

Climate Change and Health

Key Questions

1. What are the relations between climate change and health?
2. How can health impacts of climate change be minimized?
3. How can health sector contribute in mitigation of climate change risks?
4. What are the priority climate-related hazards in MENA region and how their risk can be managed?

Analysis for policy making for implementation of Paris agreement on climate change in health system of I.R.Iran

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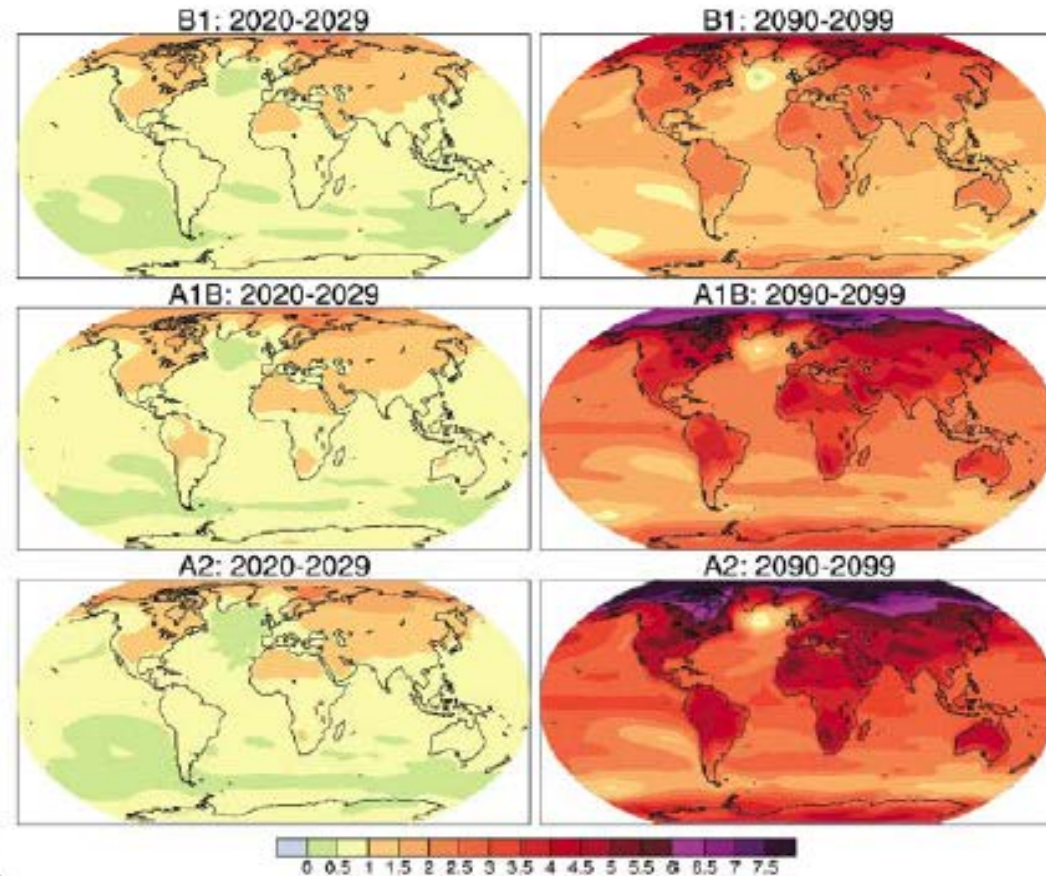
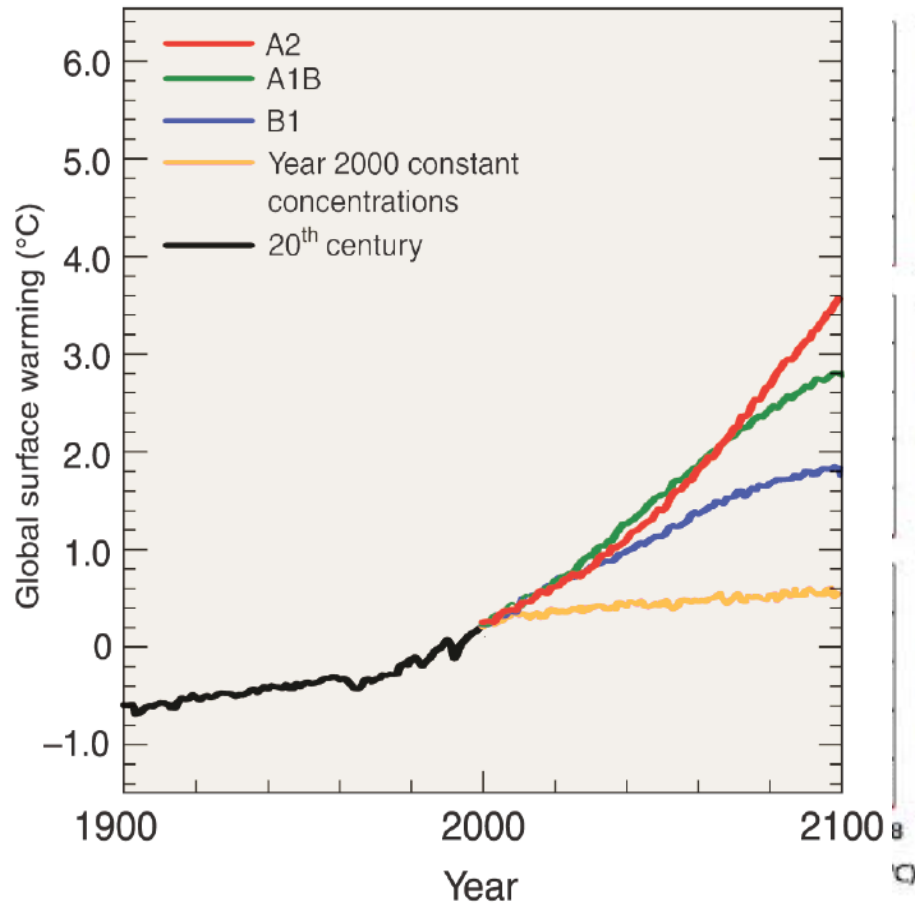
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Climate Change

- A change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer (IPCC)
- A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC)

Temperatures rise !

Projected surface temperature changes for the early and late 21st century relative to the period 1980 to 1999.



©IPCC 2007: WGI-AR4

Main projections for climate change By 2100 (IPCC)

- Global average surface air temperature will increase by 1.1 - 6.4 °C.
- Sea level will rise between 18 and 59 cm.
- It is likely that tropical cyclones (typhoons and hurricanes) will become more intense, with heavier precipitation.
- It is very likely that hot extremes, heat waves and heavy precipitation events will continue to become more frequent.



Health impacts of climate change

- Aside from being affected by climate change, the health sector is also a significant contributor to emissions, accounting for 30 percent of all public sector emissions in the UK.



DIRECT IMPACTS

- Storm
- Drought
- Flood
- Heatwave
- Temperature Change
- Wildfires



INDIRECT IMPACTS

- Water Quality
- Air Quality
- Land Use Change
- Ecological change

MEDIATING FACTORS



ENVIRONMENTAL

- Geography
- Baseline weather
- Soil / dust
- Vegetation
- Baseline air / water quality



SOCIAL

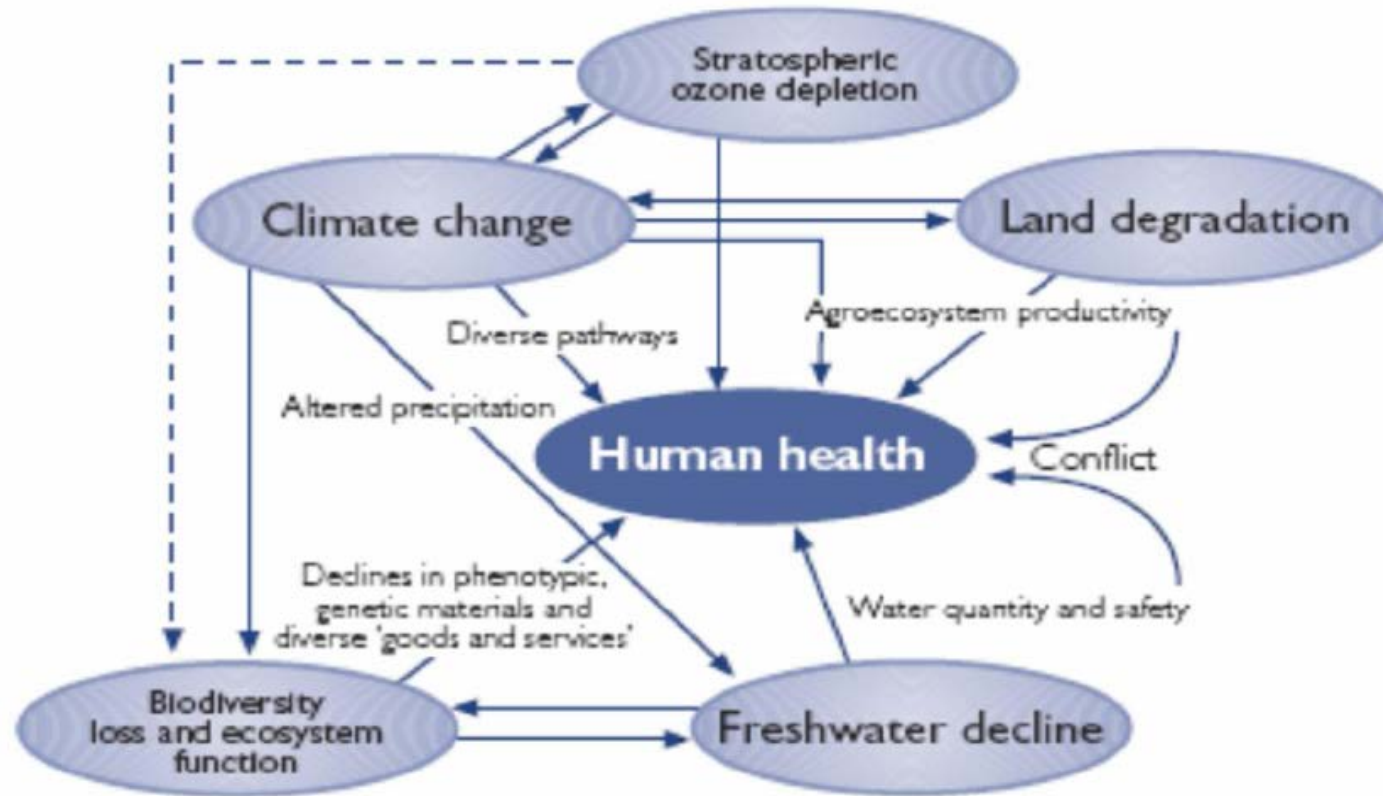
- Loss of habitation
- Poverty
- Displacement
- Conflict
- Age and gender



RESILIENCY

- Early-warning system
- Socioeconomic status
- Health and nutrition
- Primary health care

Health is at the receiving end of Climate Change impacts on environmental conditions



Health and Climate Change

- 2008 World Health Assembly and Executive Board endorse a resolution and a plan of action on health (2008-2013) and climate change
- 2008 Regional Committee endorsed a resolution and a framework for action by Member States
- 2013 Regional Committee endorsed the Regional EH strategy confirming climate change as one of the seven risk factors
- 2014 WHO convened the global conference on health and climate
- 2014 Regional Committee reviewed the outcome of WHO's global conference on health and climate
- 2015 Executive Board approved a new WHO plan of work on Health and Climate

Paris Agreement

- Agreement within the United Nations Framework Convention on Climate Change (UNFCCC)
- Climate agreement with strong global support
- Targets:
 - Limit global temperature rise to below 2°C
 - Minimize warming to no more than 1.5 °C above pre-industrial levels



PARIS AGREEMENT

The Parties to this Agreement,

Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as “the Convention”,

Pursuant to the Durban Platform for Enhanced Action established by decision 1/CP.17 of the Conference of the Parties to the Convention at its seventeenth session,

In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances,

Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge,

Health in Paris Agreement

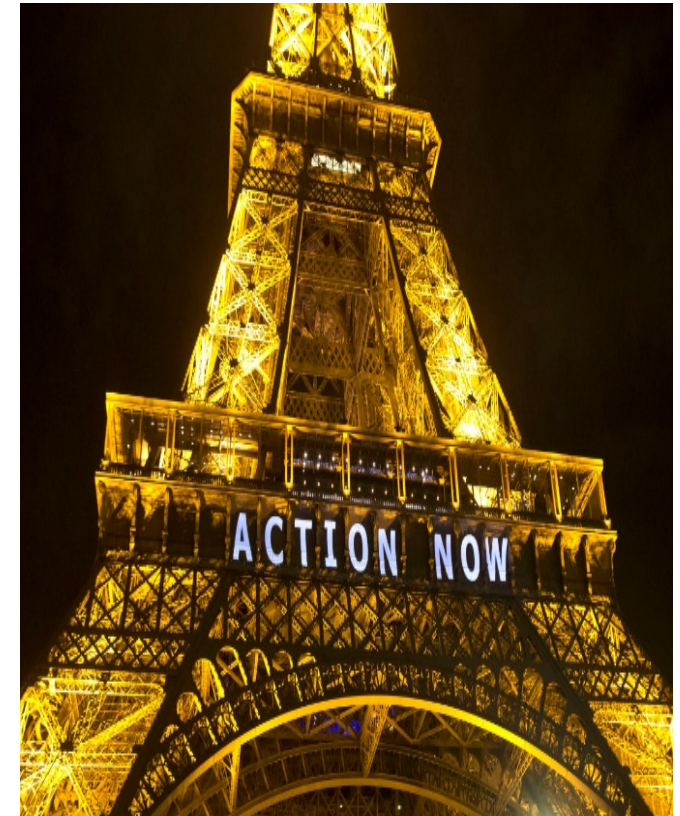
As stated in the agreement

- “The right to health will be central to the actions countries take”.
- “Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on the right to health”
- “Mitigation actions and their co-benefits for adaptation, health and sustainable development”.

Paris agreement and Health

Potentially the strongest health agreement of this century

- It addresses not only the health risks associated with climate change through mitigation and adaptation but also helps ensure attainment of the SDGs, which are integral to good health.
- If we don't bring down greenhouse gas emissions, then we are undermining the environmental determinates of health on which we depend: we undermine water supplies, we undermine our air, we undermine food security,”



I.R.Iran in Paris Agreement

- Iran participated in 21st Conference of the Parties of the UNFCCC in Paris 2015 (COP21), adopted its agreement on 12 Dec 2015 in Paris, and signed its treaty on 22 Apr 2016 in New York.
- Iran has supported the international efforts to mitigate GHG emissions and to adapt to the impacts of climate change, based on the principle of Common but Differentiated Responsibilities (CBDR).

Analysis for policy making for implementation of Paris agreement on climate change in health system of I.R.Iran

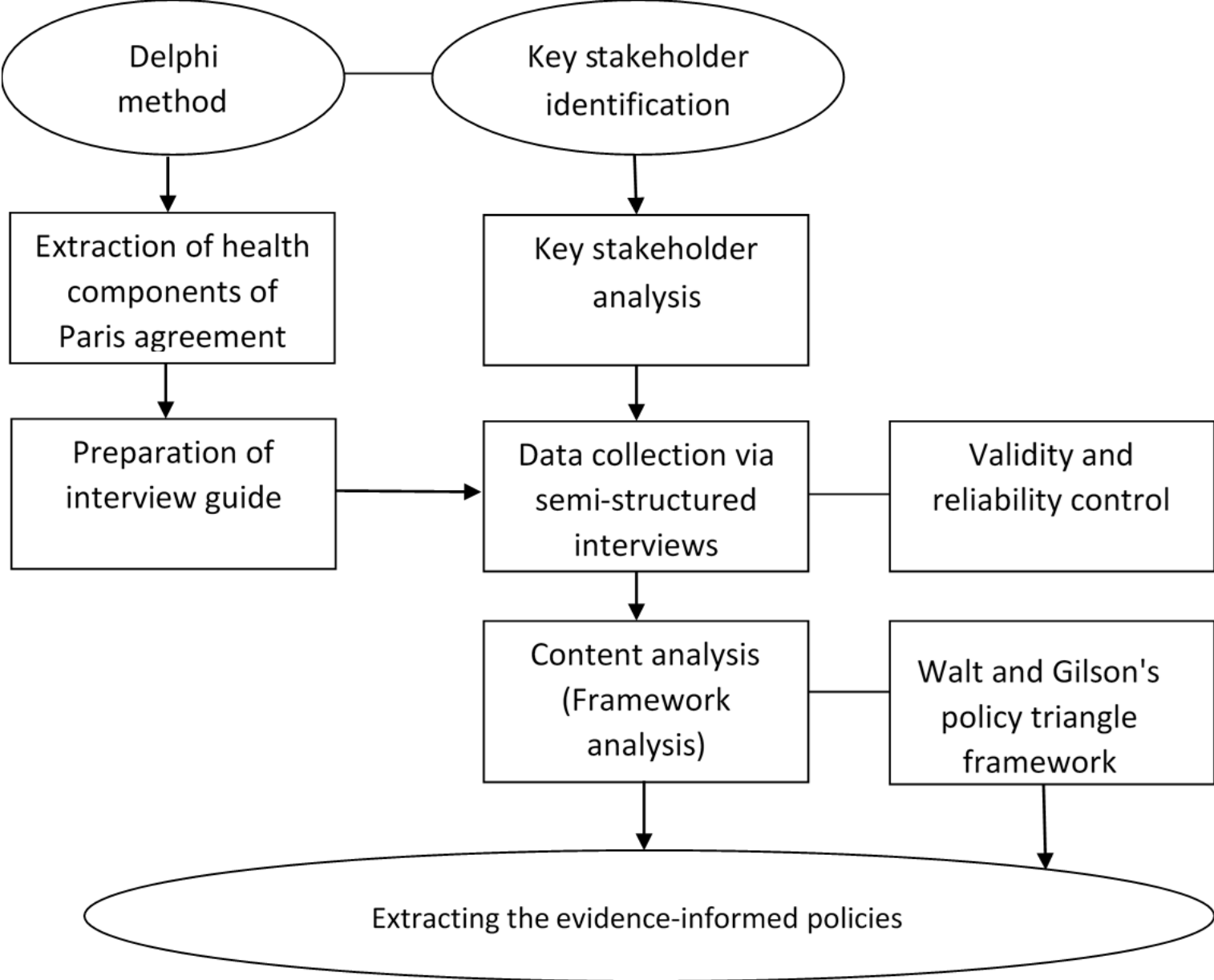
Goal

- Policy customization for implementing Paris agreement on climate change in the health system of Iran

Objectives

- Identifying and extracting the key health related components in Paris agreement
- Identification of key Stakeholders related to health and climate change in the health system of the Islamic Republic of Iran
- Analyzing the position and power of each stakeholder in previous objective with focus on health system
- Context analysis of implementation of Paris agreement in the health system of the Islamic Republic of Iran
- Identification and analysis of facilitators and barriers to implementing of Paris agreement in the health system of the Islamic Republic of Iran

Research method



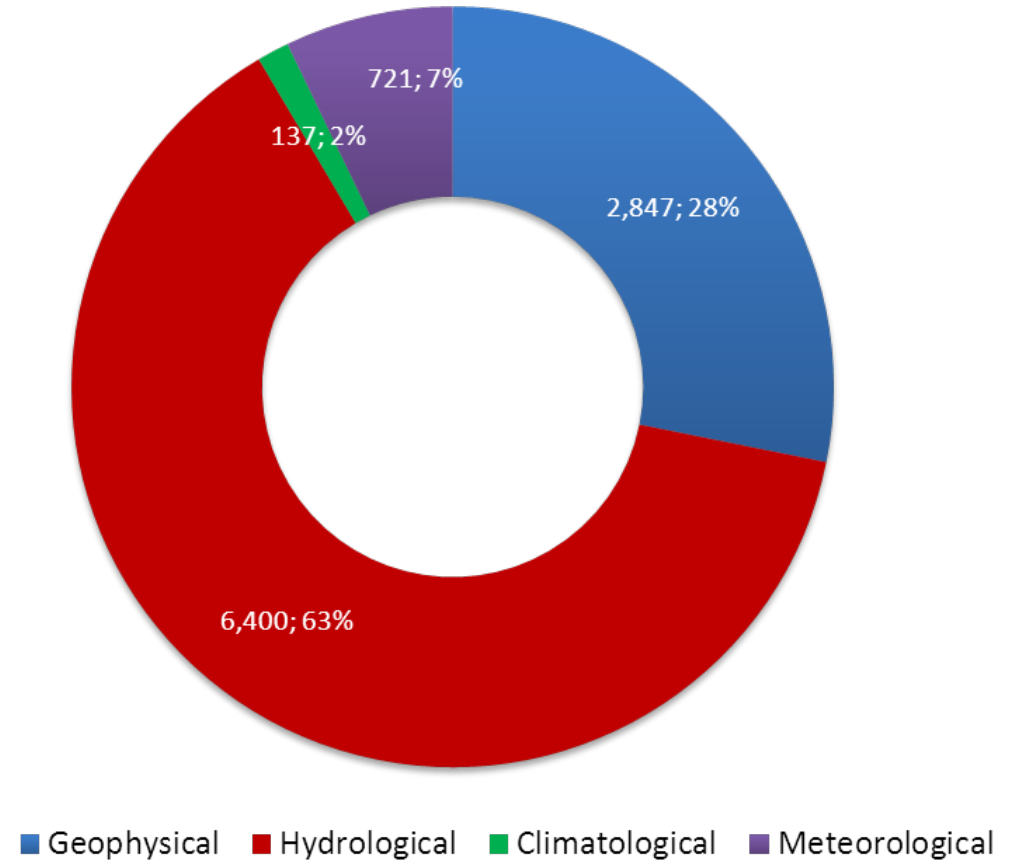
Climate change In Iran

- More than 80% of Iran is in the arid and semi-arid regions.
- The country has encountered rainfall decrease, drought, water scarcity, urban and industrial pollutions, desertification, wind erosion (18 of the 31 provinces), and loss of biodiversity during recent past few years.
- The average annual rainfall was about 240 mm, which is less than one-third of the world average precipitation.
- The range of temperatures is -20 to +50 degrees Celsius.



Climate-sensitive natural hazards

- Climatological disasters, i.e. flood, flash flood, drought, landslides, forest fire, heat wave, windstorm, and tropical cyclone have been considered as the most intensive and frequent climate-sensitive natural hazards in Iran.
- Golestan flash floods (2000-2005), Gonu cyclone (2007), 2019 floods have been the deadliest climatological disasters of the last two decades in the country
- Factors, such as persistent drought, high evaporation, high wind erosion, reduced rainfall, and lower relative humidity have exacerbated the generation of dust storms in Iran.



OCCURRENCE OF NATURAL HAZARDS IN I.R.IRAN, 1970-2010

Initiative of Iran's health system

- Establishment of a National Working Group on Health and Climate Change under the leadership of Center for Environmental and Occupational Health
- Collaboration with World Health Organization
- Collaboration with Environment Research Institute on establishment of Health and Climate Change Research Department
- Develop a National Adaptation Plan of Action (NAPA)
- Contribution in Iran National Communication to UNFCCC with producing chapters on the health impacts of climate change
- Present in the national and international platforms and events, along with the Environment Organization of I.R.Iran.



Challenges

- Inadequate awareness of the strong linkages between climate and health
- Inadequate stewardship of the health sector in climate change processes
- Weak technical capacity and limited funding for preparedness and response to public health impacts of climate change
- Limited engagements in national and regional discussions on health and climate change
- Limited technical, organizational, financial and human resources capacities in order to manage these effects
- Inadequate high-quality research, documentation, training, planning, and implementation of operational programs regarding risk management, reduction of vulnerability and response to the adverse health effects of climate change
- Limited budget for supporting climate change and health programs

Key strategies

- Strengthening health resilience to climate change by integrating climate capacities within health systems
- Augmenting the public health governance, regulatory and surveillance roles in managing the environmental determinants
- Engaging actively in national, regional and international policy processes on climate change

Priority actions

- Assessing health vulnerability to climate change
- Integration of health into national climate policy and adaptation plans
- Integration of climate change into all national health policies, strategies and plans
- Promoting health-based regulations, e.g., air pollution and mitigation of GHG emissions is based on showing that they endanger public health
- Promoting and supporting green facilities
- Engaging in national and international climate endeavors, ensuring effective health representation