



Middle East  
Centre



# THE QUIET EMERGENCY

EXPERIENCES AND  
UNDERSTANDINGS OF  
CLIMATE CHANGE IN KUWAIT

DEEN SHARIFF SHARP, ABRAR  
ALSHAMMARI AND KANWAL HAMEED

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# The Quiet Emergency: Experiences and Understandings of Climate Change in Kuwait

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## Abstract

Climate change is one of the most pressing global emergencies of our times. Kuwait in recent years has directly experienced the impact of human-induced climate change, recording record breaking temperatures of 53.9 degrees Celsius, as well as deadly floods and increasingly severe dust storms. The Government of Kuwait has recognised that the global transition away from fossil fuels and efforts to limit global warming will have profound implications for the country's economy, environment, and social life. Kuwait is a leading emitter of Greenhouse Gas (GHG) and the export of hydrocarbons is central to its economy. The goal of this research is to provide a situated account of climate change as it is experienced and understood in Kuwait. This paper examines how the inhabitants of Kuwait (both citizens and non-citizens) understand and experience climate change, to assist in policy and scholarly efforts that are working toward low carbon social life in Kuwait and beyond. It draws on qualitative data drawn from over 35 semi-structured interviews in English and Arabic conducted by the research team, one high-level political and policy focus group, two focus groups with 19 youth in Kuwait, an analysis of the December 2020 Kuwait parliamentary elections and a review of both social and traditional media. This report contributes to government efforts to build public and policy-maker awareness on climate change and to better integrate climate change considerations into national planning and policy dialogues.

## Background

In August 2021, the Intergovernmental Panel on Climate Change (IPCC) published its landmark study on the current state of climate change. The report provides a stark account of the impact that human-induced global warming has had on the climate system. This includes increases in the frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, agricultural and ecological droughts, more intense tropical cyclones and reductions in Arctic sea ice and permafrost.<sup>1</sup> In February 2020, the Antarctic region observed its highest temperature on record at 18.3 degrees Celsius, in 2017 the Kuwaiti Mitribah weather station's reading of 53.9 degrees Celsius was the uppermost temperature ever recorded in Asia and among the highest recorded on Earth.<sup>2</sup> Although the IPCC warns that many changes due to Greenhouse Gas (GHG) emissions are now irreversible, it does stress that reducing GHGs - and reaching at least net zero CO<sub>2</sub> - would limit the warming effect and changes to the climate system.<sup>3</sup>

The IPCC has reported in its sixth-assessment report on Asia that it has high confidence that heat extremes and marine heatwaves will continue.<sup>4</sup> For the Arabian Peninsula specifically, the IPCC states that increasing warming levels are projected to raise the intensity, frequency and totals of precipitation.<sup>5</sup> Kuwait is at the forefront of the risks to natural and human systems that continued global warming pose and a leading emitter of GHGs and exporter of hydrocarbons. Several scientific studies on Kuwait have detailed how climate change is central to producing ever more extreme weather events in the country, includ-

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<sup>1</sup> 'Summary for Policymakers', in 'Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change', IPCC [Masson-Delmotte, V.P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekci, R. Yu and B. Zhou (eds)], in press (Cambridge: Cambridge University Press, 2021), p.19.

<sup>2</sup> 'WMO Verified 3rd and 4th Hottest Temperature Recorded on Earth', *World Meteorological Organization*, 18 July 2019. Available at <https://public.wmo.int/en/media/press-release/wmo-verifies-3rd-and-4th-hottest-temperature-recorded-earth> (accessed 2 August 2021); Francelino Márcio Rocha, Schaefer Carlos, Maria de Los Milagros Skansi, Steve Colwell, David H. Bromwich, Phil Jones and John C. King, 'WMO Evaluation of Two Extreme High Temperatures Occurring in February 2020 for the Antarctic Peninsula Region', *Bulletin of the American Meteorological Society* (Early online release, 2021).

<sup>3</sup> As outlined by the IPCC, GHG are those gaseous constituents of the atmosphere that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. Water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary GHGs in the Earth's atmosphere. There are also entirely human-made GHGs in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances. Kuwait has been working in recent years to improve its GHG inventory and strengthen the evidence base for climate change mitigation and adaptation policies (see, for example: Giles Atkinson and Ayele Gelan, 'Sustainability, Natural Capital and Climate Change in Kuwait', *LSE Middle East Centre Kuwait Programme Paper Series 12* (London, 2021).

<sup>4</sup> 'Sixth Assessment Report', Working Group I – The Physical Science Basis, IPCC (2021). Available at [https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC\\_AR6\\_WGI\\_Regional\\_Fact\\_Sheet\\_Asia.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Asia.pdf) (accessed 13 October 2021).

<sup>5</sup> Ibid.

ing: record-breaking land and sea surface temperatures;<sup>6</sup> increased severity of droughts and dust storms;<sup>7</sup> and more frequent and severe flash floods.<sup>8</sup>

The Government of Kuwait has recognised that many sectors are vulnerable to the impact of climate change, including coastal zones (in particular Kuwait Bay), the marine ecosystem, water resources and public health (with increased heat stress and increased cardiovascular and respiratory diseases).<sup>9</sup> The government has stated that it ‘is committed to efforts that harmonize economic growth with a low-carbon, climate-resilient development’.<sup>10</sup> In March 2021, the State Audit Bureau reiterated the government’s commitment to tackling climate change and the need for regulatory bodies to address it.<sup>11</sup>

Kuwait’s GHG emissions, however, have accelerated in recent years. CO<sub>2</sub> emissions have increased 140 percent from 1994 to 2016.<sup>12</sup> According to a recent UN technical assessment, the country is expected to continue to experience increases in its total annual GHG emissions going forward.<sup>13</sup> Kuwait’s economy is a carbon economy: oil accounts for 90 percent of the country’s revenue and more than half of GDP; it holds one of the largest reserves of oil and gas in the world and has some of the lowest production costs. Perhaps to a greater extent than many other countries, Kuwait faces profound social and ecological impacts both from continued global warming and global efforts to move to net zero carbon societies.

The Government of Kuwait has recognised the global transition away from fossil fuels and efforts to limit global warming will have profound implications on the country’s economy, environment and social life more broadly. The goal of this research is to

<sup>6</sup> Yousef Alosairi, Nada Alsulaiman, Abu Sayed Rashed and Dana Al-Houti, ‘World Record Extreme Sea Surface Temperatures in the Northwestern Arabian/Persian Gulf Verified by in Situ Measurements’, *Marine Pollution Bulletin* 161 (2020): 111766; George Zittis, Panos Hadjinicolaou, Mansour Almazroui, Edoardo Bucchignani, Fatima Driouech et al., ‘Business-as-Usual Will Lead to Super and Ultra-Extreme Heatwaves in the Middle East and North Africa’, *Climate and Atmospheric Science* 4/20 (2021).

<sup>7</sup> Yufei Yuan, Barrak Alahmad, Choong-Min Kang, Fhaid Al-Marri, Venkateswarlu Kommula, Walid Bouhamra, and Petros Koutrakis, ‘Dust Events and Indoor Air Quality in Residential Homes in Kuwait’, *International Journal of Environmental Research and Public Health* 17/7 (2020); Ali Al-Hemoud, Ali Al-Dousari, Hassan Al-Dashti, Peter Petrov, Abeer Al-Saleh, Sarhan Al-Khafaji, Weam Behbehani, Jing Li and Petros Koutrakis, ‘Sand and Dust Storm Trajectories from Iraq Mesopotamian Flood Plain to Kuwait’, *Science of The Total Environment* 710 (2020).

<sup>8</sup> Dawod Aldosari, Jaber Almedej and Abdullah A. Alsumaiei, ‘Update of Intensity–Duration–Frequency Curves for Kuwait Due to Extreme Flash Floods’, *Environmental and Ecological Statistics* 27/3 (2020), pp. 491–507; Habib Al-Qallaf, Amjad Aliewi, and Ahmed Abdulhadi, ‘Assessment of the Effect of Extreme Rainfall Events on Temporal Rainfall Variability in Kuwait’, *Arabian Journal of Geosciences* 13/21 (2020).

<sup>9</sup> ‘State of Kuwait Second National Communication’, *Environment Public Authority (EPA)* (Kuwait City, July 2019).

<sup>10</sup> *Ibid.*, p. xi.

<sup>11</sup> ‘SAB Report Highlights Contributions to Environment, Climate Change’, *Arab Times*, 11 July 2021, available at [http://www.arabtimesonline.com/wp-content/uploads/pdf/2021/jul/11/06.pdf\\_\(accessed 13 October 2021\)](http://www.arabtimesonline.com/wp-content/uploads/pdf/2021/jul/11/06.pdf_(accessed%2013%20October%202021)); ‘A Report on the State Audit Bureau’s Audit on the Environment and Climate Change in Kuwait’, *State Audit Bureau* (March 2021).

<sup>12</sup> ‘Technical Analysis of the First Biennial Update Report of Kuwait Submitted on 30 September 2019’, *Framework Convention on Climate Change (FCCC)* (Kuwait City, November 2020).

<sup>13</sup> *Ibid.*, p. 9.

provide a situated account of climate change in Kuwait, to examine how the inhabitants of Kuwait (both citizens and non-citizens) understand and experience climate change to assist in policy and scholarly efforts that are working toward achieving low carbon societies in Kuwait and beyond.

In November 2021, around 190 world leaders will gather in Glasgow, Scotland, for the 26th annual summit of the United Nations Framework Convention on Climate Change Conference of the Parties (UNFCCC COP26). In 2015 at COP21 in Paris, every country agreed to work to limit global warming to 2 degrees and aim for 1.5 degrees; and to set out Nationally Determined Contributions (NDCs) detailing how they will reduce GHG emissions. Six years later and the world is not on track to limit global warming to 1.5 degrees. The targets announced in Paris would result in warming well above 3 degrees. The world needs to halve emissions over the next decade and reach net zero carbon emissions by the middle of the century if global temperatures are to be limited to 1.5 degrees.<sup>14</sup> At COP26, countries will be asked to update their NDCs to align with reaching net zero by the middle of the century and to invest in renewables.

In April 2018, Kuwait officially submitted its first NDC (authored in November 2015). The report stated that the government sought to manage the impact of climate change and work toward moving to a 'low carbon equivalent emissions economy'.<sup>15</sup> It would achieve this through commitments to energy production from renewable energy that have been realised in part through the opening of the Shahaya Renewable Energy Park, a 3.2 GWe solar power, photovoltaic and wind energy complex. Like many countries across the Arab region, many measures reported in the NDCs are 'intended' and pending financial support. Kuwait's NDC, for instance, includes the long-stated ambition - in discussion since the late 1970s - to create a mass transit (metro) system. Salpie Djoundourian's (2021) analysis of mitigation and adaptation measures reported in NDCs across the Arab world shows that Kuwait reports the highest percentage of projects (56 percent) in the region that are either completed or being implemented.<sup>16</sup>

While Kuwait has not updated its NDC for COP26, it submitted its second National Communication in July 2019 and its first Biennial Update Report (BUR) in September 2019 to the UNFCCC. The BUR detailed that the energy sector is the largest source of GHG emissions, accounting for 95.6 percent of total national emissions in 2016.<sup>17</sup> Most emissions from this sector stemmed from electricity and desalinated water production (58 percent), transport (18 percent) and the oil and gas industry (11 percent).<sup>18</sup> A technical study on the energy sector for the 4th Kuwait Master Plan notes that Kuwait is facing a significant rise

<sup>14</sup> 'COP26 Explained', *Conference of the Parties (COP) 26*. Available at <https://2nsbq1gn1rl23z0l93ey-rccj-wpengine.netdna-ssl.com/wp-content/uploads/2021/07/COP26-Explained.pdf> (accessed 13 October 2021).

<sup>15</sup> 'Intended Nationally Determined Contributions,' EPA (Kuwait City, November 2015).

<sup>16</sup> Salpie S. Djoundourian, 'Response to the Arab World to Climate Change Challenges and the Paris Agreement', *International Environment Agreements: Politics, Law and Economics* 21/3 (2021), pp. 469–91.

<sup>17</sup> 'First Biennial Update Report of the State of Kuwait', EPA (Kuwait City, September 2019).

<sup>18</sup> 'Technical Analysis of the First Biennial Update Report of Kuwait Submitted on 30 September 2019', FCCC, p.7.

in energy demand in the rapidly growing residential sector due to the high consumption of water and use of air conditioning.<sup>19</sup> All fresh water is from high energy consuming desalination plants in Kuwait and the country has among the highest per capita water consumption rates in the world (35,415 IG in 2015).<sup>20</sup> Air conditioning accounts for 65 percent of the electric peak demand in a building and residential buildings consume about 60 percent of national power.<sup>21</sup> The technical study on energy also noted a disregard for sustainable building practices in construction.<sup>22</sup>

This study responds to the Government of Kuwait's stated key needs outlined in its Second National Communication report to build public and policy-maker awareness on climate change and to better integrate climate change considerations into national planning and policy dialogues.<sup>23</sup> It contributes to the scholarly literature that has stressed the importance of climate change as a 'lived experience' and the need to include more people in the debate about how to confront the structural roots of the climate crisis.<sup>24</sup> There exists only a small literature on the awareness and understandings of climate change in Gulf Arab countries and this report aims to make a foundational contribution to this work.<sup>25</sup>

Our research shows that while the Government of Kuwait has committed the country toward moving to a 'low carbon equivalent emissions economy', there is an absence of discussion as to what this pledge means or how it should be implemented. There is a broadly shared experience of the impact of climate change in Kuwait, which respondents described in terms of extremes of heat, more severe dust storms and flooding. However, this report indicates how many in Kuwait do not actually appreciate the scope or severity of the issue. This research also evidences a wide divergence among the inhabitants of Kuwait as to how seriously the issue of climate change should be taken now or in the future, with several framing it as a Western or 'luxury' concern compared to other issues deemed to be more pressing priorities. Experts engaged in this research expressed their frustration at the lack of understanding among government officials about climate change and the levels of seriousness with which they approached the issue.

Our study shows that within Kuwaiti society climate change is not a priority: there is little to no dialogue around climate change or the impact that global efforts toward net zero economies could have for the country. In conducting our research, however,

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<sup>19</sup> 'Energy Strategy: Technical Paper Summary', in '4th Kuwait Master Plan: 2040 Toward A Smart State', *Municipality of Kuwait* (Kuwait City, January 2021), p. 65.

<sup>20</sup> 'Water Strategy: Technical Paper Summary', in '4th Kuwait Master Plan: 2040 Toward A Smart State', *Municipality of Kuwait* (Kuwait City, January 2021), p. 16.

<sup>21</sup> 'Energy Strategy: Technical Paper Summary', *Municipality of Kuwait*, p.65.

<sup>22</sup> *Ibid.*, p.60.

<sup>23</sup> 'State of Kuwait Second National Communication', *EPA*, p.89.

<sup>24</sup> Karen Rignall, 'Living Climate Change in the Middle East and North Africa', *International Journal of Middle East Studies* 51/3 (2019), pp. 629–32.

<sup>25</sup> Another notable contribution to understandings and experiences of climate change in the Arabian Gulf region is: Abdirashid Elmi, 'Risks to Critical Environmental Resources and Public Wellbeing from Climate Change in the Eyes of Public Opinion in Kuwait', *Environmental Progress & Sustainable Energy* 37/1 (2018), pp. 232–39.



we found there is a noticeable generational divide, with the youth (ages 15–24) showing greater concern about climate change than the older generations. Our research highlights how those most vulnerable to the negative impacts of climate change are already among the most marginalised in the country. Migrant workers and the bidoon (stateless) are employed to a greater extent in outdoor activities and generally live in poorer urban areas than Kuwaiti citizens. This population will be at greater risk from the fatal consequences that higher temperatures, flooding and more severe dust storms bring.

This research paper draws on qualitative data derived from over 35 semi-structured interviews in English and Arabic conducted by the research team, one high-level policy focus group, two focus groups with Kuwaiti youth, an analysis of the December 2020 Kuwait parliamentary elections and a media review.<sup>26</sup> This research was conducted from October 2020 to July 2021. The focus groups were held under Chatham House rules. All participants interviewed for this study were provided with consent forms and given the option to undertake interviews anonymously or on the record. Due to the Covid-19 pandemic, most of the interviews were conducted online via Zoom or WhatsApp. The interviews engaged: state officials, candidates for national elections, scientists, environmental consultants and activists, NGO workers and other Kuwaiti citizens and non-citizens. Climate change is widely regarded by scholars to exacerbate inequality.<sup>27</sup> Therefore, interviews also engaged Kuwait's most vulnerable communities, such as the bidoon (stateless) population and migrant workers, to illuminate the extent to which they are impacted by climate change.

## Experiences and Understandings of Climate Change

In nearly all the interviews that the research team conducted across a range of demographic profiles – citizens and non-citizens, experts and non-experts, young and old – there was a shared experience of climate change by respondents in their daily lives that has been evidenced in the scientific literature. In relation to climate change, interviewees frequently cited the longer summers and shorter winters and the extreme weather conditions more broadly, with several noting Kuwait's record-breaking temperatures and the November 2018 floods that strained the country's infrastructure.<sup>28</sup> From our engagement with the inhabitants of Kuwait (both citizens and non-citizens), there was broadly no evidence of outright climate change denial among the populous. This resonates with the first large-scale public opinion survey conducted on climate change in Kuwait (and the broader GCC) by Elmi, in which 80 percent of Kuwaitis surveyed reported that they believed that the Earth is warming due to human activities.<sup>29</sup>

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<sup>26</sup> The summaries of the focus groups are available at <https://www.lse.ac.uk/middle-east-centre/research/kuwait-programme/research-grants/2020-21/Sustaining-Kuwait-in-Unsustainable-Times>.

<sup>27</sup> S. Nazrul Islam and John Winkel, 'Climate Change and Social Inequality', *United Nations Department of Economic and Social Affairs*, DESA Working Paper No.152 (New York, 2017), pp. 1–30.

<sup>28</sup> See recordings of those on jet skis on Kuwait's streets in the November 2018 floods here: <https://twitter.com/liferdefempire/status/1059731914364456960?s=20> (accessed 13 October 2021).

<sup>29</sup> Elmi, 'Risks to Critical Environmental Resources and Public Wellbeing from Climate Change in the Eyes of Public Opinion in Kuwait', p. 234..

The experts engaged in this research through a high-level political and policy focus group provided in-depth accounts of how Kuwait has experienced the impact of climate change in recent years.<sup>30</sup> This included the extreme weather events (noted above) but they added the risk of sea level rises to areas around Shuwaikh and the Northern Islands, coral bleaching and the destruction of marine life. They also cited public health impacts with an increase in the number of people suffering from asthma due to air pollution and expressed concern over the impact of climate change on food security.<sup>31</sup>

Despite the shared collective experience articulated in our interviews that the climate is changing because of human activity, our interviewees noted that the understanding of climate change remains weak among the broader populous and within government. Our research shows that there exists a divergent understanding of what climate change is, its implications for the country, who it impacts and how and to what extent state and society should address it. In the high-level political focus group, there was almost unanimous consensus that the government did not take climate change seriously and that neither government officials or the public fully comprehend the implications of it.<sup>32</sup> One participant, an urban expert, stated that: ‘100 percent the government does not understand the issue of climate change’ and that in their opinion there is no understanding of climate change among the public.<sup>33</sup> An environmental expert concurred: ‘There is no grasp among the public of what climate change or the Paris agreement means for Kuwait.’ Several respondents to this research either stated that they themselves or Kuwaiti society more broadly saw environmental questions like climate change as ‘luxury’ issues or ‘Western’ concerns.

The experiences of extreme weather events have provoked conversations around climate change in Kuwait. Our media analysis shows that there is a notable rise - from an almost non-existent base - in the reference to environmental concerns more broadly and, to a certain extent, climate change in both social and traditional media when extreme weather events occur.<sup>34</sup> In 2017 (the year Kuwait registered a record high temperature), there was a notable increase in media coverage related to the environment in the context of extreme temperatures and dust storms that continued into 2018.<sup>35</sup> In

<sup>30</sup> High-level political and policy focus group, held via Zoom, 9 March 2021. Available at <https://www.lse.ac.uk/middle-east-centre/assets/documents/Deen-Sharp-project-High-Level-Political-and-Policy-Focus-Group.pdf>.

<sup>31</sup> For more information on climate change’s impact of food security in Kuwait, see, Christian Siderius, Declan Conway, Mohamed Yassine, Lisa Murken and Pierre-Louis Lostis, ‘Characterising the Water-Energy-Food Nexus in Kuwait and the Gulf Region’, *LSE Middle East Centre Kuwait Programm Paper Series 1* (London, 2019).

<sup>32</sup> A UN official in the focus group did wish to stress that from their perspective and experience there is a general awareness and understanding of climate change among government officials.

<sup>33</sup> High-level political and policy focus group, 9 March 2021.

<sup>34</sup> Our media review identified 65 news articles between 2013–2021 that addressed environmental issues and climate change. This review included mainstream Arabic news media, including *Al Jarida*, *Al Qabas* and *Al Rai Media* and the English language daily, *Kuwait Times*. Arabic search terms included: climate change [tgheer al-manakh]; weather [taqas]; temperature [daraja-t al-harara]; rain [amtaar]; environment [al-bia’a]; environmental committee [lajna-t al-bia’a]; dust storms [‘awasef turabeya]. English search terms included: climate change and dust storms.

<sup>35</sup> Our media review shows a notable increase in environmental media reporting from 2017. From 2013–2016, we found only eight articles that touched upon environmental concerns and 57 from 2017–2021.

2019, the head of the Environmental Public Authority (EPA) explicitly linked the deadly 2018 floods to climate change.<sup>36</sup> This is, to our knowledge, among the first public statements by a Kuwaiti government entity linking extreme weather events in Kuwait to climate change in the mainstream media.

Our analysis demonstrated that extreme weather events in Kuwait have resulted in some reporting about the environment - and to a certain extent climate change explicitly - in mainstream Arabic and English language media in the country. However, our interviewees stressed that after these 'extreme weather events' have passed, the discussion around the environment and climate change dissipates. Senior Kuwaiti Environmental Specialist Samia Al Duaij stated that while there is wide acceptance in Kuwait that the recent extreme heat and flooding are caused by climate change, after these weather events have passed there is 'collective amnesia' amongst the population.<sup>37</sup>

The government's response to climate change has been inconsistent. On the one hand, the government linked the deadly November 2018 flash floods to the consequences of climate change (as noted above) and has in its reporting to the IPCC and FCCC committed to transitioning away from a carbon intensive society. Along with other countries in the Arab world, Kuwait has agreed to reduce energy consumption and employ renewable energy sources to reduce GHG emissions.<sup>38</sup> The government plans to generate 15 percent of its energy via renewables by 2030. On the other hand, the state simultaneously worked - along with Saudi Arabia, Russia, and the United States - to block a landmark study on global warming at COP24.<sup>39</sup> While undertaking this research we found that government officials were reluctant to be engaged with our study on the question of climate change. Participants in the high-level political and policy focus group not only expressed frustration around government officials' understanding of climate change but also highlighted issues related to government coordination and 'inefficiencies' in the implementation of initiatives and targets related to it.<sup>40</sup>

The EPA is the national focal point for the UNFCCC and part of the Supreme Council for the Environment which is chaired by the First Deputy Prime Minister of Kuwait.<sup>41</sup> Tariq Al Dowaisan, a candidate in the 2020 Kuwait elections, remarked that unlike the EPA in the United States (an independent executive agency), Kuwait's EPA does not have political independence or power.<sup>42</sup> In the high-level political and policy focus group a participant

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<sup>36</sup> 'EPA Chief Says Climate Change Behind Rain That Deluged Kuwait,' *Kuwait Times*, 16 January 2019. Available at <https://news.kuwaittimes.net/website/epa-chief-says-climate-change-behind-rain-that-deluged-kuwait/> (accessed 13 October 2021).

<sup>37</sup> Samia Al Duaij, recorded Zoom interview, 29 April 2021.

<sup>38</sup> Djoundourian, 'Response of the Arab World to Climate Change Challenges and the Paris Agreement', p. 482.

<sup>39</sup> See, for example: Kate Sullivan, 'US Teamed up with Russia, Saudi Arabia and Kuwait to Weaken Language Supporting Landmark Report', *CNN*, 10 December 2018. Available at <https://edition.cnn.com/2018/12/09/politics/us-climate-change-report/index.html> (accessed 13 October 2021).

<sup>40</sup> High-level political and policy focus group, 9 March 2021.

<sup>41</sup> 'Facilitative Sharing of Views: Tenth Workshop', *EPA* (State of Kuwait, June 2021).

<sup>42</sup> Tariq Al Dowaisan, recorded audio interview, 19 January 2021.

stated that the EPA was ‘sleeping at the wheel when it comes to climate change’.<sup>43</sup> Several interviewees and focus group participants noted that while Kuwait has a good legal and regulatory framework in relation to environmental protection, there is a lack of implementation of existing policies and enforcement of laws. Even when laws are enforced, the Senior Environmental Specialist noted the fines for pollution are not relative to the pollution caused, which means it is often cheaper for entities to pay the fine than reduce emissions.<sup>44</sup>

Transport constitutes 18 percent of Kuwait’s total annual GHG emissions and participants in this study frequently referred to it in relation to climate change or the environment more broadly.<sup>45</sup> As a report on Kuwait City’s urban model remarks: ‘The city has been designed for cars, and has poor pedestrian infrastructure. Weather conditions, cultural housing preferences, the absence of an efficient public transport, and the availability of cheap petrol... have all contributed to car-dependent sprawl and long commuting distances.’<sup>46</sup> An urban expert in the high-level political focus group cited the construction of new roads - specifically the ring road that was recently built - as evidence of how the government is not taking climate change seriously: ‘This single construction project [the new ring road] alone is doing more damage than all the current initiatives [by the government] to mitigate climate change.’ They added that in their consultations with the public sector on urban planning, proposals continue to be put forward to offset the problem of traffic with the construction of new roads.<sup>47</sup> Hundreds of kilometres of roads are being built, linking new urban developments that are ‘completely unsustainable’, the urban expert stated.

The levels of private car ownership have outstripped the projections of previous Master Plans. A technical study on transport for the 4th Master Plan notes that the ten-year modal share (the percentage of travellers using a particular type of transportation) of all transport in Kuwait is 80 percent for cars and just 0.2 percent for public buses.<sup>48</sup> Buses are the only mode of public transport and bus ridership levels have dropped since the 1990s, despite the increase in the population.<sup>49</sup> The bus infrastructure is poor. There have been some limited efforts in Kuwait to encourage Kuwaiti citizens to use public transport and Kuwaiti academics and policy-makers are aware of its potential to reduce GHG emissions.<sup>50</sup> Shaikhah Al Jassim, as part of her parliamentary campaign supported efforts to encourage Kuwaiti citizens to use public transport as well as the work by public transport advocacy group Kuwait Commute.<sup>51</sup> However, her support for public transport was framed in relation to efforts to improve traffic rather than tackle climate change.

<sup>43</sup> High-level political and policy focus group, 9 March 2021.

<sup>44</sup> Ibid.

<sup>45</sup> ‘First Biennial Update Report of the State of Kuwait’, EPA.

<sup>46</sup> Philipp Rode, Alexandra Gomes, Muhammad Adeel, Fizzah Sajjad, Jenny McArthur, Sharifa Alshalfan, Peter Schwinger, et al., ‘Resource Urbanisms: Asia’s Divergent City Models of Kuwait, Abu Dhabi, Singapore and Hong Kong’, *LSE Cities* (London: 2017), p.21.

<sup>47</sup> High-level political and policy focus group, 9 March 2021.

<sup>48</sup> ‘Transport Strategy: Technical Paper Summary’ in ‘4th Kuwait Master Plan: 2040 Toward A Smart State’, *Municipality of Kuwait* (Kuwait City, January 2021).

<sup>49</sup> Ibid., p. 34.

<sup>50</sup> See for example, Sharaf Alkheder, ‘Promoting Public Transport as a Strategy to Reduce GHG Emissions from Private Vehicles in Kuwait’, *Environmental Challenges* 3 (Early online release, 2021).

<sup>51</sup> Shaikhah Al Jassim, recorded audio interview, 23 May 2021.

In our interviews and media review, there was often a conflation between climate change and other environmental issues such as littering. Several NGOs focus on environmental issues in Kuwait, these include: the Kuwait Environment Protection Society, Trashtag Kuwait, Green Line Kuwait, Al Manakh Kuwait, Sustainable Living Kuwait, ENVearth, and Basta Kuwait. Most of these groups do not focus on climate change. They focus upon: littering; water issues (potable water); the cleaning and protection of the sea through beach clean ups; encouraging recycling and sustainable living; and raising awareness of environmental issues such as pollution. Beach clean-ups have become one of the most popular and visible activities through which the inhabitants of Kuwait, corporations and government officials engage on environmental issues.<sup>52</sup> Furthermore, as was stated in our interviews and has been set out in a recent paper by Nele Lenze, beach clean-ups have become as much about civic engagement as the environment.<sup>53</sup>

## 2020 Parliamentary Elections

Through an examination of campaign posters, social media events and posts, media analysis and interviews with candidates, we examined the extent to which environmental concerns and climate change were raised in the 2020 parliamentary elections. Our analysis shows that climate change was not a political priority or a topic of discussion in the parliamentary elections that was otherwise dominated by issues such as the debt crisis; economic diversification, subsidies and taxes; the electoral law; corruption; gender equality; and freedom of speech.

Out of the 326 candidates who ran in the 2020 elections, we identified five candidates who touched upon environmental concerns (broadly conceived) during their campaign: Alia Al Khaled (Second District), Shaikha Al Jassim (Third District), Hamad Al Ansari (Second District), Anwar Al Fikir (Fourth District) and Tariq Al Dowaisan (Second District). Alia Al Khaled was the only candidate in the 2020 parliamentary elections that we were able to identify who touched upon the issue of climate change during the campaign and even her reference to it was oblique.

During her social media campaign as a parliamentary candidate, Al Khaled held 'Instagram Live Q&A sessions' where she answered questions from potential voters. In one of them, she responded to a question about climate change and said that it is 'absolutely a priority' to her (the video has since been deleted). In another Instagram post, Al Khaled called on the Public Authority of Agriculture to halt their plans to remove trees from the Al-Nakhil Park, citing the benefits of tree coverage for 'decreasing the temperature and purifying the air, improving individuals' health and protecting those with respiratory issues'.<sup>54</sup> In the months after the election, Al Khaled conducted an interview with the Director of the EPA, Sheikh Abdullah Al Sabah, which she posted onto her Insta-

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<sup>52</sup> Nele Lenze, 'Beach Clean-Ups and Other Civic Engagement for the Protection of the Environment in Kuwait', *LSE Middle East Centre Kuwait Programme Paper Series* 10 (London, 2021).

<sup>53</sup> *Ibid.*

<sup>54</sup> The Instagram posts are available here: [https://www.instagram.com/tv/CO3idhYB8eG/?utm\\_medium=copy\\_link](https://www.instagram.com/tv/CO3idhYB8eG/?utm_medium=copy_link) (accessed 13 October 2021).

gram page.<sup>55</sup> The question of climate change did not come up during this conversation. Except for Alia Al Khaled, who listed ‘environmental issues’ on her campaign poster, none of the other 325 candidates in the 2020 parliamentary elections listed climate change or environmental issues as an electoral priority.

In our interviews with some of the above listed candidates, there was consensus that the environment was not a subject that the electorate found important or had substantial knowledge of. Shaikhah Al Jassim said that despite finding the topic of climate change important personally, she did not bring it up in her campaign because the environmental awareness in Kuwait does not exist to address it: ‘Most people care about health, education and employment.’<sup>56</sup> Hamad Al Ansari stated that Kuwaiti society is not engaged with environmental concerns and that it is a niche topic: ‘I could go to a diwaniya and ask what do you think about global warming, and they would say who cares about the polar bear? ... Voters showed no interest in the environment.’<sup>57</sup> Tariq Al Dowaisan echoed this sentiment, noting that conversations about environmental issues might take place in ‘intellectual households’ but not elsewhere.<sup>58</sup>

The question of oil was an electoral issue in the 2020 parliamentary elections. In the campaign, however, it was discussed firmly within the framework of economic diversification and sustainability and not in relation to carbon emissions and climate change. The fluctuation of the oil price and the dependency of Kuwait on oil is a national concern but the GHG emissions that the extraction of oil involves is not. For example, Tariq Al Dowaisan, who owns his own consultancy company - training engineers on health, safety and the environment - stressed that economic diversification away from oil was one of the most important issues facing Kuwait.<sup>59</sup> This view was echoed by the Senior Environmental Specialist Samia Al Duaij, who noted that Kuwaitis may not worry about the increasing heat but they are concerned about the implications of US car manufacturer GM deciding to switch to electric cars and aware that Elon Musk has become one of the richest people in the world through electric cars.<sup>60</sup> Al Duaij expressed surprise at the positive reaction – ‘even from my father’s generation’ - to an opinion piece she wrote in the national newspaper *Al-Qabas* calling for Kuwait to embrace a ‘Green Economy’.<sup>61</sup> She added that people are not aware that China and South Korea want to move to net zero economies, or what net zero is, and that Kuwait’s oil and gas revenue could drop 40 percent by 2040.

<sup>55</sup> The interview is available on Instagram here: [https://www.instagram.com/tv/CO3idhYB8eG/?utm\\_medium=copy\\_link](https://www.instagram.com/tv/CO3idhYB8eG/?utm_medium=copy_link) (accessed 13 October 2021)

<sup>56</sup> Al Jassim, 23 May 2021.

<sup>57</sup> Hamad Al Ansari, recorded audio interview, 28 January 2021.

<sup>58</sup> Tariq Al Dowaisan, 19 January 2021.

<sup>59</sup> Ibid.

<sup>60</sup> Al Duaij, 29 April 2021.

<sup>61</sup> Samia Ahmed Al Duaij, ‘The Green Economy... The Future Kuwait that We Need’ [Al-Iqtisad Al-Akhdar... mustaqbal al-Kuwait althiy nureedu], *Al Qabas*, 8 March 2021. Available at <https://alqabas.com/article/5840715-%D8%A7%D9%84%D8%A7%D9%82%D8%AA%D8%B5%D8%A7%D8%AF-%D8%A7%D9%84%D8%A3%D8%AE%D8%B6%D8%B1-%D9%85%D8%B3%D8%AA%D9%82%D8%A8%D9%84-%D8%A7%D9%84%D9%83%D9%88%D9%8A%D8%AA-%D8%A7%D9%84%D8%B0%D9%8A-%D9%86%D8%B1%D9%8A%D8%AF%D9%87> (accessed 2 August 2021).

Several Kuwaiti political figures, such as Abdulaziz Al Saqoubi and Hamad Al Matar, who have previously raised environmental issues and climate change specifically, did not do so during the 2020 election. Hamad Al Matar, who has been a member of parliament for over 20 years and is the head of the Environmental Committee at the National Assembly, is well known for bringing discussions of climate change to the fore. He notably raised the issue of extreme temperatures and the absence of any government action around climate change in a 2016 tweet that subsequently went viral (See Image One). Several responses to Al Matar's tweet derided him for expecting the government to address the rising temperatures.

Image 1: Hamad Al Matar, 'Really? 60 degrees??!! Explain yourselves, officials' (2016)



Source: Twitter

Many of these parliamentary candidates and other experts interviewed for this study noted that most Kuwaitis viewed climate change as a long-term issue - something that will impact Kuwait severely in 50 years' time - and that other issues, such as corruption and the debt crisis, are viewed as more pressing electoral concerns. Kuwait has experienced a severe political crisis in recent years.<sup>62</sup> As Al Duaij stated, 'The political deadlock in Kuwait just sucks the oxygen out of the air, parliament and corruption is what people think about all the time.'<sup>63</sup> Al Dowaisan also said that the pressing economic and corruption concerns meant that environmental issues were 'put on the back burner'.<sup>64</sup> Notably, Hamad Al Ansari preferred to link the flooding of the country's infrastructure in 2018 not to climate change but to poor planning, lack of competency in the government and corruption.<sup>65</sup>

Several parliamentary candidates interviewed noted that the issue of the environment and climate change was raised during their respective campaigns by the younger generation. Shaikhah Al Jassim said that during her campaign she received two or three messages on Instagram about the environment and that these were all from younger people.<sup>66</sup> In addition, several candidates commented that it was their children who had drawn their attention

<sup>62</sup> Luai Allarakia and Hamad Albloshi, 'The Politics of Permanent Deadlock in Kuwait', *The Arab Gulf States Institute in Washington*, 11 March 2021. Available at <https://agsiw.org/the-politics-of-permanent-deadlock-in-kuwait/> (accessed 13 October 2021).

<sup>63</sup> Al Duaij, 29 April 2021.

<sup>64</sup> Al Dowaisan, 19 January 2021.

<sup>65</sup> Al Ansari, 28 January 2021.

<sup>66</sup> Al Jassim, 28 January 2021.

to the importance of the environment. Al Dowaisan said that his 18-year-old daughter was an active reader on environmental issues and had raised the issue of poor air quality in Kuwait, linking the high cancer rate in the country to the high levels of pollution.<sup>67</sup> He concluded, from the example of his daughter and talking with his friends and colleagues, that the younger generation is more conscious about the environment.

## The Generational Divide

In our research, it was made that clear that Kuwait's older generation are more sceptical about the urgency of climate change. A widely shared opinion from this generation is that the country's current climate has always been this way, and that the extreme heat is to be expected from living in a desert context and that nothing can be done about it. As one interviewee stated, many people they had spoken to believed that the rise in temperature is an act of God, and not something that can be addressed by government and/or society.<sup>68</sup> Many interviewees cited a generational divide in relation to the alarm around climate change. Samia Al Duaij explained that in general the older generation (those born before 1970) do not take climate change seriously, with some viewing it as a conspiracy to damage the Gulf economies. She further explained the generational divide by citing a consultation on the Kuwait Master Plan in which everyone over 50 was against introducing a metro because they could not conceive of people wanting to leave their cars. 'The younger generation were all for it because cars are highly polluting, and they don't want to wait in traffic. There was a stark contrast between the two generations,' Al Duaij said.<sup>69</sup>

The frequency with which our interlocutors in Kuwait mentioned the generational divide led us to organise two youth focus groups (one in English and one in Arabic) with 19 Kuwait based youths to hear from them directly on this topic.<sup>70</sup> Several interviewees said that it was mainly the youth and those who are privately educated in Western schools in Kuwait that are particularly concerned about climate change and environmental issues more broadly. Therefore, we ensured that the focus groups included youth from both public and private schools. In our youth focus group, there was no recognisable divide in their views about climate change based on where they attended school. But those in public schools stressed the absence of teaching on climate change in their school curriculum. Those in private schools remarked that climate change was part of their curriculum to a certain extent and that the issue was raised in afterschool clubs and through school events like 'Earth Day'.

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<sup>67</sup> Al Dowaisan, 19 January 2021.

<sup>68</sup> Anonymous, note based interview, 27 December 2020.

<sup>69</sup> Al Duaij, 29 April 2021.

<sup>70</sup> For the English language focus group, we recruited seven female and two male participants with the majority from private schools. For the Arab focus group, the participants included seven female and three male participants, with eight from public schools and two from private schools. The English and Arabic focus group summaries can be accessed here: <https://www.lse.ac.uk/middle-east-centre/research/kuwait-programme/research-grants/2020-21/Sustaining-Kuwait-in-Unsustainable-Times>.



Across the youth focus groups there was consensus that climate change would negatively impact them to a far greater extent than their elders and that the older generation did not take the issue as seriously as they did. One participant stated: ‘The older generation, they think that climate change is either a lie, or not as important as other world problems.’ When asked why there was such a generational divergence on the issue of climate change in Kuwait, the participants said that they are experiencing climate change more rapidly than their parents’ generation. They cited extreme weather events but also widespread cases of health issues amongst their peers, such as asthma and other breathing irregularities, which they also linked to the long-term environmental damage caused by Iraqi forces setting fire to Kuwaiti oil wells during the Gulf War.

Youth participants in the focus group emphasised their exposure to social media and the fact that mainstream Kuwaiti media ignores climate change. They explained that their use of social media meant they are more aware of global incidents of climate change than the older generation. Participants cited, for instance, their exposure through social media to global climate events such as the wildfires in Australia, the Swedish climate change activist Greta Thunberg and several celebrities as nudging them to engage with climate change. A United Arab Emirates (UAE) online initiative ‘Connect with Nature’ was also cited in the English language focus group by a participant as having introduced them to the topic of climate change and spoke positively about the way it allowed youth to speak with officials on this issue.<sup>71</sup>

In the Arabic youth focus group, the participants lamented the fact that there was not enough coverage of climate change in mainstream Kuwaiti media and in the Arabic language more broadly and the absence of climate change in their school curriculums. ‘Why don’t they care? We are on social media, we are exposed to a lot, and our curriculums don’t help us learn about these issues,’ one participant stated. When asked how much of a priority climate change was for them, the youth participants noted that Kuwait faced many challenges. They cited the importance of climate change but also issues such as gender equality, the harassment of women and corruption. Further, they expressed their frustration at being silenced by the older generation and stated that the government only focuses on ‘the economy’ rather than quality of life.

## Inequality

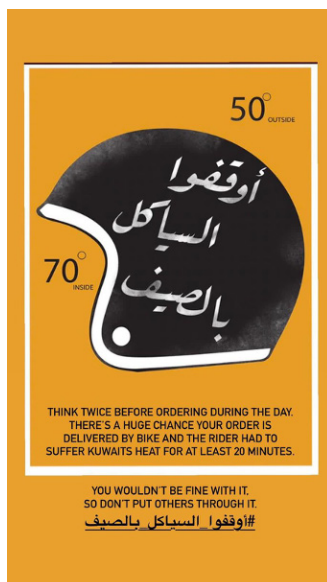
The scholarship and policy literature on climate change has pointed to the fact that climate change aggravates inequality. As Islam and Winkel note: ‘The relationship between climate change and social inequality is characterized by a vicious cycle, whereby initial inequality makes disadvantaged groups suffer disproportionately from the adverse effects of climate change, resulting in greater subsequent inequality.’<sup>72</sup> Kuwait is a country marked by deep social inequality with a notable divide between those with Kuwaiti citizenship and those without.

<sup>71</sup> Connect With Nature. Available at <https://connectwithnature.ae/> (accessed 13 October 2021).

<sup>72</sup> Islam and Winkel, ‘Climate Change and Social Inequality’, p.2.

Kuwaiti citizens have both water and electricity heavily subsidised and are provided significant support in obtaining employment within government agencies. Most of Kuwait's inhabitants are non-citizens and do not have the same access to these subsidies or support in employment. Our research shows that migrant workers and the bidoon (stateless) population are particularly vulnerable to the impact of climate change. These groups, for instance, are more exposed to the weather extremes through their work in the outdoors (including as delivery drivers and street vendors), housing (often poorly insulated and lacking A/Cs) and transport (bus stops without adequate shelter). Our research also points to the vulnerability of agricultural workers to climate change that warrants further research.

Image 2: Campaign to Spread Awareness on Risks Faced by Delivery Drivers



Artist Talal Almaian, 2021

In the first study conducted on vulnerability to extreme temperatures in Kuwait, it concluded that the working age group 15–64 years - made up of predominately non-citizens - is at very high risk of death from increasingly hot temperatures. The study warns that the health disparity between citizens and non-citizens in Kuwait is set to widen as temperatures continue to rise because of climate change.<sup>73</sup> Another study also found this working age group to be at higher risk of death from poor air quality effects and dust storms.<sup>74</sup> In 2012, Kuwait introduced laws to ban work outdoors from 1 June to 31 August

<sup>73</sup> Barrak Alahmad, Ahmed F. Shakarchi, Haitham Khraishah, Mohammad Alseaidan, Janvier Gasana, Ali Al-Hemoud, Petros Koutrakis and Mary A. Fox. 'Extreme Temperatures and Mortality in Kuwait: Who is Vulnerable?', *Science of The Total Environment* 732 (2020).

<sup>74</sup> Souzana Achilleos, Ebaa Al-Ozairi, Barrak Alahmad, Eric Garshick, Andreas M. Neophytou, Walid Bouhamra, Mohamed F. Yassin, and Petros Koutrakis, 'Acute Effects of Air Pollution on Mortality: A 17-Year Analysis in Kuwait', *Environment International* 126 (2019), pp. 476–83.

from 11 am – 4 pm.<sup>75</sup> However, several interviewees expressed scepticism over the extent to which bans were enforced, particularly in the private sector. In periods of extreme heat in Kuwait attention is often placed, frequently prompted by advocacy groups and activists, on delivery drivers and construction workers exposure to the heat on social media forums. The Kuwaiti Society for Human Rights launched a campaign, for instance, to limit delivery via bikes to nighttime and cars during the day (see Image Two). Attention by advocacy groups has also been drawn to domestic workers who are sometimes asked to clean roofs or windows during the midday heat; unlike construction workers, there are no financial penalties for forcing domestic workers to work outside in extreme heat and there is no ability to monitor private domestic spaces.<sup>76</sup>

Advocates for migrant workers in Kuwait interviewed for this study stressed that it was not only delivery drivers and domestic workers who suffer from the impacts of climate change in Kuwait.<sup>77</sup> The less visible workers, they noted, in the agricultural sector are particularly vulnerable to heat exposure. If a farm is located on private land, they explained, then the workers are not covered by the labour law. They added that it is also difficult to monitor labour conditions on these private farms because monitoring groups are not permitted access to these areas under the law.<sup>78</sup> The impact of climate change on rural workers warrants further study. In addition to migrant workers, another particularly vulnerable community is Kuwait's bidoon (stateless) population. In our interviews with stateless men and women, those who had firsthand experience of working as street vendors noticed the difference in heat extremities over the years, with one saying, 'I could feel the difference on my skin,' and another describing the death of his friend, a fellow stateless street vendor, because of heatstroke.<sup>79</sup>

## Conclusion

Kuwait faces profound social and ecological transformations from both the impact of climate change and global - if not national - efforts to address it. This research project has shown that despite commitments by the state of Kuwait to transition to a 'low carbon equivalent emissions economy', as well as the widely shared experience of climate change and the extreme weather events it has generated, the topic of climate change is not widely discussed or engaged with any depth in the country. There is significant work to be done by state and society actors in Kuwait to build public and policy-maker awareness on climate change in the country. Climate change is not covered in detail by Kuwaiti media or in school curriculums, government officials lack substantive knowledge on the topic and the general awareness amongst the public remains weak.

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<sup>75</sup> 'Summer Midday Work Ban Fails to Adequately Protect Workers', *Migrant-Rights.org*, 14 June 2021. Available at <https://www.migrant-rights.org/2021/06/summer-midday-work-ban-fails-to-adequately-protect-workers/> (accessed 25 August 2021).

<sup>76</sup> Ann Sandigan and Chito Sandigan, recorded audio interview, 18 March 2021.

<sup>77</sup> Vani Saraswati, recorded audio interview, 18 February 2021; Sandigan and Sandigan, 18 March 2021.

<sup>78</sup> Sandigan and Sandigan, 18 March 2021.

<sup>79</sup> Mohammad Al Fadhli, recorded audio recorded interview, 9 July 2021.

The challenges that climate change brings and efforts to shift to net zero are growing exponentially. The sooner the issue of climate change is engaged with and addressed within Kuwait, the greater chance the country (and the world) has of responding to it. The IPCC report has made clear that the deliberate removal of carbon dioxide from the atmosphere could reverse some aspects of climate change. Human action has resulted in climate change but it can also mitigate it. As one participant in the youth focus group said, ‘I do think climate change should be a priority issue, as we are already experiencing its effects. It is easier to address it now than to wait until it’s too big to control in ten years’ time.’<sup>80</sup>

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<sup>80</sup> Youth Focus Group (Arabic), held via Zoom, 24 February 2021. See the full summary, here: <https://www.lse.ac.uk/middle-east-centre/assets/documents/Deen-Sharp-project-Youth-Focus-Group-Arabic.pdf>.



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## **Cover Image**

A heat map of Kuwait. © Calibro

