# Exploring the link between climate change and violence against children

## barnfonden
### Member of ChildFund Alliance

Literature Review, 2021

# Foreword

For thirty years now the Barnfonden team has been supporting projects in the global south; in countries prone to the effects of climate change.

In Ethiopia, I recall discussing with local staff and families how the stress of the drought in 2015 forced parents to take their children out of school to find daily labour in order to help put food on the table. I remember girls talking about their fear of the now longer walks to fetch water since this walk put them at risk of violence, assault, harassment, and even abduction.

In Kenya, our programme director counts a visit to Turkana in the north of Kenya, to a community that hadn't seen rain in three years, as one of the most transformative experiences of her life. The hardiness, ingenuity and resilience of the people she met amazed her, given the hardships they endured. But she also saw lethargy and despair. She saw few male children older than 10 – they had all moved far away herding their animals in search of food and water. Many of those animals would have died. She saw hardly any men – they were off seeking paid work or with the boys, far from home.

In Cambodia, Indonesia, and the Philippines we have seen how extreme rainfall and natural disasters have torn children from the safety they know and deprived them of their education. In temporary shelters where child protection structures are weak (or non-existent), basic facilities are lacking and people are under extreme stress, different forms of violence against children is alarming.

We see that in any situation where a family or a society is stressed, as we are witnessing with Covid-19, children are suffering immensely not just from the direct stresses, but also from increased gender-based violence, child marriage, sexual and physical violence and abuse. And now this is happening both virtually and non-virtually.

> Violence includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship or responsibility, trust or power.
>
> WHO definition.

A recurrent theme from these visits, as told by our partners in the communities, is the issue of child protection. Girls being married off. Boys and girls being taken out of school to go and work. Children wandering alone far from home in search of water and food. These things constitute a kind of violence. They are driven by the desperate circumstances people find themselves in, caused by the effects of climate change.

When I proposed the notion that climate change has a negative effect on violence against children, I was asked to present evidence. This literature review is an attempt to find out what evidence is out there to see if my claim has bearing. However, what it highlights most is that more research needs to be done. As we stive to achieve the targets related to SDG 13 (Take urgent action to address climate change and its impacts) and 16.2 (End abuse, exploitation, trafficking and all forms of violence and torture against children) we must ensure the right combinations of data are collected so we have the information we need to ensure no child is left behind when it comes to addressing the issues of violence against children and climate change.

Integrating climate change understandings into strategies to end violence against children, and vice-versa, makes sense to those of us at Barnfonden who have seen first-hand the impacts of climate change. We hope that it will encourage others to enter this field of enquiry that so undermines the realisation of children's rights.

What this might mean for us now, in our programming, is to adopt a *climate-informed child protection approach*. This includes:

- Developing programming that *always* accounts for climate change and child protection, together – and not in silos. We need to *think and talk about* the link between climate change and child protection, even if the link between the two is not always clear.
- Ensuring projects that seek to address negative social norms like early marriage and child labour are targeted to areas prone to the effects of climate change.
- Factoring in seasonal migration patterns and its impact on children's education, health and psycho-social situation.
- Strengthening families' livelihoods options to be sustainable and resilient.
- Strengthening community based child protection structures.
- Conducting advocacy to ensure coordination and integration between different government ministries and service providers on the issue of child protection and disaster management, knowing that this approach taken in advance of an incident is not only a more efficient and cost effective approach than current approaches taken during or post, but that it is what we must do to avoid unnecessary suffering.
- In the Disaster Risk Reduction preparedness planning we do with schools and communities, to strengthen our support to child protection services to work ahead of disasters.
- Educating children and parents on child rights and helping children and families build resilience generally and to the effects of climate change.
- Supporting anticipatory approaches to disasters. This means that we don't come in after the event, but plan carefully ahead of time, sometimes giving supplies or funding ahead of the potiental? disaster.
- Governments and local authorities must be held responsible for the protection of their citizens. It is important they place child rights at the centre of their planning and policies. This includes seeing relationships in planning and policies between climate change and around social protection.

I would like to acknowledge Eberechi Nnah-Ogbonda who undertook this research while interning with Barnfonden during the autumn of 2020.

If you have research related to the causal effects of climate change or environmental degradation on violence against children, we would be happy to hear from you.
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**Martina Hibell, Secretary General**
**Barnfonden, February 2021**

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Barnfonden is a member of the ChildFund Alliance, a global network of **12 child-focused development organizations** helping nearly 23 million children and their families in 70 countries around the world. Our members work to end violence and exploitation against children and to overcome poverty and the underlying conditions that prevent children from achieving their full potential.

Cover photo; Shona Jennings (with thanks to ChildFund New Zealand). The effects of climate change in Turkana, Kenya, manifest as droughts that can span many years, or devastating floods.

# Summary/Abstract

This literature review, commissioned by Barnfonden*, Sweden, was conducted to find links between climate change and child protection – in particular, violence against children. Based on our observations from and discussions with Barnfonden's programme countries and staff, a hypothesis was formulated, that:

Climate change leads to stressors on the environment such as crop failure, water scarcity, droughts, floods, rising sea levels and other catastrophic weather events that lead to increased household deprivation and vulnerability which increases child rights violations and violence against children.

This is illustrated as follows.

**Figure 1:** Exploring the link between climate change and violence against children.

- Climate change
- Stressors such as crop failure, water scarcity, droughts, floods, sea level rise and catastrophic weather events
- Increased household deprivation and vulnerability
- Increased child rights violations and violence against children
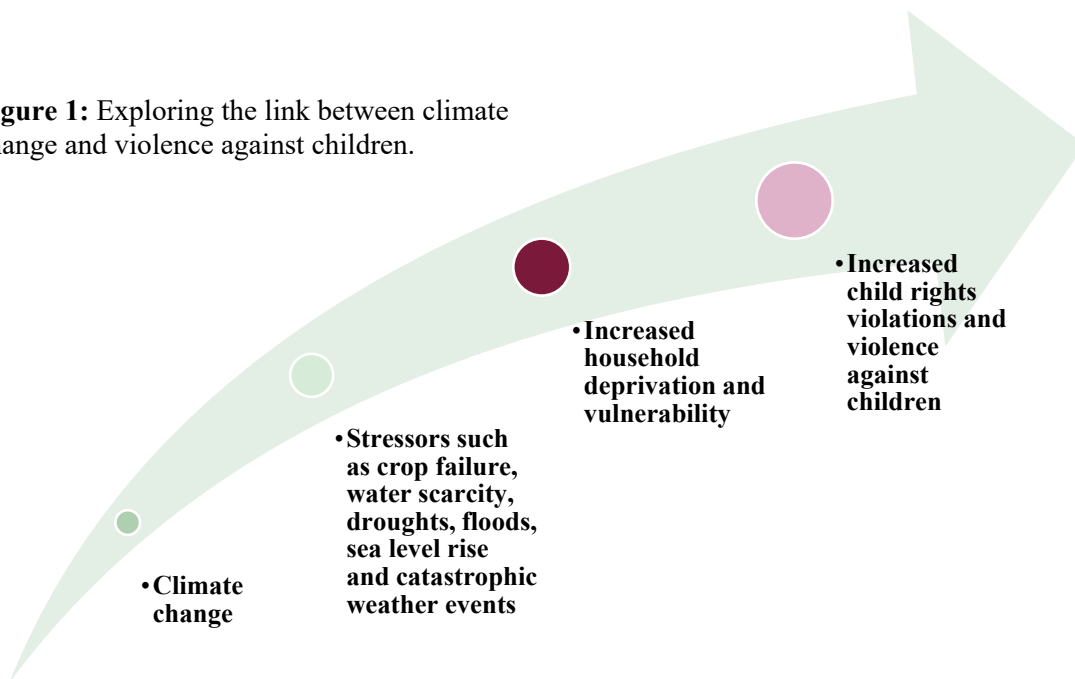
This literature review sought to find evidence of this interrelationship by asking the question:
> *Climate change is a driver of not only household stress but community-level and national stress. What does this stress look like and lead to with regard to children's exposure to violence?*

Results from the literature review indicate that climate change exacerbates the causal conditions by multiply the risks of violence against children, while also revealing a significant gap in evidence-based research on this subject. Given the limited evidence, a call for more research is needed, however the increasing effects of climate change are already affecting children as we speak therefore given these findings, Barnfonden makes the claim that:

**Climate change increases the risk of violence against children.**

Barnfonden makes this statement well aware that it is a bold assumption based on the gap in evidence-based research. They do so because they feel the statement may draw the immediate attention to the requirement for an increase in in-depth research to verify what they have been observing when working with vulnerable children globally. Although the research is focussed on climate change, it acknowledges that environmental degradation such as soil exhaustion, over-tilling, erosion and deforestation are likely

to cause similar livelihood insecurity issues and increase the severity of some natural disasters, and therefore will produce similar drivers leading to violence against children.

The research validates Barnfonden's programme thinking, which is based on the premise that:

**When planning adaptation, mitigation and response strategies related to climate change, these strategies must integrate plans to address violence against children, including physical, sexual and emotional violence, child marriage, child labour, child trafficking and child soldiering.**

The study adopts a two-pronged approach to the analysis of links between climate change and violence against children. The first part of the paper focuses on the risk drivers influenced by climate change: droughts and heat, water scarcity and flooding, and two 'second tier' effects: migration and conflict and their impact on child protection. The second part discusses the child protection issues relating to the most commonly referenced types of violence identified in part one.

*\* Barnfonden is a non-religious and politically independent child rights organization, established in Malmö, Sweden in 1991. They are a member of the 12-member ChildFund Alliance, working in over 70 countries globally. Each year, the members of the ChildFund Alliance collectively help around 16 million children and their families to overcome poverty. Barnfonden works with and for children to strengthen their rights and ensure their safety, as they navigate an increasingly changing world, with a particular focus on child rights, children's safety, concern for the environment and climate, and gender equality. Together with children, Barnfonden addresses the root causes of poverty and vulnerability, guided by the concepts of empowerment and sustainability.*

# 1 Introduction

Climate change – the long-term change to the ecosystem of our planet – and environmental degradation, caused by activities such as unsustainable agricultural, industry and deforestation, are intrinsically linked to poverty and inequality. From the perspective of Barnfonden, an organisation working to protect and advance children's rights and well-being, climate change must be factored in to the projects and programmes if they are to be sustainable. The UN Convention on the Rights of the Child (CRCs) signed by the majority of the world's countries in 1990, recognizes and reaffirms the absolute right of children to live in a decent environment with all it entails: enjoying good health, accessing nutritious food and living in safety (UNICEF 2020). Environmental degradation and climate change poses a threat to these rights, particularly 15 of those found in the CRC (see page 12). As a result, children now – and even more so in future generations – face the risk of being denied their basic right to survival, protection, development and participation.

It is relatively easy to link climate change with things like food shortages, livelihood loss, and disasters. Statements that indicate the seriousness of the situation include those presented by the World Meteorological Organisation in their 2019 and 2020 *State of the Global Climate* reports, including:

- Climate variability and extreme weather events are among the key drivers of the recent rise in global hunger and one of the leading causes of severe crises. After a decade of steady decline, hunger is on the rise again – over 820 million people suffered from hunger in 2018. Among 33 countries affected by food crises in 2018, climate variability and weather extremes were a compounding factor together with economic shocks and conflict in 26 countries, and the leading driver in 12 of the 26. In light of this, the global community faces an enormous challenge to meet the Zero Hunger target of the 2030 Agenda for Sustainable Development (WMO, 2019).

- The food security situation deteriorated markedly in 2019 in some countries of the Greater Horn of Africa due to climate extremes, displacement, conflict and violence. By late 2019, about 22.2 million people, (6.7 million in Ethiopia, 3.1 million in Kenya, 2.1 million in Somalia, 4.5 million in South Sudan, 5.8 million in the Sudan) were estimated to be severely food insecure, only slightly lower than during the severe and prolonged drought in 2016-17(WMO, 2019).

- The achievement of many of the Sustainable Development Goals is put at risk by climate change. For example, rising temperatures are leading to the loss of species and ecosystems, which can reduce agricultural and fishing yields—contributing to food insecurity and affecting livelihoods (SDGs 1, 2, 14, & 15). Extreme weather and climate events can cause health risks, damage infrastructure and lead to water scarcity (SDGs 1, 3, 9, 11 & 6). These threats, together with others, are inter-related with conflict and stability (SDG 16). It is critical to highlight that these risks will not impact all populations or regions equally and can reinforce or worsen existing inequalities (SDG 10) (WMO, 2020).

It has been said that it is less easy to measure the impact of climate change when it comes to the downstream effects. While disaster impact reports may quote statistics related to violence against children, climate change reports do not. This in part is due to finding a way to make this something that is routinely measured that contains both issues. However, from our perspective we have found that indicators do not exist that link the two issues. Consequently, this report attempts to consolidate

not only the evidence but also the claims when evidence is limited in order to link climate change and violence against children.

Unless drastic measures are taken today, the impacts of climate change will have unprecedented results on lives and resources which may be too difficult to solve in the future. Children will bear the greatest burden, with climate change worsening hunger and malnutrition, diarrhoeal disease and malaria – already the greatest killers of children globally. Violence against children will also increase. This is a trend we are seeing already and which this report specifically homes in on, with the goal of provoking more focussed action to curb the devastating statistics. The WHO quote the figure of an estimated 1 billion children aged 2-17 experiencing physical, sexual or emotional violence each year (WHO 2020). We cannot allow this figure to worsen. (And we can not deny that climate change will play/plays a role in this)

# 2   Methodology

This desk review (secondary data sourced research) was undertaken as a task assigned during an internship (a requirement of the Master of Science in Development Studies Programme, Lund University), with the Swedish child rights organisation Barnfonden.

The assignment was to prepare a body of evidence answering the question:

> *Climate change is a driver of not only household stress but community-level and national stress. What does this stress look like and lead to with regard to children's exposure to violence?*

Based on anecdotal evidence and observations from Barnfonden's programme countries, the hypothesis was formulated that:

> Climate change leads to stressors such as crop failure, water scarcity, droughts, floods, seas level rise and catastrophic weather events. This leads to increased household deprivation and vulnerability which leads to increased child rights violations and violence against children.

The research, conducted between September and November 2020, was desk-based, meaning data collected via secondary data sources and not from a self-conducted empirical data study. It was collected through a systematic review of the available documents, sourced via the web. Searches spanned an extensive range of themes and words, centring around climate change, environmental degradation, child protection risks, state of the earth, children at risk, children in emergencies, child labour, child marriage, violence against children in emergencies, environmental stressors and their impact etc.

The literature review covered global publications, such as WHO, various UN agencies, other NGOs, and publications related to the subject matter. Titles of references cited within publications provided new search links.

The study took a two-pronged approach. It conducted:

- An investigation into the risk drivers influenced by climate change: droughts and heat, water scarcity and flooding, and two 'second tier' effects: migration and conflict and their impact on child protection.

- An investigation into child protection issues relating to commonly referenced types of violence identified in part one.

The content was reviewed and edited for publication by Barnfonden's Programme Director and Secretary General.

Limitations were the lack of research directly linking the topics, climate change and violence against children'. Many articles writing about climate change and its effects mention children and child health, but not specifically in relation to violence – an interesting observation given that the World Health Organisation recognises violence as a health issue. This indicates that there is a need to conduct original research specifically on this topic.

Limitations worth noting that the available published data may have varied in the quality and/or scope to meet the aims of this review. (A broad search based was required to expand the scope of available research existing on the subject, as there are few studies available that specifically address the aims of this review, therefore strict appraisal of quality of studies was difficult to adhere to and a possible limitation due to the limited data).

# 3   Climate Change: regional impacts

Whether we are referring to creeping desertification to rising sea levels that pose a risk of disastrous flooding, to changing weather patterns that pose threats to food production, the effects of climate change are wide and far reaching globally (UN, 2020). The earth's average surface temperature has risen about 0.8 degrees Celsius since the late 19th century. This change is largely driven by human activity associated with the industrial revolution which has led to increasing levels of carbon dioxide and other greenhouse gases emitted into the atmosphere. Most of the warming has occurred in the past 35 years, with the six warmest years on record taking place since 2014 (NASA, 2020). The year 2016 set the record for the highest average global temperatures with 2019 ranked the second warmest (NOAA, 2020).

**Figure 2:** Source UNFCCC, 2020.

Trends in mean surface air temperature over four sub-periods using the HadCRUT4, NDAAGlobalTemp and GISTEMP data sets. The bars indicate the trend in the mean of the three data sets and the black lines indicate the range between the largest and smallest trends in the three individual data sets.
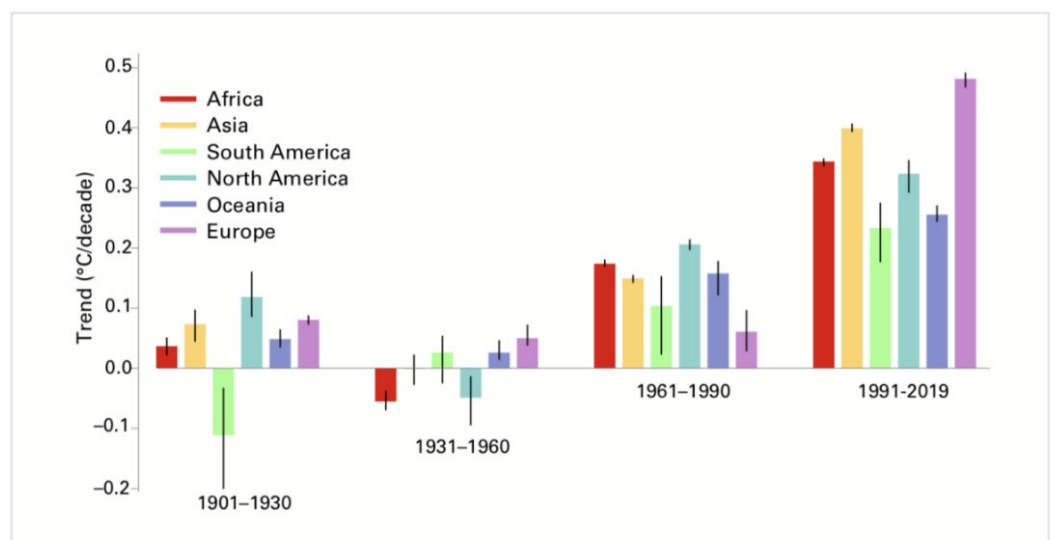
The oceans have absorbed much of this increased heat, with the top 700 meters (about 2,300 feet) of ocean showing warming of more than 0.4 degrees Fahrenheit (0.2 degrees Celsius) since 1969. Average global sea levels rose about 8 inches in the last century. The rate in the last two decades, however, is nearly double that of the last century, and is accelerating slightly every year. Scientists believe we are adding to the natural greenhouse effect, with gases released from industry and agriculture trapping more energy and increasing the temperature (NASA, 2020).

On a regional level, Sub-Saharan Africa accounts for only about two per cent of the global carbon dioxide emissions. Yet it is projected that the region will suffer disproportionately from the negative effects of environmental degradation and climate change (Boutin, 2014). This is due not only to rapidly encroaching desertification, but also to the impact of climate change on water reserves, and on incidences of drought and flooding, insect breeding cycles and lifespans – as demonstrated recently with locust plagues in East Africa. In a 2019 report on Disaster Recovery, the UNDP reported that in 2017, Somalia had dour consecutive seasons of poor rain. Somalia is a country where 60 per cent of the population rely on livestock, and over 900,000 livestock-dependent households were affected, causing direct income loss of US $875million in the livestock sector alone (UNDP, 2019).

Small Island States are also particularly vulnerable to the effects of climate change due to their limited physical size and natural resources, high susceptibility to natural hazards (such as cyclones which have increased in frequency and intensity) and sensitivity to sea level change. For some of them, vulnerability includes their sovereign survival (UNICEF, 2011): with no land, does a country exist? And if there is no country, what happens to its people? Pacific Islands are most vulnerable to rising sea levels and therefore feel the impacts and devastation more than most places in Oceania (The Climate Reality Project, 2019), suggesting a future where the world will need to find homes for climate change refugees. A Pacific Climate Change and Migration report, 2013-2016, noted that over 60 per cent of respondents in Tuvalu and Kiribati would migrate if sea level rise, salt water intrusion and floods continue and are aggravated and if there are fewer fish in the sea (Migration Data Portal, 2019).

The impacts of climate change are also severe in regions of Asia. Rising temperatures and more frequent extreme weather events have resulted in the decline of crop yields in many Asian countries. About a million people along the coasts of south and Southeast Asia are at an increased risk from flooding (Encyclopedia.com, 2020). Various environmental challenges and stresses such as population growth, vast expanse of cities and urbanization, rapid industrialization and industrial pollution will be worsened due to climate change.

In Europe, accelerating economic activities and fossil fuel combustion has contributed to the decline of ecosystems, biodiversity loss, and ozone depletion. Climatic changes have had noticeable consequences on many natural systems, including marine and terrestrial ecosystems, such as the timing of seasonal biological events and the distribution of animal and plant species (ECOC, 2020). Furthermore, in the past three decades, the consequences of climate change in Latin America and the Caribbean have been substantial. It is projected that tropical and subtropical glacial freshwater sources will be depleted to the point of vanishing in coming years, and the combination of deforestation and climate change has caused significant stress on biodiversity in those regions. Consequently, fluctuations in the quantity and quality of freshwater as a result of climate change will increase the likelihood of conflicts over land, as nearly one sixth of the population is settled in transboundary watersheds (UNICEF, 2020).

Some of the most significant impacts of climate change are loss of land and infrastructure, increased intensity of cyclones and droughts, failing subsistence farming and coastal fisheries, loss of freshwater and marine ecosystems, and spread of diseases and infections (SPREP, 2008). This creates threats to the economy, global water supply, agricultural resources, ecosystems, health and forestry (Welge, 2019). With rapid and unplanned urbanization, increasing poverty, and threats to peace and security, the cities across the globe are grappling with the biggest development challenge of climate change ( Mani, et al., 2017). This places households under extreme stress: reduced harvests have an impact on income, health and wellbeing, and children's education. Add to this the increase in vector-borne diseases due to climatic changes (Boutin, 2014) and environmental decline. While the exact cause of Covid-19 is still unknown, some link it to ecosystem degradation and the global increase in zoonotic diseases (transmitted between humans and domestic or wild animals) (FAO, 2020). It is feared that the global progress made under the Millennium Development Goals and now the Sustainable Development Goals are at risk of slipping backwards, as we grapple with not only Covid-19 and its aftermath, but new ecological challenges, including climate change.

# 4   Child rights and violence against children

There are 2.2 billion children (below the age of 18), representing 30 per cent of the global population, who are growing up experiencing the impacts of climate change (UNICEF, 2020). According to the United Nations Children's Fund (UNICEF) Office of Research-Innocenti, it is estimated that about 175 million children will be affected by climate-related disasters every year over the next decade. Children are identified as most vulnerable to the effects of climate change and should be at the centre of all environmental and climate change policies, research and advocacy. However, present trends show that this is not always the case (UNICEF, 2020).

The UN Convention on the Rights of the Child (CRCs) and accompanying protocols recognizes and reaffirms the absolute right of children to live in a decent environment with all it entails: enjoying good health, accessing nutritious food, and living in safety. Climate change poses a threat to the protection of these rights, particularly 15 rights found in the CRC, listed in the table, below (UNICEF, 2020).

> *For countless girls and boys the world over, childhood is described by one word: fear.*
>
> Former United Nations Secretary General Ban Ki-moon for the Global Survey on Violence against Children, 2015.

Violence against children – with 'children' defined as anyone under the age of 18 years – includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power (WHO definition). It is a gross violation of the agreements in the Convention on the Rights of the Child (CRC), where it states that all children have the right to survival, development, protection and participation. This is further outlined in the targets and indicators for the following Sustainable Development Goals  (UN, 2015).

- Provide a safe and non-violent learning environment. (4.a)
- Eliminate violence, trafficking and sexual exploitation of girls (5.2)
- Eliminate child marriage, female genital mutilation and harmful practices (5.3)
- End the recruitment of child soldiers and eliminate the worst forms of child labour (8.7)
- End abuse, exploitation and trafficking and all forms of violence against and torture of children (16.2)

There is now a progression in thinking that climate change is not simply an environmental issue, but that it must be considered in combination with multiple fields such as the health and wellbeing of children (including child protection), energy security and sustainable development (UNICEF, 2011). Urban planners overseeing city designs and housing, governmental agencies, social welfare departments and educational institutions, private businesses and renewable energy sectors, all need to factor in the impacts of climate change and anthropogenic activities on child protection (Cobbinah, et al., 2019).

**Figure 3: Rights at risk of climate change impacts under the UN Convention on the Rights of the Child (Source: UNICEF, 2020)**

| Climate Rights at Risk | Climate Risk and Interface with Climate Change (CC) |
|---|---|
| **Article 2**<br><br>Right to non-discrimination | The impacts of CC on vulnerable communities discriminates against children; for example, because of their physiology they are more susceptible to certain impacts. CC exacerbates inequity because impacts often hit children the hardest. To ensure this right is upheld, priority need to be paid to children in climate change responses and policy.<br><br>Moreover, poorly implemented CC responses can continue to put this right at risk. For example, opportunities to discriminate and infringe equal rights arise with regards to adaptation investments and cases of displacement due to CC. This right can be threatened if decisions do not recognise the special needs of children, different needs of girls and boys, or do not give equal rights to refugee children, children of foreign origin, children of indigenous or minority groups. |
| **Article 3**<br><br>Basic interests of the child must be a top priority | CC can be seen to work in opposition to the best interests of children in vulnerable countries. For example, through increased risk of diseases of the growing risk of natural hazards disrupting education and impacting child protection. |
| **Article 4**<br><br>Protection of rights | The multiple impacts of CC affect child rights. Action to tackle climate change is therefore essential to fulfil the rights of all children. Inadequately responding to climate risks infringes on this principle. |
| **Article 6**<br><br>Right to survival and development | A child's right to survival is directly challenged by increasing climate related disasters and increased risk of disease and hunger as a result of CC. |
| **Article 12**<br><br>Right to a voice | Decisions on CC at the local, national and international level will impact on children now and continue to do so in the future. Children will also bear the social, economic and environmental impact of inadequate and unambitious CC decision making today. Limiting their opportunity to voice opinions and provide solutions inhibits this right. |
| **Article 22**<br><br>Right to refugee protection | CC is leading to increased migration from areas which become dangerous or uninhabitable due to CC. Children are negatively affected when they are displaced, meaning their right to refugee protection is increasingly necessary due to CC. |
| **Article 24**<br><br>Right to health | A child's right to health is directly and indirectly threatened by CC. 85 per cent of the burden of disease from CC affects children, risks of water-borne diseases, vector-borne diseases and complications of malnutrition increase due to CC. |
| **Article 24, 2c**<br><br>Right to health sustaining conditions | A child's right to health is infringed when health-sustaining conditions, such as clean water and nutritious food, are compromised by CC. Increasing greenhouse gas emissions including $CO_2$ contribute directly to air pollution, which in turn drives climate change. Air pollution directly contributes to increased respiratory diseases amongst children and challenges fulfilment of a child's right to health. |
| **Article 26**<br><br>Right to social protection | Due to CC, developing countries have addition needs for resources to ensure children are able to cope. This right is increasingly at risk due to slow progress by developed countries to provide additional funds to help vulnerable countries adapt to CC. |
| **Article 27**<br><br>Right to adequate standard of living | Climate-induced sea-level risk, flooding and extreme weather events destroy housing and create unsafe conditions for children. |
| **Article 28** | Every child has the right to an education. Children are kept from attending school when family livelihoods and financial resources are negatively affected by CC. Additionally, children's |

| Right to education | access to education can be disrupted when schools are damaged or destroyed by climate-related disasters. |
|---|---|
| **Article 30**<br><br>Right to indigenous culture and language | Indigenous populations are often marginalised, live in highly climate sensitive eco-systems (such as the Artic) and are often amongst the most vulnerable to climate related impacts. Loss of traditional species, land and induced migration due to CC can impact a child's right to identity (including language and culture) for minority populations and children. |
| **Article 34-35-36**<br><br>Right to protection from exploitation | CC will induce stress on livelihoods and communities that can potentially result in children being at risk of exploitation and violence, for example increased child labour, abduction, recruitment into fighting forces, sexual violence, and labour migration. Increased climate related disasters only increase the protection risks to children before, during and after climate-related disaster events. |

# 5  Risk drivers influenced by Climate Change

This chapter presents information on child protection risk drivers that be directly or indirectly attributed to climate change. These include droughts and water scarcity, floods and rising temperatures, migration, and conflict and collective violence.

## 5.1  Droughts and water scarcity: resulting child protection risks

> **HIGHLIGHTED LINKS BETWEEN DROUGHT AND WATER SCARCITY AND VIOLENCE AGAINST CHILDREN INCLUDE:**
>
> Sexual abuse, rape and molestation, child marriage, inability of parents providing for children's basic needs, harmful agricultural labour, intimate partner violence, more aggression, migration, abandonment, child trafficking, increased conflict, psychological distress, aggressive behaviour.

Globally, droughts are becoming more intense, longer and cover wider areas (UNICEF, 2017). This is prominent in many regions and is due in part to human activity (Epstein, et al., 2020). As temperatures continuously rise more moisture evaporates from water and land, leaving less water behind for human consumption. This increase in temperatures also means an increase in demand for water. Most droughts are slow-onset in nature but can be more rapid when they happen in combination with heatwaves or in arid areas (UNICEF, 2017). The immediate effects include crop failure, livestock deaths, habitat damage and the risk of fire. These issues can lead to malnutrition, food insecurity, hikes in food prices, disease outbreaks and loss of income and savings. It can also lead to migration and conflict.

Both food insecurity and poverty create risks for violence through the pathway of stress, which results from hunger, worry about food access, and financial strain on the household (Epstein, et al., 2020). Drought intensifies pre-existing food security issues and in rural areas more drought exposed households experience a notable reduction in consumption and an increase in vulnerability to poverty (Pape & Wollburg, 2019).

In Batticoaloa, Sri Lanka, an International Labour Organisation study found that drought had resulted in poor crop production and low yield for traditional livelihoods, and continuous drought led to an increasing cycle of debt. This in turn affected the ability of the parents or householders to meet basic necessities for their children. The loss of livelihoods resulted in family members improvising and searching for alternate sources of income - not always in their best interests. This study reveals that not only were the children engaged in unpaid and potentially harmful agriculture based labour, but they are also exposed to increased attacks from animals (ILO, 2018).

Women and girls in drought prone areas generally have less power and decision making opportunities than men and boys and these occurrences further intensify these gender inequalities. ActionAid in Somaliland and Kenya reports that droughts have forced women and girls to travel in search of food and water and traveling farther distances, and/or alone put them at greater risks of sexual violence (Action Aid, 2017). A Save the Children report found children to be more at risk of sexual violence like rape and molestation following a drought (Save the Children, 2017). The study, which involved more than 600 people, reported that 30 per cent of all respondents said that children were more at risk of sexual violence, like rape and molestation, since the drought began. They also reported: ¨High levels of psychological distress faced by children who are exhibiting unusual symptoms like bouts of crying and screaming.¨ A staggering 100 per cent of survey respondents, all affected by the drought, said they had noticed changes in the behavior of children in their communities since the drought, with more than half saying children had become "more aggressive." Violence against children was also said to be on the rise by nearly two-thirds of children and nearly half of adults (ibid).

Another report by the same organisation found that repeated cases of forced child marriage in Somaliland were reported as a result of drought (Save the Children , 2018). With agricultural income falling and work opportunities for rural farmers and the landless decreasing, vulnerable families search for avenues to reduce the amount of dependents. In Mahashtra India, this translates to families resorting to underage marriages involving girls as young as 13 sometimes being married to boys just a few years older (UNICEF, 2016).

A potential downstream effect of drought that has received little attention is intimate partner violence (IPV) towards women and girls. This violation is particularly prevalent in Africa where 36.6 per cent of ever-partnered women experience physical and/or sexual intimate partner violence in their lifetime (Epstein, et al., 2020). A 2018 University of Utah survey on drought, conflict and migration surveyed 1,400 respondents in 175 locations across Kenya. It found that 15 per cent of respondents reported to having to relocate due to drought. Twenty-one per cent reported being violently attacked outside of their homes, and a large share of the victims were migrants; 43 per cent of people who reported relocating were victims of violence, compared to nearly 12 per cent of the general population.

Intimate partner violence may be influenced by drought through additional pathways including poverty, increased inequalities in access to resources, disempowerment, disordered urbanization and psychological distress. Shocks to income and food production leading to food insecurity and poverty create risks for intimate partner violence (Epstein, et al., 2020). A study in Nepal among married women showed that those who experience food insecurity are more likely to experience intimate partner violence (physical or emotional, but not sexual) (Diamond-Smith , et al., 2019).

Drought is a common occurrence in India, and in a 2015-2016 rapid assessment to determine the effects of a major drought of that year on women and children, it was discovered that young children were left behind while their parents migrated due to their search for sources of income (UNICEF, 2016). Multiple cases of child trafficking were reported and child labour was also shown to have increased in drought prone villages. This is because adolescent children also migrated with their parents to supplement their family's income. Deprived families saw their children as productive assets resulting in children sometimes being the earning member and forced to head the families (UNICEF, 2016). Migrant women and girls are also at higher risk for intimate partner violence due to their lack of social support and the vulnerability of their immigration status (Epstein, et al., 2020).

Water scarcity in already a serious concern for children – many of whom spend long periods each day in search of water for their family. This forces them to miss out on education and exposes them to risk. A study in 24 Sub-Saharan Africa countries estimated that 3.36 million children (most of whom are girls) are responsible for water collection in households with collection times greater than 30 minutes (Graham et al, 2016).

The growing demand for water and the effects of climate change threatens to sabotage development progress made towards first the Millennium Development Goals, and then the Sustainable Development Goals, since 1990. It is projected that by 2040 nearly 600 million (or one in four) children will live in areas of extremely high water stress. A rise in water stress will pose serious risks to children's health and wellbeing in the future, and drive even more children into the responsibility of water collection. Factors such as climate change, demographics shift, economic growth, industrialization and higher levels of consumption will contribute to this increased water stress, and these factors present different effects in different parts of the world (UNICEF, 2017).

For instance, in Africa, demographic changes, economic growth and rise in consumption will substantially increase the demand for water. Reduced availability of water for domestic consumption, livestock and subsistence agriculture directly affects distressed rural families, and particularly women and children. This situation weakens the protective environment for children and impacts the realization of their rights and the prospects of future development (UNICEF, 2016). Further aggravated by the spread of COVID-19, lack of access to water and sanitation has been a key contributor to gender-based violence in Yemen. The pandemic has also increased the need for acquiring safe water for households use due to the need for improved hygiene. With pre-existing water stress and increased water prices, women and children are forced to travel longer in order to obtain water from collection points. This not only exposes them to unsafe environments, it also renders them vulnerable to violence (Habib, 2020). Oxfam states that 1.9 million people in Burkina Faso are in urgent need of water, and access to drinking water has become a problem for displaced persons and their hosts (Oxfam International, 2020).

> Droughts cause food insecurity, which can lead to starvation. A paper titled *Global Warming and Violent Behaviour* says that malnourishment – both prenatal and in early childhood – is a precursor to antisocial behaviour, aggression and violence. The author says that given the amount of people who will be affected by climate-driven food insecurity, its effects on aggressive behaviour in society should not be under-estimated.
>
> (Plante and Anderson, 2017)

## 5.2  Flooding and Sea Level Rise: resulting child protection risks

**HIGHLIGHTED LINKS BETWEEN FLOODING AND SEA LEVEL RISE AND VIOLENCE AGAINST CHILDREN INCLUDE:**

Child labour, forceful displacement, trafficking, child marriage, sexual exploitation and abuse, negative psychological health, physical harm, vulnerability to exploitation, abuse or neglect, domestic violence, chronic psychopathologic trauma, eating disorders, aggressiveness and violence.

Estimates suggest that by 2050, 40 per cent of the world's population will live in river basins exposed to severe drought or floods, which will mostly affect African and Asian countries (UNDP, 2019).

The major impact remains due to physical vulnerability as children bear the brunt of shock due to any disaster. Be it natural disasters like: flood, earthquake, cyclone, heat and cold wave; or man-made disasters like: fire, epidemic, or civil strife - children are the worst sufferers as they are particularly hit. Firstly, at the time of disaster: due to the inability to escape or fend for themselves, especially for very young children at high risk of injury; and secondly, post disaster, due to separation or loss of their families and their homes (Care 2017). Many children will miss out on schooling during episodes of stress, and may never find their way back into the school system.

Increases in rainfall patterns have led to more frequent topsoil erosion and floods, and in South America alone, from 2005 to 2014 about 2.2 million people were affected by flood. Over 270 million children currently live in extremely high flood prone zones in countries where less than half its population can access improved sanitation facilities (UNICEF, 2017).

Over half a billion children now live in areas at extremely high risks of flood due to extreme weather conditions such as hurricanes, cyclones, storms and rising sea levels (UNICEF, 2019 (b)). In 2017 alone, 16.2 million people were forcefully displaced, 52 per cent were children (UNHCR, 2017).  A vast majority of this was triggered by weather-related hazards with floods accounting for 8.6 million and storms, 7.5 million (Serragli, et al., 2019).

From 2014 to 2018, 761,000 children in the Caribbean were internally displaced due to extreme weather events. This figure is up from 175,000 children displaced between 2009 and 2013. Weather related disasters heightens the risks of girls dropping out of schools and forced into trafficking, marriages, sexual exploitation and abuse (UNICEF, 2019 (b)).

The 2016 government-conducted Post-Disaster Needs Assessment in Sri Lanka revealed that floods and landslides in the country had affected approximately 493,319 people.  At least 150,000 women and girls of reproductive age and over 189,000 children were affected by the disaster. The report demonstrated how vulnerable children and their families are in rural communities to both natural and man-made disasters such as sudden floods, landslides, droughts and tsunami. These disasters exacerbate pre-existing household vulnerabilities and socio-economic marginalization, and show negative impacts to the daily lives, physical and psychological health, education, livelihoods and income generating sources of families and communities. In three of the worst affected districts, post disaster poverty and a lack of economic opportunities contributed to the low school and non-school attendance and high rates of drop outs. It was evident that children were involved in paid and unpaid forms of labour (mostly agricultural work or domestic labour) in order to assist their families during periods of heightened economic hardships which followed the disaster (ILO, 2018)

Disasters affect children in various interrelated pathways, they cause physical harm and can destroy a household's assets in situations where families lose their income. This could result in households sending children into the labour force. Climate related disasters cause stress and trauma especially for children who witness their parent's stress. This could result in mental health problems such as depression for children that in turn affects their physical health and social interactions. Children who become separated from their parents or primary caregivers during or after a disaster are also a cause for concern because they are vulnerable to exploitation, abuse and neglect (Kousky, 2016).

A large number of people exposed to climate or weather-related disasters experience stress and serious mental health consequences, some of which is still present long after the climate related event (Cianconi, et al., 2020). The research emanating from the Institute of Psychiatry in Rome, claimed it found a direct correlation between the intensity of the disaster and the severity of the mental health effects. Quoting another study with specific reference to flood victims, 20 per cent had been diagnosed with depression, 28.3 per cent with anxiety and 36 per cent with post traumatic stress disorder (Senthilingam, 2017, in Cianconit, et al., 2020). Some cases show an increase in domestic violence, as the calamity exacerbates and precipitates existing people's mental health problems. In contrast, slow change of the environment due to climate change, like changes in usual weather or rising sea levels, can cause acute and chronic psychopathologic trauma, eating disorders, aggressiveness and violence (Cianconi, et al., 2020).

## 5.3   Hurricanes and cyclones: resulting child protection risks

> **HIGHLIGHTED LINKS BETWEEN HURRICANES AND CYCLONES AND VIOLENCE AGAINST CHILDREN INCLUDE:**
>
> Neglect, abuse, trafficking, physical, sexual and other forms of violence, child labour.

Researchers from NOAA and the [Cooperative Institute for Meteorological Satellite Studies](#) studying the intensity of hurricanes and cyclones over 39 years from 1979 and 2017 confirmed that storms are getting stronger in general, and major tropical cyclones are coming more often. It says it is likely that this is due to 'human' change given, they said "physical understanding and greenhouse warming simulations" (Kossin etc al, 2020).

As hurricanes and cyclones intensify, so rises children's vulnerability. At the Pacific Conference on Ending Violence Against Children in 2019, UNICEF's Risk Reduction and Preparedness Specialist highlighted that the Pacific was prone to many disasters, such as earthquakes, tsunamis, cyclones, floods and drought. He listed the increase vulnerability and risks to children caused by disasters as: neglect, separation, abandonment, abuse, economic exploitation, illegal adoption and trafficking, physical, sexual and other forms of violence (Becker, 2015).

An example can be found in Nicaraguan communities affected by Hurricane Mitch, where labour force participation by children aged 6 to 15 years increased 58 per cent. (Baez and Santos, in Kousky, 2016).

ILO and IOM data collected on Cyclone Haiyan in the Philippines in Increased reporting of human trafficking in Haiyan-affected areas. Issues faced by children in the Philippines include child labour, where children are exposed to hazardous environments in industries, such as fishing, agriculture, domestic service and especially, sugar plantations; and trafficking where the traffickers target children from rural areas with promises of education scholarships in larger cities. Key government informants and civil society organizations data indicated increased reporting and prosecution of human trafficking after the typhoon (ILO & IOM, 2015).

## 5.4 Rising Temperature: resulting child protection risks

**HIGHLIGHTED LINKS BETWEEN RISING TEMPERATURE AND VIOLENCE AGAINST CHILDREN INCLUDE:**

Human conflict, aggressive and violent behaviour, homicide, child abuse.

It is commonly agreed that we are likely to see at least a 2 degree Celsius increase in temperatures by 2100. Heat increases people's irritability (their aggressive thoughts and feelings). When people are irritable, small provocations can trigger aggressive responses (miles-Novelo & Anderson). A study that gathered data from 60 different countries concluded that for every degree (Celsius) increase due to climate change, there would be an increase in homicide rates by 6 per cent (Marcs et al., 2016, in Miles-Novelo & Anderson, 2019). However other researchers say that it is not just temperature, but temperature with other factors, such as inequality, that predicate violence (Coccia, 2017).

The countries who will be most vulnerable to violence and conflict are those already in turmoil, however Miles-Novelo and Anderson also claim that countries with high population densities that are also experiencing loss of land, water, crops and livestock, are particularly susceptible to increased aggression and violence due to a rapidly changing climate.

They illustrate this with the following diagram:
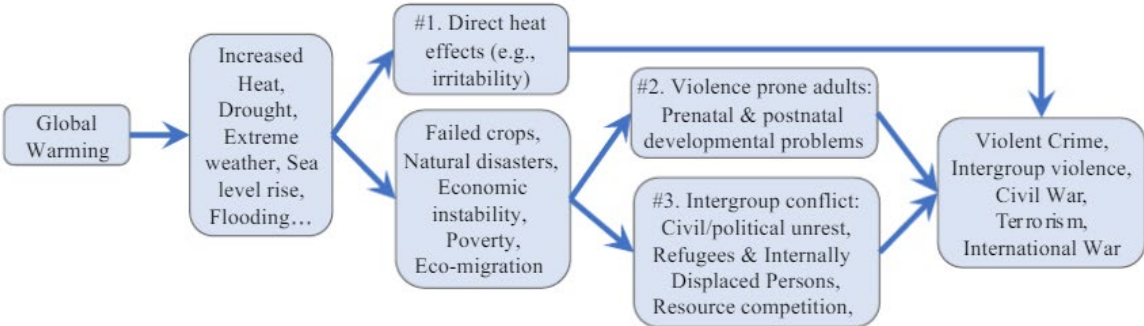


Figure 4: Three paths through which rapid global warming increases violent behaviour.

Source (PDF) Climate Change and Psychology: Effects of Rapid Global Warming on Violence and Aggression (researchgate.net)

Temperatures have an effect on human health and behaviour and this can be seen in the rise in rates of suicide and depressive social media language. This is not only evident in intrapersonal relationships, deviations from mild temperatures could also substantially increase the risk of human conflict. The same piece of research suggests that high temperatures have been shown to reduce cognitive function, and this lower cognitive function is a risk factor for antisocial, aggressive and violent behaviour (Gruenberg, et al., 2019). Children living in households facing these conditions of aggression and frustration are more likely to face child abuse.

Researchers in the Netherlands have done multiple studies to conclude that hot temperatures increase feelings of anger and hostility, decrease alertness and energy, and increase aggression and violence (Van de Vliert et al., 1999). Called Thermal Stress, Simister & Cooper (2020) suggest a medical explanation, considering violence to be a side-effects of adrenaline released into the bloodstream at high temperatures, as part of a thermal control mechanism. Another study suggests that for each one standard deviation change in climate towards warmer temperatures or more extreme rainfall, the frequency of interpersonal violence rises 4 per cent and the frequency of intergroup conflict rises 14 per cent (Hsiang et al, 2013).

## 5.5 Migration (Children on the Move): resulting child protection risks

(Second-tier effect, driving violence against children)

> **HIGHLIGHTED LINKS BETWEEN MIGRATION AND VIOLENCE AGAINST CHILDREN INCLUDE:**
>
> Child labour, child abuse, trafficking, sexual harassment and abuse.

UNHCR's 2020 Global Trends report shows that of the 79.5 million who were displaced at the end of 2019, as many as 30-34 million children (tens of thousands of them unaccompanied) were displaced (UNHCR, 2020). An estimated 50-250 million people may be forced to leave their homes and communities by 2050 (FAO, 2017). It is projected that 162 million people are presently at risk of being forcibly displaced because of sea-level rise: in China, 73 million; in Bangladesh, 26 million; in India, 20 million; in Egypt, 12 million; and in low-lying small-island nations, 31 million. Additionally, about 50 million people could be at high risk of displacement because of drought and other consequences of climate change ( Levy, et al., 2017).

A recent assessment by International Organization for Migration (IOM) states that there are close to a million internally displaced persons in Somaliland, 450,000 of these are children. These internally displaced persons are primarily individuals moving from rural to urban areas in response to devastating drought (UNICEF, 2019 (c)). Migration due to drought, sea-level rise, and other long-term impacts of climate change, are very likely to be permanent and these climate refugees and migrants are unlikely to return to their homes and settlements ( Levy, et al., 2017).

Most people displaced in the context of disasters and climate change migrate within their own country. (There is dissent currently as to whether they should be called climate change refugees as their decision to move is mostly a matter of choice, not force. However the term climate migrant is widely used.)

According to the International Organization for Migration (IOM) climate change is expected to affect the movement of people in several ways (IOM, 2010):

1) the intensification of both slow-onset and sudden natural disasters- leading to increased migration and internal displacement;
2) the negative consequences of increased warming, climate variability and other effects of climate change on food security and water availability, livelihoods and public health;
3) rising sea levels which render coastal areas uninhabitable; and
4) competition over depleting and scarce natural resources potentially leading to rising tensions and even conflict and, in turn, displacement. The implications will be more severe in developing countries, particularly areas identified as hotspots where there is a greater sensitivity to climate change with limited adaptive capabilities.

Analysing the links between climate change and human migration patterns is essential to understanding the impact on children. Scientists have projected that shifting rainfall patterns and rising temperatures are expected to lead to a reduction in crop productivity. Areas dependent on rain-fed agriculture and livestock rearing as a source of livelihood, which experience droughts, pest infestation and rainfall, face serious threats to survival and protection of children (UNICEF, 2007). In the study conducted by UNICEF in the province of East Nusa Tenggara, Indonesia, it was reported that crop failure induced by weather conditions was a reason behind the decisions for farmers and mothers to move beyond their settlements, and in some cases to non-agricultural jobs. Where changing weather conditions makes agricultural work a less viable source of income, families with children are noted to migrate. Children in those rural societies are also known to typically contribute substantially to the household economics and coping measures during situations of natural disaster which increases their vulnerability. Children who migrate to urban communities, may also be unable to return back to schools due to financial difficulties, and forced to engage in labour in order to support their families. There has been more cases of discrimination faced by migrant children in new schools. Furthermore, in relief sites for victims of natural disasters, child abuse and trafficking are prevalent (UNICEF, 2011).

On occasion, traffickers and predators steal, harm or offer monetary compensations and financial relief to parents in exchange for their children (UNICEF, 2011). A report by CARE shows that one in five women who are refugees or who have been displaced because of a climate-related disaster have experienced sexual violence (UNFCC, 2019). Adolescent girls in emergency shelters also experience high levels of sexual harassment and abuse in the aftermath of climate-related disasters and complain of the lack of privacy in those shelters (Khan Foundation & ARROW, 2015).

## 5.6   Conflict settings & collective violence: resulting child protection risks
### (Second-tier effect, driving violence against children)

**HIGHLIGHTED LINKS BETWEEN CONFLICT SETTINGS AND COLLECTIVE VIOLENCE: VIOLENCE AGAINST CHILDREN INCLUDE:**

Use of weapons leading to injury or death, sexual abuse and rape, trafficking, forced marriage, forced labour, recruitment into child soldiering.

Climate change can influence factors that lead to or exacerbate conflict. Long periods of drought could lead to chronic situations where social relationships deteriorate through negative coping mechanisms which entrench violent conflict (SIDA, 2018). And there is research suggesting the correlation between rising temperatures and armed conflict (Bancroft, 2018). A 2019 Stanford University study makes the claim that between 3 per cent and 20 per cent of armed conflict risk over the last century has been influenced by climate – and they say this will increase dramatically, predicting up to five times more. They claim that even in a scenario of a 2 degrees Celsius warming beyond preindustrial limits, the influence on conflicts would more than double, rising to a 13 per cent chance. This claim is balanced by the recognition that armed conflict is not only driven by climate but also by low socioeconomic development, capability of the State, inequality and a country's recent history of violent conflict (Mach & Ryan, 2019).

In Eastern Africa and Mozambique, armed conflict and violence has led to the forceful displacement of over 20 million people. This figure exposes the struggles in recovering from the consistent environmental and climate crises faced by households and communities in the region (Save the Children,

2020). The population group most affected by these environmental and civil events are usually the most vulnerable, women and children (Cain, 2016). In both environmental and conflict settings, children are vulnerable to violence. The increase incidents in disasters have been spoken about earlier, but there are also  documented increased rates of sexual abuse and rape in most armed conflicts (Bancroft, 2018). This gives armed groups and other criminals an opportunity to traffic children for sexual exploitation and slavery, forced marriage, forced labour and armed combat. Trafficking for sexual exploitation which disproportionately affects young girls and women, occurs within all conflict areas. According to the United Nations Office on Drugs and Crime 2018 report on trafficking, it was documented that in some refugee camps in the Middle East, girls and women had been married off without their consent and sexually exploited in neighbouring countries (UNODC, 2018).

While there are many countries and regions that have a history of armed conflict, some regions have seen unique intersections of environmental degradation and climate change, and conflict, which often includes the recruitment of child soldiers. Between 1986-2005, over 66,000 children and youth had been abducted by the Lord's Resistance Army (LRA)- a rebel group involved in armed conflict in areas if northern Uganda, South Sudan, the Central African Republic and the Democratic Republic of Congo (Cain, 2016). Furthermore, the present conflict in certain parts of West Africa between the Fulani herdsmen- a now nomadic militancy group, and farmers, often exacerbated by environmental changes is yet another case (Asueni & Godknows, 2019).

As the livelihoods of nomadic herders who specialize in traditional pastoral farming, feeding and rearing cattle, are threatened by changing weather patterns and urbanization, herders have been seen to resort to violent attacks against farming communities (The Conversation, 2017). As part of the Stockholm International Peace Research Institute (SIPRI) study on the relationship between climate change and local, violent conflicts in East Africa and Sudan, analysis shows that conflicts around natural resources – land, pasture, water – are particularly frequent where livestock rearing pastoralists are involved (SIDA, 2018). While this may also be exacerbated by political and religious motives, children who live in areas under exploitation, where their households are dependent on rain fed agriculture are most at risk and most ill equipped to recover (Reuters , 2019). Also, due to the fact that their survival depends so heavily on the climate, when a crop harvest fails it may become a likely option for children and youths to join a militant group, with food often used as incentives for joining (Cain, 2016).

# 6   Child protection issues related to climate change

The previous chapter has highlighted findings related to the drivers of risk to the safety of children. This chapter delves into the literature on some of the commonly referenced types of violence against children identified in the study. These include child labour and modern slavery (to be further explained), child marriage, sexual abuse, physical abuse and gender-based violence, and neglect.

Based on the previous chapters, we have depicted a visual model of the relationship between climate change drivers and child protection issues displayed in Figure 5.
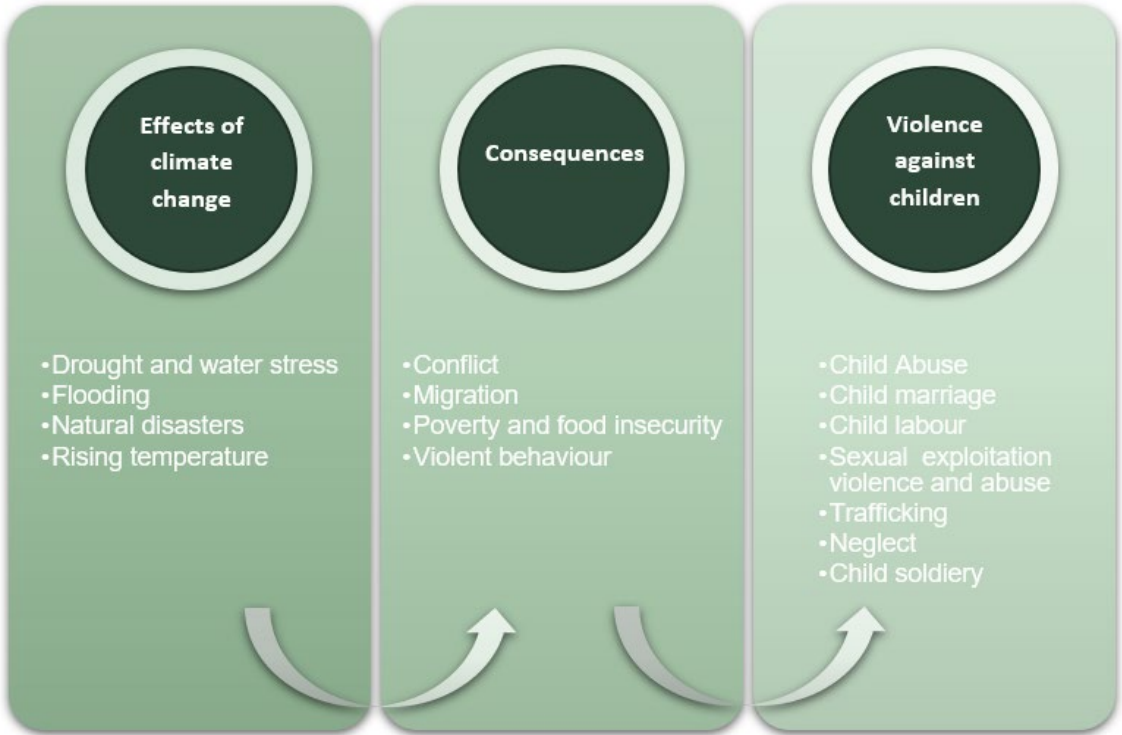


**Effects of climate change**
- Drought and water stress
- Flooding
- Natural disasters
- Rising temperature

**Consequences**
- Conflict
- Migration
- Poverty and food insecurity
- Violent behaviour

**Violence against children**
- Child Abuse
- Child marriage
- Child labour
- Sexual exploitation violence and abuse
- Trafficking
- Neglect
- Child soldiery

**Figure 5: The relationship between climate change drivers and child protection issues.**

## 6.1   Child Labour

The International Labour Organization in its 2017 report on global estimates of child labour, states that there are around 152 million working children in the world, of which 73 million are engaged in hazardous work (ILO, 2017). Sub-Saharan Africa is the region where child labour is most prevalent. In less developed countries, about one in four children (ages 5 to 17) are engaged in labour which could be considered detrimental to their health, wellbeing and development (Ortiz-Ospina & Roser, 2016).

Those particularly affected by climate change include children belonging to farming households. Severe climatic events that cause a sudden and unexpected drop in household earnings increase the risk of child labour. By engaging in work, a child directly or indirectly contributes to the income of the household. Therefore, the household recourses to child labour to cope with the income stress caused by climate

change events (Boutin, 2014). Perpetrators exploit these disruptions to people's lives in order to lure victims into forced labour, slavery, fraudulent adoptions, and sexual trafficking (O'Day, 2018). Children may also be taken out of school to work on the family farm so one of the parents can leave to find work. Sometimes, this leaves children and youth as household heads.

A Terre des Hommes report (2017) reported many types and forms of hazardous child labour associated with environmental conditions, including where children migrate seasonally to flee environmental stress in their home districts (from 3 to 6 months annually). Seasonal migration is an adaptation strategy for many families as it reduces reliance on agriculture livelihoods. Although children may migrate alone, environmental migration often takes place with the immediate or extended family. Rural to urban migration is the most common form (Terre des Hommes, 2017).

*"The potential dangers of longer-term consequences of indirect impact appear to be far greater as the link between climate-related disaster effects on households/parents, resulting impact on livelihoods and their ability to support and protect their children decreases. This leads to both short-term and/or permanent engagement in different forms of child labour, as well as longer-term consequences for children's overall well-being and welfare." ILO, 2018*

In a report launched by the International Labour Organization (ILO), estimates show that around 15.5 million children are involved in paid and unpaid domestic work in the homes of employers and third parties. Out of these, 10.5 million children are engaged in child labor and 8.1 out of these are involved in hazardous work – 52 per cent of all child domestic workers (UN, 2013). Many children in migrant communities, work to generate additional income for their families. Previous research has estimated that between 25 and 50 per cent of children in Somaliland are engaged in child labour (UNICEF, 2019 (c)). Children in domestic work are often exposed to verbal, physical and sexual abuse, as well as exclusion from education. They also face permanent consequences to their health and wellbeing (UN, 2013).

In the aftermath of the 2013 Typhoon Haiyan in the Philippines, it was reported that child victims of trafficking who were child labourers in rural communities were trafficked to Manilla for labour and sexual exploitation. Children as young as 9 years old were required to fill in for injured or deceased family members in sugar plantations, which exposed them to horrible working conditions (Engage Together, 2018). Forced child labour is dominant in several industries such as cotton, agriculture, and tourism. These industries often employ workers as young as 9 years to work in hazardous environments with extremely low pay to no pay, for extended amounts of time where they are more vulnerable to child abuse (World Vision, 2020).

## Definitions of child labour

**Child work.** Some types of work make useful, positive contributions to a child's development, helping them learn useful skills. Often, work is also a vital source of income for their families.

**Child labour.** Child labour is not slavery, but nevertheless hinders children's education and development. Child labour tends to be undertaken when the child is in the care of their parents.

**Worst forms of child labour.** "Hazardous work" is the worst form of child labour. It irreversibly damages children's health and development through, for example, exposure to dangerous machinery or toxic substances, and may even endanger their lives.

**Child slavery.** Child slavery is the enforced exploitation of a child for someone else's gain, meaning the child will have no way to leave the situation or person exploiting them.

**Child trafficking.** Trafficking involves transporting, recruiting or harboring people for the purpose of exploitation, using violence, threats or coercion. When children are trafficked, no violence, deception or coercion needs to be involved, trafficking is merely the act of transporting or harboring them for exploitative work.

**Source:** What is child slavery - Anti-Slavery International

Another noteworthy concern is that the move to more sustainable solutions to address climate change may indirectly exacerbate the rates of child labour. Extraction of essential minerals such as cobalt which is needed by the renewable energy initiatives of climate change from Democratic Republic of Congo- a nation with high child labour rates, may inadvertently lead to use of child labour. Critics have pointed out that cobalt mines in DR Congo use child labour working extended hours under extremely polluted environments and abusive circumstances (Jamal, 2020). As of 2016, an estimated 40.3 million people were in modern slavery (the severe exploitation of other people for personal or commercial gain), including 24.9 million in forced labour and 15.4 million in forced marriage (a marriage in which one or more of the parties is married without their consent or against their will). This means that for every 1,000 people in the world, 5.4 people are victims of modern slavery (ILO, 2017).

Women and girls are disproportionately affected by modern slavery, which accounts for 28.7 million- 71 per cent of the total number. 1 in 4 victims of modern slavery are children. Women and girls are also affected by forced labour, accounting for 99 per cent of victims in the commercial sex industry, and 58 per cent in other sectors. 1 million children were victims of commercial sexual exploitation in 2016. About 37 per cent (5.7 million) of those forced to marry were children (ILO, 2017). Children represented 18 per cent of those exposed to forced labour exploitation and 7 per cent of people forced to work by state authorities (Antislavery.org, 2019). Children who were in commercial sexual exploitation represented 21 per cent of total victims in this category of abuse (ILO, 2017).

## 6.2   Child Marriage

Child marriage refers to any formal marriage or informal union between a child under the age of 18 and an adult or another child. Child marriage is a global problem that exists in every region of the world (Girls not Brides, 2020). However child marriage involving girls under the age of 18 is most common in the regions of South Asia and Sub-Saharan Africa, with Niger Republic having the highest overall prevalence of child marriage in the world. South Asia has 43 per cent of all child brides globally, India alone accounts for one third of the global total, and Bangladesh has the highest rate of 29 per cent of child marriage involving girls under 15 (UNICEF, 2014) and 65 per cent of girls married before they are 18 (Human Rights Watch, 2015). Bangladesh is also noted to be one of the countries most affected by natural disasters and climate change which adds further hardship to families living in the most

> In 2017, in a project named *Brides of the Sun*, three journalists, Gethin Chamberlain, Miriam Beller and Maria Udrescu compiled dozens of first-hand stories of women who had become child brides as a result of the situations they found themselves in, which they attributed to climate change.
>
> These stories can be found at https://bridesofthesun.com/

marginalized and disaster prone parts of the country (Human Rights Watch, 2015). There is a clear link between displacement and forced marriage[1]. The same livelihood and drought issues that drive migration also fuel early [child] marriage (UNICEF, 2019 (c)).

In sub-Saharan Africa, particularly Ethiopia, climate change is of critical importance as a lot of the economy is dependent on agriculture and particularly rain-fed agriculture (Simane, 2016). The country is extremely vulnerable to the impacts of climate change such as droughts (Simane, 2016). The rate of child marriage is three times higher (75 per cent) in the northern region than the capital (Simane, 2016). Research in Somaliland by Save the Children found that 51 teenage girls out of 1104 households had been married off because of the impacts of the drought on families (Save the Children, 2018).

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[1] Forced marriages involving an individual under the age of 18 are most commonly called child marriages.

Harmful practices, such as female genital mutilation or cutting, are associated with child marriage, under the guise that the act will make the girl more valuable or appealing for marriage (World Vision, 2020).

## 6.3  Trafficking

Studies have identified links between climate change and child trafficking (O'Day, 2018). When families are forced to leave their houses in pursuit of food, water, shelter and survival, children are exposed to the risk of physical violence and trafficking (Save the Children, 2020). Women and girls make up most trafficking victims worldwide – almost three-quarters of them are trafficked for sexual exploitation, and 35 per cent (women and girls) are trafficked for forced labour (UN , 2019). Boys are typically trafficked into labour in mining, arduous construction work as well as sex work (World Vision, 2020). A report released by the International Peace Institute and the Africa Centre for Open Governance shows that the majority of trafficked people in East Africa are women and children who are sold into prostitution or forced labour (The Guardian, 2011).

Traffickers and smugglers prey on drought, poverty and conflict in the Horn of Africa to smuggle people to Nairobi and across the world with the promise of a better life (The Guardian, 2011). In India's flood-prone eastern region, women and children are at risk of trafficking and being sold into slavery in brothels, restaurants and stores and middle class homes (Reuters, 2016). Many of those who fall prey to traffickers are migrants, including refugees and asylum seekers who have left their countries for various reasons. Factors of armed conflict, displacement, climate change, natural disasters and poverty as factors exacerbate the vulnerabilities and desperation that enable trafficking to flourish (UN , 2019).

Traffickers are able to exploit the anxiety and desperation following a natural disaster with their usual tactics. For instance, following the 2015 earthquake that hit Nepal, it was reported that numerous young girls were trafficked by people posing as aid workers. Because of the vulnerability of people who have lost their homes and livelihoods, traffickers often pose as trustworthy helpers. Traffickers may offer a job opportunity that does not exist or is not as it seems, or a cash advance on work that a daughter or son will do in exchange for allowing the youth to come with them to another city to work so that money can be sent home. The family do not realize that the job offer is often fraudulent, and their child is in danger (Engage Together, 2018).

 Cases of trafficking in Somaliland from rural areas to Hargeysa and Burco for domestic work have been reported, as was a traditional practice where children are sent to rear livestock for another family in exchange for grants of livestock. In addition, it was reported that Somali children (mainly girls aged 4–12) are taken to Ethiopia to work as domestic servants. Those older than twelve were reportedly vulnerable to sex trafficking (UNICEF, 2019 (c)). Additionally, illegal adoptions are common during disasters. Following disaster events, traffickers have been reported to use technology to send photos of children offering them for adoption to families who believe they are helping a child in need. Traffickers collect an "adoption fee" and the child is sold to a new and unknowing family, with little hope of being reunited with their birth family (Engage Together, 2018).

## 6.4  Physical and Sexual Abuse and Gender Based Violence

Physical and sexual abuse are different forms of violence and victimisation. However, both constitute the misuse of power over a child leading to an acute traumatic event which can lead to far-reaching psychological and physical consequences.

During disasters, adults who utilize abuse to enforce power and control exert even more control through abuse on the vulnerable, who may feel powerless due to loss of work, food insecurity and household tensions (Bancroft, 2018). In the aftermath of Hurricane Hugo which affected North-eastern Caribbean and the South-eastern United States, research showed that the number of child abuse had increased in comparison to before the disaster (Curtis, et al., 2000). There is a higher probability that women and girls become victims of domestic and sexual violence during periods of humanitarian crises. This is more notable after a disaster when families have been displaced or forced to move into shelters and are living in overcrowded emergency or transitional housing where they lack privacy (Khan Foundation & ARROW, 2015).

Climate change is a serious aggravator of gender-based violence and has been shown to worsen domestic violence (UNFCC, 2019). Growing resource scarcity also escalates the risk that women and children will be victims of violence (Cwienk, 2020). The increase in violence is often rooted in the stress caused by men's loss of control in the period following a disaster (Khan Foundation & ARROW, 2015), in addition to external stressors such as financial instability/loss of income, loss of possessions and/or loss of the family home (Campo & Tayton , 2015). Research shows that child marriage also puts girls and women at risk for intimate partner violence (IPV), which in turn increases negative physical and mental health outcomes (Sharma, et al., 2020).

Studies by World Vision suggest that violence against children is closely linked with violence against women. This is due to the fact that both are often rooted in the same patriarchal attitudes, hidden by stigma and shame, and often take place in the home (World Vision, 2020). Women and children are also at greater risk of domestic and family violence after natural disasters such as bushfires, floods and droughts. Following the Black Saturday bushfires of 2009 in Australia, an increase in the incidence and severity of domestic and family violence following the disaster was noted (Campo & Tayton , 2015). With increasing drought and desertification in the global south, and particularly in rural communities, more and more water sources and wells are drying up. Performing domestic tasks such as fetching water for the rural household by women or girls could put them at a greater risk of sexual assault when women are forced to walk further away for water. This is especially in regions characterized by armed gangs (Cwienk, 2020).

## 6.5   Neglect

Neglect refers to the inattention or omission to provide for the proper development of the child by the parent or caregiver including all aspects such as health, education, emotional development, proper nutrition, shelter, and safe living conditions, which in the context of the family or caretakers are reasonably available resources and causes, or has a high probability of causing harm to the child's health or physical, mental, spiritual, moral, or social development. This includes the failure to properly supervise and protect children from harm as much as is feasible (Preethy & Somasundaram, 2020).

According to a UNICEF report, millions of children are "left behind" by one parent or both parents. The psycho-social effects can include depression and isolation, lack of parental control, aggressiveness, behavioural problems, bullying and stigma, risky behaviour: alcohol, drugs and sexual behaviour, juvenile crime and exposure to violence and abuse, not to mention the health, educational and economic outcomes (UNICEF 2019 (d)).

A growing trend is the number of women who become the breadwinners in the family, who cross borders to find work as low wage domestic and care workers. This is particularly noted in Southeast Asia, where short term, time-bound opportunities are available (Yeoh et al., 2020). Children are left with fathers or relatives to care for.

In China, massive rural-urban migration has driven the number of left-behind children up to 61 million, accounting for 38 per cent of children in rural China. In a qualitative study in Equity Health, the authors note: "Despite the economic benefits generated by labour migration, parental absence may lead directly to decreased care, stimulation and supervision. The non-traditional family structures may be risks for future psychopathology in children, and exacerbate the vulnerabilities of children with less social support. Substantial evidence has demonstrated the psychological impact from parental absence. A meta-analysis found that parental migration was associated with increased risk of mental health problems in Chinese children. Left-behind children were also shown to be prone to loneliness, low life satisfaction and depression, low self-esteem and behavioural problems, in China and globally" (Zhou et al., 2018).

When a child suffers from child abuse and neglect at an early stage in life, it leads to disruption in their sense of self, ability to build healthy relationships with other people by causing long-lasting emotional and psychological scars (Saxena et al., in Preethy & Somasundaram, 2020). Neglect is recognised in the Sphere Standards (core humanitarian standards) and by other groups associated with humanitarian management and child protection. Although neglect is one of the key types of child maltreatment, there is little attention paid to this issue in literature (Seddighi, 2019).

## 6.6   Psychological stress and bullying

As global temperatures rise, climate change's impact on mental health is becoming more apparent. A Stanford study has found links between increased temperatures and suicide rates. In the research, it was concluded that up to 21,000 additional suicides may occur by 2050 in the United States and Mexico if unmitigated climate changes continues to warm up the earth. This does not suggest that climate change is the only factor affecting mental health, however, there is evidence that a warming climate exacerbates the burden of poor mental health (Horton, 2019). A study that surveyed adolescents in Nicaragua after Hurricane Mitch in 1998 revealed severe levels of depressive reactions and post-traumatic stress in adolescents. Youth depression is a major risk for suicide and climate change related events might disrupt societal and economic structures that underpin mental health. Climate change exposes pre-existing psychological vulnerabilities, and young people are believed to be at greater susceptibility to the negative impacts of climate change due to their developing coping capacity (Majeed & Lee, 2017).

Child victims of climate change related disasters such as migrant children, asylum seekers and refugees often face discrimination and inequalities. Rates of bullying among children are high across the world and this poses a greater risk to the health, internalized stress and suicidal thoughts experienced by children.

# 7   Conclusion

This report provides a collection of secondary data sourced from a literature review on the subject of climate change and violence against children. It reinforces the observations proffered by Barnfonden, that climate change has a causal effect on violence against children. However, this causal effect has not been sufficiently researched to fully validate this hypothesis.

> A *casual effect* is a major unplanned, unintended contributor to an incident (a negative event or undesirable condition), that if eliminated would have either prevented the occurrence of the incident or reduced its severity or frequency.

*Climate change is a driver of not only household stress but community-level and national stress. What does this stress*

*look like and lead to with regard to children's exposure to violence?*

The literature review finds that climate change, among other things, relates to increased incidences of droughts and water scarcity, floods, natural disasters and rising temperatures. These events have effects on migration, conflict, poverty and food insecurity, psychosocial health and stress. These in turn increase the incidence of different forms of violence against children, such as child labour, child marriage, sexual abuse, physical abuse and gender-based violence, neglect and trafficking.

What has also become evident in doing this literature review is that while there are many reports suggesting climate change has a causal effect on the conditions that lead to violence against children, bold claims linking the two are limited. We find this is partly due to the lack of attention given to measuring child protection and violence outcomes within the scope of negative health outcomes measured against climate change.

One example we can draw similarities to is what causes cancer. There are many risk factors that can lead to one's chances of getting cancer, however certain risk factors may increase the chances/amplify this… such as tobacco use, alcohol use, unhealthy diet, and physical inactivity. It is advised to avoid such behaviors as a strategy to prevention these chances, however, there is no silver bullet prevention as other risk factors and/or situation may ultimately cause such an event. This is the case for violence against children, where many situations in the world currently increase this risk. We see that climate change effects are one of these many risks that needs attention and immediate action.

We therefore encourage increased research and measures to link the issues of climate change and violence against children, where the effects, consequence and outcome are investigated *together*.

To Barnfonden, the linkages we can see are already enough for us to act and to adopt a climate-informed child protection approach.



**Figure 6**: Effects, consequences and outcomes relating to climate change and violence against children should be investigated *together*.

# 8 Recommendations

There is evidence to show that climate change is linked to violence against children and, as the impacts of climate change worsen so, too, is child violence likely to increase. However, we need more research! One of the biggest gaps we see is an absence of the issues being reported *together*. We need both more discussion (thinking and talking) and more measurements linking these issues: viewing them in unison, not in silos.

NGOs can build this thinking into programme and project design. Governments can start linking the two issues and synchronise planning between departments that would typically work apart (such as those overseeing environment and child protection).

The INSPIRE strategies and Sustainable Development Goals are an excellent place to start at the global level (but influencing national and local strategies). The INSPIRE strategies are seven strategies to help support countries in their efforts to prevent and respond to violence against children aged 0-17 years (WHO, 2016).

The issue of climate change is not mentioned once in these strategies, although there is reference to the environment and comprehensive humanitarian guidance. Given that this is a key guidance document, updating the tools to link climate change and child protection could be one way of quite quickly putting the notion in people's minds. For example, one way could be the addition of a fifth measure under the INSPIRE strategy 'Safe Environments', or under the eighth measure 'Response and Support Services' (i.e. an indicator addressing support for children affected by climate disasters or protection from climate disasters).



**Figure 7:** INSPIRE's Seven Strategies to End Violence Against Children (WHO, 2016)

Another place is in the Sustainable Development Goals, particularly SDG 13 and 16 (and here, there is potentially the opportunity to link in INSPIRE measures with the SDGs). For instance, some indicators that incorporate children's safety and climate change could be incorporated into the SDGs (say, SDGs 13 and 16) and complementary indicators could be added into INSPIRE (say, measure 5 and 8). While it is acknowledged that finding the relevant data sets will be tricky because there are many complex and interacting issues influencing children's safety (it is seldom *just* climate related), this doesn't mean we should ignore trying. This is an opportunity for tools to synchronise and built a tapestry of information that will strengthen work to end violence against children in the face of climate change.

Because of the numerous intersections and influences between social, political, economic and environmental levers, a systems approach is required to address issues communities and families are – and will increasingly – face, in a holistic way, led by local leaders. However, country structures – whether at government or local authority level – too frequently demonstrate they are not set up for such a coordinated response; and child protection and child rights are not on their radar. This is also true of

the international development sector, where – in the opinion of Barnfonden – not enough is being done to demonstrate how the impacts of climate change amplify child protection risks related to violence against children.

Barnfonden's view is that, in order for the international development sector to take the necessary approach towards climate-informed child protection, existing efforts catered towards climate change and child protection need to be addressed together rather than in silos. This requires a shift of mind on behalf of civil society, corporates and government actors working to advance child rights to place climate change and violence against children, spoken of in one breath, 'up high'.

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