

Flora in an Extreme Rentier State: The Impact of Governance, Demography, and Political Economy on Vegetation and Greenery in Kuwait

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Abstract

This paper explores the ways in which the cultivation or natural growth of vegetation occurs in Kuwait through the projects and interests of individuals, organizations, and public actors in the country dedicated to vegetation management. Using historical literature and interviews conducted in Kuwait during the summer of 2019, the paper thus demonstrates the ways in which the modern dynamics of Kuwaiti society reflect upon the location and nature of vegetation and greenery in the country. This paper identifies three factors of Kuwait's modern government and culture that have significantly impacted the cultivation and natural growth of vegetation in the country. The first is the nature of Kuwait's bloated bureaucratic government structure and the use of public institutions to distribute the country's oil wealth to its citizenry through wages. The second is the nature of Kuwaiti national security concerns. Finally, the third is the effect of oil wealth and urbanization on leisure activities in the country. Together, these factors illustrate the effects of Kuwait's governance, demography, and political economy on the relationship between its people and its vegetation, a relationship that appears far different in the present moment than it did in pre-oil Kuwait.

keywords: Kuwait; Vegetation; Greenery; Governance; Demography; Political Economy; National Security; Bureaucracy; Leisure

Kuwait's dry climate and many years of soil degradation and reported overgrazing have made it a difficult place for vegetation to naturally occur. While empirical evidence is slim, scientists and researchers at Kuwait's research institutions and government agencies report that overgrazing by hired expat herders, thousands of recreational campers in the springtime, and outdoor motor sports in Kuwait's natural environment, along with the effects of climate change, have mounted difficult challenges to native vegetation in the country.¹ Therefore, much of the country's healthy terrestrial ecosystems occur in places where human intervention has, by design or coincidence, provided safe environments for the growth of native flora and fauna.

This paper will explore the ways in which the cultivation or natural growth of vegetation occurs in Kuwait through the projects and interests of individuals and organizations in the country dedicated to vegetation management. Using historical literature and interviews conducted in Kuwait during the summer of 2019,² this paper will demonstrate the ways in which the modern dynamics of Kuwait's political economy reflect upon the location and nature of vegetation communities in the country. In doing so, it builds on the already existing scientific literature by scientific researchers in Kuwait³ while also using a discussion of vegetation management to complement Farah Al-Nakeeb⁴ and Michael Herb's⁵ descriptions of the Kuwaiti state and its development.

This paper identifies three factors of Kuwait's modern government and culture that have significantly impacted the cultivation and natural growth of vegetation in the country. The first is the nature of Kuwait's bloated bureaucratic government structure and the use of public institutions to distribute the country's oil wealth to its citizenry through wages. The second is the nature of Kuwaiti national security concerns.

Finally, the third is the effect of oil wealth and urbanization on leisure activities in the country. Together, these factors illustrate the effects of Kuwait's governance, demography, and political economy on the relationship between its people and its vegetation, a relationship that appears far different in the present moment than it did in pre-oil Kuwait.

Background

During the twentieth century, Kuwait underwent a significant socio-economic and political transition. What had previously been a sheikhdom reliant on tribal affiliations, pearling, and nomadic grazing, slowly transformed to a modern welfare state with immense oil wealth.⁶ This transition had drastic effects on the relationships between Kuwait's people, land, and vegetation. Before Kuwait's modernization, land management generally revolved around local legal structures that defined the relationship between urban leaders and nomadic groups of herders whose grazing activities impacted the distribution of vegetation.⁷ In that time, desert rangelands were not owned by individuals, but rather by entire tribes, and no member of a tribe was authorized to buy or sell tribal land individually.

Over the course of the twentieth century, changing geopolitical dynamics, coupled with the discovery of oil, would launch Kuwait into an area of modern state building. Following the export of the first barrels in 1946, oil quickly became the main source of income for the Kuwaiti government.⁸ Although Kuwait was a British protectorate at the time, income from oil exports went straight to the country's ruler. With newly burgeoning oil revenues, the Kuwaiti government drew commissioned plans to modernize Kuwait City in the 1950s.⁹ These developments produced the

first documented “owner” of Kuwait’s non-urban land, and that was the state. To this day, the Kuwaiti state owns over 90% of the real estate in the country.¹⁰ As a part of this process of urbanization and nationalization of non-urban lands, nomadic tribes largely disappeared from Kuwait’s deserts.¹¹

The discovery of oil eventually transformed Kuwait into a highly urbanized country with a central state that served as its main source of wealth and power. The Kuwaiti people too have benefitted from these developments, and are today one of the wealthiest people in the world.¹² In contrast to pre-modern Kuwaiti society, hardly any Kuwaitis rely on the land or the desert for their sustenance anymore. Instead, Kuwaitis now overwhelmingly rely on public wages for their income, with about 90% of the population employed in the public sector.¹³ This new economic system means that most Kuwaitis—including descendants of nomadic peoples—spend most of their time in the city, removed from the deserts where previous generations used to dwell.

As Kuwait transitioned from a pre-modern, highly nomadic, and tribal society to a modern, urbanized nation state with immense oil wealth, changes in governance, demography and political economy altered the relationship between its population and vegetation management. Today, at least three distinct factors of modern Kuwaiti society significantly impact the cultivation and natural growth of vegetation in the country: a bloated bureaucracy, national security interests, and a leisure culture built on the commodification of greenery.

Bureaucracy

Kuwait’s transition to a modern state included the growth of a massive state bureaucracy with the provision of immense power to public offices and top-down

planners.¹⁴ In Michael Herb’s *Wages of Oil*, Herb thoroughly explains how these immense and well-funded agencies’ primary purpose is to distribute the state’s oil wealth to the Kuwaiti population through wages.¹⁵ Due to Kuwaiti bureaucracy’s purpose as wealth-distribution mechanisms, projects emanating from the Kuwaiti government agencies often pale in comparison to the projects that should be theoretically possible for institutions with such wealth and manpower. Because, as Herb notes,¹⁶ these agencies are not necessarily responses to the problems they are designed to address, but rather means to keep the Kuwaiti population happily employed, these agencies do not operate at the level their size and funding might suggest. In this way, despite the large size of the public bureaucracy, there has been little tradition of consistency or efficiency in the implementation of government plans.¹⁷ For example, starting in the 1950s, the immensity of Kuwait’s oil wealth fueled a profusion of plans and ideas for the redevelopment of Kuwait City that often fell short of full implementation. The initial plans laid out for the city in 1952 were never fully completed, and subsequent plans saw similar effects.¹⁸

According to several subjects interviewed for this article, the bloated bureaucracy of the Kuwaiti state has led to inefficiency in implementing large-scale projects related to the environment. To tackle the ecological issues presented by years of soil degradation and reported overgrazing in Kuwait’s deserts there has been a longstanding pressure on the Kuwaiti government to implement land rehabilitation projects. However, although experts have planned many such projects, the plans have often failed to reach full implementation. For instance, during the 1990s, the Kuwaiti state developed a National Greenery Plan to support vegetation growth in urban and non-urban Kuwait. Most of the projects under this

plan were never implemented.¹⁹ Interview subjects likewise informed the author that when elements of the plan actually were implemented, their maintenance was poor and unsuccessful.²⁰

One cause for the frequent failure of public plans and projects related to vegetation is the bloat of bureaucracies. One such example is the Public Authority for Agriculture and Fish Resources (PAAFR) and its long-standing plan to rehabilitate the country's wild spaces with millions of individual plants. After the end of the first Gulf War in 1991, the United Nations Compensation Commission awarded USD 8 billion to Kuwait as a means for the restoration of the country's natural environment.²¹ The state established an entity called Kuwait National Focal Point (KNFP) to administer and utilize these funds for the rehabilitation of Kuwait's terrestrial and marine ecosystems. To better utilize the resources awarded to them, the Kuwaiti state participated in the Kuwait-Japan Symposium on the Restoration of the Desert Environment in 1995 to estimate the ecological impacts of the Gulf War and the resulting oil spills. Kuwaiti and Japanese researchers developed innovative ideas for the removal of crude oil from desert sands and the afforestation of the country's ranges.²² At that moment, the Kuwaiti state, backed by its generous UN award money and armed with almost complete ownership of all land within the country, stood poised to rehabilitate the Kuwaiti desert and repair much of the damage incurred during the Gulf War.

Nonetheless, according to those interviewed for this paper, PAAFR, a KNFP stakeholder responsible for the implementation of rehabilitation projects,²³ has taken over 25 years to finally implement an efficient large-scale afforestation project.²⁴ Where the large funds for environmental restoration have gone is not entirely a mystery, as some rehabilitation

projects *have* been completed before now.²⁵ However, there is a common suggestion among interview subjects that private contracts for restoration and rehabilitation efforts have not been as efficient as possible. As one man, whom we can call Ahmad, reflected, the implementation of real progress seldom occurs due to a political environment in which the largess of competing bureaucracies, their relationship with the state's wealth, and the complete state control of the desert have stymied efforts to care for and strengthen Kuwait's natural vegetation populations.²⁶ He summed up this sentiment by comparing his practical experience and university schooling:

I find a big difference between here and what I [learnt was theoretically possible] at university. So, [here in Kuwait], there's a lot of government ministries and bureaucracies, so that slows down the research.²⁷

As Ahmad suggests, one explanation behind Kuwait's inability to implement efficient and impactful vegetation projects may be that the Kuwait's bureaucratic government structures have swollen to inconvenient sizes in order to feed an ever-growing demand for public employment. Even a casual visit to the offices of the Public Authority for Agriculture and Fish Resources (PAAFR) will reveal to any visitor the largess of Kuwait's public sector and the immensity of its bureaucracy. The department exists on a campus full of large buildings and gardens, by far one of the lushest spaces the researcher saw during time spent in the country. At the time the author visited, two large buildings with floor-to-ceiling windows were under construction, and the campus was so large the author had to consult maps to find his way to the interview site. Moreover, as a result of inefficient project management in such large bureaucracies, the management of environmental issues in Kuwait is a constant juggle between government agencies and

research institutions. The Sabah Al-Ahmed Natural Reserve, for instance, has operated under the management of at least three different entities, including the Ministry of Defense, the Environmental Public Authority, the Kuwait Institute for Scientific Research.²⁸

In the agricultural sector, where vegetation issues play a major role, interviews showed that another dynamic of Kuwait's public bureaucracies has resulted in an inability to efficiently implement projects—corruption. As such, interview subjects bemoaned the government's inability and corruption in that area:

I noticed that the governmental failure has been extended to that industry. The corruption level is very high in the government, and I don't see that the government is taking the agriculture industry quite clearly, and that was clear in the way they agreed to give away farms to some politicians in order to get their loyalty.²⁹

Moreover, as some pointed out, the government's management of wealth has crippled real progress in that sector:

Yeah, they [farms] are actually highly inefficient, but they receive a lot of support from the government, so basically they keep the land and the agriculture just to receive the subsidies.³⁰

To conclude, bloated bureaucracies and high public expenditure has often resulted in administrative inefficiency and the lack of successful implementation of projects related to the environment and vegetation. As a note, this is not to suggest that Kuwaiti researchers and bureaucrats are necessarily inept or uninterested in their work—many of the subjects interviewed are highly educated and intensely passionate about their projects. Instead, it is a recognition of the challenges of the political environment in which they operate.

National Security

As Kuwait transitioned to a modern nation state, new practices and interests related to national security would also have an impact on the country's vegetation. During the first half of the twentieth century, vegetation in Kuwait's deserts was a critical component of nomadic life in the country. Rainfall and vegetation defined the movements of nomadic tribes whose livestock required different species of plants from different pastures for their health and survival.³¹ Urban leaders in Kuwait relied on those nomadic tribes for the security of Kuwait Town. Tribal groups who aligned with Kuwaiti urban leadership were the city's best line of defense against raids and attacks from tribes in the Arabian Peninsula and Iraq.³² As such, rainfall and vegetation often defined the movements of Kuwait Town's most valued security forces.

With the arrival of British colonial forces and, later, the beginning of Kuwaiti oil production, urban Kuwaitis came to rely more on western powers for their defense against external attacks, and the nomadic tribes lost much of their strategic importance in the region.³³ When Kuwait lost a significant cluster of rangelands in 1922 after the signing of the 'Uqair Protocol (signed by British and Saudi officials without the agreement of Kuwaiti leaders), it also lost the herdsman and armed nomadic tribes that used those lands, and therefore its most important means for protection against hostile forces surrounding it.³⁴ Left practically defenseless in an unstable region, Kuwait relied on its status as a protectorate of the British crown for its defense in the years leading to its full independence in 1961. Moreover, while the Kuwaiti state became the country's primary powerbroker, so did the state apparatuses in neighboring Saudi Arabia and Iraq. Kuwait's primary security concern therefore changed

from periodic raids by nomadic tribes to military invasions led by foreign states.

The changed reality of Kuwaiti national security has had a visible impact on Kuwait's vegetation, as security initiatives have sometimes resulted in benefits for local flora and fauna. One of the main ways in which national security interests have contributed to land rehabilitation, for instance, is by producing *de facto*, albeit often unintentional, nature reserves. One such place is the demilitarized zone, protected and administered by the United Nations since 1991, that runs along Kuwait's northern border.³⁵ The zones comprising this long strip of UN-controlled land are prohibited from public use, and Kuwaiti vegetation researchers report that wild plant and animal life flourishes in the zone. The zone acts as a buffer between Kuwait and once-belligerent Iraq, serving to defend Kuwait from any further intrusions and safeguarding the wealthy country's security against its cash-strapped northern neighbor. Likewise, Kuwait's largest oil fields are closed to all public access, and, according to local researchers who have visited these areas, vegetation grows well there (oil, of course, is a critical aspect of Kuwait's security). As such, wherever wild rangeland is fenced off from grazing and other use for national security purposes, Kuwaiti vegetation recovers brilliantly.

The profusion of vegetation in fenced-off areas demonstrates the ways in which wild vegetation in Kuwait often grows according to the material effects of the state's security interests. While not intentional, the state takes great care to ensure the proper functioning of projects related to its national security, especially after the Gulf War, and the result is havens for wild vegetation. These nature reserves are not always unintentional, however. It is worth noting here that the Kuwaiti Ministry of Defense was one of the entities that has administered control over

Sabah Al-Ahmed Natural Reserve north of Kuwait Bay. Indeed, the fact that a defense-related organ in the Kuwaiti government oversees a national park indicates a close relationship between Kuwait's land management and its security interests that should be explored further in future research.³⁶

National security interests also impact vegetation and land management in different ways. In addition to wild vegetation, agricultural crops likewise play a role in the security interests of the state, although the relationship is slightly different. In this case, agriculture is important for food security in the case of an attack.³⁷ Qatar's recent struggles to provide itself with food after the imposition of the Saudi and Emirati-led embargo is a warning tale for other small desert states like Kuwait. One respondent commented on this dynamic:

Kuwait is totally dependent on food imports, and that has become an issue especially after what happened between Qatar and Saudi Arabia. Qatar was completely cut off so that was kind of a wake-up call, like, "what if that happens to us?" so there's an emphasis now on how to improve soil quality as far as nutrient enrichment and soil productivity, and that's how soil became an [important] issue as a resource.³⁸

Having a local food supply is an important security asset. The government therefore allots permits to farm-owners in the communities of Al Wafrah and Al 'Abdaly where agricultural projects occur. Farm-owners can take out sizable loans when they buy agricultural property, and then receive a subsidy from the government for every unit of a certain crop that they sell. Tomatoes, for instance, earn 35 fils (USD .12) per kilo, cucumbers earn 30 fils per kilo, eggplant earns 15 fils per kilo, and so on.³⁹ These agricultural efforts are a seemingly unnecessary appendage to a dry, wealthy

country reliant on oil wealth, if not for the state's security concerns.

A third way in which national security interests contribute to vegetation management is in the symbolic value of greening Kuwait. Kuwait's presence as a legitimate state, and not a region of another country like Saudi Arabia or Iraq, both of which invaded Kuwait during the twentieth century, is a critical aspect of recruiting international support for efforts to defend Kuwait against irredentist threats.⁴⁰ Any claims that Kuwait belongs to another country like those used to justify the Iraqi invasion in 1990 are dangerous for national security. To that point, one of the proposed purposes for the implementation of Kuwait's National Greenery Plan in the 1990's was to give Kuwait City a "sense of place" through the cultivation of greenery in urban areas.⁴¹ This "sense of place" that plants provide Kuwait is a multi-faceted reflection of the country's vulnerable security status and its relationship with greenery.

Although the national security interests are primarily addressed by the state, implementation of projects combining national security and the symbolic value of greenery also involve non-governmental organizations. One such NGO, Kuwait Oasis, has even gone so far as to plant trees along the Kuwaiti borders, hoping to build a so-called "green wall" around the state that will be visible from space (not to mention the already existing greenery in the UN-controlled border-zones).⁴² As one subject connected to the organization described:

It's called Kuwait Green Wall. Basically, we are planting those trees in a certain format along the Kuwaiti border. It will help prevent sand dunes from coming in, but our objective is to create these systems which will bring in life again, and we are reinstating our green soldiers on the border. They are our best soldiers. We're trying to get life back in those regions.⁴³

As the respondent suggests, such a green wall also has a symbolic meaning, becoming "green soldiers" against the encroachment of sand dunes.

Finally, symbolism attached to flora in Kuwait's desert is harnessed for national security practices in other ways. Kuwait's national tree, the *acacia pachyceras*, only exists in one natural-occurring instance. Located within the Sabah Al-Ahmed Nature Reserve and protected from any public access by concrete barrier,⁴⁴ the tree has sustained heavy damage both from campers in the pre-war years and military operations during the invasion. Even so, the tree lives on, claiming an age of over 120 years old.⁴⁵ Thus, Kuwait's national tree lives on as a symbolic testament to Kuwait's fortitude during and after the Iraqi invasion.

Kuwait's struggle to maintain national security revolves around a wide range of interests and practices—from the security of oil fields to the maintenance of national legitimacy—and that struggle has been reflected in practices involving greenery across the country, whether in symbols of national placehood or in restricted-access military zones turned *de facto* nature reserves. The uses and natural occurrence of Kuwait's vegetation thereby demonstrate the unique symbolic and practical concerns of Kuwaiti national security. In a country where the state controls most of the land and natural resources, this trend is unsurprising, though its manifestations are diverse and ubiquitous.

Leisure

A third dynamic of modern Kuwaiti society that impacts the production and maintenance of green spaces is the contemporary leisure culture built on the commodification of "green" family experiences. As discussed above, Kuwait's cradle-to-grave welfare system means that Kuwaiti citizens are often

financially comfortable, leaving ample time for leisure activities. Moreover, the development of the modern Kuwaiti state with its immense oil wealth and reduced reliance on local land also meant an increase in leisure activities that reconnect people to nature through artificial means. As most Kuwaitis now live in urban settings removed from nature, many look to greenery as a chance to ease the eyes and relax. In the words of one interview subject:

Imagine that this area here [points to a small garden] was just street without any plants, how are you gonna feel? Or just even soil with nothing, how are you gonna feel? You don't feel alive with that.⁴⁶

The idea of greenery as a form of relaxation and leisure can be best demonstrated in the case of farms. Indeed, although many farms focus on agricultural production, as discussed above, the purpose of Kuwaiti farms is also usually (though not always) recreational. In this case, the growth of vegetation represents escape and entertainment on the part of individuals who live their lives mostly in Kuwait's urban areas. In general, many farm-owners openly acknowledge this trend. While production is important to some Kuwaiti farm-owners, they commonly mention that Kuwait's agricultural sector is not dynamic or economical. Instead, farms in Kuwait are clearly a pleasurable endeavor designed as a respite from the noise of urban life.

One example of such farms is Blue Lake Farm, a tourism operation capable of handling over 8,000 visitors per day. It consists of small huts surrounded by green banks of sugar cane for family picnics, along with other family-inspired diversions and attractions.⁴⁷ As the owner of this farm put it:

I don't want to be in the city, so I decided to come here [to the farm], and stay here. I like it better here where I can relax, and the visitors love it too.⁴⁸

In this way, the realized and imagined construction of plant-oriented spaces for leisure and enjoyment resembles the construction of malls, cinemas, or even restaurants in urban Kuwait. Such spaces comprise physical locations where a family can share an experience and then have the freedom to leave so long as they pay the required price. Perhaps there is a connection between these ideas and the common practice of decorating Kuwaiti malls with live trees. Furthermore, in the agricultural sector, plant cultivation has become a source of pride for individual farm-owners much more than a source of livelihood. To that point, farm-owners in Kuwait prefer not to be referred to as "farmers," but rather "farm-owners,"⁴⁹ and multiple farm-owners reported that farming in Kuwait usually involves financial losses. As one interview subject said:

Farmer is not the perfect word. They are more farm-owners than farmers, there aren't really peasants in Kuwait you know? Yeah, it's more of a hobby. It's more of a luxury. So people don't really like to be called a farmer, it makes them feel a little low.⁵⁰

The motivation to continue farming comes from its value as a hobby and an escape from urban life. As such, in the agricultural world, a local expertise is developing around cultivation of crops in Kuwait. That expertise, however, is limited to small numbers of hobbyists and their laborers. For the moment, the allure of vegetation-related hobbies remains a driving factor in the production, utilization, and mastery of artificial green spaces around the country.

Conclusion

This paper has examined the status of greenery and vegetation management in contemporary Kuwait society. Against the

backdrop of a historical analysis of Kuwait's trajectory in the twentieth century, the reports and testimonies of interview subjects sketch out a dynamic and complex relationship between Kuwait's governance, demography, and political economy on the one hand and vegetation and greenery on the other. Key to this relationship is how the internal dynamics of an oil-dependent rentier state reflect directly on the location and nature of vegetal growth around the country. The effects of

bloated bureaucracies and their relationship with state wealth, the particular national security concerns of a small wealthy state in an unstable region, and the culture of leisure in modern Kuwait all have their own impact on vegetation and greenery through diverse avenues. The result is a natural vegetal projection, or profile, of the internal dynamics of Kuwait's political economy as a rentier state.

¹ Author's acknowledgement: I would like to thank Omar Al-Saeed for all his help and guidance in researching this paper.

¹ Overgrazing as an issue in Kuwait has a somewhat nebulous past. While it is clear most modern herdsmen are stateless Bidoon people and/or South Asian migrant laborers, herd-owners are usually nomadic by heritage, and citizens. While researchers are quick to point fingers at well relocation, the death of nomadic lifestyles, and a cultural emphasis on meat production for the de-vegetation of the Kuwaiti deserts, some historical accounts, including that of Violet Dickson in the 1950s, blame oil company workers for denuding the desert of its most important forage plants. Maps of vegetation communities taken over time are not enough to confirm that overgrazing around Kuwait City has changed the ecological makeup of the surrounding deserts. A pollen-dating test would be instrumental in reaching such a conclusion. Too much emphasis on over-grazing as the main culprit in the deforestation of Kuwait's shrublands is risky – ethnic tensions between traditionally urban and nomadic Kuwaitis are enough to create overblown accusations towards nomadic people and their practices. Nonetheless, it is undoubtedly true that vegetation grows much better in fenced areas, and overgrazing is at least a contributing factor to its degradation in the wild. For more on issues of land degradation in Kuwait, see e.g., J. M. Al-Awadhi S. A. Omar R. F. Misak, "Land degradation indicators in Kuwait," *Land Degradation & Development* 16, no. 2 (April 2005): 163-176; R. F. Misak, J. M. Al-Awadhi, S. A. Omar, S. A. Shahid, "Soil degradation in Kabd area, southwestern Kuwait City," *Land Degradation & Development* 13, no. 5 (October 2002): 403-415.

² In total, twenty-two interviews were conducted by the author.

³ Ibid.

⁴ Farah Al-Nakib, *Kuwait Transformed: A History of Oil and Urban Life* (Stanford: Stanford Univ. Press, 2016).

⁵ Michael Herb, *Wages of Oil* (Ithaca: Cornell Univ. Press, 2014).

⁶ See Farah Al-Nakib, *Kuwait Transformed: A History of Oil and Urban Life*.

⁷ Harold Dickson, *The Arab of the Desert* (London: George Allen and Unwin Ltd., 1951), 14.

⁸ Al-Nakib, *Kuwait Transformed*, 90.

⁹ Ibid.

¹⁰ Ibid., 150.

¹¹ Farah Al-Nakib. "Revisiting 'Hadar' and 'Nomadic' in Kuwait: Citizenship, Housing, and the Construction of a Dichotomy," *International Journal of Middle East Studies* 46, no. 1 (2014): 5-30.

¹² "Country Comparison: GDP Per Capita," CIA World Factbook, Accessed December 22, 2020, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html>

¹³ "Oil-rich Kuwait Faces Looming Debt Crisis," *Al Jazeera*, 24 November 2020, <https://www.aljazeera.com/economy/2020/11/24/when-kuwait-emerged-from-a-months-long-coronavirus-lockdown-hundr>.

¹⁴ See eg. Fuad Abdullah Al-Omar, "Growth of Public Expenditure and Bureaucracy in Kuwait," *Islamic Economic Studies* 2, no. 2 (1995): 1-16.

¹⁵ Herb, *Wages*, Introduction.

¹⁶ Herb, *Wages*, Introduction.

¹⁷ This was the opinion of several subjects interviewed for this research.

¹⁸ Gardiner, *Kuwait: The Making of a City*, (London, Burnt Hill: Longman, 1983), 85.

¹⁹ During fieldwork in Kuwait the author saw and reviewed plans for Kuwait's National Greenery Plan of the 1990s.

²⁰ Practitioner 10, interviewed by the researcher, July 2019, Kuwait City.

²¹, "Category F Claims", The United Nations Compensation Commission, Accessed 8/23/2019. <https://uncc.ch/category-f>

²² N. Al-Awadhi, M.T. Balba, C. Kamizawa (eds.), *Restoration and Rehabilitation of the Desert Environment*, (Amsterdam: Elsevier Science, 1996).

²³ “KNFP Overview,” Kuwait National Focal Point, accessed 12/28/2020,

<http://www.kuwaitnfp.org/Client/Content.aspx?Id=38>, and “Stakeholders,” Kuwait National Focal Point, accessed 12/28/2020,

<http://www.kuwaitnfp.org/Client/Stakeholders.aspx>

²⁴ The causes for such a delay do not arise from any natural or human factor in the desert itself. Vegetation has regrown with surprising speed in protected areas around the country, according to several interview subjects who research desert rehabilitation.

²⁵ “Projects,” Kuwait National Focal Point, Accessed 8/23/2019.

<http://www.kuwaitnfp.org/Client/KERPPProjects.aspx>

²⁶ Practitioner 12, Research professional, interviewed by the author, July 2019, Kuwait City.

²⁷ Practitioner 12, interviewed by the author.

²⁸ Samira Omar, محمية صباح الأحمد الطبيعية: الخصائص الطبيعية والموارد البيئية (Kuwait, Kuwait Institute for Scientific Research, 2014).

²⁹ Practitioner 4 (agricultural business-owner), interviewed by the author, July 2019, Kuwait City.

³⁰ Practitioner 3, interview.

³¹ Peter Mandaville, *Bedouin Ethnobotany* (Tuscon: Univ. of Arizona Press, 2019).

³² Harold Dickson, *The Arab*, 255.

³³ Michael Herb notes that the assembly and dismissal of the Kuwaiti National Assembly has historically corresponded with the rise of irredentist threats from Iraq, arguing that Kuwait’s efforts to maintain an appearance of democracy relate to its need for foreign democratic powers to want to defend it against outside threats. Herb, *Wages*, 63.

³⁴ Administration Report of the Kuwait Political Agency for the Year 1930. Lt.-Colonel Harold Richard Patrick GB165-0085, MECA.

³⁵ “Background,” United Nations Iraq-Kuwait Observation Mission, Accessed 7/23/2019. <https://peacekeeping.un.org/mission/past/unikom/background.html>

³⁶ Samira Omar, *Vegetation of Kuwait* (Kuwait City: Kuwait Institute for Scientific Research, 2000), 11.

³⁷ “Kuwait Country Profile,” Food and Agriculture Organization of the United Nations, fao.org <http://www.fao.org/countryprofiles/index/en/?iso3=KWT>

³⁸ Practitioner 3, interview.

³⁹ This is according to documents reviewed by the author summer of 2019.

⁴⁰ Herb, *Wages*, 63.

⁴¹ Al-Awadhi, Balba, Kamizawa, *Restoration*, 159.

⁴² “About Us,” Kuwait Oasis, Accessed 8/23/2019. <http://www.kuwait-oasis.com/about-us/>

⁴³ Practitioner 6, NGO worker, interviewed by the author, July 2019, Kuwait. .

⁴⁴ Nawara Fattahova, “Deep Roots, How Plants Play An Important Role in Kuwait’s Environment, History,” *Kuwait Times*, 4 December 2016.

⁴⁵ Practitioner 7, Researcher, interviewed by the author, July 2019, Kuwait City.

⁴⁶ Practitioner 11, Researcher, interviewed by the author, July 2019, Kuwait City.

⁴⁷ Practitioner 8, Farm-owner, interviewed by the author, July 2019, Kuwait City.

⁴⁸ Practitioner 9, Farm-owner, interviewed by the author, July 2019, Kuwait City

⁴⁹ Practitioner 4, interview.

⁵⁰ *Ibid.*, interview.