from immediate harm but also to prevent foreseeable violations of their rights in the future, also emphasizing the impact of climate-related loss and damage on children” (International Federation Terre des Hommes, 2023b).

CHILDREN WITH DISABILITIES AS ACTIVISTS AND ADVOCATES FOR THEIR PROTECTIONS

UNICEF also states the importance of “empowering children as agents of change” in climate change policy and advocacy for sustainable practices (2021b). A good practice for children, in general, is The Child Reference Group, which took part in a Save the Children report on child rights, created several different recommendations on climate change policy, and specifically repeatedly cited the need for accessibility for everyone with varying needs. They also stressed the importance of “everyone, including parents, teachers, and leaders, needs to understand how climate is impacting children’s rights, and children’s right to participate in decisions on climate change” (Save the Children, 2021). While child activists collect and make recommendations, it does not guarantee the real tangible implications in international policy, especially when children with disabilities voices are not being considered. Supporting child activists in general and specifically those with disability identities in their efforts that relate to their specific risk factors is essential. Additionally, their advocacy on limiting climate

emissions is critical (International Federation Terre des Hommes, 2023a). The need for the inclusion of people with disabilities, especially young people with disabilities, are undervalued voices in policy making. Specifically when thinking about creating a climate sustainable policy and measuring the need for increased electricity for assisted devices such as wheelchairs, prosthetics, communication devices, and other accessibility devices (EDF, 2022). While the comparison between the overlap of the two identities of “child” and “disability” can draw connections of specified risks and needs in climate change policy, there needs to be specific research on the combined children with disabilities.

HEALTH

Health systems and disaster response teams should specifically consider the needs of children and adolescents with disabilities when planning climate change action and understand how climate change can disproportionately impact their health and access to health services and resources.

As identified in many sections of this report, there is a lack of understanding and under-reporting on how climate change specifically impacts the health of adolescents with disabilities. Specifically looking at health, there is a need to create more accessible health services and better educate health providers on treating children and adolescents with disabilities. For humanitarian and post-disaster instances, action after these events should include persons with disabilities and make sure that action taken is to support and include them. Governments need to scale up health systems and prioritize getting healthcare access to all, particularly in cases of climate emergencies or humanitarian crises (WHO, 2021). Important to understand how children with disabilities have increased difficulties getting to health facilities, need to make accessibility a priority for rural areas, and provide transportation. Need to emphasize and highlight the voices of adolescents with disabilities more in the future framework to understand the needs of this population and utilize recommendations that would be most valuable to them.

Healthcare providers, caregivers, educators, and parents need to collaborate in preparing for and responding to natural disasters, extreme weather events, and other climate change-related events impacting children with disabilities.

With little research into how children with disabilities experience trauma during and following climate change-related events, it is also important to note the value of seeing parents, guardians, caregivers, and teachers as sources of necessary support for these children. Ensuring that children with intellectual and psychosocial disabilities in particular, receive appropriate care and support in the wake of traumatic and/or traumatizing events is essential. Resources of psychosocial care should take into account children's distinct needs, such as play, safety, and reunification of families in disaster settings (OHCHR, n.d.b). Identifying the trauma and grief of children with various disabilities in climate emergency settings can be challenging as these children experience heightened stressors and can have limitations in expressing themselves. Attaining and distinguishing psychological distress and psychopathology is necessary. Additionally, the collaboration of experts in climate change planning is crucial. Take psychiatrists, for example; they are trained to work with interdisciplinary teams and can uniquely position themselves to understand how the medical notions of an individual are being impacted by their environments. They could provide simple interventions on the spot, minimizing further risks in climate disaster settings (Taylor et al., 2022).

HUMANITARIAN AND DISASTER SETTINGS

Inclusive disaster preparedness and response plans must consider accessible evacuation routes, shelters, and emergency communication methods that accommodate various types of disabilities.

Emergency plans must detail evacuation routes that are accessible to people with a range of disabilities, including those with mobility challenges, visual impairments, and hearing loss. This involves ensuring that evacuation paths are free of physical barriers, clearly marked, and equipped with auditory and visual alert systems. The use of tactile walking surface

indicators can guide individuals with visual impairments, while wide, ramp-accessible paths can accommodate those using wheelchairs or mobility aids. It is imperative that shelters are designed or adapted to meet the needs of individuals with disabilities. This includes accessible entrances and exits, adequate space for maneuvering mobility devices, accessible restrooms, and sleeping areas. Furthermore, shelters should offer quiet zones for those with sensory processing disorders and ensure that service animals can be accommodated. Emergency communication strategies must incorporate multiple formats to reach diverse audiences, such as the use of visual alarm systems and flashing lights for individuals who are deaf or hard of hearing, and emergency alerts in easy-to-read and understandable formats for those with intellectual disabilities.

NUTRITION

Incorporate nutrition-focused initiatives

To effectively respond to climate change, it is essential to integrate nutrition into health and climate strategies. It is vital that when creating response plans for climate disasters that humanitarian response plans include information and materials regarding the nutritional needs of persons with disabilities which includes but is not limited to; supplies for tube feeding, nutritional monitoring, and the diverse dietary needs persons with disabilities may have. The integration of nutrition into climate response plans should also include the promotion of complementary and therapeutic foods, encouraging breastfeeding, and advocating for nutritious meals and diets. Additionally, this response plan should include areas of poverty, areas that have been affected by climate disasters and/or long term-climate change impacts, and locations of climate refugees/migrants.

SEXUAL AND REPRODUCTIVE HEALTH

When creating and disseminating SRH information, products, and services, the specific needs of people with disabilities should be a primary consideration.

It is recommended to conduct comprehensive research into the accessibility of Sexual and Reproductive Health (SRH) care for adolescents with disabilities, ensuring active involvement and consultation with individuals with disabilities throughout the process. Furthermore, it is essential to ensure the affordability and accessibility of SRH care and products for individuals in economically disadvantaged positions and those residing in rural communities. Finally, it is advisable to develop emergency plans to maintain the distribution of SRH care and information during climate-related disasters. These plans should include measures which ensure that SRH care and information is accessible for persons with disabilities.

WATER, SANITATION, AND HYGIENE

Ensure WASH services are accessible for children and young people with disabilities, and make sure they are able to withstand impacts of climate change, which can damage infrastructure and make it difficult for children with disabilities to utilize.

To ensure inclusivity and safety for all adolescents and people with disabilities, it is essential to construct new Water, Sanitation, and Hygiene (WASH) facilities based on universal design principles. These facilities must be durable and constructed to resist the impacts of climate change. Additionally, conducting research on the accessibility of current sanitation facilities and their resilience to climate change is crucial. It is important to adapt existing facilities to meet these standards and guarantee that sanitation facilities are available in or near every community. Furthermore, water collection and distribution services should be made accessible to adolescents and people with disabilities, ensuring everyone has equitable access to essential services.

EDUCATION

Prioritizing the establishment of inclusive learning environments that accommodate the diverse needs of all students.

In school disaster risk reduction, children with disabilities should also be included in the conversation. During a natural disaster that would have students in a portable school or temporary location, schools must have emergency procedures and policies present before the disaster occurs. This may involve providing physical accessibility to school facilities, offering assistive devices and technologies, and training teachers and staff on inclusive teaching practices. Furthermore, partnerships with local disability organizations and community members can help identify and address specific barriers faced by students with disabilities in these settings.

CHILD PROTECTION

Focus on addressing pre-existing risks of violence, abuse, and harmful practices that are only compounded by climate change with the active participation of children with disabilities as their own advocates and increasing the efficiency of work between the levels of international, national, and local implementation and adaptability policy.

Moving to an anticipatory approach to what types of climate change-related events will occur and what types of prevention would be necessary (End Violence Against Children, 2022a). The need for further coordination between multiple sectors of child protection and other institutions, such as health and education, is vital to effective responses (End Violence Against Children, 2022a). Child protection for children with disabilities requires further focus and review by those who hold those identities and willingness by international organizations, policymakers, and governments to uphold their legal responsibilities within all relevant frameworks.

12 BIBLIOGRAPHY

- Abedin, Md. A., Habiba, U., & Shaw, R. (2013). Gender and climate change: Impacts and coping mechanisms of women and special vulnerable groups. *Climate Change Adaptation Actions in Bangladesh*, 165–184. https://doi.org/10.1007/978-4-431-54249-0_10
- Acosta Hernández, R., Sanango Jara, M., Carrión Suárez, F., & Pereira Olmos, H. (2019). TEPT y Ansiedad en niños y adolescentes 2 años posterior al terremoto de 2016 en Unidades Educativas de la ciudad de Portoviejo, Ecuador. *Revista de Psiquiatría Infanto-Juvenil*, 36(4), 6–13. <https://doi.org/10.31766/revpsij.v36n4a2>
- Aduagna, M. B., Nabbouh, F., Shehata, S., & Ghahari, S. (2020). Barriers and facilitators to healthcare access for children with disabilities in low and middle income sub-Saharan African countries: A scoping review. *BMC Health Services Research*, 20(1). <https://doi.org/10.1186/s12913-019-4822-6>
- Ahdoot, S., Pacheco, S. E., Paulson, J. A., Baum, C. R., Bole, A., Brumberg, H. L., Campbell, C. C., Lanphear, B. P., Lowry, J. A., Spanier, A. J., & Trasande, L. (2015, November 1). *Global climate change and children's health*. American Academy of Pediatrics. <https://publications.aap.org/pediatrics/article/136/5/e1468/33813/Global-Climate-Change-and-Children-s-Health?autologincheck=redirected>
- Al-Nasif, N. (2020, July 24). *Persons with disabilities disproportionately affected by climate ...* United Nations Human Rights. <https://www.ohchr.org/en/stories/2020/07/persons-disabilities-disproportionately-affected-climate-change>
- Amas, N., & Lagnado, J. (n.d.). *La Decepción de los Refugiados con Discapacidad en Londres*. RMF. Retrieved January 10, 2024, from https://rua.ua.es/dspace/bitstream/10045/14465/1/RMF_35_16.pdf
- Andrews, C., Kakooza-Mwesige, A., Almeida, R., Swartling Peterson, S., Wabwire-Mangen, F., Eliasson, A.-C., & Forssberg, H. (2019a). Impairments, functional limitations, and access to services and education for children with Cerebral Palsy in Uganda: A population-based study. *Developmental Medicine & Child Neurology*, 62(4), 454–462. <https://doi.org/10.1111/dmcn.14401>
- Arpin, E., Gauffin, K., Kerr, M., Hjern, A., Mashford-Pringle, A., Barros, A., Rajmil, L., Choonara, I., & Spencer, N. (2021, October 17). *Climate change and child health inequality: A review of Reviews*. MDPI. <https://www.mdpi.com/1660-4601/18/20/10896>
- Auerbach, A., Sacks, A., & Yusupov, D. (2023, December 19). *Climate change highlights the need for disability-inclusive adaptation*. World Bank Blogs. <https://blogs.worldbank.org/climatechange/climate-change-highlights-need-disability-inclusive-adaptation>

- Babugura, A. (2023, February 23). *Vulnerability of Children and Youth in Drought Disasters A Case Study of Botswana*. Children, Youth, Environments. <https://doi.org/10.7721/chilyoutenvi.18.1.0126>
- Bani Odeh , K., Jones , N., Pincock , K., & Malachowska, A. (2021, September 21). "I Wish Someone Would Ask Me Questions". *The Unheard Voices of Adolescents with Disabilities in Jordan* . <https://doi.org/10.1057/s41287-021-00421-0>
- Black, L., Shaunfield, S., Labellarte, P. H., Gaebler-Spira, D., & Foster, C. C. (2022). Physical and environmental barriers to mobility and participation in children with medical complexity: A qualitative study. *Clinical Pediatrics*, 61(10), 717–726. <https://doi.org/10.1177/00099228221099097>
- Blad, E. (2022, October 25). Special education during the pandemic, in charts. *Education Week*. <https://www.edweek.org/teaching-learning/special-education-during-the-pandemic-in-charts/2022/10>
- Baranyi, S., & Louis, I. (2016). (Dis)ability and development in Haiti: beyond one-dimensional views. *Third World Thematics : A TWQ Journal*, 1(3), 321–334. <https://doi.org/10.1080/23802014.2016.1216328>
- Battle, D. E. (2015). Persons With Communication Disabilities in Natural Disasters, War, and/or Conflict. *Communication Disorders Quarterly*, 36(4), 231–240. <https://doi.org/10.1177/1525740114545980>
- Boon, H. J., Brown, L. H., Tsey, K., Speare, R., Pagliano, P., Usher, K., & Clark, B. (2011a). School Disaster Planning for Children with Disabilities: A Critical Review of the Literature. *International Journal of Special Education*, 26(3), 223-.
- Boon, H., Brown, L., Clark, B., Pagliano, P., Tsey, K., & Usher, K. (2011b). Schools, climate change and health promotion: a vital alliance. *Health promotion journal of Australia : official journal of Australian Association of Health Promotion Professionals*, 22 Spec No, S68–S71. <https://doi.org/10.1071/he11468>
- Boon, H. J., Pagliano, P., Brown, L., & Tsey, K. (2012). An assessment of policies guiding school emergency disaster management for students with disabilities in Australia. *Journal of Policy and Practice in Intellectual Disabilities*, 9, 17–26. doi:10.1111/j.1741-1130.2012.00331
- Bush, K. F., Luber, G., Kotha, S. R., Dhaliwal, R. S., Kapil, V., Pascual, M., Brown, D. G., Frumkin, H., Dhiman, R. C., Hess, J., Wilson, M. L., Balakrishnan, K., Eisenberg, J., Kaur, T., Rood, R., Batterman, S., Joseph, A., Gronlund, C. J., Agrawal, A., & Hu, H. (2011). Impacts of Climate Change on Public Health in India: Future Research Directions. *Environmental Health Perspectives*, 119(6), 765–770. <https://doi.org/10.1289/ehp.1003000>

- Calderón-Villarreal, A., Schweitzer, R., & Kayser, G. (2022). Social and geographic inequalities in water, sanitation and hygiene access in 21 refugee camps and settlements in Bangladesh, Kenya, Uganda, South Sudan, and Zimbabwe. *International Journal for Equity in Health*, 21(1), 1–27. <https://doi.org/10.1186/s12939-022-01626-3>
- CARE International. (2022, April 8). *Disaster Risk & Humanitarian Action*. <https://careclimatechange.org/what-we-do/disaster-humanitarian/>
- Chung, S., Danielson, J., & Shannon, M. (2008). School-based emergency preparedness: A recommended protocol. Rockville, MD: Agency for Healthcare and Quality.
- Cisse, G. (2019). *Food-borne and water-borne diseases under climate change in low- and T middle-income countries: Further efforts needed for reducing environmental health exposure risks*. Elsevier. <https://doi.org/10.1016/j.actatropica.2019.03.012>
- Clarke, L. S., Embury, D., Jones, R. E., & Yssel, N. (2014). Supporting Students With Disabilities During School Crises. Teaching Exceptional Children.
- Clayton, S., Speiser, M., Hill, A. N., & Manning, C. (2023). Mental health and Our Changing Climate: Children and Youth Report 2023. <https://www.apa.org/news/press/releases/2023/10/mental-health-youth-report-2023.pdf>
- Conceição, P. (2022). Report 2021/2022 - human development reports. Human Development Reports. https://hdr.undp.org/system/files/documents/global-report-document/hdr2021-22pdf_1.pdf
- Council for Exceptional Children & Council for Children With Behavior Disorders. (2013). Helping students cope with traumatic events: Tips for educators. Arlington, VA: Council for Exceptional Children
- Crea, T.M., Klein, E.K., Okunoren, O. et al. Inclusive education in a refugee camp for children with disabilities: How are school setting and children's behavioral functioning related?. *Confl Health* 16, 53 (2022). <https://doi.org/10.1186/s13031-022-00486-6>
- D'Angelo, S. (2022). Building resilience now and for the future: adolescent skills to address global challenges. Wiley.
- Danos, C., Heydt, P., Kuper, H., Burbach, M., Rotenberg, S., & Seghers, F. (2022). (rep.). *Reimagining Health Systems, That Expect, Accept and Connect 1 Billion People with Disabilities*. Missing Billion. https://static1.squarespace.com/static/5d79d3afbc2a705c96c5d2e5/t/634d9409d12381407c9c4dc8/1666028716085/MBReport_Reimagining+Health+Systems_Oct22

- De Wet-Billings, N., & Mabetha, K. (2023). School attendance among refugee children with disabilities residing in South Africa: A cross-sectional, descriptive study. *PloS One*, 18(5), e0279671–e0279671. <https://doi.org/10.1371/journal.pone.0279671>
- de Castro, M., Palazuelos, A., Corona, A., Sanchez, A., Alises, G., Sancho, M., Cauja, P., & Sanz, V. (2023, June). “Please send me the link for tomorrow, María” human-rights based participatory research with people with learning disabilities via Zoom. *British Journal of Learning Disabilities*.
- Delorme, A., Hrabok, M., & Agyapong, V. (2020). Threats to mental health and well-being associated with climate change. National Library of Medicine.
- Devonald, M., Jones, N., & Yadete, W. (2020). *‘The first thing that I fear for my future is lack of rain and drought’: Climate change and its impacts on adolescent capabilities in low- and middle-income countries*.
- Devonald, M., Vintges, J., & Jones, N. (2022). Supporting adolescent mental health in humanitarian settings: To what extent do interventions consider climate change and its intersectional impacts? *Intervention*, 20(1), 81. https://doi.org/10.4103/intv.intv_31_21
- Diallo, G. (2020). *40 million children miss out on early education in critical pre-school year due to covid-19*. UNICEF. <https://www.unicef.org/press-releases/40-million-children-miss-out-early-education-critical-pre-school-year-due-covid-19>
- Disability Rights International. (2023a). *Families find a way: Children with disabilities in war-torn Ukraine*. <https://www.driadvocacy.org/sites/default/files/2023-10/Families-Find-a-Way-1.pdf>
- Disability Rights International. (2023b). *No way home: The exploitation abusive of children in Ukraine’s orphanages*. <https://www.driadvocacy.org/reports/no-way-home-exploitation-and-abuse-children-ukraines-orphanages>
- De Gouveia, Juan Angel. (2023, December 19). COP 28 Statement on Behalf of Disability Caucus. https://unfccc.int/sites/default/files/resource/Disability_Caucus_cop28cmp18cma5_HLS_EN.pdf
- Dublin, T. C. (2020, December 3). *Trinity partners with World Food Programme to address disability inclusion in food assistance programming*. [Www.tcd.ie. https://www.tcd.ie/news_events/articles/trinity-partners-with-world-food-programme-to-address-disability-inclusion-in-food-assistance-programming/](https://www.tcd.ie/news_events/articles/trinity-partners-with-world-food-programme-to-address-disability-inclusion-in-food-assistance-programming/)
- Ducy, E. M., & Stough, L. M. (2021). Psychological effects of the 2017 California wildfires on Children and Youth With Disabilities. *Research in Developmental Disabilities*, 114, 103981. <https://doi.org/10.1016/j.ridd.2021.103981>

- Dureab, F., Al-Falahi, E., Ismail, O., Al-Marhali, L., Al Jawaldeh, A., Nuri, N. N., Safary, E., & Durkin, M. S., Khan, N., Davidson, L. L., Zaman, S. S., & Stein, Z. A. (1993). The effects of a natural disaster on child behavior: evidence for posttraumatic stress. *American Journal of Public Health* (1971), 83(11), 1549–1553. <https://doi.org/10.2105/AJPH.83.11.1549>
- EDF. (2022). *European Disability Forum Green Policy*. <https://www.edf-feph.org/publications/green-edf-policy/>
- El Samra, GH. (2017, May 1). *Climate change, food security, Food Safety and Nutrition (review article)*. *Egyptian Journal of Occupational Medicine*. https://ejom.journals.ekb.eg/article_2858.html
- End Violence Against Children. (2022, November 14a). *How can we protect children in the climate crisis? | End Violence*. End Violence Against Children. <https://www.end-violence.org/node/8156>
- End Violence Against Children. (2022, November 14b). *How the climate crisis is driving violence against children – and what we can do about it | End Violence*. End Violence Against Children. <https://www.end-violence.org/articles/how-climate-crisis-driving-violence-against-children-and-what-we-can-do-about-it>
- End Violence Against Children. (2022, November 14c). *Is there evidence that the climate crisis is driving increased violence against children? | End Violence*. End Violence Against Children. <https://www.end-violence.org/node/8154>
- Engelman, A., Craig, L., & Iles, A. (2022, October). *Global Disability Justice In Climate Disasters: Mobilizing People With Disabilities As Change Agents*. *HealthAffairs*. <https://www.healthaffairs.org/doi/10.1377/hlthaff.2022.00474>
- Environmental Protection Agency. (2023, December 27). *Climate Change and the Health of People with Disabilities*. EPA. <https://www.epa.gov/climateimpacts/climate-change-and-health-people-disabilities#:~:text=Increases%20in%20average%20and%20extreme,groups%2C%20including%20people%20with%20disabilities.&text=Some%20people%20with%20disabilities%20are,heat%2Drelated%20illness%20and%20death>.
- Evans, M. F., Gazze, L., & Schaller, J. (2023). *Temperature and mouth treatment of young children*. National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w31522/w31522.pdf
- Felix, A. (2023, December 19). COP 28: The disability movement calls for inclusion in climate action. *European Disability Forum*. <https://www.edf-feph.org/cop-28-the-disability-movement-calls-for-inclusion-in-climate-action/>

- Fong, P. (2022, February). Women and disability in the context of climate mobility: Case Studies of Fiji: Solomon Islands and Vanuatu. <https://www.resilientpacific.org/en/media/236>
- Flab, K., Asghar, K., Pardo, N. M., Hategekimana, J. D. D., Roth, D., & O'Connor, M. (2022). Developing an Inclusive Conceptual Model for Preventing Violence in the Home in Humanitarian Settings: Qualitative Findings From Myanmar and the Democratic Republic of Congo. *Journal of Interpersonal Violence, 37*, 1076–1105. <https://doi.org/10.1177/0886260520922358>
- Freedman, A. (2014). Climate Change Is Increasing the Severity of Natural Disasters. In R. Espejo (Ed.), *At Issue. Are Natural Disasters Increasing?* Greenhaven Press. (Reprinted from *How Global Warming Made Hurricane Sandy Worse*, www.climatecentral.org, 2012, November 1) <https://link.gale.com/apps/doc/EJ3010598218/OVIC?u=scschools&sid=bookmark-OVIC&xid=bbb267e2>
- Gaskin, C. J., Taylor, D., Kinnear, S., Mann, J., Hillman, W., & Moran, M. (2017, October 1). *Factors associated with the climate change vulnerability and the adaptive capacity of people with disability: A systematic review*. AMETSOC. https://journals.ametsoc.org/view/journals/wcas/9/4/wcas-d-16-0126_1.xml
- Ghenis, A. (2015, October 21). *Climate Change, Migration, and People with Disabilities*. Resources - DICARP. <https://www.disabilityinclusiveclimate.org/resources>
- Glinski, S. (2022). Ten of the countries most affected by climate change. Concern Worldwide. <https://concernusa.org/news/countries-most-affected-by-climate-change/>
- Gossman. (2020). Afghanistan: The alarming effects of climate change. OCHA.
- Grantham Institute . (n.d.). *What are the impacts of climate change?* Imperial College London. <https://www.imperial.ac.uk/grantham/publications/climate-change-faqs/what-are-the-impacts-of-climate-change/#:~:text=How%20will%20climate%20change%20impact,health%20and%20global%20development>
- Greenwald, R., Laures-Gore, J. S., & Nogueira, L. M. (2024). The Intersectionality of Climate Change and Post-Stroke Aphasia. *Seminars in speech and language, 45*(1), 46–55. <https://doi.org/10.1055/s-0043-1777858>
- Groce, N., Bailey, N., Lang, R., Trani, J.F., Kett, M. (2011). *Water and sanitation issues for persons with disabilities in low- and middle-income countries: a literature review and discussion of implications for global health and international development*. Leonard Cheshire Centre for Disability and Inclusive Development, University College London, London, UK. doi: 10.2166/wh.2011.198

- Harvard Law School Project on Disability. (2023, February 15). Submission to the Committee on the Rights of Persons with Disabilities regarding Article 11 of the Convention. Cambridge; Harvard Law School Project on Disability. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ohchr.org%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2Fhrbodies%2Fcerd%2Fcfi%2Fdgd-article11%2FHarvard_Law_Schl_Proj_Disability-dgd-article11.docx&wdOrigin=BROWSELINK
- Hausfather, Z. (2023, April 24). *Analysis: Half the global population saw all-time record temperatures over past decade*. Carbon Brief. <https://interactive.carbonbrief.org/half-global-population-saw-all-time-record-temperatures-over-past-decade/>
- Hoare, R., Dublin, T. C. (2024, January 31). *Friendship is crucial for refugee children – here's how to talk to your child about being welcoming*. Wwww.tcd.ie. https://www.tcd.ie/news_events/articles/2024/the-conversation-friendship-is-crucial-for-refugee-children-/
- House, S. (2013). *WASH Components of the Situation Analysis of Children and Women - Afghanistan*. UNICEF. <https://reliefweb.int/report/afghanistan/situation-analysis-water-sanitation-and-hygiene-wash-sector-relation-fulfilment>
- Hrabok, M., Delorme, A., & Agyapong, V. I. O. (2020). Threats to mental health and well-being associated with climate change. *Journal of Anxiety Disorders, 76*, 102295. <https://doi.org/10.1016/j.janxdis.2020.102295>
- Human Rights Watch. (2020, October 28). UN: Strengthen humanitarian aid for people with disabilities. <https://www.hrw.org/news/2020/06/09/un-strengthen-humanitarian-aid-people-disabilities>
- Humanity & Inclusion. (2015). Education for All? This is still not a reality for most children with disabilities. Advocacy Briefing.
- India State-Level Disease Burden Initiative Malnutrition Collaborators. (2019, September 17). *The burden of child and maternal malnutrition and trends in its ...* The Lancet. [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(19\)30273-1/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(19)30273-1/fulltext)
- Independent Expert on the enjoyment of human rights by persons with albinism. (2018). A/HRC/37/57/add.2: Report of the independent expert on the enjoyment ... <https://www.ohchr.org/en/documents/thematic-reports/ahrc3757add2-report-independent-expert-enjoyment-human-rights-persons>
- Inter-agency Working Group. (2018.). Inter-agency Working Group on Reproduction Health in Crises. <https://iawgfieldmanual.com/manual/asrh>
- Intergovernmental Panel on Climate Change. (2018). *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 (Chapter 5, Page 479). Global warming of 1.5 oc. <https://www.ipcc.ch/sr15/>

International Disability Alliance. (n.d.). Resource page on disability-inclusive wash. <https://www.internationaldisabilityalliance.org/DisabilityInclusiveWASH>

International Federation Terre des Hommes. (2023a). *UN: Right to a healthy environment for the first time explicitly declared as a child right | Terre des hommes*. <https://www.tdh.org/en/media/press-releases/un-right-to-a-healthy-environment-for-the-first-time-explicitly-declared-as-a-child-right>

International Federation Terre des Hommes. (2023b). *COP28: A COP for Children | Terre des hommes*. <https://www.tdh.org/en/media/press-releases/cop28-a-cop-for-children>

International Labour Organization. (2023). *Issue paper on child labour and climate change*. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_894326.pdf

International Rescue Committee. (2018, October 15). *Why is Yemen the world's worst humanitarian crisis?* International Rescue Committee (IRC). <https://www.rescue.org/article/why-yemen-worlds-worst-humanitarian-crisis>

International Rescue Committee. (2020, July 29). *Over 200 children stopped at sea and sent to Libyan detention centres; IRC calls for their release | International Rescue Committee (IRC)*. [www.rescue.org. https://www.rescue.org/press-release/over-200-children-stopped-sea-and-sent-libyan-detention-centres-irc-calls-their](https://www.rescue.org/press-release/over-200-children-stopped-sea-and-sent-libyan-detention-centres-irc-calls-their)

International Rescue Committee. (2023, May 17a). *IRC warns of alarming increase in acute malnutrition cases in Uganda's refugee settlements | International Rescue Committee (IRC)*. [www.rescue.org. https://www.rescue.org/press-release/irc-warns-alarming-increase-acute-malnutrition-cases-ugandas-refugee-settlements](https://www.rescue.org/press-release/irc-warns-alarming-increase-acute-malnutrition-cases-ugandas-refugee-settlements)

International Rescue Committee. (2023, September 13b). *Can Wash Services Transform Health and Well-Being in Vulnerable Communities?*. <https://www.rescue.org/article/can-wash-services-transform-health-and-well-being-vulnerable-communities#:~:text=Lack%20of%20access%20to%20WASH%20can%20impact%20children&text=Fragile%20and%20conflict%2Daffected%20areas,disruptions%20to%20schools%20and%20hospitals>

Ishida, H., Kobayashi, S., Kanae, S., Hasegawa, T., Fujimori, S., Shin, Y., Takahashi, K., Masui, T., Tanaka, A., Honda, Y., (2014). *Global-scale projection and its sensitivity analysis of the health burden attributable to childhood undernutrition under the latest scenario framework for climate change research*. *Environmental Research Letters*, V9, N6. DOI: 10.1088/1748-9326/9/6/064014

- Jahn, A. (2019). An Overview on Acute Malnutrition and Food Insecurity among Children during the Conflict in Yemen. *Children (Basel, Switzerland)*, 6(6), 77.
<https://doi.org/10.3390/children6060077>
- James, L., Sovcik, A., Garoff, F., & Abbasi, R. (2014, September). *La Salud Mental de los Niños Sirios y Adolescentes Sirios Refugiados*. Rua Repositorio Institucional de La Universidad de Alicante. https://rua.ua.es/dspace/bitstream/10045/41495/1/RMF_47_17.pdf
- Jodoin, S., Lofts, K. A., & Ananthamoorthy, N. (2020). A disability rights approach to climate governance. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3610193>
- Jones, H.E. & Reed, R.A. (2005). *Why should the water and sanitation sector consider disabled people?* Water, Engineering and Development Centre Loughborough University. [https://wedc-knowledge.lboro.ac.uk/resources/books/WSfDP - WELL BN Report.pdf](https://wedc-knowledge.lboro.ac.uk/resources/books/WSfDP_-_WELL_BN_Report.pdf)
- Jones, N., Baird, S., Abu Hamad, B., Bhutta, Z. A., Oakley, E., Shah, M., Sajdi, J., & Yount, K. M. (2022). Compounding inequalities: Adolescent psychosocial wellbeing and resilience among refugee and host communities in Jordan during the COVID-19 pandemic. *PLoS One*, 17(2), e0261773–e0261773.
- Kosanic, A., Petzold, J., Dunham, A., & Razanajatovo, M. (2019, November 8). *Climate concerns and the disabled community*. Shibboleth authentication request. <https://www-science-org.offcampus.lib.washington.edu/doi/10.1126/science.aaz9045>
- Kosanic, A., Petzold, J., Martín-López, B., & Razanajatovo, M. (2022). An inclusive future: Disabled populations in the context of climate and environmental change. *Current Opinion in Environmental Sustainability*, 55, 1–11.
<https://doi.org/https://doi.org/10.1016/j.cosust.2022.101159>
- Leekuan, P., Kane, R., Sukwong, P., & Kulnitichai, W. (2022). Understanding sexual and reproductive health from the perspective of late adolescents in Northern Thailand: a phenomenological study. *Reproductive Health*, 19(1), 230–230.
<https://doi.org/10.1186/s12978-022-01528-1>
- Lewis, G. (2023). Opinion: The urgent need to plan for disability-inclusive education. Devex. <https://www.devex.com/news/opinion-the-urgent-need-to-plan-for-disability-inclusive-education-94059>
- Lindsay, S., Hsu, S., Rangunathan, S., & Lindsay, J. (2022). The impact of climate change related extreme weather events on people with pre-existing disabilities and chronic conditions: A scoping review. *Disability and Rehabilitation*, 45(25), 4338–4358.
<https://doi.org/10.1080/09638288.2022.2150328>
- Lindsay, S., Hsu, S., Rangunathan, S., & Lindsay, J. (2023). The impact of climate change related extreme weather events on people with pre-existing disabilities and chronic conditions: a scoping review. Taylor & Francis Group: Disability and Rehabilitation.

- Lindsey, R. (2022, April 19). Climate change: Global sea level. Climate.gov. [https://doi.org/10.1007/s11920-021-01295-z](https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level#:~:text=The%20rising%20water%20level%20is,record%20(1993%2Dpresent)Mann, M., McMillan, J.E., Silver, E.J. et al. (2021). Children and Adolescents with Disabilities and Exposure to Disasters, Terrorism, and the COVID-19 Pandemic: a Scoping Review. <i>Curr Psychiatry Rep</i> 23, 80. <a href=)
- Manullang, T. I. B., Nandiyanto, A., Suryadi, A., Rochyadi, E., Haerudin, D., Muspita, R., Sumiroh, E., & Manullang, L. S. (2021). Improving Students With Intellectual Disabilities Science Process Skills Through Photosynthesis Experiment in Enhancing Climate Change Awareness. *Journal of Engineering Science and Technology*, 16, 2368–2377. https://jestec.taylors.edu.my/Vol%2016%20issue%203%20June%202021/16_3_37.pdf
- McAdams Ducey, E., & Stough, L. M. (2011). Exploring the support role of Special Education Teachers after Hurricane Ike. *Journal of Family Issues*, 32(10), 1325–1345. <https://doi.org/10.1177/0192513x11412494>
- McDermott, B. M., & Cobham, V. E. (2014). A stepped-care model of post-disaster child and Adolescent Mental Health Service Provision. *European Journal of Psychotraumatology*, 5(1). <https://doi.org/10.3402/ejpt.v5.24294>
- McGushin, A., Gasparri, G., Graef, V., Ngendahayo, C., Timilsina, S., Bustreo, F., & Costello, A. (2022). Adolescent wellbeing and climate crisis: Adolescents are responding, what about health professionals? *BMJ*. <https://doi.org/10.1136/bmj-2022-071690>
- Mcharo, R. D., Mayaud, P., & Msuya, S. E. (2021). Where and how do young people like to get their sexual and reproductive health (SRH) information? Experiences from students in higher learning institutions in Mbeya, Tanzania: a cross-sectional study. *BMC public health*, 21(1), 1683. <https://doi.org/10.1186/s12889-021-11728-2>
- Minnesota School Safety Center. (2011). Comprehensive school safety guide: Minnesota School Safety Center program. Retrieved from <https://dps.mn.gov/divisions/hsem/mn-school-safety-center/Documents/2011%20Comprehensive%20School%20Safety%20Guide.pdf>
- Muderedzi, J. T., Eide, A. H., Braathen, S. H., & Stray-Pedersen, B. (2017). Exploring structural violence in the context of disability and poverty in Zimbabwe. *African Journal of Disability*, 6(0). <https://doi.org/10.4102/ajod.v6i0.274>
- Muurlink, O. T., & Poyatos Matas, C. (2010). Climate change and classroom: The power of weather to interfere with global education. *The International Journal of Climate Change: Impacts and Responses*, 2(1), 223–232. <https://doi.org/10.18848/1835-7156/cgp/v02i01/37300>

- N. Groce, E. Challenger, R. Berman-Bieler, A. Farkas, N. Yilmaz, W. Schultink, D. Clark, C. Kaplan & M. Kerac (2014) Malnutrition and disability: unexplored opportunities for collaboration, *Paediatrics and International Child Health*, 34:4, 308-314, DOI: [10.1179/2046905514Y.0000000156](https://doi.org/10.1179/2046905514Y.0000000156)
- National Aeronautics and Space Administration. (n.d.). Extreme weather and climate change. <https://climate.nasa.gov/extreme-weather/#:~:text=As%20the%20climate%20changes%2C%20the,extreme%20weather%20events%20are%20increasing.&text=Climate%20change%20from%20a%20human,intensity%20of%20extreme%20weather%20events>
- Ngcamu, B. S. (2023). Climate change effects on vulnerable populations in the Global South: A systematic review. *Natural Hazards*, 118(2), 977–991. <https://doi.org/10.1007/s11069-023-06070-2>
- Nordstrom, M. N., Retterstol, K., Hope, S., & Olav Kolset, S. (2020, June). *The Lancet Child & Adolescent Health*. The Lancet. [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(19\)30400-6/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(19)30400-6/fulltext)
- Office of the Special Representative of the Secretary-General. (2022). *The climate crisis and violence against children*. <https://violenceagainstchildren.un.org/sites/violenceagainstchildren.un.org/files/the-climate-crisis-and-violence-against-children.pdf>
- Office of the United Nations High Commissioner for Human Rights. (n.d.a). Disability and Climate Change: How climate-related hazards increase vulnerabilities among the most at risk populations and the necessary convergence of inclusive disaster risk reduction and climate change adaptation. https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/Submissions/Disabilities/Humanity_and_Inclusion.pdf
- Office of the United Nations High Commissioner for Human Rights. (n.d.b). Climate Change Protecting the Rights of Children. <https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/materials/2PChildrenLight.pdf>
- Office of the United Nations High Commissioner for Human Rights. (1966). *International Covenant on Civil and Political Rights*. <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights>
- Office of the United Nations High Commissioner for Human Rights. (1979). *Convention on the Elimination of All Forms of Discrimination against Women*. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-elimination-all-forms-discrimination-against-women>

- Office of the United Nations High Commissioner for Human Rights. (1989). *Convention on the Rights of the Child*. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>
- Office of the United Nations High Commissioner for Human Rights. (2006). *Convention on the Rights of Persons with Disabilities*. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>
- Office of the United Nations High Commissioner for Human Rights. (2010). *Republic of Haiti Submission to the United Nations Universal Periodic Review*. <https://www.ohchr.org/sites/default/files/lib-docs/HRBodies/UPR/Documents/session12/HT/JS7-JointSubmission7-eng.pdf>
- Office of the United Nations High Commissioner for Human Rights. (2020). *Analytical study on the rights of persons with disabilities and climate change*. <https://www.ohchr.org/en/documents/thematic-reports/analytical-study-promotion-and-protection-rights-persons-disabilities>
- Onyedinefu, G. (2022, February 17). *Majority of children with disabilities in Nigeria are not schooled - experts*. Businessday NG. <https://businessday.ng/news/article/majority-of-children-with-disabilities-in-nigeria-are-not-schooled-experts/>
- Organisation for Economic Co-operation and Development. (n.d.). *Poverty and climate change*. <https://www.oecd.org/env/cc/2502872.pdf>
- Pacific Disability Forum. (2022, August 8). *Disability and Climate Change in the Pacific, Findings from Kiribati, Solomon Islands, and Tuvalu*. <https://pacificdisability.org/wp-content/uploads/2022/08/PDF-Final-Report-on-Climate-Change-and-Persons-with-Disabilities.pdf>
- Pearce, E. (2015). 'Ask us what we need': Operationalizing Guidance on Disability Inclusion in Refugee and Displaced Persons Programs. *Disability and Poverty in the Global South*, 2(1), 460–478. <https://doi.org/10.1057/9781137307989>
- Pearce, E., Paik, K., & Robles, O. J. (2016). *Adolescent Girls with Disabilities in Humanitarian Settings: "I Am Not 'Worthless'—I Am a Girl with a Lot to Share and Offer"*. *Girlhood Studies*, 9(1), 118–136. Retrieved Feb 14, 2024, from <https://doi.org/10.3167/ghs.2016.090109>
- Peek, L., & Stough, L. M. (2010). Children with disabilities in the context of disaster: a social vulnerability perspective. *Child development*, 81(4), 1260–1270. <https://doi.org/10.1111/j.1467-8624.2010.01466.x>
- Person, C., & Fuller, E. J. (2007). Disaster care for persons with psychiatric disabilities. *Journal of Disability Policy Studies*, 17(4), 238–248. <https://doi.org/10.1177/10442073070170040701>

- Qi, W., Li, H., Lian, Q., Zuo, X., Yu, C., Lou, C., & Tu, X. (2023). Knowledge level and access barriers related to sexual and reproductive health information among youth with disabilities in China: a cross-sectional study. *Reproductive health*, 20(1), 84. <https://doi.org/10.1186/s12978-023-01625-9>
- Regional Emergency Psychosocial Support Network. (n.d.). *Handbook on Psychosocial Assessment of Children and Communities in Emergencies*. <https://bettercarenetwork.org/sites/default/files/attachments/Handbook%20of%20Psychosocial%20Assessment%20of%20Children%20in%20Emergencies.pdf>
- Reilly, R., & Taylor, U. (n.d.). La discapacidad entre poblaciones refugiadas y afectadas por conflictos. https://rua.ua.es/dspace/bitstream/10045/14450/1/RMF_35_04.pdf
- Rentschler, J., Salhab, M., & Arga Jafino, B. (2022, June 28). *Flood risk already affects 1.81 billion people. climate change and unplanned urbanization could worsen exposure*. World Bank Blogs. <https://blogs.worldbank.org/climatechange/flood-risk-already-affects-181-billion-people-climate-change-and-unplanned>
- Rohwerder, B., Wong, S., Pokharel, S., Khadka, D., Poudyal, N., Prasai, S., Shrestha, N., Wickenden, M., Morrison, J., (2022) *Describing adolescents with disabilities' experiences of COVID-19 and other humanitarian emergencies in low- and middle-income countries: a scoping review*, *Global Health Action*, 15:1, DOI: [10.1080/16549716.2022.2107350](https://doi.org/10.1080/16549716.2022.2107350)
- Ronoh, S. (2017). Disability through an inclusive lens: Disaster risk reduction in schools. *Disaster Prevention and Management: An International Journal*, 26(1), 105–119. <https://doi.org/10.1108/dpm-08-2016-0170>
- Save the Children. (2021). *Born into the Climate Crisis: Why We Must Act Now to Secure Children's Rights*. <https://resourcecentre.savethechildren.net/pdf/born-into-the-climate-crisis.pdf/>
- Saxton, M. L., & Ghenis, A. (2018). Disability Inclusion in Climate Change: Impacts and Intersections. *Interdisciplinary Perspectives on Equality and Diversity: Special Issue on Intersectionality and Climate Change*, 4. <https://doi.org/https://creativecommons.org/licenses/by/4.0/>
- Scherer, Nathaniel, Islay Mactaggart, Chelsea Huggett, Pharoazin Pheng, Mahfuj-ur Rahman, Adam Biran, and Jane Wilbur. (2021) *The Inclusion of Rights of People with Disabilities and Women and Girls in Water, Sanitation, and Hygiene Policy Documents and Programs of Bangladesh and Cambodia: Content Analysis Using EquiFrame*. *International Journal of Environmental Research and Public Health*. 18, no. 10: 5087. <https://doi.org/10.3390/ijerph18105087>
- Secretariat of the African Decade of Persons with Disabilities. (2012). Study on education for children with disabilities in Southern Africa. SADPD.

- Segal, T. R., & Giudice, L. C. (2022). Systematic review of climate change effects on reproductive health. *Fertility and Sterility*, 118(2), 215–223. <https://doi.org/10.1016/j.fertnstert.2022.06.005>
- Sheffield, P. E., Uijtewaal, S. A. M., Stewart, J., & Galvez, M. P. (2017, November 16). *Climate change and schools: Environmental hazards and resiliency*. MDPI. <https://www.mdpi.com/1660-4601/14/11/1397>
- Singh, S., & Olive Kagweza, O. (2022). The impacts of climate change in Lwengo, Uganda. *Climate Change in Asia and Africa - Examining the Biophysical and Social Consequences, and Society's Responses*. <https://doi.org/10.5772/intechopen.97279>
- Spooner, F., Knight, V. F., Browder, D. M., & Smith, B. R. (2012). Evidence-based practice for teaching academics to students with severe developmental disabilities. *Remedial and Special Education*, 374–387. doi:10.1177/0741932511421634
- Stein, P. J. S., & Stein, M. A. (2022). Climate change and the right to health of people with disabilities. *The Lancet Global Health*, 10(1), e24–e25. [https://doi.org/10.1016/S2214-109X\(21\)00542-8](https://doi.org/10.1016/S2214-109X(21)00542-8)
- Steward, C. (2023, August 19). *How does Jamaica communicate about the climate crisis with the Blind and visually impaired?*. Global Voices. <https://globalvoices.org/2023/08/19/how-does-jamaica-communicate-about-the-climate-crisis-with-the-blind-and-visually-impaired/>
- Stough, L. M., Ducey, E. M., & Kang, D. (2017). Addressing the needs of children with disabilities experiencing disaster or terrorism. *Current Psychiatry Reports*, 19(4). <https://doi.org/10.1007/s11920-017-0776-8>
- Stough, L. M., Ducey, E., Kang, D., & Lee, S. (2019, December). *Disasters, schools, and children: Disability at the intersection*. Elsevier.
- Stough, L. M., Ducey, E. M., Kang, D., & Lee, S. (2020). Disasters, schools, and children: Disability at the intersection. *International Journal of Disaster Risk Reduction*, 45, 101447. <https://doi.org/10.1016/j.ijdrr.2019.101447>
- Strother, J. (2018, July 13). For Filipinos with disabilities, climate change and natural disasters are a dangerous mix. <https://theworld.org/stories/2018-07-13/disabled-community-coastal-philippine-city-feels-forgotten>
- Takada, S. (2013). Post-traumatic stress disorders and mental health care (lessons learned from the Hanshin-Awaji earthquake, Kobe, 1995). *Brain and Development*, 35(3), 214–219. <https://doi.org/10.1016/j.braindev.2012.09.013>

- Taylor, A. L., Perret, D., Morice, K., Zafonte, R., Skelton, F., Rivers, E., & Alexander, M. (2022). Climate change and Physiatry. *American Journal of Physical Medicine & Rehabilitation*, 101(10), 988–993. <https://doi.org/10.1097/phm.0000000000002017>
- The Lancet Child & Adolescent Health,. (2021, July 1). *Child malnutrition: Hungry for action - the lancet*. The Lancet Child & Adolescent Health. [https://www.thelancet.com/pdfs/journals/lanchi/PIIS2352-4642\(21\)00170-X.pdf](https://www.thelancet.com/pdfs/journals/lanchi/PIIS2352-4642(21)00170-X.pdf)
- The World Bank . (2017). *The Price of Exclusion: Disability and Education Disability Gaps in Education Attainment and Literacy*. <https://documents1.worldbank.org/curated/en/396291511988894028/pdf/121762-replacement-PUBLIC-WorldBank-GapsInEdAttainmentLiteracy-Brief-v6.pdf>
- Thordardottir, E. B., Valdimarsdottir, U. A., Hansdottir, I., Hauksdóttir, A., Dyregrov, A., Shipherd, J. C., Elklit, A., Resnick, H., & Gudmundsdottir, B. (2016). Sixteen-year follow-up of Childhood Avalanche Survivors. *European Journal of Psychotraumatology*, 7(1). <https://doi.org/10.3402/ejpt.v7.30995>
- Timsit, A., & Kaplan, S. (2021, October 11). *85 percent of the world population lives in areas affected by climate ...* 85 percent of the world population lives in areas affected by climate change, new study shows. <https://www.washingtonpost.com/climate-environment/2021/10/11/85-percent-population-climate-impacts/>
- United Nations Children's Fund & McGovern, P. J. (2023). *CHILDREN DISPLACED IN A CHANGING CLIMATE: preparing for a future already underway*. [https://www.unicef.org/media/145951/file/Climate%20displacement%20report%20\(English\).pdf](https://www.unicef.org/media/145951/file/Climate%20displacement%20report%20(English).pdf)
- United Nations Children's Fund. (n.d.a). Water, sanitation and hygiene (WASH). <https://www.unicef.org/wash>
- United Nations Children's Fund. (n.d.b). *Children with disabilities in emergencies*. [www.unicef.org. https://www.unicef.org/disabilities/emergencies](http://www.unicef.org/disabilities/emergencies)
- United Nations Children's Fund. (n.d.c). *Adolescents in humanitarian action / UNICEF*. [www.unicef.org](http://www.unicef.org/adolescence/humanitarian-action). Retrieved February 2, 2024, from <http://www.unicef.org/adolescence/humanitarian-action>
- United Nations Children's Fund. (n.d.d). *Health in Emergencies and Humanitarian Settings*. UNICEF - Humanitarian Practice. <https://www.corecommitments.unicef.org/health-in-emergencies>
- United Nations Children's Fund. (n.d.e). *Make it count: Disability inclusive wash programme*. <https://www.unicef.org/documents/make-it-count-disability-inclusive-wash-programme>

- United Nations Children's Fund. (n.d.f). Water, Sanitation, and Hygiene (WASH).
<https://www.unicef.org/wash/sanitation>
- United Nations Children's Fund. (n.d.g). Schools ill-equipped to provide healthy and inclusive learning environments for all children – UNICEF, WHO.
<https://www.unicef.org/rosa/press-releases/schools-ill-equipped-provide-healthy-and-inclusive-learning-environments-all>
- United Nations Children's Fund. (n.d.h). Water, sanitation and hygiene (WASH) and climate change.
<https://www.unicef.org/wash/climate#:~:text=Increased%20demand%20for%20water%20due,and%20contaminate%20the%20water%20supply>
- United Nations Children's Fund. (1992). *Framework Convention on Climate Change*. <https://unfccc.int/resource/docs/convkp/conveng.pdf>
- United Nations Children's Fund. (2021a). *Reimagining WASH: Water Security for All*.
<https://www.unicef.org/media/95241/file/water-security-for-all.pdf>
- United Nations Children's Fund. (2021b). *Child Protection Strategy 2021-2030*.
<https://www.unicef.org/media/104416/file/Child-Protection-Strategy-2021.pdf>
- United Nations Children's Fund. (2021c). *The Climate Crisis is a Child Rights Crisis* [Summary Edition].
https://www.unicef.org/media/105531/file/UNICEF_climate%20crisis_child_rights_crisis-summary.pdf
- United Nations Children's Fund. (2022a). A Liveable Planet for Every Child.
<https://www.unicef.org/media/122881/file/UNICEF%20Strategy%20Climate,%20Environment,%20Energy%20and%20DRR.pdf>
- United Nations Children's Fund. (2022b). *UNICEF Fact Sheet: Children with Disabilities*.
https://www.unicef.org/sites/default/files/2022-10/GIPO2115_UNICEF_Children-with-Disabilities-Factsheet-final%20-%20accessible.pdf
- United Nations Children's Fund. (2023a). *Children with disabilities*. UNICEF DATA.
<https://data.unicef.org/topic/child-disability/overview/>
- United Nations Children's Fund. (2023b). *The climate-changed child*. United Nations Children's Fund. <https://www.unicef.org/reports/climate-changed-child>
- United Nations Children's Fund. (2023c). Building climate change into care reform in Eastern and Southern Africa.
<https://www.unicef.org/esa/media/12476/file/Care%20reform%20and%20climate%20change.pdf>

- United Nations Children's Fund. (2023d). CRPD Draft General Comment on Article 11 (Situations of Risk and Humanitarian Emergencies).
<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ohchr.org%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2Fhrbodies%2Fcerd%2Fcfi%2Fdgd-article11%2FUNICEF-dgd-article11.docx&wdOrigin=BROWSELINK>
- United Nations Children's Fund. (2023e). Philippines records highest number of child displacements as climate crisis uproots 43.1 million children worldwide.
<https://www.unicef.org/philippines/press-releases/philippines-records-highest-number-child-displacements-climate-crisis-uproots-431>
- United Nations Children's Fund South Asia. (n.d.). *Child Labour and Disability* [Advocacy Brief].
<https://www.unicef.org/rosa/media/13541/file/Advocacy%20Brief%20-%20Child%20Labour%20and%20Disability.pdf>
- United Nations Children's Fund South Asia. (2022). *Child Labour and Disability: A Sector Review*.
<https://www.unicef.org/rosa/media/18201/file/Child%20Labour%20and%20Disability:%20A%20Sector%20Review%20.pdf>
- United Nations Committee in Economic, Social, and Cultural Rights. (2018, October 31). Climate change and the International Covenant on Economic, Social and Cultural Rights.
<https://www.ohchr.org/en/statements/2018/10/committee-releases-statement-climate-change-and-covenant>
- United Nations Committee on the Elimination of Discrimination against Women. (2018, March 13). General recommendation No. 37 (2018) on the gender-related dimensions of disaster risk reduction in the context of climate change.
<https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-recommendation-no37-2018-gender-related>
- United Nations Committee on the Rights of the Child. (2023, August 22). General comment No. 26 (2023) on children's rights and the environment, with a special focus on climate change.
<https://www.ohchr.org/en/documents/general-comments-and-recommendations/crcgc26-general-comment-no-26-2023-childrens-rights>
- United Nations Environment Programme (2011). Women at the frontline of climate change: gender risks and hopes. <https://wedocs.unep.org/20.500.11822/7985>.
- United Nations Educational, Scientific and Cultural Organization. (n.d.). How climate change and displacement affect the right to education. <https://www.unesco.org/en/right-education/climate-change-displacement>

- United Nations Educational, Scientific and Cultural Organization(2018). Education and Disability: Analysis of Data from 49 Countries.
<https://uis.unesco.org/en/news/education-and-disability-analysis-data-49-countries>
- United Nations Framework Convention on Climate Change. (2023, December 13). Outcome of the first global stocktake.
https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf
- United Nations Framework Convention on Climate Change. (n.d.). *United Nations Framework Convention on Climate Change*. Unfccc.int.
<https://unfccc.int/resource/docs/convkp/conveng.pdf>
- United Nations Framework Convention on Climate Change. (2015). *Paris Agreement*. Paris Agreement English .
https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf
- United Nations Framework Convention on Climate Change. (2018). *The Paris Agreement*.
https://unfccc.int/sites/default/files/english_paris_agreement.pdf
- United Nations Framework Convention on Climate Change. (2023a). *UNFCCC*. 5th Capacity-Building Hub Summary Report .
https://unfccc.int/sites/default/files/resource/2nd_CB_Hub_SummaryReport_0.pdf
- United Nations Framework Convention on Climate Change. (2023b). COP 28 Global Youth Statement .
<https://static1.squarespace.com/static/64e71b1580e9dc25aacc828d/t/6556a53d18157b2d49e1ae91/1700177231473/Global+Youth+Statement+Condensed+Demands>
- United Nations General Assembly. (2023). Enjoyment of human rights of persons with albinism.
<https://documents.un.org/doc/undoc/gen/n23/205/22/pdf/n2320522.pdf?token=ehPOfIbAmR7kUnLgfS&fe=true>
- United Nations High Commissioner for Refugees. (2021, May). *Disability, Displacement and Climate Change*. UNHCR US. <https://www.unhcr.org/us/media/disability-displacement-and-climate-change>
- United Nations High Commissioner for Refugees. (2023, October 24). *Refugee Data Finder*. UNHCR. <https://www.unhcr.org/refugee-statistics/#:~:text=At%20the%20end%20of%202022,below%2018%20years%20of%20age.&text=Between%202018%20and%202022%2C%20an,born%20as%20refugees%20per%20year.>
- United Nations Human Rights Committee. (2013, December 18). Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019. <https://digitallibrary.un.org/record/3979204>

- United Nations Human Right Committee. (2019, December 3). General comment No. 36. on article 6: right to life. <https://www.ohchr.org/en/calls-for-input/general-comment-no-36-article-6-right-life>
- United Nations Office for Disaster Risk Reduction. (2015) *Sendai Framework for Disaster Risk Reduction 2015-2030*. <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
- United Nations Office for Disaster Risk Reduction. (2021). *UNDRR Strategic Framework 2022-2025*. <https://www.undrr.org/publication/undrr-strategic-framework-2022-2025>
- United Nations Office for Disaster Risk Reduction. (2023). *UNDRR. 2023 Global Survey Report On Persons With Disabilities And Disasters*. <https://www.undrr.org/media/90432/download?startDownload=true>
- United Nations Office on Drugs and Crime. (2020). Global Report on Trafficking in Persons. www.unodc.org/documents/data-and-analysis/tip/2021/GLOTiP_2020_15jan_web.pdf
- United Nations Population Fund. (2009). Promoting sexual and reproductive health for persons with disabilities. https://www.unfpa.org/sites/default/files/pub-pdf/srh_for_disabilities.pdf
- United Nations Population Fund. (2022). Menstruation and human rights - frequently asked questions. <https://www.unfpa.org/menstruationfaq>
- United Nations Population Fund. (2018). *Young Persons with Disabilities: Global Study on Ending Gender-Based Violence, and Realising Sexual and Reproductive Health and Rights*. https://www.unfpa.org/sites/default/files/pub-pdf/Final_Global_Study_English_3_Oct.pdf
- United Nations Population Fund. (2023). Self-care interventions for sexual and reproductive health and rights to advance Universal Health Coverage: 2023 joint statement by HRP, who, UNDP, UNFPA and the World Bank. <https://www.unfpa.org/resources/self-care-interventions-sexual-and-reproductive-health-and-rights-advance-universal>
- United Nations Special Representative of the Secretary-General on Violence Against Children (2022). The climate crisis and violence against children. United Nations. <https://violenceagainstchildren.un.org/sites/violenceagainstchildren.un.org/files/the-climate-crisis-and-violence-against-children.pdf>

- United Nations Water. *Children being displaced by climate change*. UN. (2023a). <https://www.unwater.org/news/unicef-children-being-displaced-climate-change#:~:text=The%20report%20notes%20that%20there,driven%20by%20floods%20and%20storms.>
- United Nations Water. (n.d.b). *Wash – Water, Sanitation and Hygiene*. UN - Water. <https://www.unwater.org/water-facts/wash-water-sanitation-and-hygiene>
- United Nations Water. (n.d.c). Human rights to water and sanitation. <https://www.unwater.org/water-facts/human-rights-water-and-sanitation>
- United Nations Women. (2022, February 28). Explainer: How gender inequality and climate change are interconnected. <https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected>
- United Nations. (n.d.a). *Convention on the rights of persons with disabilities (CRPD) | division for inclusive social development (DISD)*. United Nations. <https://social.desa.un.org/issues/disability/crpd/convention-on-the-rights-of-persons-with-disabilities-crpd>
- United Nations. (n.d.b). *Accessing sexual and reproductive health services and reproductive rights for all persons with disabilities*. Realizing the Sustainable Development Goals by, for and with Persons with Disabilities. https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/12/Sexual_Reproductive_Health_Brief_final_20190822-1.pdf
- United Nations. (n.d.c). UN disability and development report – realizing the SDGs by, for and with persons with disabilities. <https://www.un.org/en/desa/un-disability-and-development-report-%E2%80%93-realizing-sdgs-and-persons-disabilities>
- United Nations. (n.d.d). *Children with Disabilities - Violence Against Children*. United Nations. <https://violenceagainstchildren.un.org/content/children-disabilities>
- United Nations. (2018). *Disability and Development Report*. UN Flagship Report Disability . <https://social.un.org/publications/UN-Flagship-Report-Disability-Final.pdf>
- Uzair, Y., Yasukawa, L., & Bari, N. (2022, March). *Promising practices of disability inclusion in addressing disaster displacement – by Yusra Uzair, Louisa Yasukawa and Nazmul Bari*. Disaster Displacement. <https://disasterdisplacement.org/perspectives/promising-practices-of-disability-inclusion-in-addressing-disaster-displacement-by-yusra-uzair-louisa-yasukawa-and-nazmul-bari/>

- Van Nieuwenhuizen, A., Hudson, K., Chen, X., & Hwong, A. R. (2021). The effects of climate change on child and Adolescent Mental Health: Clinical Considerations. *Current Psychiatry Reports*, 23(12). <https://doi.org/10.1007/s11920-021-01296-y>
- Water Aid. (n.d.). Living in a fragile world: The impact of climate change on the Sanitation Crisis. WASH Matters. <https://washmatters.wateraid.org/publications/fragile-world-impact-climate-change-sanitation-crisis>
- Water.org. (n.d.). Children's Education & the Water Crisis. <https://water.org/our-impact/water-crisis/childrens-and-education-crisis/>
- Watters, E. (2010). The Wave That Brought PTSD to Sri Lanka. In *Crazy Like Us: The Globalization of the American Psyche* (pp. 65–93). essay, Free Press.
- Watts, N., Costello, A., Montgomery, H., Gong, P., Wilkinson, P., Wheeler, N., Trinanets, J., Tomei, J., Tabatabaei, M., Steinbach, R., Shumake-Guillemot, J., Semenza, J., Schütte, S., Saxer, O., Rocklöv, J., Robinson, E., Rabbaniha, M., Pye, S., Pencheon, D., ... Amann, M. (2018, November 28). *The 2018 report of The lancet countdown on health and climate change: ... The Lancet*. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32594-7/fulltext?dgcid=raven_jbs_etoc_email](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32594-7/fulltext?dgcid=raven_jbs_etoc_email)
- White S., Kuper, H., Itimu-Phiri, A., Holm, R., Biran, A. (2016). *A Qualitative Study of Barriers to Accessing Water, Sanitation and Hygiene for Disabled People in Malawi*. PLoS ONE 11(5):e0155043. doi:10.1371/journal.pone.0155043
- Wickenden, M. (2023). *Disability and other identities?—how do they intersect?*. *Frontiers in rehabilitation sciences*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10449449/>
- Wilbur, J., Clemens, F., Sweet, E., Banks, L. M., & Morrison, C. (2022). The inclusion of disability within efforts to address menstrual health during humanitarian emergencies: A systematized review. *Frontiers in Water*, 4. <https://doi.org/10.3389/frwa.2022.983789>
- Women Deliver. (2021). The link between climate change and sexual and reproductive health and rights: An evidence review. *Women Deliver*. <https://womendeliver.org/wp-content/uploads/2021/02/>
- World Council of Churches. (2023, June 16). Empowering women and girls with disabilities: Resilience and inclusion in the face of climate change - burundi. United Nations Office for the Coordination of Humanitarian Affairs. <https://reliefweb.int/report/burundi/empowering-women-and-girls-disabilities-resilience-and-inclusion-face-climate-change>
- World Health Organization. (n.d.a). *Humanitarian Emergencies*. Water Sanitation and Health. <https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/environmental-health-in-emergencies/humanitarian-emergencies#:~:text=A%20minimum%20of%2015%20litres,for%20laundry%2C%20bathing%2C%20etc>

- World Health Organization. (n.d.b). *Joint child malnutrition estimates*. World Health Organization. <https://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb>
- World Health Organization. (n.d.c). Water, sanitation and hygiene (WASH). https://www.who.int/health-topics/water-sanitation-and-hygiene-wash#tab=tab_1
- World Health Organization. (2011). *World report on disability*. <https://www.who.int/publications/i/item/9789241564182>
- World Health Organization, (2021, April 19). *Disability in children and adolescents must be integrated into the global health agenda*. <https://www.who.int/news/item/19-04-2021-disability-in-children-and-adolescents-must-be-integrated-into-the-global-health-agenda>
- World Health Organization. (2022, December 2). *Health inequities lead to early death in many persons with disabilities*. World Health Organization. <https://www.who.int/news/item/02-12-2022-health-inequities-lead-to-early-death-in-many-persons-with-disabilities>
- World Health Organization. (2023a). Human rights including a supportive framework of Law and Policy (1.3.1). Abortion care guideline . [https://srhr.org/abortioncare/chapter-1/human-rights-including-a-supportive-framework-of-law-and-policy/#:~:text=\(i\)%20Sexual%20and%20reproductive%20health%20and%20rights&text=Overarching%20all%20of%20them%20are,7](https://srhr.org/abortioncare/chapter-1/human-rights-including-a-supportive-framework-of-law-and-policy/#:~:text=(i)%20Sexual%20and%20reproductive%20health%20and%20rights&text=Overarching%20all%20of%20them%20are,7)
- World Health Organization. (2023b). *Burden of disease attributable to unsafe drinking-water, sanitation and hygiene*. ISBN: 978-92-4-007561-0. <https://www.who.int/publications/i/item/9789240075610>
- World Health Organization, United Nations Development Programme, United Nations Population Fund & World Bank. (2023). Self-care interventions for sexual and reproductive health and rights to advance universal health coverage: 2023 Joint statement by HRP,WHO, UNDP, UNFPA and the World Bank. https://apps.who.int/iris/bitstream/handle/10665/112642/9789241564748_eng.pdf;jsessionid=3DFA76135096412FF7041954E144562E?sequence=1
- Zahidi, B. (2023, October 13). *Millions of Children Displaced by Climate, UNICEF Says*. KabulNow. <https://kabulnow.com/2023/10/millions-of-children-displaced-by-climate/#:~:text=Floods%20and%20storms%20caused%2095>
- Zhang, Y., Bi, P., & Hiller, J. E. (2007). Climate Change and Disability–Adjusted Life Years. *Journal of Environmental Health*, 70(3), 32–38. <http://www.jstor.org/stable/26327425>
- Zuurmond, M., Nyapera, V., Mwenda, V., Kisia, J., Rono, H., & Palmer, J. (2016). Childhood disability in Turkana, Kenya: Understanding how carers cope in a complex humanitarian setting. *African Journal of Disability*, 5(1), 8 pages. doi:<https://doi.org/10.4102/ajod.v5i1.277>