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Climate Landscape Analysis for Children in Iran

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Contents

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Acronyms

ADAP	Adolescent Development and Participation
BCM	Billion cubic meters
BAFIA	Bureau for Aliens and Foreign Immigrants Affairs
CCRI	Children's climate risk index
CEE	Climate, energy and environment
CEED	Climate, energy, environment and disaster risk reduction
CLAC	Climate landscape analysis for children
CL	Cutaneous leishmaniasis
DoE	Department of Environment
DRR	Disaster risk reduction
DCHQ	Drug Control Headquarters
EU	European Union
EWS	Early warning system
FAO	Food and agricultural organisation
GDP	Gross domestic product
GHG	Greenhouse gas
GW	Gigawatt
IDP	Internally displaced persons
INDC	Intended nationally determined contribution
IPCC	The Intergovernmental Panel on Climate Change
IRCS	Iranian Red Crescent Society
IRIMO	Iranian meteorological organisation
MW	Megawatt
MoAJ	Ministry of Agriculture Jahad
MoSY	Ministry of Sports and Youth
MoE	Ministry of energy
MoEDU	Ministry of Education
MoH	Ministry of Health
MoI	Ministry of Interior
MoJ	Ministry of Justics
NRM	Natural Resources Management
NDMO	National Disaster Management Organisation
NRWMO	Natural Resources and Watershed Management Organisation
PBO	Planning and budget organization
RCP	Representative Concentration Pathways
SDS	Sand and Dust Storm
SHAD	Iran's national education platform for children
SWO	The State Welfare Organisation
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification (UNCCD)
UNDP	The United Nations Development Programme
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
UNFCCC	The United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Childrens Fund
UNIDO	United Nations Industrial Development Organisation
UNSDCF	United Nations Sustainable Development Cooperation Framework
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation

1 Executive Summary

Climate change is affecting the children of Iran in various ways, including through water scarcity, higher temperatures, and increased adverse weather events, which in turn infringe on their rights to a safe, sustainable and healthy environment. These impacts are projected to worsen in the future, with a hotter and dryer climate across the region. Urgent action must be taken to protect Iran's most vulnerable children.

The Climate Landscape Analysis for Children (CLAC) aims to compile the latest data, research, and evidence to gain a better understanding of the challenges facing children. The results of the CLAC will support UNICEF in providing better and more targeted support to the people it serves.

Key findings on climate change in Iran

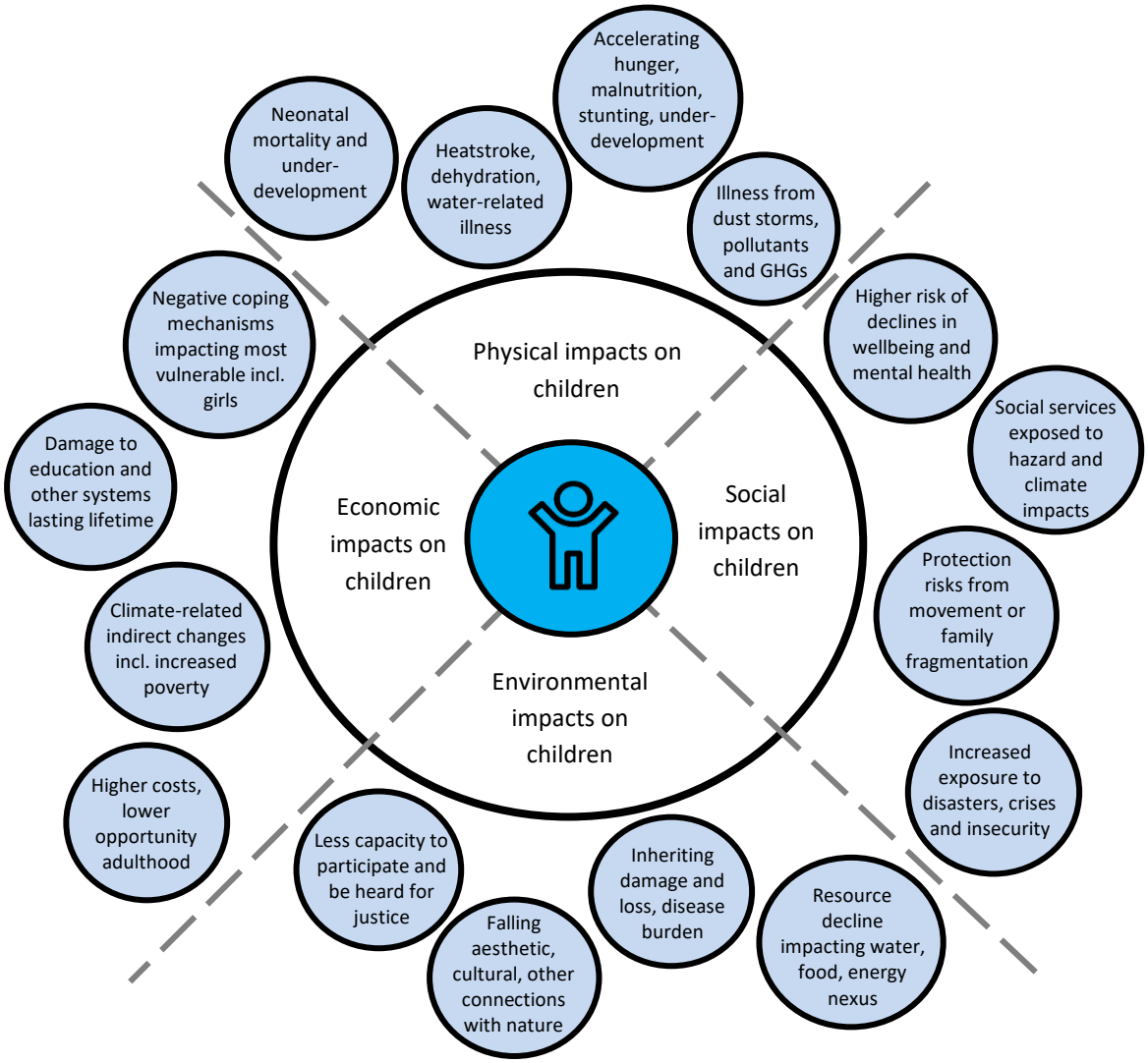
According to the UNICEF Children's Climate Risk Index, Iran has a high climate and environmental exposure (score 7.3 out of 10) but a low child vulnerability (score 2.3 out of 10). This shows that despite having a high likelihood of exposure to environmental risks, Iranian children enjoy lower short-term vulnerability to those risks. However, with the current financial hardship, health and educational facilities may suffer, and there may be an increase in poverty and social harm, which in turn would increase children's vulnerability to climate change impacts.

Climate change and other environmental hazards pose a significant threat to Iran's children, both now and in the future. These threats can undermine all aspects of children's rights if not addressed.

- Iran is placed in the world's "hot belt", where an increase in the earth's temperature will be felt more than other places. In the most likely climate scenario (RCP 4.5) the maximum temperature will increase by 1.1-2.75 degrees Celsius, and the number of extremely hot days will increase from 18 to 45 days per year. Heat waves due to climate change will also increase children's exposure to certain diseases. Children's lesser ability to regulate their body temperatures makes them especially vulnerable to the health impacts of heat waves, such as chronic respiratory conditions, asthma, cardiovascular diseases, allergy development, diarrhoea, and undernutrition, which in severe cases can lead to death.
- In the most likely climate scenario (RCP4.5), Iran will see an increase of up to 100 mm of rain per year. Wet areas will be wetter, and dry areas will be drier. The projected decrease in availability of water will have severe impacts on children. When water resources become scarcer, families are more likely to resort to unsafe resources, which brings with it risks of water borne disease. Children are less able to withstand infection and disease, and risk higher levels of morbidity and mortality than adults.
- Iran has a natural disaster risk index of 18.48, making it the 26th country most prone to natural disasters. From 1990 to 2020, the country had over 80,000 casualties because of natural risks and impacts [29]. Where infrastructure and services are less resilient to climate change impacts, children's access to essential services, such as health services, water, sanitation and hygiene (WASH) and education facilities, can be disrupted during and after climatic events.
- Natural hazards have contributed to internal displacement and migration. According to the Internal Displacement Monitoring Centre, in 2019, about 520 thousand people were internally displaced in Iran due to disasters [30], of whom 150,000 were under 18 [31]. Migration due to climate change may interrupt children's education, limit their access to essential services, create protection risks and force them into child labour.
- Iran is the 9th largest CO_2 emitter, and the largest emitter to not have ratified the Paris Agreement.
- Due to the competition over scarce resources, the social implications of water insecurity have been seen in the last decades. The country has witnessed tensions over water, which in some extreme cases, has resulted in the injury or death of people [57].

Iran's climate, environment and energy (CEE) policymaking literature does not distinguish children and adolescents from other age groups. Though Iran has a wide range of climate change related policies, there is a lack of prioritisation for environmental issues in the development plans and a declining budget allocation to climate and environment.

Impacts to children



Recommendations

Climate action is a cross-sectoral discipline. Although UNICEF is not a CEE-specialised agency, it still can play an effective role in supporting the Iranian government on protecting children from the impacts of CEE phenomena. UNICEF should leverage its resources (e.g., influence, network) to advocate for the necessity of child-focused CEE policies and practices in order to:

- Ensure that climate change risks and vulnerability reduction is included across sections and programmes
- Protect the most vulnerable children by working towards ensuring that services are child- and climate-sensitive and resilient
- Provide learning opportunities to youth, children and communities on climate change and resilience, where possible
- Work to integrate climate change and environment in workplans with partners and identify small entry points for inclusion where appropriate
- Support the implementation of climate, energy, environment and disaster risk reduction (CEED) indicators and monitoring in internal programmes and with counterparts
- Build relationships and efforts with counterparts and working groups who have shown interest in climate change, including the Ministry of Health, the Ministry of Energy and Water, the Ministry of Environment and the Ministry of Youth and Sports

Figure 1: Map of Iran [1]

2 Methodology

The audience of this desk review is the UNICEF Iran team, as well as UN sister agencies, specifically partners in the environment pillar of the United Nations Sustainable Development Cooperation Framework (UNSDCF).

This report sets-out to provide an overview of climate change impacts in Iran, its impacts on children specifically, and a 360˚ set of recommendations to enable UNICEF Iran to position itself as an influential contributor to Iran's preparation for protecting children and adolescents from the negative impacts of climate change. The recommendations focus on generating value for UNICEF using its comparative advantages in Iran.

This report used an extensive literature review, stakeholder consultations with UNICEF staff, and an analysis and calculation of risk-prone provinces.

Literature review

The literature review was undertaken by reviewing scientific international and national data on climate change, impacts to children and environment. The literature review also reviewed government responses and priorities on CEED by studying the following documents:

1. General policies (e.g., environment, family, population, and land use planning)
2. Laws and Legislations
3. Annual Budget Plans
4. Iran's five-year Development Plans
5. Policies and direction of different government bodies
6. Initiatives of government units, as well as partnership agreements
7. Three National Communications to the United Nations Framework Convention on Climate Change (UNFCCC) and other national reports to conventions and the international community
8. Studies and assessments conducted by research centres and think tanks associated with the government

Stakeholder consultations

Key informant interviews and focus group discussions were undertaken with staff of UNICEF Iran. In these discussions, the participating teams and the organisation were examined for the following:

- An Interest-Feasibility-Capacity nexus to understand the political preferences, perceptions, and high-level administrative direction for initiating a climate action for UNICEF Iran and identifying the best approaches to work with the government.
- An Attitude-Perception-Knowledge-Autonomy-Ability nexus to identify the gaps and strengths of UNICEF at policy, programme, and individual levels in initiating UNICEF Iran's climate action.

In addition, UNICEF Iran's engagement in CEED action was explored from five administrative function perspectives, including:

1. Politics, perceptions, and preferences
2. Policy and programming
3. Institutional capacity and individual knowledge, interest, and understanding
4. Networking and resource mobilisation
5. Influence and advocacy

Defining risk and provinces

To identify the priority provinces for UNICEF's climate action, this paper first identified the provinces at the highest risk of climate change. The methodology for determining the risky provinces follows UNFCC's formula as Risk = Probability of climate hazard x Vulnerability**.** The methodology is not without limitations, but is meant to provide an indication of how UNICEF can prioritise risks and provinces.

Probability of climate hazards:

To determine the probability of hazards across Iran's 31 provinces, the following steps were taken:

- Three climate scenarios suggested by the Intergovernmental Panel on Climate Change (IPCC) were selected (out of 9).
- Climate hazards from the climate scenarios were selected and analysed to understand how they will impact each province of Iran. This report selected four major hazards that are already (or likely) impacting Iran, including 1) Drought and Sand and Dust Storms, 2) Floods and Excessive Precipitation, 3) Heatwaves, and 4) Sea Level Rise.
- Probability (high, low, no change) of the occurrence of each hazard under the three climate scenarios was then calculated. This provided twelve probabilities for each province.
- Finally, a list of provinces ranked based on the probability of climate hazards was developed.

Vulnerability:

For the purpose of this report, vulnerability id defined as the socio-economic situation of provinces since it has a strong correlation with the ability of a geographic region to deal with the impacts of climate change. The major anticipated socio-economic impacts of climate change on Iranian society were identified as health impacts, poverty, and displacement. To prioritize provinces based on the impacts of climate change across these three categories, some representative indicators for each were selected, including poverty, income inequality, age composition, disability, and education. Also, due to a lack of data about displacement (whether internal or external) and the complexity of the topic, it has not been included in the study.

Identifying high-risk provinces

Using UNFCC's formula, the list of provinces with the highest risk of climate change is identified by multiplying each province's hazard probability and vulnerability. This report has identified the provinces most at risk to climate change. It will serve to help UNICEF Iran target provinces and align future interventions with its programmatic priorities.

Limitations

While the report covers a large set of policies and literature on climate change in Iran, it has not had stakeholder consultations beyond UNICEF staff. This means that the findings and recommendations have not benefitted from the viewpoint of UN sister agencies, partners or government counterparts at this stage. The definition of risks and provinces is also a slightly arbitrary calculation, but is meant to provide an indication of most at-risk areas for UNICEF interventions.

3 The socio-economic and political situation of Iran

Geography

Located in west Asia, with an area of 1,648,195 km^2, Iran is the 18th largest country in the world. It has thirteen marine and land neighbours and is the gate for two geopolitically important corridors: the country connects the Asian continent to Europe and the Commonwealth of Independent States to the waters of the Persian Gulf and Sea of Oman [2], [3].

Demographics

Iran's population is estimated at 86 million, makings it the 10th most populous country in Asia [2], [3]. The population under 18 is approximately 24.8 million, equal to 28% of Iran's total inhabitants [4]. With a population growth rate of 0.7% [5], it is estimated that in 2050, about 18.25% of Iranians will be above 65 [6].

In the past four decades, Iran has experienced rapid urbanisation. In 2020, urban settlers comprised 74% of the population compared to 27% in 1950 [8]. In recent years, a considerable portion of Iranians (about 19 million) have lived on the fringes of urban centres due to the increased unfavourable economic situation*.

Iran enjoys a high ethnic and cultural diversity. The major groups include Persians (residents on the central plateau), Turkic groups (e.g., Azeris, Qashqai, Afshar, Shahsavan, Turkmens, Qadjars), Kurds, Lors, Laks, Arabs, Assyrians, Armenians, Baluchis, Talysh, Mazanis, and Gilaks [9].

Economy

Iran is a middle-income country reliant on hydrocarbon, agriculture, and service sectors. In 2022, with a Gross Domestic Product (GDP) of US$1,974 billion, Iran was the 11th largest economy in the world [10], although the country has been suffering double-digit inflation over the past five decades [11]. Heavy international sanctions have severely impacted Iran's economy in recent years, significantly affecting its oil export revenues, which has increased the inflation rate by over 40% for four years since 2018 [10].

Along with its negative impacts on the country's socio-economic conditions, the decreased economic capacity is also lessening the ability to develop, maintain, and rehabilitate infrastructure [12].

Governance

Iran's governance structure is an "Islamic Republic" with three branches, the Executive, Legislative, and Judicial systems, supervised by a Supreme Leader. In this system, people directly elect the head of the executive branch (president), and the members of the legislative branch (parliament). People also select the members of an "Assembly of Experts for Leadership" that is mandated to appoint the Supreme Leader.

Migration and Refugees

Iran is both a destination for and a source of migration. While the emigration of Iranians to seek better living conditions in more developed countries is becoming an emerging phenomenon [14], Iran itself also hosts one of the world's largest refugee populations. The number of registered refugees is 800,000, and the number of undocumented refugees is estimated near 3 million [15]. As of early 2022, 45% of people recorded as newly arrived refugees by UNHCR were under 18, and 58% were female [16].

* 19 million

4. The climate, environment, and energy situation in the country

As shown in the annex, a probability of climate change hazards for each province in Iran was calculated for drought, sand and dust storms, flood and excessive percipitation, heatwave, and sea-level rise as the relevant hazards to Iran's condition. This was compared with vulnerabilities of provinces, identified by reviewing data on poverty, income inequality, age composition, disability, education, and health. In the last step, by combining the hazard probability with the vulnerability of provinces, a climate risk list was developed with the following provinces being the most at risk:

1. Sistan and Baluchistan
2. Hormozgan
3. Golestan
4. Khorasan, Razavi
5. Khorasan, North
6. Khorasan, South
7. Lorestan
8. Kohgiluyeh and Boyer-Ahmad
9. Khuzestan
10. Chahar Mahaal and Bakhtiari
11. West Azerbaijan

4.1 Historical and predicted trends in temperature, precipitation, and sea level

The climate in Iran is hyper-continental, with the inland areas experiencing very cold winters and hot and dry summers. The Annual Mean Temperature ranges from 22°C to 26°C which was increased by 1.9°C from 1901 to 2021. Precipitation occurs from November to May, and then a dry period with rare precipitation occurs between May to October [18].

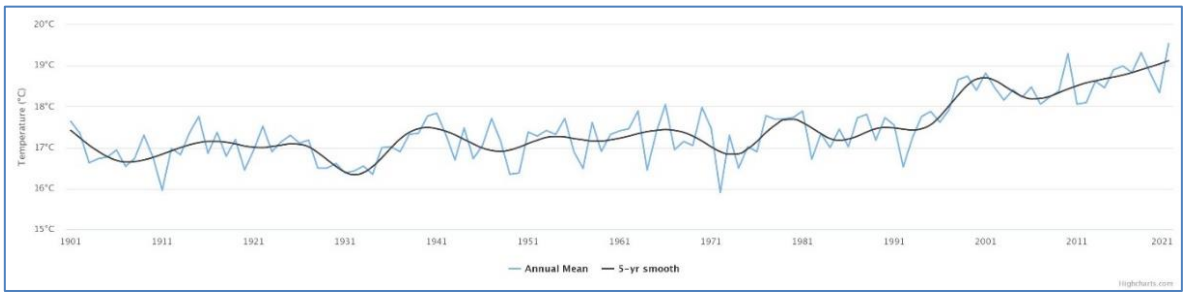


Figure 2. Observed Average Annual Mean-temperature 1901-2021 [18]

The IPCC anticipates that in 2049, in the RCP 8.5, Iran will experience an increase of 2.75 °C in its maximum temperature, with an increase in occurrence from 18 days per year to between 30 to 90 days, depending on the climatic zones. Iran will also experience fewer extremely cold days per year [19].

Iran receives an average precipitation of 240 mm annually, producing 405 billion cubic meters (BCM) of water. Of this, 43 BCM charges the groundwater, 89 BCM flows in rivers (in addition to 9 BCM inflow from other countries), and 282 BCM returns to air through evaporation and evapotranspiration [18]. Over the past 13 years before 2022, the average annual precipitation decreased by 9% to 226 mm. Additionally, the rainfall pattern has been altered, increasing the quantity of short-term rainfall [22].

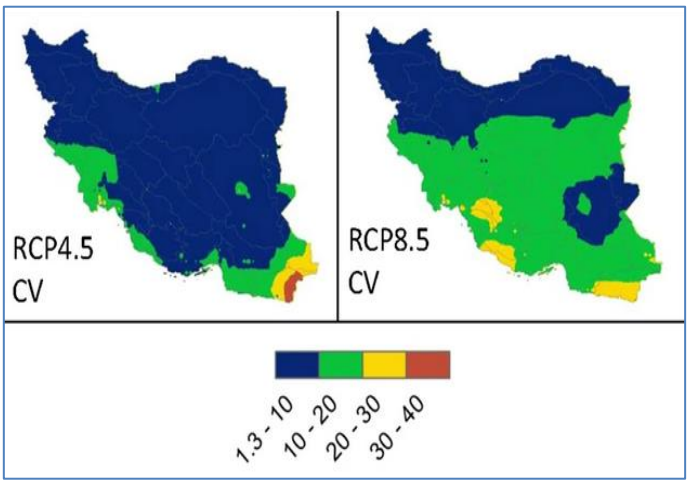


Figure 3. Rainfall distribution (mm) prediction in RCP4.5 and 8.5 [20]

Although studies suggest that the future climate scenarios do not significantly change the average annual precipitation in the entire country, there may be a considerable change of up to ±100 mm/year, spatially. The RCP4.5 predicts an increase of up to 100 mm/year in Iran's Mediterranean and semi-desert climates. In this scenario,

the wet areas will become wetter, and the dry areas will be drier. The RCP8.5 suggests a significant decline in the precipitation of hot and Caspian zones up to 100 mm/year [20].

The change in precipitation will impact flooding trends. For instance, although the precipitation in the desert region is predicted to decrease in different climatic scenarios [20], the likelihood of flooding in those areas will be increased.

As for the sea level variation, the Caspian Sea has been shrinking over the past years [23], and the RCP4.5 and RCP8.5 scenarios suggest a further decline in its level between 8 to 10 m by 2100 [24]. In contrast, the southern coasts are expected to experience a rise in sea level. Under RCP2.6, the "lowest" scenario, the Sea of Oman will have a 0.55 m rise, inundating 299 km of the coastline.[2] The expected rise in RCP4.5 and RCP6 will be 0.63 m, covering about 334 km^2 of the coastal areas. In the worst-case scenario (RCP8.5), an 0.82 m rise is expected, which will cover 449 km^2 of the coasts [25]. In the Persian Gulf, the RCP4.5 scenario will result in a 0.86 m increase, and in RCP8.5, the rise is expected to be 1.81 m [26].

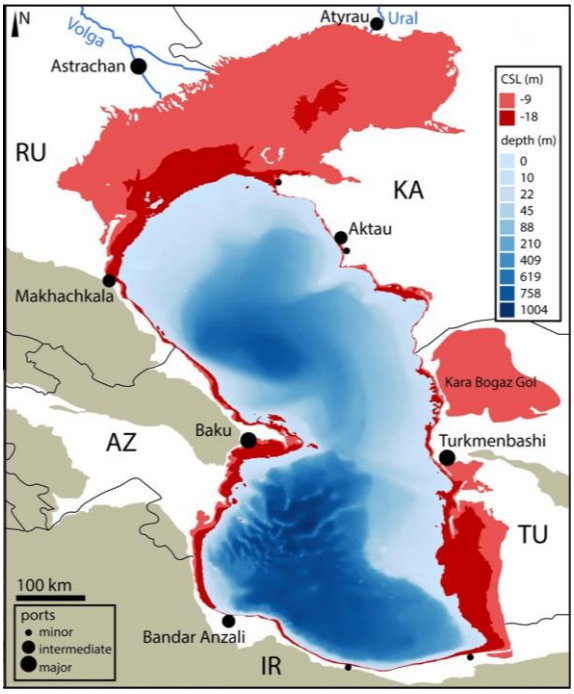


Figure 4. Impact of Caspian Sea Level projections of −9 m and −18 m at the end of the twenty-first century. Red regions fall dry [28]

4.2 Natural risks and impacts

With a Natural Disaster Risk Index of 18.48, Iran is the 26th country most prone to natural risks and impacts [29]. Historically, natural risks and impacts such as extreme floods, drought, extreme temperatures, and earthquakes have been prevalent in Iran. From 1990 to 2020, the country had over 80,000 casualties because of natural risks and impacts [29]. These catastrophes also contributed to the internal displacement and migration of citizens. According to the Internal Displacement Monitoring Centre, in 2019, about 520 thousand people were internally displaced in Iran due to disasters [30], of whom 150,000 were under 18 [31].

The impacts of natural risks and impacts will be intensified by climate change and increase the socio-economic hardships in Iran. As an example, intensified or prolonged droughts will negatively affect Iran's agricultural sector and threaten national or local water and food security [30]. Devastating floods can impose heavy tolls on the government to reconstruct and rehabilitate the infrastructure. In recent years and along with air pollution, the prevalence of sand and dust storms (SDS) has become a significant challenge for Iranians' economy, health and well-being [34].

4.3 Water resources

Water is Iran's social identity, interwoven in every aspect of the culture and existence of the water-scarce country, and is reflected in its myths and legends [44], [45]. Historical natural scarcity urged Iranians to master the efficient extraction, transfer and consumption of water. Establishing engineered irrigation and water-sharing systems has been a common practice in Iran for over five thousand years. In Iran's various regions, the ancient infrastructures and traditions for water management are still evident [46].

Iran has six river basins, of which five are shared with its neighbours. Except for Iran's central plain, which is an inland basin, the others, including Urmia Lake, Caspian Sea, Sarakhs, Hamoon and the Persian Gulf and Oman Sea basins, are shared with the neighbouring countries.

Iran's dependency ratio to transboundary water is 7% which is relatively low. However, it still significantly impacts water security in some border provinces [48]. For example, almost half of the inhabitants in Sistan and Baluchistan province depend on the Helmand River's transboundary waters [49].

Despite the rich history of water management and WASH, modern-day Iran faces unprecedented water security challenges. While by global standards, the integrity of ecosystems is subject to the extraction of less than 40% of their renewable water resources, in Iran, the extraction rate exceeds 100% of the capacity [50].

Iran's per capita renewable internal freshwater resources have declined since 1961. In 1961, the share of each Iranian was 5,845 m^3/year, dropping to 1,484 m^3/year in 2019. This is 200 m^3 less than the global water stress threshold of 1,700 m^3/year [51].

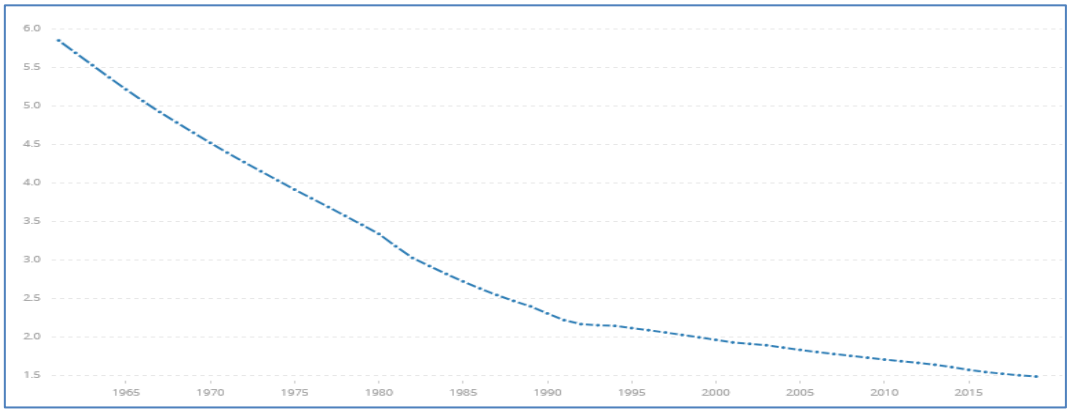


Figure 5. Iran's renewable water per capita trends from 1965 to 2109 (m3/year) [51]

In Iran, agriculture accounts for about 92% (87.2 BCM) of water use, while 6.5% (6.45 BCM) of water is used for domestic purposes and the remaining 2% (2 BCM) for industry and mining [17].

In terms of WASH, in 2019, approximately 94% of the Iranian population had access to safely managed drinking water services. About 92.8% of urban and 82.3% of rural populations were provided essential sanitation services, while the remaining could access limited services. Also, only 22.1% of domestic wastewater in Iran is adequately treated [52].

Iran's water challenges are mainly attributed to inadequate and inefficient approaches to water management, with climate change exacerbating the impacts of water scarcity.

The shortage of surface water has led to the overexploitation of groundwater resources, with an average annual drop of 55 cm in the water tables of aquifers, equal to a 135 BCM deficit. As a result, out of 609 plains in the country, 410 are classified as prohibited or critical for water extraction [21].

Excessive water overdrafts in 77% of Iran's aquifers have increased soil salinity and the frequency and extent of land subsidence[†]. Due to the sharp decline of groundwater resources, at least 25% of the Iranian population will experience land subsidence with a rate of at least one meter [53].

Inefficiency in agricultural water use is the primary threat to Iran's water security. While only about 15% of the country's land area is used for agriculture, the industry uses about 92% of the water resources [55], with an average irrigation efficiency of 33% [56].

To address the water crises, the government has focused on the development of large-scale water infrastructure (including dams and water transfer canals which, in some ambitious cases, entail mega water transfer projects from the northern and southern sea bodies to Iran's central areas), easing regulations on groundwater extraction, and seawater desalinisation [54], [58], [59].

[†] According to the United States Geological Survey: "Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials."

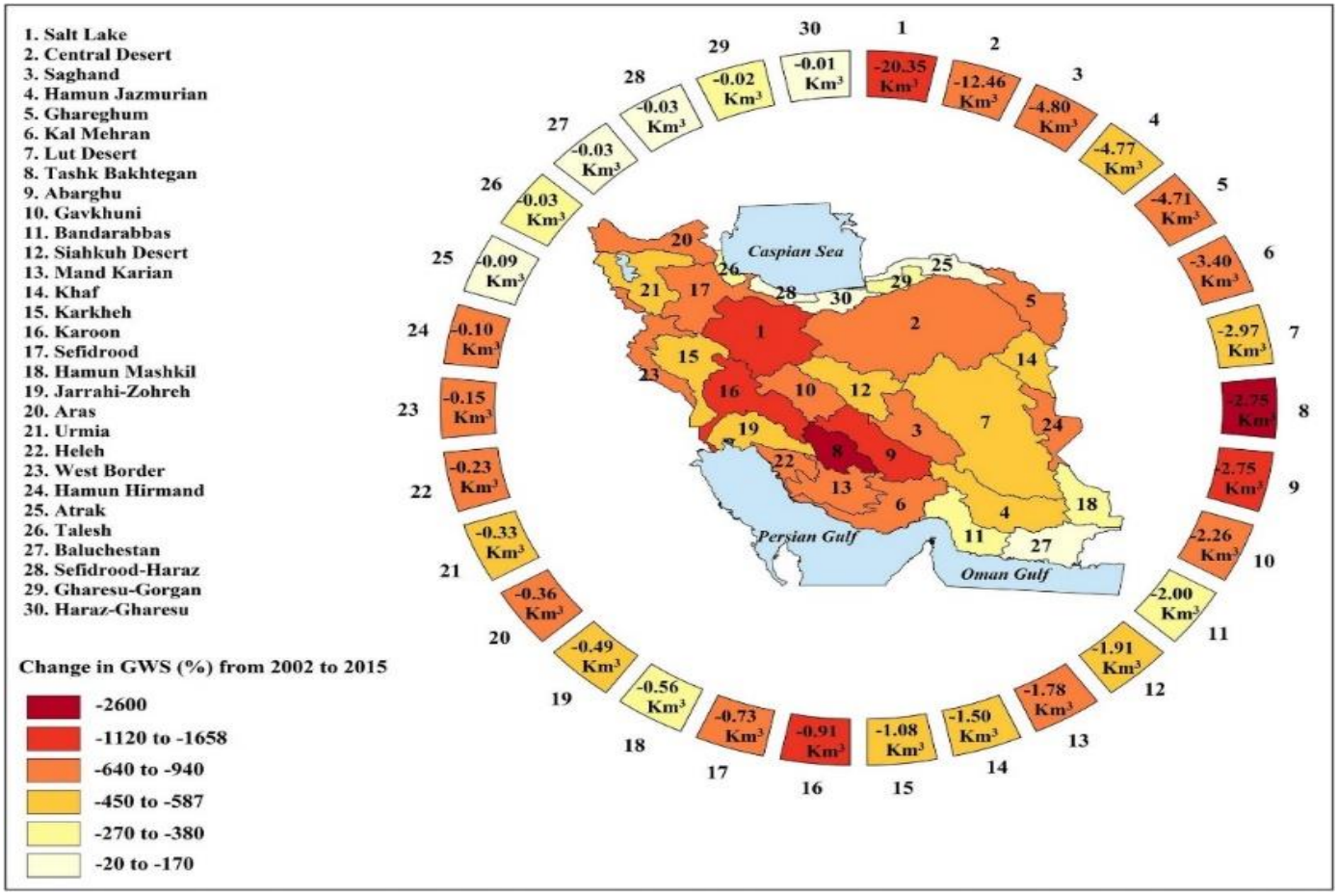


Figure 6. Groundwater depletion (in BCM) from 2002 to 2015 in major basins in Iran [54]

4.4 Forests and land degradation

Although Iran is considered a Low Forest Cover Country, it is very rich in terms of forest flora and fauna diversity and genetic resources [34]. Although the official data show that the proportion of land area covered by forest increased from 5.7% in 2000 to 6.6% in 2020 [37], the scientific reports suggest a decrease in the cover and quality of forests, primarily because of anthropogenic factors such as agricultural development, overexploitation of timber and forest resources, land use change [38]–[40]. Also, recent assessments show a significant risk of losing essential forest functions and services due to the increase in temperature [41]. The per capita forest for Iranians is below 0.2 ha, less than one-fourth of the global average. The official rate of forest exploitation is two times more than the carrying capacities of these ecosystems [42]. Assessments suggest that about 68% of Iran has a high to very high sensitivity to desertification [43].

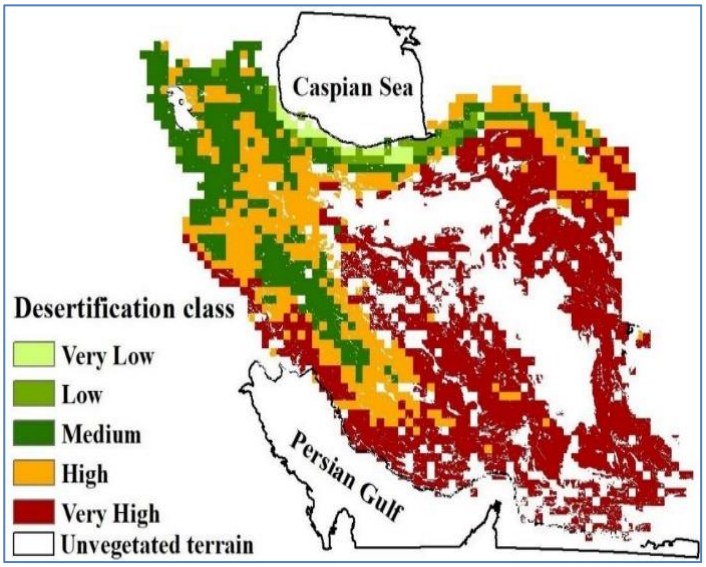


Figure 7. Areas most susceptible to desertification from 2001 to 2015 [43]

With an air quality score of 41.60, Iran ranks 70 among 180 countries for air quality on the Environmental Performance Index [61]. The major industrial urban centres such as Tehran, Tabriz, Arak, and Isfahan are facing extreme levels of air pollution. Every year, in Tehran alone, air pollution claims the lives of 3,751 people. There death toll of air pollution at the national level is 11,159 annually, with some other resources claiming much higher numbers. The health cost of air pollution in Tehran is estimated to be roughly 2.3 billion dollars, with a total national cost of 7 billion dollars [62].

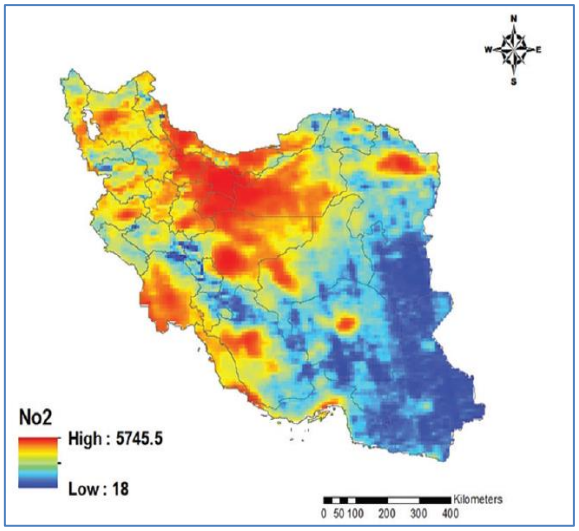


Figure 8. Air-pollution distribution in 2012 (NO2) (1015 molec/cm2) [62]

Though SDSs are natural phenomena in the country, climate change has increased their intensity and frequency in recent years. Dust storms usually occur in western Iran and are caused by atmospheric instability in the deserts of Saudi Arabia, Iraq, Kuwait, and Syria, recurrent and intense droughts, and a lack of vegetation. In addition, a combination of climate change and human activities, which result in soil degradation, desertification, and the deterioration of plant nutrients, increase the frequency and intensity of dust storms [65]. More than 62 million people (80% of the population) in Iran are exposed to medium and high levels of poor air quality due to SDSs [33].

4.5 Solid waste management

Iranians produce an average of 0.7 to 1 kg of waste per person daily [66], slightly above the global average [67]. Organic materials make up about 72% of solid waste in Iran. Plastic has the second position with 7.7%.[68].

Iran is ranked 97 out of 180 countries for waste management [68], which suggests that there is a need for considerable investment in improving solid waste management and recycling rates. Over 90% of the solid waste is dumped in open areas without any processing or management, increasing the risk to public health and the environment [69].

4.6 Coastal environment

Iran has 4,200 km of coastlines, roughly 1,000 km along the Caspian Sea in the north and over 3,200 km along the Persian Gulf and the Sea of Oman in the south [71].

Iran's coastal habitats face various issues despite having rich habitats and biodiversity. In contrast to the overpopulated northern coastal region, most southern parts remain underdeveloped and abandoned. Hydrocarbon contamination has become a significant problem for the marine and coastal environments due to extensive oil and gas development projects in the northern and southern coastlines. In addition, the Persian Gulf region has experienced two wars during the last three decades, negatively impacting its ecosystems [73].

To address the common water scarcity challenge in the Persian Gulf region, the countries on the southern coastline have established various seawater desalinisation plants. With over 11 million m^3 of seawater desalinated daily, these countries desalinise half of the global volume. However, due to the excessive evaporation rates and lack of precipitation, the discharges and biproducts of the desalinisation stations impose heavy pressure on the ecosystem and biodiversity [76].

Iran holds the world's third-largest oil reserves, and the second-largest natural gas reserves [77]. Iran's economy is relatively diverse compared to many other countries in the Middle East, but exporting oil and associated products is the primary source of government revenue [78].

Natural gas is the primary energy source for Iran, accounting for 71% of total use. On the other hand, the share of oil has decreased from 56% to 27% from 2000 to 2022. Hydropower, coal, nuclear and non-hydro renewable energies account for the rest of Iran's energy portfolio [77].

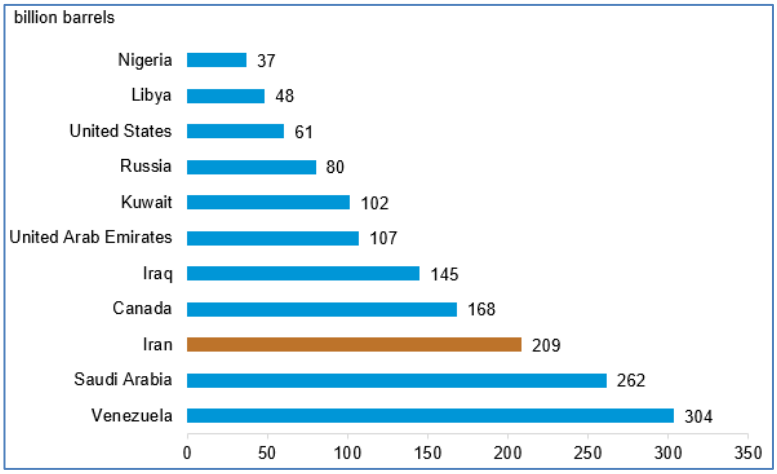


Figure 9. Largest proved reserve holders of total oil in the world [75]

Iran is the world's 9th largest CO_2 emitter. In 2019, 893.78 million tonnes of CO_2 was released from Iran (1.8% of the share of global emissions) [79]. Power generation accounts for 30.8% of CO_2 emissions, followed by transportation (22%) and other services (12.6%). Crude oil and natural gas extraction are fourth, accounting for 6.1% of the total output. Manufacturing non-metal mineral products also produce 5.9% of CO_2 emissions. Other activities, including the distribution of natural gas, mining, production of chemical materials, production of basic metals, and other sectors, collectively contribute to 22.4% of CO_2 emissions [80].

4.7 Electricity

Population expansion, highly subsidised electricity pricing, and fuel supply problems have all driven the continuous rise in Iran's electricity demand in recent years, straining the grid capacity during peak electricity demand seasons (summer and winter). The per capita household electricity consumption in 2021 was 1,058 kilowatt-hours [81]. Fossil fuels account for 94% of electricity generation in Iran, with 341 terawatt-hours of net electricity generated in 2021 [77].

Iran's hydropower electricity production is the highest in the Middle East; however, it is vulnerable to increased water scarcity [80]. Although other renewables account for a small portion of the total electricity generation portfolio, Iran has planned to increase wind and solar capacities from less than 1 Gigawatt (GW) in 2021 to 10 GW by 2025 [84]. In recent years, Iranian policymakers have shown great interest in developing renewable energy sources to improve energy security and efficiency, reduce domestic dependence on hydrocarbons, and meet the emerging demands for electricity [85]. This sector has recently reached a capacity of 900 megawatts (MW). Of this, 310 MW are produced by wind power plants, 390 MW by solar power plants, and the rest by small hydropower, biomass, and turboexpander stations [86].

5 The impact of climate, environment, and energy issues on children

To understand the impacts of climate change on children, UNICEF has developed a Children's Climate Risk Index (CCRI) [186]. The index comprises two pillars. The first one assesses exposure to environmental and climate shocks and stresses. The second pillar focuses on child vulnerability, taking into account different factors, including nutrition and child health, education, poverty, WASH, communication, resources, and social protection [186].

According to CCRI, Iran has a high climate and environmental exposure (score 7.3 out of 10) but a low child vulnerability (score 2.3 out of 10). This shows that despite having a high likelihood of exposure to environmental risks, Iranian children enjoy lower short-term vulnerability to those risks.

However, with the current financial hardship, health and educational facilities may suffer, and there may be an increase in poverty and social harm, which in turn would increase children's vulnerability to climate change impacts.

5.1 Impact of climate change and environmental issues on access to basic services and infrastructure

Where infrastructure and services are less resilient to climate change's impacts, children's access to essential services, such as health services, WASH and education facilities, can be disrupted during and after climatic events.

Among the climatic hazards, floods can be the most destructive. When flood waters impact WASH facilities, children are exposed to harmful waste, water resources can become polluted, and children are at risk of water-borne disease. Floods and other climate hazards can also impose bodily harm, injury and psychological challenges on children, such as anxiety due to the loss of family members, and increased violence by and against children. [118].

In Iran, SDSs are natural phenomena that can impact infrastructures and services. In recent years, SDSs have increasingly interrupted education, transportation, and healthcare services and impacted agriculture, petroleum production, and power generation industries [64]. The annual damage of micro dust and the influx of quicksand on settlements, infrastructure, and agricultural lands is over US$124 million [64].

The closure of schools due to SDSs and air pollution has become a regular practice in many parts of the country (see section 4.3). SDSs can also disrupt the access of children in need to healthcare services. More importantly, the interruption of food transportation systems during SDSs can expose children to food insecurity.

5.2 Impact of climate change and environmental issues on water

Water scarcity is Iran's number one natural challenge, severely impacting every aspect of the socio-economic and political conditions.

The projected decrease in availability of water will have severe impacts on children. When water resources become scarcer, families are more likely to resort to unsafe resources, which brings with it risks of water borne disease. Children are less able to withstand infection and disease, and risk higher levels of morbidity and mortality than adults.

Droughts have also reduced the electricity generation capacity of the country [81]. Power cuts can increase the risk of heat-related illnesses, especially for children. Studies have also shown that classroom temperatures can affect learning rates [181].

Over the last two decades, competition over water between different regions and communities has resulted in protests and conflicts in water-scarce areas [100]. This could put children at risk of injury and death, as well as cause mental and physical trauma, especially in extreme cases when children or their relatives are injured or attacked [97].

Droughts can lead to desertification, which can increase the prevalence of sand and dust storms. These storms can lead to an increase in respiratory diseases among children. Particles smaller than 10 microns increase the risk of respiratory diseases in new-borns, affect the function of the lungs, aggravate asthma, and cause cough and bronchitis, which can eventually increase the risk of mortality [111, 114].

5.3 Impact of climate change and environmental issues on health

Climate change will impact the prevalence and intensity of airborne and vector-borne diseases, heat-related mortality, mental health risks and food insecurity, particularly in less developed and more vulnerable communities. Children are particularly vulnerable to these impacts, due to their physiological development; they require more air, water and food per unit of body weight than adults. Negative effects on children's' health caused by climate change can cause harmful impacts which will follow them throughout their lives.

Floods also increase the prevalence of water-borne disease agents, as flood waters bring with them a host of viruses and bacteria. This includes, but is not limited to, Escherichia coli, salmonella, and vibrio bacteria [118]. When exposed to these impacts, children's health and future growth become significantly at risk. Flood can also further impact the availability of clean and adequate water resources, which in turn increases the usage of unsafe sources.

The increase in temperature and changes in precipitation caused will likely impact the food production capacity of Iran. Reduction in agricultural productivity can contribute to malnutrition and foodborne diseases, zoonoses, noncommunicable diseases, and mortality, especially in children. Food insecurity can impact children throughout their whole lifecycles, as malnutrition and stunting limits their physiological and mental development. Food-insecure children are at a higher risk of stunted growth, anaemia, asthma, oral health issues, and hospitalisation. Food insecurity is associated with a lower physical quality of life, which may limit children's participation in everyday activities and put them at risk of falling behind others in education and social activities. Food insecurity has been associated with poorer reading and mathematics test scores, and malnourished children may display more behavioural disorders such as hyperactivity, aggressiveness, and anxiety.[1] Undernourished pregnant women are also more likely than food-secure pregnant women to have complications in their deliveries [115, 116].

Trend of vector-borne diseases will also be impacted by climate change, as higher temperatures give vectors a wider geographic reach. Children under five years old are among the most vulnerable to malaria infections as they have not yet developed any immunity to the disease. It is projected that due to the impacts of climate change, the number of cases will increase from 17,749 (in the baseline year 2000) to 30 thousand in 2036, with an estimated economic loss of 13 million US dollars [105].

Cutaneous leishmaniasis (CL) is also endemic to Iran, and is particularly prevalent in children, with most cases reported in children under 10 years [106]. Climate change is expected to increase the cases of CL from 14,117 (the baseline year 2000) to a 15,000 in 2030 in Iran. [ibid].

Heat waves due to climate change will also increase children's exposure to certain diseases. Children's lesser ability to regulate their body temperatures makes them especially vulnerable to the health impacts of heat waves, such as chronic respiratory conditions, asthma, cardiovascular diseases, allergy development, diarrhoea, and undernutrition, which in severe cases can lead to death. The temperature increase in the form of heat waves can change the body's biological rhythms, which could contribute to increased depression and suicidal ideations among young people, mainly in poor and remote areas [107]. Heat waves can also interrupt children and young people's social activities and education [108]. Heatstroke is reported as a primary complaint for Iranian children under five who were taken to healthcare centres [107].

Air pollution, especially in populous urban areas, is another health risk to children. Fine Particles ($PM_{2.5}$) from air pollution and SDS have been proven to increase ischemic heart disease, stroke, lung cancer, and chronic obstructive pulmonary disease in children [111]. In 2016, there were a total of 27,178 death cases reported due to ambient air pollution and 1,147 deaths due to household air pollution in Iran [114] [113].

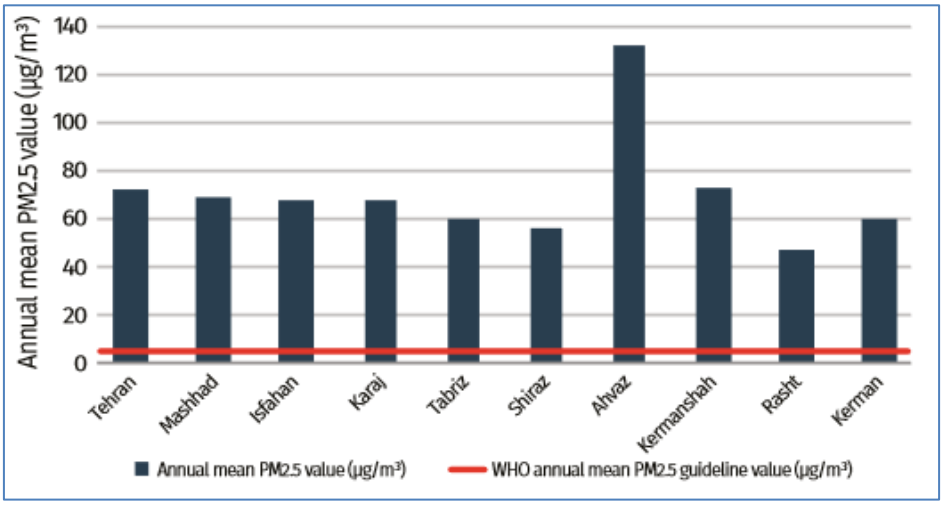


Figure 10. Annual mean PM2.5 in Iran's ten most populated cities, compared with the WHO guideline value of PM2.5 of 5 µg/m3 [112]

5.4 Impact of climate change and environmental issues on education

An important aspect of the impacts of extreme climate events is the reduced quality of education services and the interruption in children's access to education facilities.

The destruction of school buildings and other educational facilities and the interruption of the transportation system are among the major concerns limiting children's education.

The closure of schools due to natural risks and impacts also leads to the cancellation or postponement of exams. This particularly impacts the twelfth graders who need to choose their next steps in life, such as continuing academic education, entering job markets, or joining the military service.

While physical damages can be quickly evaluated financially, it is more difficult to quantify climate change impacts outside of natural hazards and risks, for instance on the quality of education and children's interrupted access to education. For instance, droughts can cause health risks which interrupt children's' days of school attendance [118]. Though evidence is scarce, judging from experiences in Iran and the region, it could be assumed that children in Iran are at risk of the following impacts on education:

1. A potential increase in the rate of school dropout due to the deterioration of the economic conditions of families. These conditions can increase the rate of negative coping mechanisms, such as early marriage among girls, child labour, and forced migration.
2. The closure of schools can reduce schooling hours in flood-affected areas, which could potentially lead to more challenges for students preparing to participate in the national entrance university exam.
3. The closure of schools can increase anxiety and stress, and these two could also reduce the educational achievements of students.
4. Climate change's physical and psychological impacts on teachers could potentially reduce the quality of their teaching and class management. There might also be a risk of limited teacher availability in areas with high climate risk may also impact children's access to education.

In recent years, schools in some regions have experienced closure due to other extreme weather conditions, such as snow and frost or air pollution. Although the SHAD digital learning platform (which was introduced by the Ministry of Education in 2020 as a response to the closure of schools because of the Covid-19 pandemic) was utilised to address the gap during those crisis events, the vulnerable and less advantaged households in remote areas did not have access to it (about 21% of students accounting for 3.2 million people) [124], [125].

Finally, the closure of schools due to disruptions in the energy and power supply during high consumption seasons, harsh winters, or natural risks and impacts is common in Iran [125]. When prolonged, it can disrupt the education of children.

5.5 Impact of climate change and environmental issues on poverty, access to food and nutrition

A 2021 study on the variations in expenditure and income levels due to climate change in Iran's rural and urban households suggests that with a one-degree Celsius increase in the annual temperature, the per capita expenditure will decrease by 8.1% for rural households and 4.7% for urban households. This effect is twice as strong for the poorest who have greater vulnerability to climate impacts [129] [131]. Because most low-income families' livelihood relies heavily on agriculture practices, increased and prolonged climate-induced drought may devastate the rural economy, forcing farming households to migrate or seek other job opportunities [141]. This can increase protection risks for children, such as taking children out of school to support the family economy, lack of access to services while migrating and potentially risks of physical and psychological harm while on the move.

A decrease in the agricultural productivity will likely also bring food prices up, making childhood malnutrition and stunting more prevalent. The decreased food production in dry and tropical regions may increase the number of

people exposed to famine and hunger, forcing the population to displace and migrate to other regions. It may also contribute to malnutrition, particularly among children [141].

As climate change has more impact on less-advantaged households, it might lead families to send their children to labour to increase their financial resources, particularly for families currently reliant on agriculture as their main source of income. Families may also be forced to move due to loss of livelihoods or water scarcity, which brings with it a variety of protection concerns.

The prolonged and increased severity of droughts in Iran may lead to decreased hydropower dams' energy production capacity and an increase in the price of electricity. Such an increase would raise the food price in the short and long terms. As poor Iranian households spend about 44% of their income on food (in comparison, wealthy households spend about 17%), the rise in food prices would severely impact their food security and childhood nutrition [132].

5.6 Impact of climate change and environmental issues on social inclusion

Children with disabilities are more vulnerable to climate impacts. Due to the high costs of care services, households with more vulnerability will likely struggle to provide adequate care to their disabled children, which therefore makes them more vulnerable to climate change.

Migration due to climate change may also interrupt children's education and force them into child labour. Evidence shows that temporary residence, lack of social support and relationships, mental and financial concerns of the parents, and lack of adequate education and training centres are among the factors that can play a role in the emergence of behavioural problems in children of immigrant families [142].

6 Government priorities on CEED

In Iran, the priorities and general policy directions in all sectors are identified through "General Policy" documents issued by the Supreme Leader. At a lower level, those general policies are translated into each sector's laws, policies, and priorities. The manifestation of policy direction in Iran are the five-year Development Plans prepared by the Plan and Budget Organisation.

At the operational level, the Development Plans are segmented into annual budget plans to be implemented by line ministries. The share of each ministry and each subject from the annual budget plans can suggest its importance at the policymaking level.

6.1 Main players and ongoing initiatives

The “General Policies on the Environment” recognises the following organisations responsible for managing the impacts of climate change. Some of these organisations are also major players in the fields of environment and energy:

1. Department of Environment (DoE)
2. Plan and Budget Organization
3. Ministry of Health
4. Natural Resources and Watershed Management Organization
5. Ministry of Cooperatives, Labour, and Social Welfare
6. Organisation for Municipalities
7. Ministry of Energy
8. Ministry of Defence
9. Ministry of Petroleum
10. Ministry of Industry, Mine and Trade
11. Ministry of Roads and Urban Development
12. Ministry of Agriculture Jahad
13. Meteorological Organization
14. Ministry of Intelligence
15. Atomic Energy Organization
16. Civil Defence Organization
17. Standard Organization
18. Vice Presidency for Executive Issues
19. Ministry of Information and Communications Technology of Iran
20. High Council of Provinces

Iran's interest in the environment is reflected in how DoE (the organisation responsible for the management of the environment) is positioned. To provide it with a higher jurisdictional power and reduce the influence of other line ministries, DoE operates directly under the President as a vice president.

Iran also established a Disaster Management Organisation in 2008. Although the “management of disaster” has been the core focus of those initiatives, from 2004/2005 there was a shift towards the management of the risk of disasters by the establishment of the Committee for Prevention and Management of Natural Disasters and Unpredicted Events.

Table 2: Main organisations involved in CEED and children

Name of Organisation	Relevance to CEED
Department of Environment (DoE)	DoE's mandates include: ▪ Managing 11% of Iran's surface area under four categories of protected areas, including 23 National Parks, 32 National Natural Monuments, 37 Wildlife Refuges, and 117 Protected Areas. ▪ Protecting ecosystems and biodiversity. ▪ Environmental education and awareness-raising. ▪ Supporting public participation in the conservation of the Environment. ▪ Establishing higher-education institutes. ▪ Research on Sustainable Development. ▪ Developing environmental standards and frameworks. DoE is the Focal Point for most International Environmental Treaties. Under the DoE, the "**National Centre for Air and Climate Change**" provides strategic directions and suggests laws and legislations for air, noise, and energy. This centre also promotes the use of technology to prevent air pollution. DoE's "**Office of Education and Public Participation**" collaborates with non-government organisations (NGOs) and international organisations to provide environmental education and awareness to children and adolescents. DoE also enforces its mandates through collaboration with the international community, and it has been a favourable partner for UN agencies to work on various CEE issues. DoE is also active in partnering with other government bodies for environment conservation: ▪ In 2022, DoE signed a memorandum of understanding (MoU) with the Vice Presidency for Women and Family Affairs on the role of women and families in the conservation of the Environment and Sustainable Development, in which climate change is one of the areas of collaboration. ▪ Under a 2022 MoU with the Ministry of Education, both parties agreed to collaborate on introducing additional content and activities to the curricula of school students. This document did not mention climate change in particular. Instead, it is focused on educating the new generation with ecological knowledge, increasing the participation of students and parents in environmental activities, developing measurable criteria for assessing environmental awareness of children, defining environmental courses in high schools, developing a national environmental education plan to be embedded into the curricula of all educational levels, and increasing the environmental awareness the Ministry of Education's personnel. ▪ The MoU with the Vice Presidency for Rural Development discusses the collaboration to advocate for the role of rural communities in environmental-friendly lifestyles. An MoU with the High Council of Provinces is dedicated to collaborating on reducing environmental pollutants and integrated management of biodiversity and the environment.

Ministry of Education (MoEDU)	The MoEDU has several initiatives with relevance to climate change: ▪ The National Organisation for Early Child Education is under MoEDU, which oversees pre-schooling services for children until 6. ▪ The Organisation for Development, Renovation, and Equipping Schools is responsible for constructing and maintaining educational buildings. ▪ The Farhangian University educates teachers to be recruited in the MoEDU. This university can be an effective platform to provide knowledge and capacity to teachers on CEED. ▪ The Deputy for Health and Physical Education is involved in disaster risk reduction (DRR) and can play a major role in the resilience of school children to the impacts of climate change. ▪ The Departments for Primary and Secondary Education in collaboration with the Office of Educational Research and Planning is responsible for developing the educational curricula. The procedure is understood to be complex due to various factors; however, there have been significant improvements in the contents of the books to be aligned with the current national and (to some extent) international priorities. ▪ Contributing to formal, informal, and semi-formal education of children and adolescents through the Children and Adolescents Intellectual Development Centre. and the organisation of the Roshd International Educational Film Festival, in which environmental issues, including climate change, are among the main subjects. ▪ MoEDU organises national or provincial events for teachers and students to introduce environmental concepts on water and floods. Our research didn't suggest an organised approach for holding those events.
Ministry of Health (MoH)	In recent years Ministry of Health has been increasingly active in addressing the health implications of climate change. MoH has established an internal "**Working Group on Health and Climate Change**", which conducts research and organises educational and consultation events. In 2020, MoH commissioned Semnan University to conduct a "**National Assessment of the Impacts of climate change on Health,**" the results of which will be published. Under the MoH, **Early Warning Systems (EWS)** are in place that helps respective line ministries in their climate actions. For example, EWSs are active for storms, floods, air quality (e.g., particulate matter and ozone levels), and SDS. A health surveillance system was developed for climate-sensitive diseases and health outcomes, including thermal stress (e.g., heat waves), injuries (e.g., physical injuries or drowning in extreme weather events), and airborne and respiratory diseases [112].
Ministry of Interior (MoI)	The MoI plays an essential role in implementing the Government's mandate and mobilising resources: ▪ Responsible for managing the affairs of refugees and immigrants. ▪ The National Disaster Management Organization in MoI is the coordinating body for providing response and mobilising resources for disasters in the country. ▪ The Focal Point for managing the refugees. ▪ Making harmony between provinces and identifying a collective priority list for the city councils.

Ministry of Energy (MoE)	Four of MoE's units directly or indirectly relevant to the issues of CEED include: ▪ Water Resources Management Company ▪ Renewable Energy and Energy Efficiency Organisation ▪ Water and Wastewater Engineering Company ▪ National Electricity Company The MoE is: ▪ Responsible for managing supply and regulating the demand for water, electricity, energy, and wastewater services. ▪ Promoting goods and services training, research and technological advancement, and rooting. ▪ Playing a significant role in preserving natural resources in Iran, environmental science, public health promotion, welfare, and self-sufficiency for sustainable development. Under the Ministry of Energy, a "**Research and Development Centre for Energy, Water, and Climate Nexus Technologies**" was established. It advises policymakers in the interdisciplinary field of energy-water in reducing the maximum energy and water consumption intensity and stabilising the climatic conditions. MoE also is the executive focal Point for the "**National Plan on Adaptation to Dry and Semi-dry Climate**" (to be developed). The Ministry leads the implementation of the "**National Plan for Adapting to Water Scarcity.**" MoE is the Focal Point for the expansion of clean energy projects. The Renewable Energy and Energy Efficiency Organisation collaborates with the Ministry of Education to **install solar panels in schools**. MoE established an internal "**Working Group on Climate Change**." The Ministry also organises national awareness-raising competitions and events for children on water and energy. Under an agreement with the Intellectual Development of Children and Adolescents, the Ministry provides water education to children.
Plan and Budget Organization (PBO)	The PBO is responsible for evaluating the country's resources, preparing its medium and long-term development plans and policies, preparing annual budgets, and monitoring and evaluating work under the implemented plans. ▪ PBO has developed a series of Land Use Planning documents to be used as the basis of regional policymaking and spatial resource allocation. In line with its planning and policymaking role, PBO also monitors the progress of Iran's Development Plans and provides information and data through its Statistical Centre of Iran. ▪ The responsible organisation for leading development in Iran. ▪ Conducting socio-economic, cultural and policy research. ▪ Formulating the country's development approaches and preparing timely development plans (including annual budget plans). ▪ Monitoring and analysing the development and socioeconomic trends and managing data.

Natural Resources and Watershed Management Organization (NRWMO)	The NRWMO manages the woodlands and rangelands and maintaining watersheds' ecosystem integrity and functionality to produce water. It is also responsible for combating desertification, preventing soil erosion, and controlling floods. The NRWMO leads the "National Working Group on Combating Desertification." This working group coordinates Iran's commitments to the United Nations Convention to Combat Desertification.
Ministry of Agriculture Jahad	The Agricultural Planning, Economic and Rural Development Research Institute is Ministry's wing which drafts its policies and identifies the direction. It supports the expansion of clean and renewable energies in rural areas.
Meteorological Organisation (IRIMO)	The IRIMO established the National Drought Warning and Monitoring Centre to improve the government's capacity to respond rapidly to drought risks through EWS.

7 Relevant CEED policies and strategies

7.1 Climate change and environment

From the internal policymaking perspective, Iran is generally considered rich in policies, especially regarding CEED.

There are four laws and national plans dedicated to climate change: the legislation on the actions on national contribution plan on reducing greenhouse gases (GHGs), the National Strategic Plan on Climate Change, the Health and Climate Change Profile of Iran, and studies of PBO on land use planning at the national level.

In most of Iran's CEED legal documents and policies, the term climate change is replaced by "unanticipated events", "climatic hazards," "natural risks and impacts," or "weather changes." Emphasis is often placed on managing the impacts of climate change. The term "unanticipated event" is used the most (with over 22 mentions) to discuss the natural and non-natural hazardous events. It is followed by "natural risks and impacts" with 16 mentions. The term "climate change" is placed third with over eight mentions.

The **General Policies** on Preventing and Reducing Natural Hazards [145], Natural Resources [146], the Environment [147], Water Resources [148], Land Use Planning [149], Improving Consumption Patterns [150], and Resilient Economy [151] are issued by the Supreme Leader. They provide overarching direction to mid-level policy and law-making and identify the approach and priorities of the line ministries.

The **General Policy on the Environment** and the draft of the **National Environment Document** [152] discuss establishing an integrated national environment plan, prevention and reduction in environmental pollutants and unpleasant climatic changes, managing the impacts of climate change, reducing the emission of GHGs, and developing low-carbon industries and transportation.

The **General Policy on Preventing and Reducing Natural Hazards** provides a clear direction on the requirements and approaches for addressing hazardous events. This document identifies "adaptation to climate change" as a cross-cutting theme that should be included in all national development plans.

In the **General Policy on Improving Consumption Patterns**, balancing the consumption of groundwater sources with the demand and putting drought and flood management in place based on adaptation to climate change are mentioned.

The **National Strategic Plan on Climate Change**, published in 2017, discusses the opportunities, advantages, gaps, and challenges of different sectors regarding climate change. The document emphasises the developments in Iran's rank among the Green House Gas (GHG)-emitting countries and sets work plans for the following sectors [153]:

- GHG emission reduction
- Water resources management
- Agriculture and food security
- Natural Resources and biodiversity
- Health
- Energy and industrial processes

The **National Plan for Adapting to Water Scarcity,** published in 2021 by the National Workgroup on Adaptation to Water Scarcity, provides an overarching coordination mechanism between MoE, Ministry of Agriculture Jahad (MoAJ), MoI, DoE, PBO, and other agencies to follow up the implementation of adaptation policies. It also guides making a balance between water consumption and production in different climatic regions of Iran [154].

The WHO **Health and Climate Change Profile of Iran** was published in 2021. The document aims to inform policymakers, increase awareness of the health implications of climate hazards, and monitor the healthcare system's capacity to address climatic hazards [112].

The five-year National Development Plans are the backbone of the governance system in Iran. After the Islamic revolution, six plans were implemented, with the 7th plan drafted to be implemented in 2023. The concept of Natural Resources Management (NRM) was introduced in the 2nd Development Plan, published in 1994. Although the Development Plans increasingly included direction for the environment over time, due to the absence of a land use plan as the foundation of planning, those documents mostly provided "reactive" directions to address the emerging environmental challenges rather than a strategy for sustainable development [38].

Despite the importance of the environment in high-level policies, the annual budget allocation to this sector has declined. This may suggest that in recent years, priority has been given to more emergency sectors due to economic challenges. For example, the environment sector's budget share fluctuated between 0.1% and 0.2% of the national budget for the last couple of years.

For preparing Iran's "**7th Development Plan 2022-2026**", the Budget and Planning Organisation (PBO), under the general guidance of the Supreme Leader and the mandate of the President, coordinates with the government bodies. The overall direction of the plan does not have any environmental or climate focus. PBO has developed a series of Land Use Planning documents that are expected to be used as the basis of regional policymaking and spatial resource allocation.

In the draft of the 7th Development plan, a lack of prioritisation for environmental issues is evident. For example, the plan doesn't suggest any obligation to conduct Environmental Impact Assessments for major projects. The draft also received criticism for sectionalism in planning for the environment, lack of monitoring, inadequate conservation management, and lack of international cooperation [43].

In 2016, Iran submitted a **National Biodiversity Strategy and Action** plan to the Secretariat of the Convention on Biodiversity. This document identifies Iran's general direction in biodiversity conservation [37].

Since the establishment of the Climate Change Office in the Department of Environment, Iran submitted three **National Communications** to UNFCC in 2003, 2010 and 2017.

7.2 Energy

In the General Policy on Energy [155], the optimisation of energy consumption was emphasised. This document also emphasises the diversification of Iran's energy resources under environmental considerations and the establishment of solar and wind power plants.

The energy management in Iran is divided between the Ministry of Petroleum, which is solely responsible for the fossil fuels industry, and the MoE, which manages other types of energy (e.g., electricity). Therefore, the energy policies are divided into two sections, including "oil and gas" and "other energy sources."

The **National Energy Strategy** provides an overarching direction for Iran's energy sector. Using a strengths, weaknesses, opportunities and threats analysis, the document covers all aspects of energy management in Iran, such as increasing energy production capacity and efficiency, public outreach to improve social consumption patterns, and expanding renewable and environmental-friendly energy sources. [189]

The **Strategic Plan of the Ministry of Energy** contains some direct references to climate change**.** For example, establishing a system of planning, development, and exploitation of the country's watersheds in the light of climate change adaptation, monitoring and managing the effects of climate change on the country's water resources, and

developing risk and crisis management to prevent shortages in quantity and quality of water resources with emphasis on drought, flood, and climate change management are considered in this plan.

Iran signed the Paris Agreement but did not ratify it, so it does not produce a Nationally Determined Contributions document. Instead, in 2015, Iran published an **Intended Nationally Determined Contribution (INDC)**, a non-binding document to present its priority areas for climate targets, including mitigation, vulnerability, and adaptation.[190]

According to the report, the national economy's reliance on revenues from the production and export of oil and its by-products has made the country's economy, public welfare, resources, and technology vulnerable to GHG mitigation. Sanctions are another driver for Iran's economic hardship, thus refusing to accept the INDC.

The INDC seeks to mitigate Iran's GHG emissions by 4% in 2030 by increasing the share of renewable energies, including participating in national and international market-based mechanisms and increasing the share of low-carbon fuels. The adaptation actions of Iran are conditioned to international funding and technology transfer.

7.3 Inter-ministerial coordination mechanisms

In Iran, CEED and their impacts as cross-cutting issues are managed through coordination mechanisms between line ministries. Some of the notable ones include:

Name	Mandate	Members
National Climate Change Working Group	This working group is responsible for fulfilling the commitments of Iran under the UNFCC and its protocols by establishing a coordination mechanism among relevant organisations and steering all activities nationwide related to climate adaptation and mitigation. It is also responsible for developing mega plans for reducing the emission of GHGs, climate change adaptation plans, mobilising national and international resources, and planning for public awareness raising. In 2015 this committee developed the INDC [157] for Iran.	▪ Department of Environment (Head) ▪ Ministry of Foreign Affairs ▪ Ministry of Industry, Mine and Trade ▪ Ministry of Petroleum ▪ Ministry of Energy ▪ Ministry of Economy ▪ Ministry of Health ▪ Ministry of Agriculture Jahad ▪ Ministry of Roads and Urban Development ▪ Ministry of Information and Communications Technology of Iran ▪ Ministry of Interior (and National Disaster Management Organization) ▪ Ministry of Science, Research and Technology ▪ Ministry of Defence ▪ Vice Presidency for Legal Affairs ▪ Vice Presidency for Science and Technology ▪ Plan and Budget Organization ▪ Atomic Energy Organization ▪ Meteorological Organization ▪ Standard Organization
National Working Group on Reducing Air Pollution	The working group coordinates between different governmental organisations to better implement the integrated plan for reducing air pollution in metropolises. The working group supports high-emitting industries and sectors to reduce GHG production and replace fossil fuels with green energy sources.	▪ Department of Environment (Head) ▪ Ministry of Interior ▪ Ministry of Economy ▪ Ministry of Industry, Mine and Trade ▪ Ministry of Petroleum ▪ Police Force ▪ Ministry of Information and Communications Technology of Iran ▪ Ministry of Health ▪ Ministry of Education ▪ Islamic Republic of Iran Broadcasting
National Working Group for Adapting to Water Scarcity	This group aims to establish coordination among governmental organizations to implement plans for water scarcity adaptation.	▪ Ministry of Energy ▪ Plan and Budget Organization ▪ Ministry of Agriculture Jahad ▪ Ministry of Industry, Mine and Trade

		▪ Ministry of Interior ▪ Department of Environment ▪ Meteorological Organization
National Working Group on Combating Desertification	To fulfil Iran's commitments under the United Nations Convention to Combat Desertification (UNCCD), this working group coordinates the policies and priorities for implementing UNCCD in Iran. It is also mandated to establish communication with the international community to exchange experiences on combating desertification	▪ Ministry of Agriculture Jahad ▪ Ministry of Interior ▪ Ministry of Energy ▪ Ministry of Petroleum ▪ Ministry of Foreign Affairs ▪ Ministry of Science, Research and Technology ▪ Ministry of Defence ▪ Ministry of Industry, Mine and Trade ▪ Ministry of Education ▪ Ministry of Information and Communications Technology of Iran ▪ Ministry of Roads and Urban Development ▪ A Member of Parliament ▪ Department of Environment ▪ Ministry of Cultural Heritage, Handicrafts and Tourism ▪ Islamic Republic of Iran Broadcasting ▪ Plan and Budget Organization ▪ Natural Resources and Watershed Management Organization ▪ NGO member ▪ Representative of Academia ▪ UNCCD Focal Point ▪ Vice Presidency for Science and Technology

7.4 United Nations System and CEED initiatives

Under the "United Nations Sustainable Development Cooperation Framework" (UNSCDF), the United Nations System in Iran works with the government of Iran on the Environment as one of the thematic areas of collaboration. Under UNSDCF, the UN will "*promote the integration of environment-friendly policies into all sectors, promote improved management of natural resources and biodiversity conservation, and would work to increase national capacities to address climate action, including through international advocacy for climate finance.*"

This will be achieved through the following:

- Supporting an environmentally friendly economy through the sustainable use of natural resources is developed in all sectors.
- Effective management of habitats and conservation of biodiversity to support ecosystems' health and sustainable services.
- Enhancing the institutional capacities on climate action through climate-informed support for innovative technological solutions and international advocacy for climate finance.

Currently, the UN agencies in Iran support the improvement of national capacity in adapting to the impacts of climate change through 40 flagship projects with a total budget of US$45.9 million. The thematic work areas include:

- Capacity building
- Studies and analysis
- Policy advice
- Technical assistance
- Safeguarding the environment

The below overview provides an indication of projects sister UN agencies are implementing or have implemented in Iran. This list is likely not complete, but is meant as indicative.

UNDP

- Under the **Climate Promise Project,** which contributes to the development of Iran's Nationally Determined Contribution, UNDP supports the development of the national inventory for GHG-producing sectors, climate finance and the carbon market.
- The **Energy Efficiency Project**, funded by the Green Environment Fund, contributes to the reduction of CO_2 emissions through the adjustment of rules and regulations in the building sector, enabling the energy efficiency market in Iran and implementing its measures in the building sector.
- UNDP supports the improvement of **Waste Management in Tehran City** by improving its recycling system.
- Under the **Hydrochlorofluorocarbon Phaseout Management Project** funded by Montreal Protocol, UNDP supports the government of Iran in moving beyond the international commitments for removing Ozone Depleting Substances.
- Under the **Conservation of Iranian Wetlands Project**, UNDP supports the DoE and MoAJ in introducing integrated basin management plans to Iran's major wetlands and rehabilitating the degraded wetlands through promoting sustainable agricultural practices and the introduction of alternative livelihoods.
- Under the project **Integrated Natural Resource Management and Socio-Economic Development of Sistan** funded by the EU**,** UNDP is working with DoE and the provincial authorities of Sistan and Baluchistan to promote integrated natural resources management practices to restore the ecosystems in Hamoun Wetlands.
- Under the **Carbon Sequestration Project**, UNDP collaborated with the NRWMO to introduce participatory Natural Resources Management approaches in Iran's desertified areas. The achievements of this project informed Iran's 6th National Development Plan [188].

FAO

- In collaboration with the relevant governmental organizations, FAO is implementing the **Integrated Programme for Sustainable Water Resources Management in the Lake Urmia Basin Project** to introduce more sustainable, productive and climate-resilient agricultural and rural systems with a positive impact on the environment in general and on the water balance (inflow-outflow) of the Urmia Lake.
- Under the "**Rehabilitation of forest landscapes and degraded land with particular attention to saline soils and areas prone to wind erosion project"**, FAO supports the NRWMO to practice of participatory integrated sustainable land and forest management capacity development, development of participatory integrated watershed and village level plans in selected pilot sites and improving the policy and institutional environment for participatory integrated approach.
- In collaboration with the MoAJ, FAO implements the "**Catalysing investments and actions to enhance resilience against sand and dust storms in agriculture project"** for improving the capacity to respond to food and agricultural threats and emergencies and enhancing equitable, productive and sustainable natural resource management and utilization.

UNESCO

- Iran's UNESCO office has been focused on raising awareness of the importance of conservation and sustainable use of natural resources. Some activities include celebrating environment-related annual events such as UNESCO's Man & the Biosphere Programme, World Water Day, World Oceans Day, and World Environment Day at national and regional levels.

- UNESCO supports the municipality of Bandar-Khamir for a project on "**Environmental-friendly water management in the Biosphere Reserves of Iran focusing on sustainable livelihood**."

UNIDO

- Through the hydrochlorofluorocarbons **phase-out management plan-stage II Project**, UNIDO supports the industries to phase out hydrochlorofluorocarbons from the sandwich panel and domestic refrigerator manufacturing sector.
- Under the project "**Promoting the inclusive and sustainable development of the yellowfin tuna value chain in Chabahar",** UNIDO helps the reduction of marine resource depletion and advances economic competitiveness

WHO

- Under a WHO initiative, the **"Climate Change health vulnerability and resilience assessment and identifying strategic directions for action for the I.R. Iran"** in six pilot provinces were assessed for vulnerabilities related to climate indicators applicable to each province, health impacts experienced, and applicable climate scenarios for their regions.

8 Child-inclusive CEED policies, strategies, and programming

Do existing CEED policies and strategies address children's needs?

At the highest level, Iran's policy culture does not focus on a specific age or gender group, and "family" is the widely accepted unit regarding socio-economic planning. Therefore, it is assumed that any high-level policy addressing "family," in one way or another, will include or cover all age groups, especially children.

In the General Policy on Family, "creating the necessary mechanisms to improve the comprehensive health of families, especially reproductive health and increasing childbearing to have a young, healthy, dynamic and thriving society" is one of the highest priorities of the country in response to the population policies of the country. [191] Although this policy can be mainly attributed to the healthcare system, due to the anticipated negative impacts of CEED on children's health, there could be an entry point to advocate for improved CEED action by the government. However, no direct reference to the children's situation in this policy has been made.

Similarly, the General Policy on Health obliges the government to "improve the mental health of the society by promoting the Islamic-Iranian lifestyle, strengthening the family foundation, removing obstacles that create tension in individual and social life, promoting moral and spiritual education, and improving mental health indicators." [191] However, the reflected policy does not refer to the children specifically.

The "1404 Outlook (2025)", as an overarching guideline to provide a vision for Iran's governance and development, was issued in 2003. The document portrays 2023 Iran as "benefitting from health, welfare and food security, social security, equal opportunities, proper distribution of income, strong family institution, free from poverty, corruption, discrimination and benefiting from a favourable environment" [192], but with no direct reference to the status of children.

The 7th National Development Plan draft will cover child-related and CEED-related topics through "strengthening the family institution and removing obstacles to the growth and prosperity of women." Though, as the document has not

been officially out at the time of publication of this report, we are not aware of the exact reference to children and CEED components [187].

Iran's Land Use Plan is the foundation for spatial planning and the use of natural resources. In this document, "the expansion of education and health, especially for women and youth in less developed areas and social groups at risk, to improve the quality of human resources and prevent the production of unhealthy generations" is among the strategies and policies to improve the indicators of deprivation that should be considered. [194] In this document also, there is no clear indication of the children's status in Iran.

Reviewing the policies and mandates of the CEED-specialized organisations, including DoE, NRWMO and MoE, suggests that although they demonstrate an interest in working with and on children, especially on awareness-raising and engagement, those activities don't have a strategic foundation with clear direction and progress measurement system in place.

DoE's child-related activities are mainly planned and delivered by the Office for Education and Public Participation and the Communication, Education and Awareness Raising activities offered by DoE's International Projects. Most of these activities are delivered through DoE's collaboration with NGOs.

The most notable engagement of DoE in raising awareness for children is related to the support for "nature schools" aiming to establish and run the schools with environmental foot-print considerations and to educate students with environmental protection considerations, which have gained considerable popularity since their establishment in 2014. The number of those schools reached 100 by 2019; however, they were shut down due to increasing legal obstacles and concerns raised by religious groups.[194]

MoE's priorities and policies about children are primarily focused on supplying energy and water for schools. Schools are among the high consumers of water and electricity, and the compensation for the cost has been a significant challenge for the MoEDU. Recently there has been some progress in making schools exempt from paying water and electricity bills. [195]

Also, MoE has conducted occasional training and awareness-raising events for children. It initiated a "National Student Championship for Saving Water" that produces and delivers educational content to students nationwide. [196]

One of MoE's Niroo Research Institute's most significant activities is initiating a national project to develop renewable energies in schools. [197]

While the INDC of Iran does not focus on children, education, sanitation, and information system, it discusses the plans for food security, improving the environment, and protecting natural resources with an estimated cost of US$40 billion.

Table 3: The sectoral commitments, indicators, and targets in INDC

Education	×	Sanitation	×
Health	✓	Food Security and nutrition	✓
Energy	✓	Disaster risk reduction	✓
Water	✓	Information system and data	×

Do child-relevant sector policies and strategies incorporate CEED issues?

The General Policies on Evolution in the Education System [198] and General Policies on Family, [199] which are the most relevant documents to children, do not have any directions related to CEED.

However, some mid-level child policy documents explicitly or implicitly discuss CEED. The “National Document on the Rights of Children and Adolescents”, issued by the Supreme Council for Cultural Revolution, asserts the right of every child to live in a healthy environment and urges the government to protect the natural resources and environment for current and future generations, combat with malnutrition, provide healthy water and air for children and prevent the environmental pollution. [200]

The “National Document for Fundamental Transformation of Education” discusses the role of government and family in educating children about environmental issues. It also contains a section on building and adjusting the educational infrastructure in harmony with the climatic conditions of each region. It mandates the MoEDU to engage in the protection of the environment actively. [201]

Formal CEED education is delivered through educational science and social studies textbooks. In recent years, MoEDU has incorporated CEED-related content in the national curriculum of different grades. For example, a textbook on “Human and Environment” is being taught for grade ten. Although the supporting policy document for including CEED in formal education is not publicly available, the current curriculum suggests that MoEDU considers CEED education at some planning or strategy level.

Like many other countries, the outbreak of the Covid-19 pandemic resulted in the interruption of education services due to prolonged lockdowns, which urged MoEDU to introduce distance learning services such as SHAD (Iran’s national education platform for children). [202] It also utilized the capacity of Iran’s Broadcasting’s Education channel to supplement SHAD. Although the networks require some improvements, they can be used during future nationwide disasters that may disrupt the education system.

Most of the Ministry of Health’s climate action is delivered through the Department of Air Health and climate change, which also covers climate-induced health issues for children.

Overall, at the middle level, the relevant line ministries have incorporated or are interested in involving CEED in their mandates. However, there are gaps in strategic connections with other policies vertically and horizontally. These gaps are evident because of the lack of monitoring systems in the child-related organizations on CEED-children.

Do children benefit from investments and programmes on CEED?

There are a few CEED investments which notably benefit children.

From a safety perspective, MoE and MoEDU's plans to develop non-oil heater systems and solar power generation can significantly improve children's educational experience.

With the progress towards the non-binding goals mentioned in INDC, the likelihood of children’s exposure to future climatic hazards will be considerably reduced. On the other hand, it will help them grow in a climate-conscious society where government and citizens demonstrate a commitment to securing a healthy life for future generations.

9 The UNICEF Country Programme and linkages to CEED

UNICEF Country Programme Priority Components	Current and recent CEED initiatives

WASH	▪ Currently, in UNICEF's structure, climate change sits under WASH.
	▪ Under a joint project with MoE, the WASH team addresses the impacts of water scarcity on children, focusing on increasing the resilience of water infrastructure.
	▪ The WASH team also provides emergency response for
	  ○ Natural risks and impacts such as floodings.
	  ○ Afghan refugee crises, including water supply for refugee camps.
	  ○ Improving sanitation infrastructure and hygiene measures.
	▪ The WASH team collaborates with MoH on improving children's environmental and sanitation measures.
	▪ Similarly, under new cooperation with MoEDU, the WASH team supports improving hygienic measures in schools.
	▪ The WASH team represents UNICEF as the chair of the WASH working group of Afghan response.

Adolescent Development and Participation (ADAP)	▪ The ADAP team-initiated discussions with the Ministry of Sports and Youth (MoSY) on possible entry points for including climate-related activities in the ministry's mandate. Although the technical level showed interest, there is a need for more negotiation with the policymaking level. ▪ As part of the adolescent and youth empowerment programme and to promote the sense of agency of adolescents through engagement in meaningful activities, some projects were done by the centres, including cleaning the neighbourhood, waste recycling, and cleaning the local natural environment. These centres can be used as a platform to provide CCEED-related training and skills for out-of-school children and adolescents. ▪ A training event was developed by the ADAP team in 2021 to provide knowledge on participatory action research to youth which did not take place due to administrative concerns. It was flowed by another training planned to increase the knowledge of youth about climate change which was not convened. ▪ The participatory action research as a participatory strategy for data collection at the community level is what ADAP trained to peer adolescent leaders with the support of RO. ▪ ADAP initiated a social innovation programme with Mustafa Foundation to support building the skills of children and adolescents in identifying the problems in their communities and coming up with solutions. The model can be adapted to conduct climate innovation and entrepreneurship initiatives for adolescents.

Child Protection (CP)	▪ The CP Unit is mandated to protect children against violence, child labour, and marriage through community-based interventions.
	▪ CP works on child protection emergencies involving national disaster action.
	▪ CP collaborates with the Iranian Red Crescent Society (IRCS) on increasing community resilience through:
	  ○ DRR
	  ○ Providing child-friendly space for Afghan refugees and conducting a feasibility study on making climate-resilient child-friendly spaces.
	▪ CP is designing a study to understand the relationships between climate change and child marriage, labour, and violence.

Education	▪ The Education team works with MoEDU to enhance equitable access to inclusive quality education and improve the resilience of the education infrastructure. ▪ It also provided training to policymakers within MoEDU on the impacts of climate change. ▪ In collaboration with UNESCO, the Education team designed an assessment of the environmental awareness of schoolchildren, which did not occur due to administrative challenges as well as sensitivities about environmental education. ▪ Under an MoU with UNESCO, the Education team collaborates with Iranian research institutions to address gaps in disaster preparedness plans and guidelines.

Emergency	▪ The Emergency Preparedness Plan includes measures and components relevant to climate change. ▪ Under the Humanitarian Action for Children 2023, the Emergency unit addresses the needs of children in humanitarian crises partly caused by climate change. ▪ The Emergency units encourage its partners, especially BAFIA, to consider building refugee settlements based on Environmental Impact Assessment.
Health	▪ The Health Unit is exploring possible entry points for climate-related joint work with the MoH, which includes: o Providing knowledge and capacity to MoH on climate change and the environment. o Supporting health service providers to include climate change in their patient service packages. ▪ Establishing and improving coordination among units of MoH on an integrated action on climate change.
Social Policy (SP)	▪ SP unit is focused on urban development and its impacts on children. ▪ SP has developed a map of the most vulnerable provinces. ▪ SP leads the child poverty reduction act through: o Public finance for climate change and children in urban and slum settlements. o Generation of knowledge. ▪ SP unit also designs and implements shock-responsive social protection measures for children. ▪ SP represents UNICEF as the chair of UNSDCF's Resilient Economy, which coordinates UN agencies' joint work on improving the socio-economic measures in Iran.
Partnership and Resource Mobilization (PRM)	▪ PRM team has advocated child rights to the private sector through the Iranian chambers of commerce. This includes a series of training courses to improve Corporate Social Responsibility (CSR) regarding child rights. ▪ In collaboration with the Vice Presidency on Science and Technology, PRM conducted an innovation event for child labour at the Pardis innovation hub. ▪ UNICEF Innovation Fund supported an Iranian startup called Treejer that worked on community-based forestation to address climate change using blockchain) with a 100 thousand US dollar equity-free investment. Treejer is an open protocol that is a transparent bridge between tree funders and rural planters. Treejer successfully graduated from the Venture Fund Cohort in 2022 and now operates in multiple countries. ▪ UNICEF supported the government in launching and implementing the Child-friendly Cities Initiative in Iran formally in January 2019. The programme helped municipalities to design a plan. ▪ PRM translated UNICEF's "Child-friendly city" book. The municipality of Isfahan showed interest in implementing the guideline, which was put on hold until the new government was in place.

9.1 Other country office observations

In its 2022-2025 Strategic Plan, UNICEF has dedicated goal area 4 to CEED, as well as including it as a cross-cutting priority which should be embedded in all goal areas. To ensure that UNICEF's recent engagement in the new CEED is effective, the organisation should build connections between its current activities and CEED before fully committing itself to larger and new CEED initiatives.

Climate action is a cross-sectoral discipline in which most units within an institution can/should play a role based on their relevance, influence, and capacity. With its semi-autonomous organisation structure, UNICEF Iran seems to have an appropriate environment for adopting a CEED action.

The senior management of UNICEF demonstrated strong commitment to allocating resources to climate action. Capacity and understanding of the technical field could be provided through a CEED expert, rather than from management directly.

Although in UNICEF's organisational structure, climate change is under WASH, from interviews with the UNICEF team, it seems there is agreement that the issue should be cross-cutting and embedded in all units, not only in WASH. The ownership of climate change activities should sit within each of the sections, with climate change activities and outputs under each work plan, but with the technical support of a climate change specialist who can coordinate across units to avoid silos.

Financing and resource mobilization will remain the primary obstacle to the initiation of climate action of UNICEF. One untapped (or less utilised) potential is private sector CSR. Although the culture of charity in Iran is well-practised, it usually covers the traditional domains of donation. The same observation applies to CSR.

Several donors are also requiring a stronger climate change mainstreaming focus, such as the EU, and many of the bilateral donors based in Iran have an interest in climate action. The importance of partnership with other UN agencies could also help alleviate some of the financial challenges. With suitable packaging and proper offer development and bargaining, UNICEF can be a suitable partner with many organisations directly engaged with community development and humanitarian activities.

10 Recommendations

Climate action is a cross-sectoral discipline. Although UNICEF is not a CEE-specialised agency, it still can play an effective role in supporting the Iranian government on protecting children from the impacts of CEE phenomena. UNICEF should leverage its resources (e.g., influence, network) to advocate for the necessity of child-focused CEE policies and practices in order to:

- Ensure that climate change risks and vulnerability reduction is included across sections and programmes
- Protect the most vulnerable children by working towards ensuring that services are child- and climate-sensitive and resilient
- Provide learning opportunities to youth, children and communities on climate change and resilience, where possible
- Work to integrate climate change and environment in workplans with partners and identify small entry points for inclusion where appropriate
- Support the implementation of climate, energy, environment and disaster risk reduction (CEED) indicators and monitoring in internal programmes and with counterparts
- Build relationships and efforts with counterparts and working groups who have shown interest in climate change, including the Ministry of Health, the Ministry of Energy and Water, the Ministry of Environment and the Ministry of Youth and Sports
- Reviewing the climate hazards across provinces should be key for UNICEF interventions (see annex), the most at risk being Sistan Baluchistan, Hormozgan and Golestan. However, this list only suggests the provinces with high climate risk without taking into account UNICEF Iran's priority intervention areas, despite the fact that UNICEF is already present in some of those provinces.

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