

Climate Justice and Environment in Iraq

A Conflict Prone Context - 2021 Position Paper



ANKAWA
HUMANITARIAN COMMITTEE



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Global Change Action - Sustainable Development Goal 13 (SDGs)

The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". Goal thirteen of the SDG states "Take urgent action to combat climate change and its impacts". However, climate change and climate injustice put the achievements of various SDGs at risk, hindering the slightest desired action by humanitarians and other relevant entities for sustainable living.

The advance unedited copy of 2021 report of the UN Secretary-General on Progress towards the Sustainable Development Goals mentioned that; as of March 31, 2021, 125 of 154 developing countries have already taken measures for National Adaptation Plan (NAP) and are prioritizing formulation and implementation of NAPs in their adaptation efforts.

Iraqi government on its part, in partnership with the UN Environment Program (UNEP), launched a process to develop a National Adaptation Plan (NAP)¹ to build the country's resilience to climate change. The three-year project, funded by the Green Climate Fund (GCF) will support Iraq to formulate and implement its NAP.

The project will aim to support national efforts that focus on increasing Iraq's adaptive capacity, improve the resilience of affected sectors, increase the awareness and preparedness of rural communities, support youth and women, and achieve the 2030 Sustainable Development Goals."

Additionally, according to the GEO-6 Report² issued by UNEP, Iraq is classified as the fifth most vulnerable country in the world to decreased water and food availability and extreme temperatures, which together will negatively affect food, water, social and health security.

This paper establishes ACT Iraq Forum and Ankawa Humanitarian Committee (AHC)'s position to generate a better understanding about a few of the major issues caused by climate change and adaptation efforts in Iraq, and mobilize support from within and outside Iraq, explicitly and implicitly.

Climate Justice and Ethical Concerns in Iraq

As part of the wider ACT Alliance climate action in the MENA Region, the ACT Iraq Forum is producing a Climate Position Paper in cooperation with national members. Aiming to find solutions and reduce vulnerabilities to the negative impact of climate change.



Iraq's environment has been subject to several converging pressures originating from population growth, the impact of wars, urbanization, climate change, poor land use planning, and abuse of fragile ecosystems. A key aspect of the widening gap of Climate Justice in Iraq has been lack of environmental awareness. In addition, Iraq's limited coping mechanisms and available funding has contributed significantly to its deteriorating nature.

The ongoing threats of climate change keep raising ethical concerns too, especially in developing countries. Yet, there is little evidence that Iraqis feel the urge to respond. Most ethical breaches in an exhausted society like Iraq's are only addressed when law holds people accountable. For climate breaches, the answer is clear, it does not. Therefore, ACT Iraq Forum is inspired to find a middle ground between utopia and reality, to refrain from pattern depictions in Iraq, and remove their profound implications. This inspiration is translated into the introduction of practical measures, encouraging a full spectrum of thinking to produce papers that benefit both donors and recipients, in examining how faith-based leaders and related organizations apply various approaches, in tackling the climate crises, and ways forward. Most importantly, to translate into actions the knowledge obtained from interdisciplinary experiences offered by MENA Climate Justice Community of Practice.

Moreover, to set the building blocks of a possible roadmap and explore means to involve the government, the church, other ACT, and non-ACT members on local, national, and global levels. Accompanied with encouraging lifestyle changes in each member organization, congregation, and wider communities. ACT Iraq Forum also remains vigilant in working against discriminatory legislation under the guise of "economic well-being" without being deemed threatening, by peaceful means in communities in dire need of infrastructure for comfortable living.

The Climate Crises: The Aftermath of Endless War

Significant rise in average temperatures

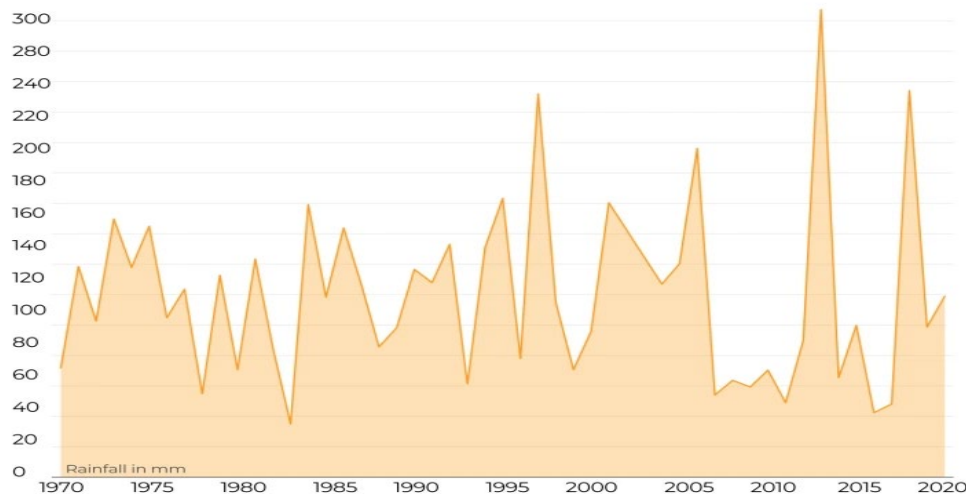
The worldwide struggle of continuously rising temperatures is especially noticed in Iraq in general and the southern parts in particular. This is frequently seen in urban areas experiencing recurrent dust storms, and Urban Heat Island (UHI) phenomenon, while farming communities fight to cope with irrigation, water shortages and rising soil salinity. Environmentalists and government officials warn that its heavy toll on the next generation will awaken the public sooner or later.

Studies suggest that temperatures in Iraq will increase two to seven times faster compared to the global rise, while the United Nations³ projects that temperatures in Iraq will climb by two degrees and that rainfall will decline by nine percent in the coming three decades. A report by Al Jazeera⁴ shows that rainfall seasons have always been unstable, and data obtained from the Iraqi government showed that average annual rainfall for the last twenty years was 10 per cent lower than in the three decades prior.

Iraq

Annual season rain - Nassriyah, Southern Iraq

Rainfall recorded between October - April of each winter season at Nassriyah weather station, southern Iraq



Source: Government of Iraq



A report released by Iraq Inter-Cluster Coordination Group mentioned how the dry weather conditions and water shortage further exacerbates the vulnerability of communities who rely

on agriculture for their livelihoods. According to FAO estimates, Ninewa could experience more than 70 per cent reduction in wheat production and almost complete loss in barley production, while areas in KRI could expect up to 50 per cent reduction in wheat production. If the situation continues, the dry weather and reduced water supplies could impact the food security, livelihoods, and access to water of already vulnerable populations.

Water Scarcity

Iraq faces an escalating water crisis due to a drop in the water levels of the Tigris and Euphrates rivers by 50 per cent⁵, which originate from Turkey. The crisis has affected the most disadvantaged of the Iraqi communities and has emerged from Iraq's neighboring countries (Iran and Turkey). Water dams built by Iran and Turkey have contributed to a growing water shortage in the southern and central provinces of Iraq, as well as in the Kurdistan Region. In fact, none of the Iraqi provinces are immune from water scarcity.

Water scarcity poses limitations on water access, which in turn creates poor hygiene practice and serious health outcomes. Poor sanitary conditions and shortage in clean water in Sulaymaniyah has increased the number of diarrhea cases to triple this year compared to the same period last year, according to the Directorate of Health (DoH) in Sulaymaniyah. The DoH issued an alert check in early June 2021 about the increased risk of cholera particularly due to the water shortage.

Combating water scarcity and mitigating its risk depend on several factors, such as; efficient water management, reusing water: rain and waste waters, harvesting rainwater to groundwater, and strengthening each province's leadership skills to develop new strategies.

Iraq's Ministry of Water Resources on its part has announced a plan⁶ to confront the country's water shortages according to a recent report from Rudaw⁷. Another report by Norwegian Refugee Council (NRC) *When Canals Run Dry*⁸, shows that water shortages have triggered almost 15,000 new displacements in Dhi-Qar, Maysan and Basra provinces as of January 2019. Additionally, researchers further warn that both Tigris and Euphrates will be on the verge of complete drought by the year 2040 and the country could face a shortfall of as much as 10.8 billion cubic meters of water annually by 2035.

On World Environment Day 2021, Iraqi President Barham Salih called for a multi-dimensional approach to tackle the challenges posed by climate change as he described the results of water scarcity; "desertification and drought are menacing 39 per cent of Iraq's territories, and 54 per cent of land is threatened with the loss of agriculture due to increased salinization".⁹

He continued “There is now an urgent need for a national program to revitalize Mesopotamia-modern Iraq and use it as an opportunity to diversify our economy, support renewable energy and clean instruments, participate in carbon markets, increase the resilience of vulnerable areas that are exposed to climate changes and to sharp economic reversals, and to provide better and more sustainable living conditions for our citizens.”

President Salih has been direct and supportive to Iraqi Parliament’s decision to enter into the Paris climate agreement. Which is a commitment that represents an important opportunity for the planet to collectively confront climate change.

Desertification

According to the Global Forest Watch Rates & Statistics GFW¹⁰, from 2001 to 2020, Iraq has lost 137ha of tree cover, equivalent to a 0.78% decrease in tree cover since 2000. As tensions rise between the different militant actors in Kurdistan Region of Iraq. Turkey continues deforestation without taking into consideration the already exacerbating crises of climate. Following those incidents, the Iraqi President condemned the very recent deforestation attempts-last may in a tweet¹¹, calling on the Government of Iraq and Kurdistan Regional Government to coordinate and draw a close to this “Climate Crime” he described. In turn, the Kurdish government condemned the attempts as well, and released a statement¹² to call for an end to Turkey's deforestation activities.

The president revealed that he aims to undertake an extensive national reforestation effort in the south and west of the country, focused on planting palm trees – the cultural symbol of Mesopotamia, and on restoring forests in the mountain and urban areas of Kurdistan. These efforts will not only serve as a carbon sink; they will also bolster agricultural production and help to protect the soil. This reforestation will accord and integrate with the ambitious Saudi and Middle East Green initiatives.

In the southern parts of Iraq, an evaluation¹³ of recent land degradation affecting Basra Province, Iraq, resulted in the identification of five prominent environmental degradation processes: desertification, secondary salinization, urbanization, vegetation degradation, and loss of wetlands.

The results revealed that land use changes have affected the wider environment and accelerated land degradation, with severe damage located in southwestern Basra Province representing 28.1 % of the total area. Areas of high to moderate degradation characterize the rest of the south, representing 52.7 % of the total area; while the north of the study region is characterized by very low and low degradation levels accounting for 8.5 and 10.7 %,



Iraq has serious environmental problems that must be addressed immediately; failure to do so will greatly increase the cost and complexity of future remedial efforts, with environmental degradation already posing a major threat to human well-being, particularly among the poor.

Adaptation Measures

It is not easy to anticipate exact applicable adaptation measures in Iraq and particularly not at local scale. Therefore, the intermediate goal of climate change adaptation should be to empower national actors and in particular communities to learn how to adapt. In doing that, we should focus on support for the capacity building processes that shape social learning on development pathways. This learning process needs to explicitly address the needs of marginalized groups.

Indigenous Practices

The Indigenous knowledge is believed to be a key component of global climate discourse, focusing on elements of significance for local development. The indigenous practices reestablished essential adaptation measures that are meaningful and applicable at the local level.

Throughout the years people had the ability to access multiple resources and rely on different modalities of land use, which contributed to their capacities in managing local-level climate change.

An example of Indigenous knowledge can be seen in the production of subsistence crops in Iraq. People's knowledge of the seasons motivates them to grow subsistence crops with a careful consideration of the soil fertility and texture as well as crop variations which enhances the sustainable production of crops. That applies to other productions as well, such as the well-known Iraqi dates. To our dismay, the literature around indigenous practices around the world is considerably rich, except for the Middle East, and that itself shows that our capacity to respond falls even behind other regions who are already struggling in tackling the crisis.

Given the country's location and rich history, strategies definitely exist. Local communities have developed adaptation measures relevant to their cultural values to lessen the impacts of climate threats on their livelihoods. They have also developed culture-based mechanisms of adaptation to combat weather conditions that negatively impact their livelihoods. Adaptation measures are crafted in people's daily practices, in particular, those living in rural areas. However, it has become rarely visible and beyond the government's capacity to document them.

ACT Iraq Forum and AHC hope to create a foundation base for examining these practices and providing a practical perspective not merely a theoretical one. The search for answers in indigenous practices would require one to revert to history and ask questions like, what did my great grandfather do to tackle “X” before Iraq was colonized? How did he harvest “Y” without having the harvesting machine? In this light, ideas can be composed, concepts and data can be collected and used by communities to sustain and improve indigenous practices.

Modern Practices

The ongoing COVID-19 crisis has reshaped people’s lives and imposed challenging barriers. Doctors, researchers, engineers, and scientists from all fields of knowledge around the world worked together tirelessly to confront the coronavirus outbreak with an unprecedented spirit of collaboration, and the entire world population put its trust in science. We had to completely reimagine the way the world could work, and all in the name of public good. The COVID-19 pandemic has slowed travel, dropped energy consumption, and curbed the flow of manmade carbon dioxide into the atmosphere. But that is far from the end of the story, regardless of the geopolitics of climate change.

Some innovative approaches have come to light in recent years, accompanied with the impact of COVID-19 and the public good concept. People have come to realize that these approaches are implementable in most parts of the world, especially in places as warm as Iraq:

First is Sustainable Intensification¹⁴, most effective, implemented after examining the complexity of the situation through group inquiry and interaction. This implies the need for representation of investigators from different disciplines, sectors, and from outsiders (professionals) and insiders (local players).

Second, Low Carbon Approaches¹⁵ and the action to mobilize social change to a low carbon Iraq.

Third, Iraq and other Gulf Cooperation Council (GCC) nations have already been classified by the United Nations as water-scarce nations. Tackling water supply and its health associated issues through Desalination Technologies¹⁶ is one of the means possible to combat water scarcity. The Desalination technology is currently used in other Middle Eastern countries such as Saudi Arabia and has replaced groundwater as the primary source of drinking water.

The aforementioned modern practices, if fully funded and implemented, can lead to lasting and transformative change. Changes that ensure a sustainable environment for future generations who cannot voice their concerns.

Therefore, it is necessary to keep children, and those not yet born, front of mind as we pioneer sustainable development pathways. A climate justice approach to policy making requires us to look beyond short-term political cycles, or myopic decision-making, to develop plans that ensure all people enjoy the right to development and that the well-being of future generations is not compromised by unchecked climate change.

Luckily, the ability to adopt these strategies are almost entirely dependent on a country's national resources, and Iraq has enough of them! In addition to that, International Development experts, aid architects and other relevant actors have put Iraq as a top priority to rebuild its infrastructure. This is the most catalytic moment in a generation to invest in climate change, driving increased public and private investment on key areas that matter to the Iraqi reality. By putting commitment in the heart of our actions, concrete change can be realized across the country.

Case studies: Climate Change Effects in Iraq

1. Recently, the general quality of ambient air in Basra city (southern Iraq) has been decreasing because of an increase in the city's population and high traffic levels, as well as the expansion and establishment of several industrial plants, including petrochemical plants, oil refineries, burned natural gas flames, fertilizer plants, paper and pulp mills, power generation stations, and industrial workshops according to a BioOne study¹⁷. The study results show increased pollution levels in stations close to the electrical power plant and oil refinery compared to urban stations. The increased emissions of CO, NO₂, SO₂, and total hydrocarbons gases (HCs) has hazardous consequences to the population in general and the field labors specifically, causing serious health issues varying from asthma and lung cancer to stroke and coronary artery diseases. Inadequate management of the gaseous discharges in urban and industrial areas has significantly worsened the quality of air, thus increasing the pollution rates. A study¹⁸ that was made on how gasoline poses serious endocrine disorders that eventually lead to cancer emphasizes the necessity to develop and adapt protection measures to protect field workers and locals from the gaseous emissions and residues. The quality of air is of crucial importance not only to human life, but to animals, plants, water, and soil.
2. The Garmyan drought of the KRG has affected agriculture, smart agriculture, and the whole region's annual production. According to the media official of the directorate of Garmyan, attributed the water shortage in the county to "blocking the Sirwan River

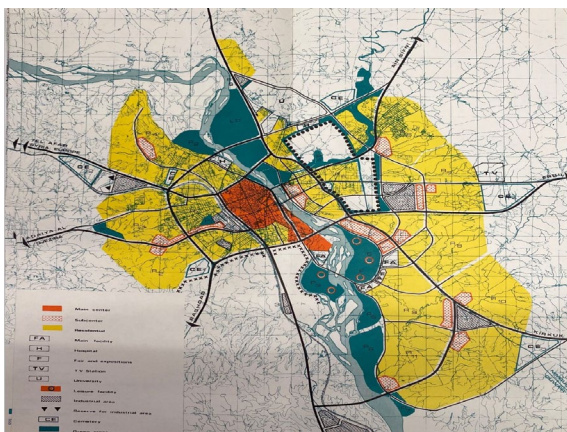
from its source in Iran and establishing huge dams to hold water back in Iranian lands.” The low water levels of this river have led to a decrease in the level of all wells across Garmyan County.”¹⁹

The Kurdistan Regional Government recently announced its intention to build new dams at a time when it is facing an early drought that threatens to hinder its plans to strengthen its agricultural infrastructure.²⁰

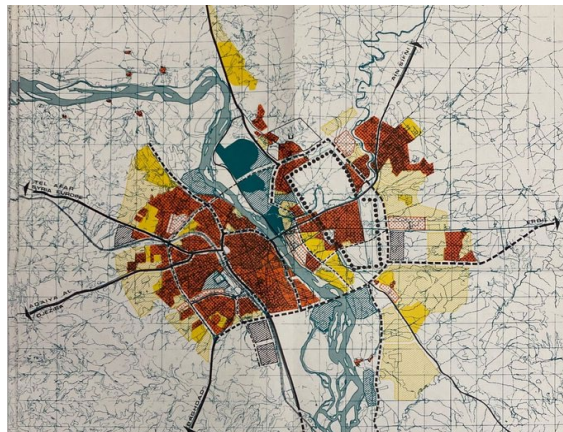
3. In 1974, the Ministry of Construction, Housing, Municipalities and Public Works of Iraq prepared a masterplan to guide the growth of Mosul city for 25 years. One of its objectives was to transform Mosul into a green city (1), transforming 45 percent of its areas into public gardens. The plan was set to be completed in 2000 (2). By 2000, the plan had expired and much of the objectives of the masterplan remained unaddressed. Over the last 2 decades, the city has developed without a plan. Today, Mosul remains largely a desert (3), while its share within the national budget of Iraq is only 1 per cent. Restarting the planning process is fundamental to ensure equitable and sustainable growth prospects for Mosul.²¹

A Comparative Analysis

(1) Mosul, year 1974



(2) Mosul, supposedly year 2000





(3) Mosul, 2021



Conclusion

The land of Mesopotamia was known for its fertility, it was called *Ardh Al Sawad (The land of darkness)* due to darkness caused by the dense palm forests. Induced by human activities, this land is turning into a complete desert. It is unfortunate that we only learn to recognize climate justice in the stories of lives lost, and the uprooting of families and entire communities due to drought.

One of the main challenges facing climate justice is that the law does not hold people and corporations accountable for their actions against the climate, and several national and international rules seem to make climate actions more difficult.

There are numerous ideas for improvement, including recognizing climate change victims, holding corporations to account, and acknowledging the actual costs of the climate crisis: social, economic, environmental, and human. But we ought not to mistake brilliant ideas for constructive action. We must find ways to involve the government, local, national, and global actors to assume responsibility for converting these ideas and putting them to work.

Beyond the effort this paper is written for, ACT Iraq Forum and AHC aim to introduce new initiatives to modernize water management, improve waste disposal and recycling, and capture flared associated gas. Collectively, these elements will deliver tangible benefits over the next decade by creating new jobs in areas such as agriculture, construction, and light industry. Fostering the development of new industry in areas such as plastics, construction supplies and food processing which further supports private sector activity and promotes the role of youth and women in the development process

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- ⁸ When canals run dry - displacement triggered by water stress in the south of Iraq [Link](#)
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- ¹⁰ Global Forest Watch - Iraq [Link](#)
- ¹¹ President Barham Salih deforestation tweet [Link](#)
- ¹² KRG calls for an end to Turkey’s deforestation of the Kurdistan Region [Link](#)
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- ¹⁴ Science Direct: “Sustainable Intensification” [Link](#)
- ¹⁵ Low Carbon Communities – Imaginative Approaches to Combating Climate Change Locally [Link](#)
- ¹⁶ Science Direct: Desalination Technology [Link](#)
- ¹⁷ Gaseous Pollutants in Basra City, Iraq [Link](#)
- ¹⁸ Screening of major endocrine disorders among stations of oil products distributions in Basrah city, Iraq [Link](#)
- ¹⁹ 86 village on the brink of evacuation due to drought, Kurdistan official says [Link](#)
- ²⁰ Major Kurdistan Region dam project going forward to boost agriculture, fight drought [Link](#)
- ²¹ The Initial Planning Framework for the Reconstruction of Mosul [Link](#)

Photo on the cover page: Ahwar Marshes, Southern Iraq, a UNESCO World Heritage Site.

Acknowledgement

This Position Paper has been prepared by Ankawa Humanitarian Committee represented by Devar Sher, Executive Director, with inputs from Maryam Sryoka, ACT Iraq Forum Coordinator.

AHC hopes to continue its work on Climate Justice and has recently applied to become an ACT Alliance member. The Alliance focuses on Climate work as one of the main thematic areas in the MENA region and globally.