



THE IMPACT OF
CLIMATE CHANGE
ON
CHILDREN

In the Middle East and North Africa (MENA) Region

An aerial photograph of a village in a dry, hilly landscape. The village consists of numerous small, simple buildings with flat roofs, some with corrugated metal roofs. The terrain is arid, with sparse vegetation and rocky ground. In the background, there are large, rugged mountains under a clear sky. The overall scene depicts a rural, semi-arid environment.

The climate crisis is a child rights crisis.

Climate change is the greatest threat facing the world's children and young people. Climate change poses major threats to their health, nutrition, education, and future.

Children are less able to survive extreme weather events, and are more susceptible to toxic chemicals, temperature changes¹ and diseases.

The Middle East and North Africa is among the world's most vulnerable regions when it comes to climate change. The region is warming faster than the global average, with summer temperatures predicted to rise by up to 4°C by 2071-2100 compared to pre-industrial temperatures.

In parts of the Middle East, combined heat and humidity is predicted to reach or exceed the thresholds of human tolerance and adaptability within this century². In other parts of MENA, combined heat and drought will accelerate desertification and lead to increases in dust storms, with dire impacts to children's health.

Key climate risks to children in MENA:



Increase in Temperatures, Heat Waves and Dust Storms

- Unprecedented heat waves in MENA will affect more than 100 million people by 2060. By 2100, about half of the MENA population, and a predicted **205 million children (0-17 years old) and 108 million adolescents (15-24 years old)**³ could be exposed to annually recurring heatwaves⁴.
- The number of days of intolerable heat is projected to increase, particularly in coastal areas as well as major and growing urban areas including Amman, Aden, and Baghdad, as well as cities in southern Iran and Iraq⁵, Saudi Arabia and Algeria⁶.
- The more heatwaves children are exposed to, the greater the chance of health problems including chronic respiratory conditions, asthma, and cardiovascular diseases.
- Children's education will be impacted as well, as heatwaves will lead lower school attendance and lower achievement.
- Increasing intensity and frequency of dust storms put children at higher risk of exposure to micro-particles and acute respiratory tract infections, and increased risk of respiratory diseases, cardiovascular diseases, and cardiopulmonary diseases. Prenatal exposure to dust events **lowers birthweight, reduces gestational time, and increases infant mortality**⁷.



Increased water scarcity

- **Nearly 9 out of 10 children in MENA already live in areas of high or extremely high water stress**⁸ and the region as a whole has a freshwater withdrawal of over 100% of available resources⁹.
- **Water scarcity is increasing in MENA countries** due to unsustainable water use in agriculture, a growing population, increased urbanisation, and weak water governance, amongst other factors. Climate change acts as a multiplier with increasing uncertainty in rainfall, higher temperatures (increased evapotranspiration), decreasing water quality and higher risks of drought.
- **Children require more water per unit of body weight than adults and are more susceptible to toxins and water-related diseases.** When safe water resources decline or are depleted communities are forced to use less safe sources. Direct impacts on children include water-borne diseases, such as acute diarrhoeal diseases, cholera, dehydration, and exacerbation of under- and malnutrition.
- Increased water scarcity will also impact families' livelihoods, particularly in farming communities, making children more vulnerable to child marriage, child labour, abuse, and exploitation.





Decreased Food Security

- Children require more food per unit of body weight than adults, and **food scarcity is a critical risk to child growth and development**. Limitations in food access, dietary diversity and nutritional content are significant risks for vulnerable children in MENA, a region already facing both malnutrition (stunting, wasting and micronutrient deficiencies) and over-nutrition (overweight and obesity).
- In MENA crop yields are expected to **decline by 30% with 1.5–2 °C warming** and up to 60% with 3–4° C warming¹⁰.
- The region is strongly dependent on food imports. Although in the short term this may improve local food security and climate resilience, this dependency introduces a risk on fluctuating global food prices while the climate also impacts food production in exporting countries.



Increase in Physical and Environmental Threats

- Regionally, rising seas are likely to affect 43 port cities—24 in the Middle East and 19 in North Africa¹¹. The population of MENA's coastal urban areas is expected to reach 100 million by 2030.
- With only a 1-meter sea level rise, **1.49% of MENA's GDP** could be affected - compared to 1.30% worldwide¹².
- Low-lying coastal areas in Tunisia, Qatar, Libya, UAE, Kuwait, and particularly Egypt are at highest risk. At 1 meter of sea level rise, several coastal areas in the Nile Delta, the northern coast, and Sinai in Egypt will flood. This is predicted to result in a loss of **at least 30% of food production** by 2030 in the Nile Delta¹³.
- Risks to children include increased food insecurity, water insecurity, damaged infrastructure and services including water supply, schools, hospitals and roads, and economic decline limiting opportunities for education and future employment.





Increase in Population Movement and Displacement

- Accelerating extreme weather events will exacerbate social, environmental, and economic inequalities for children across MENA, resulting in accelerated climate-related displacement and migration.
- It is estimated that there were **12.4 million internally displaced persons (IDPs)** in MENA in 2019, of which an estimated **40% were under 18 years old**. Most of these displacements were primarily due to conflict. By 2050, it is predicted that there may be an additional 19 million people on the move in North Africa alone due to climate change¹⁴.
- In the past decade, natural **disasters triggered at least 1.5 million new internal displacements** in MENA. More than half of these were due to floods, including flash and urban floods. Annually, nearly 400,000 people in MENA could be displaced by riverine floods alone¹⁵. Although regional data is limited, there is global evidence that **young people are more likely to move** in response to flooding, storms, short-term weather fluctuations, and long-term precipitation changes¹⁶.
- Displacement often has a disproportionate impact on children, causing disruptions to education, introducing protection risks, and has substantial health and mental health impacts. Displacement also has the potential to separate families and create situations of extreme need. This can lead to negative coping mechanisms, with children facing increased risks of gender-based violence (GBV), child recruitment, child marriage, child trafficking, and exploitative forms of labour¹⁷.





Child-centred action is urgent - in both mitigation and adaptation

At COP26, the parties recognized the important role of indigenous peoples, local communities, and civil society, including youth and children, in addressing and responding to climate change. The 10-year Glasgow work programme works to further strengthen the implementation of Action for Climate Empowerment (ACE). ACE has six elements, which all relate to children: climate education and public awareness, training, public access to information, public participation, and international cooperation on these matters.



Key Action to Date in MENA:

- In MENA, many high-income, high emission countries in the region have already committed to more resilient pathways to development and are implementing child-centred and gender-transformative climate policies. For example, the UAE adopted a National Climate Change Plan in 2017 which provides a framework for mitigation, adaptation, and economic diversification.
- Of the MENA region countries, Sudan, Kuwait, and the State of Palestine have officially submitted National Adaptation Plans to the United Nations Framework Convention on Climate Change (UNFCCC). All plans reference children's vulnerabilities, Kuwait references youth needs¹⁸, and Sudan recognises the rights of future generations as a priority objective¹⁹.
- Tunisia, the State of Palestine, the UAE, Jordan and Morocco already have child-sensitive NDCs (as per UNICEF criteria)²⁰.

Recommendations

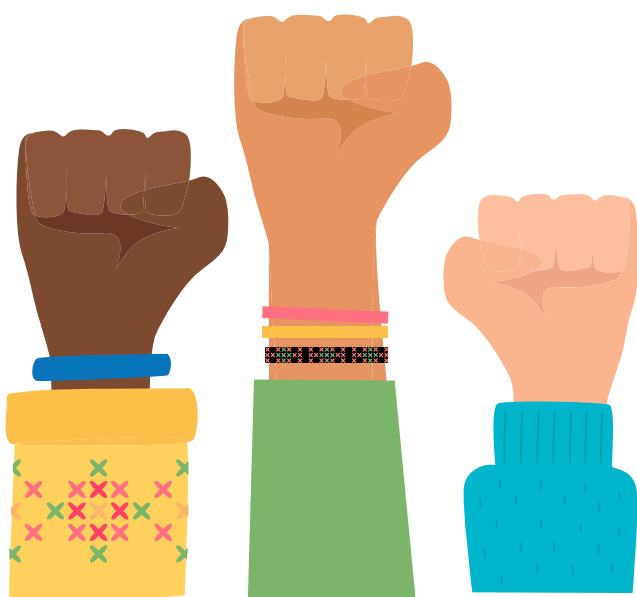
UNICEF calls on MENA governments, the international community, and international financial institutions to [prioritize climate finance investment in child-sensitive, climate-resilient social services](#) – such as schools, health centres, water and sanitation infrastructure and social protection schemes – to ensure the continuity of services and to protect children most at risk of climate change.

UNICEF calls on the private sector to support the adaptation of services and work with Ministries of Education to [integrate climate education into curriculum and support capacity development](#) in green jobs that will help societies to address the dual challenge of climate change and youth unemployment.

UNICEF calls on MENA governments to [support children and young people as key agents of change in the climate crisis](#) and integrate their active participation into national climate change action.

UNICEF calls on MENA governments to develop and [ensure that National Adaptation Plans \(NAPs\) and Nationally Determined Contributions \(NDCs\) are fully child-sensitive, and that children and youth contribute to their development.](#)

UNICEF calls on MENA parties to [join the Declaration on Children, Youth and Climate Action](#) launched at COP25 and accelerate its implementation, with a recognition that the most disadvantaged and marginalised children in MENA bear the heaviest burden.



Specifically, building upon the Glasgow Work Programme, at COP, UNICEF calls on countries to:

- Turn the Glasgow work programme into action and ensure clear protection and prioritisation of children in the finalisation of the General Comment, to ensure alignment with ACE and to root it in the UN Convention on the Rights of the Child. The development process should continue to be inclusive of the voices of children and youth from the MENA region.
- Develop tools and methodologies for supporting climate change training and skills development in MENA and provide training programmes in climate change communication and education, targeting journalists, teachers, academics, youth, children and community leaders.
- Create communities of practice, knowledge and learning in MENA that are available and accessible to a wide range of stakeholders, including women, children and youth, the elderly and persons with disabilities.
- Improve public access in MENA to information on climate change at the national and local level using a range of methods and tools, taking into account the different ways particular communities, groups and individuals, including women and children and youth, may be impacted by climate change.
- Develop guidelines for enhancing public participation in climate change decision-making in MENA and the inclusion of children and youth, and for assisting local governments and the public in climate change decision-making.

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This document will be complimented by a full study which will focus on climate change implications for children in the MENA region, and ways forward.