

"We want to have a positive impact": Fragile ecologies and the Iraqi Kurds' dutiful environmentalism

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Abstract

In this article, we investigate the emergence of modern environmentalism in the Kurdistan Region (Iraq), a *de facto* state in which ecological well-being is under serious strain. Social mobilizations in the Middle East have been depicted as confrontational and opposing the authorities. Studies of environmental activism in the region have also highlighted conflictual relations between social actors and the holders of power. In this article, we stress the need to expand the research scope to closely examine other forms of actions and strategies in relation to ecological threats and climate change. Drawing upon field research and interviews in the Kurdistan Region of Iraq, we analyze the (geo)politics, economic systems and social change which together affect nature, natural resources, landscapes and climate, as well as the patterns of Kurdish contestation in these areas. We term the typical practices of the new phenomenon of Kurdish environmental activism as 'dutiful' form of dissent, which can be explained by contextualizing activism. It is grounded in political ecology and activists' efforts are directed at state building and policymaking in a post-conflict state.

Keywords: Environmentalism, activism, dutiful dissent, the Kurdistan region, Iraq

Résumé

Dans cet article, nous étudions l'émergence de l'environnementalisme moderne dans la région du Kurdistan (Irak), un état de facto dans lequel le bien-être écologique est mis à rude épreuve. Les mobilisations sociales au Moyen-Orient ont été décrites comme principalement conflictuelles et anti-systémiques. Les études sur l'activisme environnemental dans la région ont également mis en évidence des relations conflictuelles entre les acteurs de la société et les détenteurs du pouvoir. Dans cet article, nous soulignons la nécessité d'élargir la recherche et examiner d'autres formes d'actions et de stratégies, qui prévalent dans la région du Kurdistan d'Irak, en relation avec les menaces écologiques et le changement climatique. Basé sur d'étude sur le terrain et des entretiens, nous analysons la (géo)politique, les systèmes économiques et les changements sociaux, qui, ensemble, affectent la nature, les ressources naturelles, les paysages et le climat, ainsi que les modèles de

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contestation dans ces domaines. Nous avons découvert que les pratiques typiques du nouveau phénomène de l'activisme environnemental Kurde illustrent une forme de dissidence 'réformiste', qui peut s'expliquer en contextualisant l'activisme et en l'enracinant dans le contexte de l'écologie politique et les efforts des militants visant à la construction de l'État et à l'élaboration des politiques dans un état post-conflit.

Mots-clés: l'environnementalisme, militantisme, dissidence réformiste, la région du Kurdistan, Irak

Resumen

En este artículo investigamos el surgimiento del ecologismo moderno en la región de la Kurdistan (Irak), un estado de facto en el que el bienestar ecológico se encuentra bajo una grave presión. Las movilizaciones sociales en Oriente Medio han sido descritas principalmente como confrontativas y antisistémicas. Los estudios sobre el activismo ambiental en la región también han puesto de relieve las relaciones conflictivas entre los actores de la sociedad y los detentadores del poder. En este documento, enfatizamos la necesidad de ampliar el alcance de la investigación para examinar de cerca otras formas de acciones y estrategias, como las que prevalecen en la región del Kurdistan de Irak, en relación con las amenazas ecológicas y el cambio climático. Basándonos en investigaciones de campo y entrevistas, analizamos la (geo)política, los sistemas económicos y el cambio social, que juntos afectan la naturaleza, los recursos naturales, los paisajes y el clima, así como los patrones de la disputa kurda en estas áreas. Hemos descubierto que las prácticas típicas del nuevo fenómeno del activismo ambiental kurdo ejemplifican una forma de disidencia 'obediente', que puede explicarse contextualizando el activismo y basándolo en el trasfondo de la ecología política y los esfuerzos de los activistas dirigidos a la construcción del estado y la formulación de políticas. en un estado de posconflicto.

Palabras clave: El ecologismo, activismo, disidencia obediente, la región del Kurdistan, Irak

1. Introduction

In recent years, Kurds in Iraq have begun establishing environmental non-governmental organizations, groups, and platforms to address the local manifestations of contemporary challenges, such as deforestation, the degradation of ecosystems, the negative effects of urbanization, loss of biodiversity, and the impacts of climate change. The political autonomy and relative stability of post-war and post-ISIS northern Iraq, governed by the Kurdistan Regional Government (KRG), has opened new possibilities for people's engagement across a variety of areas, a phenomenon which is particularly visible among the younger generation (Fazil & Baser, 2021). In this article we present our research on social activism, focusing on how a new type of modern environmentalism has been unfolding in the Kurdistan Region.²

Scholarship on social mobilization predominantly focuses on protest actions, confrontational approaches, the contestation of dominant power structures, opposition politics and contentious practices (Malone-France, 2012; Tarrow, 2011). Collective action, which is aimed at challenging the social order, disrupting the status quo, and drawing attention to common concerns via action against clearly defined opponents, is usually considered to be a key characteristic of social movements (Della Porta & Diani 2006, pp. 20-21). The study of anti-systemic or disruptive activism is more prevalent than other less contentious forms of action (see e.g., Smith and Wiest, 2012), although other approaches, such as collaboration with the state or co-optation have also been identified (Migdal, 2001). Analyses of activism in the global South have also focused on the conflictual nature of the relations between civil society and political and economic elites. Previous research has included studies of radical ideologies that frame environmental themes in terms of social problems stemming from neoliberal capitalism (e.g., Bryant & Bailey, 1997; Peet & Watts, 2004). Popular theoretical frameworks such as environmental justice, the actions of subalterns or the "environmentalism of the poor" have explored the strategies of resistance and survival of local communities, and pointed to the inequalities of often state-supported developmental projects and policies (e.g., Cronin, 2007; Martínez-Alier, 2002; Martínez-Alier and Guha, 1997).

² We prefer to use the terms "Kurdistan Region" (KR), "Southern Kurdistan" or "Bashur" to refer to the semi-autonomous region of Kurdistan in Iraq, rather than "Iraqi Kurdistan" or the "Kurdistan Region of Iraq."

Until uprisings such as the 2009 Iranian Green Movement and the "Arab Spring" in 2013, research on social movements and activism in the Middle East and North Africa (MENA) region had been limited. Still, recent debates on collective action in the region have revolved around protest movements, contestation and the choice of non-collaborative tactics (Ali, 2018; Bayat, 2013; Beinín & Vairel, 2011). Similarly, emerging studies of environmental activism have focused primarily on confrontations, such as protests against the exploitation of natural resources by the state or foreign companies. These include protesting gas exploration in Algeria (Hamouchene, 2015) and gold mines in Turkey (e.g. Yaşın, 2019), Kurdish subaltern environmentalism opposing the Iranian state's discriminatory practices (Hassaniyan, 2021) or the transformation of the green pillar of the Kurdish movement (Hunt, 2021). Widespread, albeit less spectacular, modes of action have been left under-researched (Bayat, 1997; Beinín & Vairel, 2011; Sowers, 2018). A notable exception is the debate around NGOs and their role in democratization and civil society (Ali, 2018).

This article contributes to the body of scholarly work on non-contentious environmental activism by analyzing the practices of Kurds in Bashur, which, as we propose, can be described as predominantly "dutiful environmentalism." This concept, used by O'Brien and his collaborators (2018), denotes a specific type of activism that does not question mainstream policies and practices, but intends to push for a change within existing systems and that has a cooperative character. Even though environmental challenges are paramount, and climate change has been transforming the region, no mass protest movement has emerged so far in this part of Kurdistan. Following the argument that social change is closely connected to economic and political dynamics, and specifically the geopolitics of natural resources, power and legitimacy must be taken into account in researching environmental change (Sowers, 2018, p. 27; Verhoeven, 2018). Scholars of the Middle East have also shown that historical and local specificities inform collective action (Ali, 2018; Beinín & Vairel, 2011).

We contextualize dutiful activism with the political ecology approach. Firstly, we find that Kurdish environmental activists functioning in a postcolonial and post-conflict state undertake multiple tasks in striving to have a positive impact, such as enhancing the government's capabilities in the sphere of the environment, "do-it-yourself" pro-nature actions, setting up organizations or projects, and participating in transnational movements. These activities have been developing in parallel with a growing sense of agency, especially among a well-networked younger generation. There are, however, limits to their activism, which are posed by political and entanglements, including oil-dependence and the interests of power-holding families.

Secondly, our aim is to enhance empirical knowledge of environmental challenges, and to understand the ways activists respond to them in a region considered to be among the most vulnerable to climate change and water scarcity, but also facing other environmental problems. In comparison to topics such as (geo)political or socio-economic developments, Middle Eastern ecologies have so far received little attention in the social sciences (Sowers, 2018). Recent research on youth activism has also marginalized environmental activism in favor of highlighting protests against unemployment, the lack of adequate public services and corruption (cf., Fazıl & Baser, 2021).

The structure of the article is as follows: Firstly, we present our methodology. Then, we give the historical context using a political ecology perspective. The next section addresses the pioneers of environmental protection in the Kurdistan Region and the development of modern environmentalism. A discussion follows of the main ecological threats identified by activists, as well as their responses and modes of action. The article ends by discussing why environmental action in KR has mostly taken a dutiful form.

2. Methodology

Fieldwork in Kurdistan took place between October and December 2021, during which we conducted ethnographic observation and twenty interviews – 19 with people involved in environment-related activism and one with a Kurdish person holding a government position in the Iraqi government and responsible for environmental issues. Two additional interviews were conducted in Warsaw with activists working in Southern Kurdistan, one online and one in person. The semi-structured interviews were based on a scenario which included questions about a person's history and experience of activism, their perception of ecological and climate change, networking and organizational aspects, and relations with public authorities.

We also took part in several meetings with government officials and non-governmental organizations focused mainly on topics other than the environment. Those meetings were mostly unrecorded but were a great source of contextual information about the situation in the Kurdistan Region, including perceived ecological and social problems. One person invited us to join her organization's activities in the field in a mountainous village, while another enabled us to see their office and visit their project sites, such as a park and a plastics recycling plant. An activist working on river preservation guided us through a photo exhibition showcasing the human relationships with the Tigris River and its tributaries. Besides that, we spent part of the day in another office observing daily activities and visiting workshops of activists involved in art and tourism. The activist participants we interviewed were women (11) and men (9), the majority of whom were under 30 years old. Almost all the respondents were active in non-governmental organizations; however, some of them were volunteers, holding no formal position within their organizations. Additionally, we analyzed reports on the environmental situation in the region.

3. Background: political ecology of Southern Kurdistan

Ecological change cannot be understood properly without taking into consideration the context of social and economic institutions and systems (Neumann, 2014: 9). The Kurdistan Region, a "de facto state" (Prados, 1994; Voller, 2012), has a long history of violence and political instability which affected state-building processes. In the 1980s, it became a major frontline of the Iraq-Iran war and the space for the Kurdish Peshmergas' struggle against the Ba'ath regime, which culminated in the genocidal Anfal campaign conducted by Saddam Hussein against the Kurds. That was followed by the Kurdish exodus at the beginning of the 1990s. The establishment of a no-fly zone and the regional autonomy in 1991 brought no end to violence in Kurdistan, as civil war raged between the Kurdistan Democratic Party (KDP) and the Patriotic Union of Kurdistan (PUK) from 1994 to 1998, and the Ba'ath regime continued to pose a threat. Hussein's ouster in 2003 changed the situation in the Kurdistan Region, which began to integrate with global capitalist markets and ensured their autonomy within the federal system in the 2005 Constitution. Yet the war with the so-called Islamic State from 2014 to 2017 proved that the situation in the region was far from stable, drawing Kurdish forces into another conflict. Years of wars and insecurity have wreaked havoc on the region's infrastructure and institutions and deepened social, economic and political problems. According to one informant, history also sheds light on the detachment of people from nature. During the Baathist epoch, the Kurds were primarily concerned with protecting their lives and were prohibited from moving freely within their regions, for instance going to the mountains or rural areas. They lived under strict curfew, which limited their possibilities to experience the country's natural environment.

The process of redevelopment and intensive globalization after 2003 has been fueled by revenues from the energy sectors and relationships with global petroleum actors. Since the first decade of the 21st century, the Kurdish economy has become highly dependent on extractivism. Oil is the new source of wealth, constituting around 85% of the country's revenue (Middle East Centre, 2018). Another key resource is natural gas, which is mostly used domestically. But the shifting geopolitical situation has recently prompted discussion about opening new drilling and exporting gas abroad (Aziz, 2022; Ismail & Dahan, 2022). Undoubtedly, oil extraction is tightly related to the dream of full political independence (cf. Kuruuzum, 2022, p. 31-33), and significance in the eyes of the world, but it comes with a cost. The unrestricted development has transformed Kurdistan's landscapes and led to what is perceived as the "Dubaiification" of Kurdistan (King, 2014, p. 25). Reconstruction projects are taking place across the state. New investments appear, particularly in the real estate market, where luxury residences have been built, and their styles combine western-European modernism and the splendor of wealthy Gulf states. New roads and flyovers have been built across the state, allowing swift communication by car, while modern airports connect Kurdistan with all corners of the world. The emerging infrastructure of Southern Kurdistan is strictly oil-based, as almost every aspect of life depends on the high consumption of oil as the main fuel of choice.

Importantly, the extractive economy has had an impact on national identity and the strengthening of autonomy within the volatile federal structures of Iraq. For Kurds, the recent opportunities to extract and sell oil have been closely intertwined with dreams of abundance, progress and full political sovereignty (Kuruuzum, 2022, pp. 29-69; Tinti, 2021). The valuable oil fields, with relatively easily accessible hydrocarbons, have

attracted much interest from international players and placed the Kurdish territories on the map of global capitalist networks. For foreign investors and operators, it is thus crucial to support the self-rule of Kurds in Iraq and the stability of the region (Tinti, 2021: 97-98). Being a "capitalist frontier" and a "new resource zone" for the world system, Southern Kurdistan has thus limited scope for forging alternative economic models, especially when it comes to its sustainability and the phasing out of fossil fuel extraction. Notably, its political elites have secured lucrative contracts and profited from these developments, such as through the Kurdistan Board of Investment (Kuruuzum, 2022, pp. 39-40). While pioneering work in nature protection (which we discuss later) is attributed to sheikh Ahmed Barzani, currently the Barzani family can be considered as one of the key architects of the region's extractivist policies and key beneficiaries of the flourishing capitalist economy. However those possibilities are relatively recent gains, obtained through the emergence of the autonomous region (Leezenberg, 2006).

Surprisingly, several of the young interlocutors encountered during the fieldwork have studied or hold degrees in oil engineering, and others have work experience related to that industry, such as preparing environmental assessments. Oil-related careers seem to be attractive for ambitious youth and professionals, and do not, from their perspective, contradict their concern for the environment.

Modern Kurdistan's ecology has been shaped by rapid and chaotic urbanization, which was partially enforced during the Ba'ath era, but continued as Kurds sought new economic opportunities outside rural areas. The capital, Hewlêr (Erbil) increased from 90,000 residents in 1965 to around 1.3 million in 2010 (Silva, 2010) and around 1,613,000 today. Municipalities have invested in roads and construction, but this process has not been accompanied by the development of public facilities. Much of the key public and environmental infrastructure, such as water treatment plants, waste management and public communications remain underdeveloped, even compared to the Baathist era, since infrastructure destroyed in the war was not rebuilt.

As we show below, unrestrained development, dependent on fossil fuels and industrialization, has aggravated environmental problems all over Kurdistan. But with the increased human pressure on the environment, recurring droughts and changing weather patterns, an increasing number of people are treating the topic seriously. Most of our interlocutors acknowledged that environmentalism in the modern sense, that is, purposive pro-nature activities and engagement in ecological and climate change discourses, is a new concept in Southern Kurdistan. The political conundrum, involving local and international agents alongside uncertainty over the region's status and the embargoes imposed on the Kurdistan Region until 2003, were not conducive to discussions on ecology or global warming. Consequently, state environmental institutions and policies are weak, and social pressure for changes in this area is limited. Certain recognition of environmental problems at a government level has come through international interactions, as Iraq became a signatory of multilateral agreements (such as the Paris Agreement in 2021), and climate and ecology-related issues have become a vital part of the agendas of foreign aid actors and big transnational NGOs in the 21st century.

Effective environmental protection has not been ensured by the state or by institutions such as national parks or nature reserves. The environmental policy of the Kurdistan Region, which has been developing since discussions on water were held and the first laws were passed by the Kurdistan Regional Parliament in 2006, has many limitations (Abdulrahman, 2020). Even the most environmentally rich environments and sites attractive to tourists, such as the Halgurd and Sakran mountain ranges and Kermanshah, are not protected in practice. An interviewee who specializes in wildlife conservation stated:

We have people here, most of whom don't understand the basics of protection. When you establish a national park and protected area, you need to manage it and monitor it (...). National park – it's just a name. (...) Most of the people don't understand or they are not able to identify the species. (Male, 30s, Silêmanî, Nov. 2021)

Many areas in Bashur are inaccessible or are unsuitable for any kind of environmental protection measures due to ongoing military conflicts and local militias controlling those areas. This is still true for many places in the north of the region, where the war between the Kurdistan Workers' Party (Partiya Karkerên Kurdistanê, PKK) and Turkey continues, as well as the border strip of and the disputed territories between

Kurdistan and the rest of Iraq. Military conflicts are also a preoccupation of Iraq's Ministry of Health and the Environment, whose current tasks include demining and setting up early warning radiation systems (depleted uranium was used in the first Gulf war and since the 2003 invasion), as a Kurdish interviewee from the ministry explained.

4. Forging a culture of environmentalism: Pioneers and current actors

The most widely recognized protected area in Kurdistan is located around Barzan, a mountainous region in northern Iraq, on the banks of the Greater Zab. This regional reserve exists due to the efforts of sheik Ahmed Mohammad Barzani (1896-1969) – the charismatic leader of the Barzani tribe who enforced several regulations which helped to sustain the ecosystem and local ecologies on which the local population depended. The pioneering practices, such as safeguarding forests, restricting hunting and promoting the sustainable use of natural resources (Seroki, 2018), were based on traditional leadership embedded in tribal and religious structures, a far cry from the modern regimes of environmentalism, but nonetheless effective. Contemporary activists are generally not in favor of such locally-based solutions, stating that reliance on 'tribal nature protection' is a sign of the weakness of the state and its institutions. Nevertheless, those early efforts are part of the Kurdish legacy and are known among environmentalists. Likewise, in the region of the Qara Dagh, which is a home to the rare Persian leopard and other species, some successes in nature protection were achieved by Kurdish biologists and environmentalists. A local sheikh was also involved, an expert from Nature Iraq told us. However, in other regions and urban areas, traditional leaders possess less control and authority in local communities and have little impact on the mounting ecological problems.

Modern environmentalism has been developing mostly in Kurdish cities, resembling the patterns of new social movements led by the middle class in industrialized societies (cf. Buechler, 2013). An interest in nature protection for its own sake, as well as an awareness of environmental destruction and climate change, is a new phenomenon among Kurds in Bashur, although in the past, the connections with nature were closer. Kurds still evoke the old saying that "they have no friends but the mountains." According to the activists we talked to, the trend of environmental activism in the modern form has been visible for less than twenty years. Nature Iraq, which is considered to be the first environmental NGO in Iraq, was established in 2004, and has been active in the conservation field in the Kurdish region as well. The interviewee from Silêmanî who works in the Earth Network, said that while 12 years ago, people were laughing at the work they were doing, now they see interest in the environment and climate change.

Apart from professionals in the environmental and health sciences, ecological ideas have found fertile ground among the young generation, which grew up in the more globalized and peaceful Kurdistan after the 2003 Iraq war. Similar to the engagement of the Kurdish diaspora in Turkey, Kurds who have lived abroad for a long time return to Kurdistan and emphasize environmental and climate concerns (Sowers, 2018, p. 35). Some of these returnees established ecological projects in Kurdistan, inspiring and engaging others. Generational differences in the approach to nature and activism are visible. An activist working in the field of animal rights argued that the contemporary youth is the first generation to have consciously embraced environmentalism due to recent political and social changes:

The generation (...) who was raised after the war, (...) after Saddam's generation, was much more free and more educated, so we could think about other things. (Female, 29, Silêmanî, Nov. 2021)

She has particular faith in people in their '20s and younger. From her perspective as the leader of a local NGO, they will push for more changes in the country because they are "more open-minded" (*ibid.*). Regardless of the motivations that drive people to engage in environmental activism, the greater participation of youth is observable.

Current sustainability and climate change mitigation agendas across the world have created professional opportunities for local educated youth. They currently have the choice to become involved in environmental events, projects, workshops, exchanges and networks initiated or supported by foreign actors, such as the United Nations agencies, the European Union, diplomatic institutions, Western NGOs or political foundations. They

participate in leadership training events and learn how to develop their projects to accord with international NGO standards. This trend coincides with the ethnographic observations by Diane E. King (2014, p. 9), who wrote: "The global in Kurdish life links to events and trends taking place on a very large scale, and it is new." At the time of our fieldwork, one of the interlocutors was reaching out to the German consulate in Erbil for support for her project. Another attended an event about climate change that was organized through British diplomacy. This was a follow-up to the COP summit in Glasgow in 2021. The consul emphasized that climate change is a priority for the United Kingdom, and they wish to cooperate with the Kurds on that issue. International actors promote the climate agenda in Southern Kurdistan. There are many fellowship programs, training schemes, grants and other forms of support for social activists in Iraq and the Kurdistan Region that are also useful for their career development. According to one of our interviewees, his participation in Al Gore's climate leadership training in Berlin inspired him to combat climate change in his native country. Because nature is regarded as politically neutral, environmental activities are not seen as disruptive or subversive to existing power relations, thereby providing a safe space for activists. This confirms a general trend across the Middle East. Young people eagerly take part in civil society activities as a way of promoting their ideas of democracy, but in domains that are not overtly political (Droz-Vincent, 2008).

The gender aspect of Kurdish environmentalism is important. The widespread perception of environmental activism as a safe space – a space associated with nature, tree planting, green projects, educational campaigns, etc. facilitates women's participation. For many participants, environmental and climate action are their first or only fields of public engagement. Although ecofeminist ideas in Southern Kurdistan are not as popular as in Turkey or Rojava, Syria (Cioni & Patassini, 2021), women join environmental initiatives, educate themselves in ecological topics and establish their own projects. One member underlined women's involvement in one of the most active environmental NGOs, Jingedosty (Friends of Nature) in Silêmanî: "Most of them are students and mothers, who fight for their children's future" (Female, 21, Silêmanî, Nov. 2021).

Despite the growing globalization of Kurdistan, the dissent evoked by environmental activists has not been expressed as a mass protest movement in the way that it has in many instances in the global North. Nor have significant movements in the defense of the commons emerged as they have in Turkey. There is no significant site where the local, indigenous population opposes government or corporation projects, a common feature of environmental protests in the in the global South. Instead, environmental activism in KR relies on the work of a relatively small network of professional activists, who work through officially established NGOs. They occasionally benefit from aid from international bodies or local, government-tied foundations. Those organizations focus on research, grassroots interventions, campaigns, and advocacy, and do not engage in protest actions or other forms of disruption. As some of the interviewees stressed, the number of formally registered NGOs does not indicate the actual extent of the activism that exists across Kurdistan. Non-governmental organizations in Bashur have mushroomed in recent times, partially as a response to the development agenda of many international actors and new sources of funding (Jad, 2004). In the Kurdistan Region, we heard more than once that a lot of environmental NGOs are formal, and passive in their strategies. For example:

Unfortunately in Kurdistan before Jingedosty [2019], we had (...) around 200 registered environmental organizations. I can, without any doubt, tell you that no more than five, like my fingers, environmental organizations work actually for the environment, and the environment wasn't an issue of the politicians or the media. It wasn't an issue for anyone. (Male, 29, Warsaw, Jan. 2022)

From many sources, we heard the same names when asking for people or organizations that were engaging in meaningful activity in the environmental field. Many NGOs have the ecology of climate change on their list of concerns, but do not contribute to solving environmental problems. Those which do, usually begin their engagement by identifying the ecological issues they want to tackle. Because of the novelty of the interest in environmental issues, they see their research or their discussions as a basic contribution to the development of the culture of environmentalism in Kurdistan, and as support for policy making. Below, we

present the key topics which were most frequently raised by our interviewees, keeping in mind that it is not a complete list and many problems are excluded from the activist's perspectives and actions.

5. Fragile ecologies from activists' perspectives

Among environmental activists there are those at one end of a continuum who seek to identify the interrelatedness of ecological, economic and political dimensions, for example, pointing to the destructive effects of capitalism, growth paradigms, or neoliberal policies. At the other end are organizations that focus on observable problems and propose technical, expert-driven or managerial solutions (Kadirbeyoğlu, *et al.*, 2017, pp. 1728-1729). For the Kurds in Bashur who have only recently begun more organized environmental action, the depoliticization of environmental narratives does not resemble the "post-ecologist turn" expressed in discourses such as the green economy (Blühdorn, 2013). What they achieve is more bottom-up, work aimed primarily at proposing specific solutions and contributing to environmental policies. These goals have an impact on the types of problems activists identify and discuss.

The lack of awareness

The pressing issue that was raised by almost all the respondents was the low level of environmental awareness in Kurdistan. A female activist working for animal protection underlined the short-term perspective that, in her view, prevails in society:

Most of the people, more than 60 percent of the people here, don't respect the environment. They only think about now. They don't think about what will happen to the next generation if they waste water (...). What will happen for our children, for our grandchildren... (Female, 29, Silêmanî, Nov. 2021)

That lack of widespread environmental interest partially explains the government's lack of commitment or real action, since there is little social pressure pushing them to do so.

There are at least two aspects to this. First is the general understanding of ecology, reflected in individual actions and behaviors. One respondent, speaking about her passion for the environment, recalled a situation in which a man threw away a plastic bottle. After discussions within activist circles, she concluded that the roots of the problem lie in an absence of environmental education (Female, 21, Silêmanî, Nov. 2021). Many ecological activists see a contradiction between Kurds declaring they love for nature, as expressed in the culture of picnicking in natural surroundings, versus the masses of waste left at popular weekend leisure sites. As stated by one of the interlocutors, most individuals, faced with economic difficulties and political problems, tend to disregard ecological concerns: "There are so many people who take it [climate change] as a joke, and they see it right in front of them" (Female, 22, Duhok, Dec. 2021). This woman referred to changing rainfall patterns – for example by the time we met at the beginning of December, the usual rainy season has not yet started. Although people generally notice longer periods of drought and extreme temperatures, they do not usually connect these to the climate crisis.

Secondly, the low level of awareness of environmental challenges is also present among governmental actors. An expert engaged in nature conservation said:

... even as the deputy prime minister. We had a meeting with him. He said: "we didn't know". He confessed that nobody talked about the environment. He didn't know about the environmental situation until [around] three years ago. (Male, 30s, Silêmanî, Nov. 2021)

The government's interest in environmental issues has coincided with rising tensions in Iraq, caused by the increasing visibility of nature-related environmental problems such as water scarcity, and the country's increasing involvement in international environmental and climate governance. Given that Iraq was one of the last countries to ratify the Paris Agreement, interest in climate change is a new item on the agendas of political

elites. The Ministry of Health and the Environment has recently started a project to set up a monitoring system to gather data about pollution and waste. The state representative we spoke to admitted that government knowledge of environmental conditions in Kurdistan is limited.

There is limited communication between relevant decision-makers and other actors. An activist, who has been monitoring environmental conditions for years, noted:

There are organizations – the United Nations or the European Union – willing to help Third World countries with their environmental projects. Here is what I'm telling them: that the government here must know that not everything is expensive. Secondly, they need to better organize themselves. What I discovered after 15 years of work as a journalist and as an environmentalist is the lack of communication between the Kurdish government and the UN. (Male, 42, Hewlêr, Oct. 2021)

The lack of effective communication channels between the representatives of the UN's environmental programs and Iraqi and Kurdish politicians also means that a lot of potential funding goes unused. Paradoxically, bridging those two groups is a task that some activists undertake. One is our respondent quoted above, who spent many years abroad and has been interested in nature-related topics for a long time.

Pollution and other health-related problems

Sowers (2018) has argued that the Middle Eastern model of environmentalism focuses predominantly on tackling health-related issues. The same is true for Iraq and the Kurdistan Region. On the one hand, the name of the relevant ministry – the Ministry of Health and Environment – links those two issues, and, on the other, activists identify most closely with environmental problems that have a direct impact on people's well-being and health, such as solid and waterborne waste from the agricultural and industrial sectors and household pollution. A young Kurdish activist who has been studying environmental science in Poland holds an image of his homeland spoilt by pollution and with much of its natural environment destroyed:

I was reading news about Kurdistan, and I was living there [in Kurdistan, before going abroad]. So when I looked at the sky, instead of the blue sky, I was seeing a bunch of clouds of smoke. And then when I was living in the flats, I was only seeing houses without any green areas. When I was looking at the rivers, I was seeing polluted rivers. (Male, 29, Warsaw, Jan. 2022)

In the words of a governmental official, the problem of pollution is connected to uncontrolled industrialization, urbanization, oil-based development, and insufficient public services. In his view:

The main problems are refineries. Those refineries are (...) very primitive refineries. They are not following international standards. They are without filters. The public transportation in Kurdistan is not active, so people are using too many cars. That is affecting the air pollution. There is no water treatment, so all the sanitation in the end goes to rivers. The sewage. The work of water treatment factories. There is another concern, that is soil pollution, affected by oil companies, so after they explore or produce the oil, there is no company (...) that cleans those. (Expert interviewee, Deputy Minister of the Ministry of Health and Environment, Hewlêr, Nov. 2021)

Waste management is a serious issue for the Kurdistan Region because there are no large scale waste processing facilities. Communal waste in big cities like Hewlêr or Silêmanî is stored in landfills, with wastewater flowing directly to the rivers or seeping into the ground. The same happens with industrial waste. Additionally, an abundance of plastic bags and PET bottles is compounded by a lack of trash services or systematic waste collection. We observed how small objects like water bottles and cans were not treated as

"dirt", at least as long as they were not lying in private or "representational space." In most commercial areas, shopkeepers thoroughly clean the driveways to their shops, but this means flushing all kinds of rubbish into the nearest gutter or onto the street, where waste stops being a problem for them. Roadsides or potholes are treated in a similar manner.

Industrial, often toxic, waste further exacerbates the problem, particularly with the contamination related to oil drilling and the processing of oil. In some locations in Iraq, contamination from uranium shells used by the US army during the 2003 invasion still poses a serious medical threat. However, we did not find any confirmation of this problem in the Kurdistan Region. Yet, pollution by heavy metals, both from military remnants and from exhaust fumes, can be found in the soil, air and water and was regarded by our interviewees as the main reason behind an increase in certain diseases. An environmental activist from the Kurdistan Nature Organization, who is also an employee in a hospital in Silêmanî stated: "Due to the environmental pollution in Bashur, eleven people are diagnosed with cancer each day" (Male, 30s, Silêmanî, Oct. 2021). However, due to the lack of research and access to information, there is no reliable data on the levels of chemical pollution in Kurdistan. Consequently, it is difficult to pinpoint the correlation between toxicity and illnesses.

Water issues

Water conflicts, including pollution caused by companies, dam building or mining, have engaged many activist networks, which collaborate globally in advocacy and provide mutual support (Rodríguez-Labajos and Martínez-Alier, 2015). The water crisis, unfolding for decades, is also a highly complex and politicized issue in Kurdistan. Interestingly, it is recognized as a problem not only by activists, but by actors from different parts of the Kurdish political spectrum, from the PKK to the KDP. The issue of water in Southern Kurdistan is the outcome of at least three factors: climate change-related desertification, the actions of the neighboring states of Turkey and Iran, and severe pollution. Climate change has created a big problem for water management in the face of dwindling resources. Turkey and Iran have responded to these challenges with large scale engineering projects, building a number of dams. Such projects also have political or even military significance, as they allow the states to control the flow of water downstream. In this manner, the amount of water flowing into Iraq was reduced significantly and Turkey has been accused of using water as a tool to exert pressure on Iraq and Syria. There has been almost a 40 percent decrease in the flow of water in the Tigris and Euphrates rivers into Syria and Iraq, according to activists from the Mesopotamia Ecology Movement (Ayboga, 2021). International negotiations have not been resolved, as the countries involved do not even agree on the nature of the conflict:

The problem is that Turkey and Iran have built big dams, and they do not allow the water to come to our area. This is the issue. It's not a "problem". Internationally they call it an "issue". (Expert Interview, Deputy Minister of the Ministry of Health and Environment, Hewlêr, Nov. 2021)

Water shortages can be experienced in cities when water flow is turned off for several hours a day, but a combination of roof tanks and electric pumps are used to keep water flowing. This makes the water 'problem' almost invisible to the urban population. In cities such as Hewlêr, for example, people use water extensively for cleaning driveways and sidewalks in front of shops. On the other hand, Kurdish villages have been devastated during drought periods, leading to a significant reduction in agricultural yields and driving high outmigration to cities and abroad. As mentioned, pollution adds to the problem because many rivers and lakes in Southern Kurdistan are too polluted to be used in a daily context, including for consumption, fishing or recreation. Some resources, such as stones and gravel for construction, are also extracted, and the mining of the latter particularly affects Kurdistan's rivers leading to the degradation of main water flows in the region, as observed by activist groups from Silêmanî. For now, water conflicts over Kurdistan's rivers are evident at the international level, while internally they have at least sparked discussions on possible solutions to the problems.

Destruction of natural and semi-natural habitats

The history of wars and conflicts has caused destruction of natural habitats in Southern Kurdistan. Even in remote areas, the environment was severely damaged during the Iraq-Iran war, and in some cases, they still suffer damage from the Turkish military. Current development practices, moreover, have resulted in the deterioration of the environment to a great extent. The lack of effective environmental protection regulations, coupled with the rapid growth of the economy, has led to the loss of biodiverse areas. Due to the activities of Waterkeepers Iraq and other activist groups, the best-researched case of environmental degradation attributed to pollution and mining activities is one on the Tanjero river (TAAP, 2022). The pollution of other rivers, although exposed to similar threats, still remains largely undocumented.

Another significant problem raised during the field research is the unchecked construction of new developments on sites that previously were either agricultural or commonage areas, as one of our respondents from the northern region reported:

People are turning green lands, farming places into construction places. You can see it everywhere. They are building houses everywhere, and they are turning green land into construction. (Female, 22, Duhok, Dec. 2021)

Admittedly, the problem exists not only on the outskirts of cities and former villages undergoing urbanization, but also in tourist areas, where it is common to encounter hotels or restaurants built in very close vicinity to naturally attractive areas such as river valleys, waterfalls and mountain slopes.



Figure 1: Tourist infrastructure in the Zagros mountains in KRI, Nov. 27, 2021, photograph by author.

Economic and demographic changes have also led to large scale deforestation. Large swaths of forests in mountainous areas were destroyed in military operations during the Iraq-Iran war and, more recently, by Turkish forces targeting the PKK. According to Iraqi media reports, fires caused by irresponsible picnickers have also contributed to deforestation, such as the one which destroyed a popular leisure area outside of Hewlêr (Faraj, 2020).

Climate change

Water and other aspects of ecology in KR are directly related to contemporary climatic change. Environmental activists sometimes call themselves "climate activists." The ecologies of Mesopotamia, once exceptionally conducive to human settlements and agriculture, are now confronted with unprecedented challenges that may lead to a situation described by the World Bank (2022, p. 2) as a "perfect storm." According to its future scenarios, the average annual mean temperature in Iraq will increase by 2.5°C by the middle of the 21st century (*ibid.*, p. 4). The Eastern Mediterranean region, which includes most of greater Kurdistan, is among the most vulnerable areas to global warming. The largest threat is desertification, which has changed the environmental characteristics of a region once considered Mediterranean, with dry forests and shrubs dominating the landscape. Climate change contributes to numerous problems, such as temperature rise, water scarcity, droughts, the reduction of forested areas, sand storms, food insecurity and the deterioration of people's health and livelihoods, contributing to migration (World Bank, 2022; WHO & UNFCCC, 2022).

Any efforts to address climate change and other environmental issues are entangled in geopolitics, especially KR's relationships with Turkey and Iran, ongoing tensions with the government in Baghdad, internal political interests and competition between the two ruling Kurdish parties, as well as the climate inaction on the part of the ruling regime and other powerful actors (World Bank, 2022). Climate change has been exacerbated by the economic development model, and Southern Kurdistan's role in the global petro-capitalist economy, as well as by urbanization and population growth (Gaub & Lienard, 2021; Lelieveld *et al.*, 2012; Tinti, 2021; UNEP, 2019).

The nascent discourse of global warming in KR comes along with the increasingly visible effects of ecological changes, especially in relation to water flows and precipitation. Awareness-raising activities and campaigns are greater than in the past. In the past, the preoccupation with conflicts and economic problems did not leave much space for engagement with climate change and conservation. Although the local population already experiences droughts and changing rain patterns, affecting crops and animal husbandry, they rarely connect these to mainstream, global climate change. According to the activists, most people in Southern Kurdistan do not consider climate change as an important issue. There is also not much data available about climate change available to them in KR. In fact, many reports presenting the situation in Iraq do not specify Kurdish territory and analyze Iraq as one country, regardless of the variations in water, rainfall or climate conditions, not to mention governance, politics and economy. Most water specialists interviewed for a documentary "Documentary - Thirsty Earth" on Kurdistan's dwindling water supply blamed human activity—called it "human-made" by Turkey and Iran. Secondly they blamed climate change and the Iraqi and Kurdish governments' disdain for the Kurdistan region's changing environment (Omer 2022). The awareness of climate change is, however, on the rise, as we will show below.

6. Activists' responses, actions and plans

Although the environmental challenges in Kurdistan are enormous, so far people have not resorted to radical or disruptive actions to counter them. There have been no climate strikes, such as Fridays for Future or protests against extractivism as, for example, in Turkey (Turhan & Inal, 2020). Kurdish activists in KR have mainly engaged in small-scale, local activities, campaigns and NGO projects. In that way, environmentally conscious activists strive to have a "positive impact", as an interviewee from Halabja explained. Their work covers a wide array of activities, most of which can be classified into three categories: raising awareness, grassroots action to tackle problems locally, and searching for solutions to large scale issues and proposing them to the state administration.

Raising awareness and environment mainstreaming

The lack of social awareness and knowledge of environmental issues has prompted many activists to work with various educational and performative tools to generate more sensibility towards nature. Many organisations in Southern Kurdistan have been focusing partially or fully on educating others, and particularly children. At the same time, activists have improved their own knowledge of climate change. There are some important aspects to "raising awareness." It is a standard vocabulary among NGOs and aid institutions, visible in their documents including applications for funding and reports. In 2015, Nature Iraq, together with the Water

Right Foundation, supported by the EU, organised training for environmental NGOs on how to run awareness-raising campaigns. These are often as a first step, or one of several projects:

My very first plan and my short-term goal term is to make a project of awareness raising for primary schools and kids. I want to show them how important it is. So that's my first project. But my long-term project, it's definitely planting more trees and working on climate change. (Female, 22, Duhok)

For the organizations we approached, rising awareness takes different forms. For wildlife conservationists, besides the research and monitoring of animals, education and awareness campaigns are their primary foci. Their important target groups are governmental elites and local stakeholders, whom they aim to engage in environmental protection using scientific arguments. Many young activists run workshops for children about plastic pollution or biodiversity loss. We observed this in the schools in the Rawanduz area. Kurdish Enlightened Women is an environmental NGO, established in 2021, which runs a Green Education Project, touring schools with lessons about pollution and climate change. The founder of this group has also become a producer and host of the television program "2050", which presents material on climate change and ecological destruction.

Members of another organization, Jingedosty, seek to approach different groups with their message using media and performances in public spaces. They have organised campaigns on social media, taken part in popular TV shows, and prepared small-scale, still-legal actions in public spaces. Nature Iraq has been working on changing people's attitudes by "reconnecting them with nature" and offering an opportunity to experience the wilderness first-hand through eco-tourism. Numerous NGOs disseminate information about international actions and initiatives, such as climate summits, and organize events around these occasions.

With the help of a young artist, a group connected to Waterkeepers has used art to convey their message in the form of exhibitions, protests in Silêmanî and more traditional murals that one can see at a former tobacco factory now converted into the Culture Factory, where the organization has its office. One of the most recent works by an artist with whom we spoke was a light installation highlighting the plight of turtles and other endangered species (Female, 25, Silêmani, Oct. 2021). Art is also widely used in graffiti campaigns painted by activist groups on the walls in cities and villages (Figure 2).



Figure 2: Environmental campaign against tree cutting using graffiti, Hewlêr (Erbil), Nov. 25. 2021, photo by author.

Grassroots initiatives

During our time in Southern Kurdistan, we found tree planting to be the most common form of grassroots activism, and many of our interviewees had participated in or organised actions. Planting trees often mobilises large groups of individuals and receives media coverage and recognition. Similar events have been carried out in other parts of Kurdistan, for example, in Rojava (Make Rojava Green Again, 2018).

Oaks are commonly planted trees. There are four species of oak native to greater Kurdistan: the Lebanon Oak (*Quercus libani*), the Aleppo Oak (*Quercus Infectoria*), Brent's Oak (*Quercus Brantii*) and the far less common Caucasian Oak (*Quercus Macranthera*) (Haidari, *et al.*, 2012), which can be found only in one location in Iraq and is more common in northern areas of Turkey, northern Iran and in the Caucasus. Oak forests are important for people's livelihoods as a source of timber, charcoal, pasture for animals and for their acorns, which are used as a medical food product. Forested and green areas are also valued by Kurds for recreation. Traditionally oak forests are generally managed collectively by a family or a village, ensuring sustainability.

Grassroots reforestation through planting seedlings has been practiced in the Kurdistan Region since at least 2017, and, according to journalists, was introduced by a clergyman (Rudaw, 2020). This provides an interesting connection between religion and environmentalism – spheres that according to many of our interlocutors do not overlap a lot, although the previously mentioned case of Sheik Barzani is well known. The idea has since then been picked up by several organisations and individuals and has received support from sponsors.

The planting actions are quite wide in scope. For example, Hasar Organisation, an NGO founded by young climate activists in 2019, is well-known across the Kurdistan Region for its goal of planting one million trees in the Hewlêr province. Hasar has presented this project as a major initiative in Kurdistan to combat climate change. This goal is to be achieved through cooperation with other, smaller NGOs, celebrities, politicians and citizens, and several people we met had taken part in planting oak saplings on different occasions, acquiring them from Hasar. What is significant from an ecological point of view is also their partnership with businesses, including petroleum corporations (Hasar 2022).

Some activist groups address the problem of plastic, as the recycling infrastructure is still rare and waste management is only slowly developing. In Silêmanî, young activists from Jingedosty launched an online RecycleMe platform, which connects various stakeholders – people collecting plastic – with potential buyers of recyclable material (small recycling companies). This small-scale solution has helped to create better connections between individuals and already existing plastic processing facilities.

In Halabja, where there are no local, commercial plastic processing plants such as the ones used in Silêmanî, an activist has taken recycling efforts into his own hands. With the help of European NGO workers and a small grant for purchasing plastic shredders, she started the first plastic processing plant in the city. In the plant, which has only two full-time employees, PET plastics coming from schools and other institutions is stored, and HDPE waste is processed directly into other things such as benches. This plant sets an example, although it remains non-commercial and far too small for all the needs of Halabja.

There are also discussions about the excessive use of cars in KR. Traffic and air pollution is a daily experience for urban people who use their own vehicles or taxis, because public transportation is lacking. To counter that trend, young activists from Jingedosty decided to promote cycling as a culture in Kurdistan. They made the first public bicycle lane in Silêmanî. At the beginning, the authorities that they had to consult were against it, arguing that they were afraid for cyclists' safety, but finally they not only agreed, but also appreciated that project and other environment work (Male, 29, Warsaw, Jan. 2022).

Mobilizing expertise

Experts are part of diverse social movements, but in the case of the environment, their role is seen as crucial (Frickel & Arancibia, 2022). In KR, many activists are at the same time professionals in environment-related fields. They play an important role in identifying problems and searching for solutions. One of the interlocutors stated that data collection and sharing were among the priorities for environmental activism. A lack of data that could be used by policymakers and civil society is an issue we encountered while asking about environmental problems and climate change in Kurdistan. According to activists, some exists, either scattered among institutions or present in academic work, but none of it is easily accessible. Connecting knowledge creators and knowledge users through databases or better systems could solve this problem.

In the case of pollution, for instance, environmental experts have gathered data or monitored the quality of water, soil or air, and they have already presented their findings to important officials and relevant departments, ultimately seeking to influence policy making at the local, usually municipal, level. An academic doing research in environmental pollution told us that they used to meet with the mayor of Silêmanî and present local ecological threats, providing evidence of them. So far, however, this process has ended with the writing of notes and the acknowledging of problems by the municipality, but no concrete action.

The issue of water availability and quality is especially complex and multidimensional. Solutions proposed by activists vary and depend on the level of their knowledge about the environment. Some thinktanks want further water engineering works, and the construction of a number of new dams and reservoirs. The hydropolitical issue is to keep more water in Kurdistan, ignoring the environmental damage in Bashur and downstream in Iraq. This approach seems to have received a certain level of support among politicians, as it fits nicely into the ideology of progress. On the other hand, activists working for nature protection, in particular Waterkeepers Iraq and Nature Iraq, argue that building more dams is not a long-term solution. They have proposed the re-naturalizing of rivers, protecting the natural character of the Great Zab river and constructing small semi-natural ponds that could support both shepherds and wildlife. One of the ponds they created is in Qara Dagh, and it survives through the drought period which inspired them to plan more such water reservoirs.

There is a willingness on the part of activists, especially those whose profession is related to the environment, to strengthen environmental governance by interacting more with state representatives, often at the local level. While most of our interviewees complained that the outcomes were unsatisfactory, at least in one case we heard of a success. A veterinarian-activist engaged in the humanitarian treatment of animals managed to talk to the mayor and officials about stray animals, which are perceived as a public health problem and are often killed. Although there were some critical voices and discussion, her organization, Protecting Animals in Kurdistan (PAKO), convinced the local authorities to implement a sterilization project (Trap-Neuter-Return, TNR) on a larger scale.

Interest in climate change from both activists and state authorities is very recent and is partially fueled by international organisations, global discourses and funds from abroad to help with mitigation and adaptation. Networking is a widely used tool for advancing the climate agenda in Kurdistan. It runs in parallel with state authorities' efforts to be active in global climate governance and has opened many paths and opportunities for civil society actors. Events and programs in the environmental and climate fields are attractive for youth as a way of connecting to global discussions and international networks. They provide potential for gaining new job opportunities and professional development.

7. Choosing the dutiful path

Among a variety of approaches activists adopt to push for their vision, in Southern Kurdistan we observed a dutiful one based on grassroots initiatives and occasional interactions with the state. Unlike their Western counterparts, Kurdish activists in Iraq rarely use protests, strikes or other forms of contentious action to raise environmental concerns or to pressure the government to act. We noted one example of a public demonstration, which was not very big and relied on art and performance to convey a message. Clearly, for the moment, most activists resort to dutiful dissent to advance their goals. Its common expression is membership in reformist NGOs or setting up new organisations with non-controversial agendas. As O'Brien, *et al.* (2018) have argued, this form of activism has a collaborative character, as it is open to interactions with policymakers at various levels.

Although the concept of dutiful environmentalism captures to a large extent the current experiences of people in relation to power and economic structures, we argue that classifying activists this way is a simplification of their position. The lack of confrontation or protest actions does not imply that Kurdish environmentalists fully support the status quo, or do not believe that ecological change is possible within the current phase of industrial capitalism and extensive development in the region.

There are some explanations as to why environmental mobilization among Kurds in Bashur has primarily taken the form of dutiful dissent, unlike among Kurds elsewhere. *First*, channels of cooperation are open, and the state institutions are relatively responsive. Officials agree at least to meet and to listen to activists, even if such meetings are not effective in many cases and do not translate into direct solutions. People engaged in nature protection are aware of limited governmental capacities and the weaknesses of environmental policy,

which are partially due to past violent conflicts. From the perspective of activists, government actors lack knowledge and awareness of environmental issues, which partially explains the low priority of nature protection in the government's agenda. They do not publicly blame politicians for supporting economic practices that actively destroy nature, but they try to push them towards a more ecologically-oriented path. Most of the activists we interviewed were in favor of stronger state engagement.

In order to establish constructive relations with the state, to improve existing structures and policies, activists tend to adopt "acceptable patterns of behaviour" (Richards & Heard, 2005) and try not to cross the red lines set by states (Kadirbeyoğlu, *et al.*, 2017). Those kinds of groups usually support problem-solving within the existing paradigm. In certain core capitalist economies this entails contributing to energy system reform, support of green technologies or pursuing other technocratic models, such as smart cities, green economies and climate capitalism (Newell and Paterson, 2010; O'Brien, *et al.*, 2018). In the Kurdistan Region, activists work on identifying environmental problems, gathering data and contributing to solutions to the problems posed by waste, pollution or climate change. Opportunities to interact with political elites are, thus, vital factors in developing peaceful mobilization in relation to Kurdistan's environmental problems.

Secondly, the NGO organizational model for environmental work is dominant. A popular topic, education, while embedded in real needs, is amplified by the NGO structure and project-based work in which educational and awareness projects are easily run, managed and reported. They do not require follow-ups or expansive infrastructures and are easy to convey in a way that is attractive to donors. They match the areas of interest set up by international bodies such as the UN or the EU. But these relationships with donors also limit the prospects of social change. Jad (2004), studying Arab mobilization, differentiates between social movements and NGOs, with the former being based on mobilizing the masses, while the latter depends more on "projects" and specific "target groups." While both forms of organization require broad social support to achieve social change, NGOs are officially registered and thus function to some extent under the state's control. The Kurdish authorities demand permission for all kinds of environmental activities, including small-scale ones. A leader of an NGO in Hewlêr said that even to engage in tree planting with his friends, he was obliged to set up a formal organization, with the supervision and monitoring that follows from this. Moreover, the NGO structure is more prone to "hijacking" by non-grassroots agents, including co-optation for propaganda by the regime. This is evident when a person from the ruling family is added to the board of what is still called a non-governmental organization (Jad, 2004).

Thirdly, a factor contributing to the dutiful form of environmental activism in KRI is the small number of activists. Although new initiatives and organisations are increasingly popular, ecology is still a niche area in the field of collective action. An activist who spent several years abroad noted:

[In KR] there is not that kind of climate protest, awareness, as we see in Sweden or the other countries, because it's new here. (Male, 42, Hewlêr, Oct. 2021)

Youth unemployment is high. A young woman, employed in one of the NGOs working in the environmental field explained to us: "The biggest problem for the youth is unemployment and poor working conditions" (Female, 24, Hewlêr, Nov. 2021). The official Demographic Survey (2018) found that: "More than 20 percent of youth (aged 18-34) out of the workforce are reported to have lost hope in finding a job." Yet unemployment was not linked to environmental problems in KR, as it has been in the Syrian civil war (cf. De Chatel, 2012). In Bashur, this connection was never mentioned by respondents, who seem to treat social and environmental problems separately.

Fourthly, according to Scott (1985), subaltern groups are often aware of their condition, but choose not to openly revolt based on their assessment of the risks this might involve, choosing instead forms of passive resistance. We have shown a similar form of avoidance among Kurdish environmental activists. One of the interviewees, who openly spoke about the threat they faced, told his story:

Once, we had issues with hunters who killed a pregnant wild goat on Baranan mountain in Derbendikhan; we later learned that she was carrying twins. Three people were arrested in connection with this case, one of whom was a Peshmerga officer who used his weapon for

personal gain. On Facebook, I have criticized the judiciary for failing to take strict action against hunters and for releasing them so easily; consequently, we cannot control the killing of animals. However, both the court and the freed criminal hunters sued me, and I was incarcerated for fourteen days. To be freed I was bailed with three million Iraqi dinars, and the criminal who filed the complaint against me was set free. This type of political power force has reduced the amount of environmental activism. (Male, 30s, Silêmanî, Oct. 2021)

A well-known activist, Nabil Musa, in an interview published on the Water Keepers Alliance website, admitted that activism in Iraq was a risky business, with "people disappearing, people getting killed." In KR, there have been extrajudicial executions of journalists known for their criticism of governing parties (Rezaian, 2022). Cases of journalists being murdered in unclear circumstances or jailed by the authorities, show that the Kurdistan Region has not escaped the model of neighboring states despite its significantly more liberal policies and the unprecedented freedoms gained for Kurds (Reporters without Borders, 2017; Rodgers, 2022). Sowers (2018) has noted that harassment and repression are among the typical reactions of Middle Eastern regimes to environmental activism. Jad (2004) described regimes in Arab countries as "authoritarian populist", emphasizing their aggressive approach towards public dissent mixed with claims for "ruling in the interest of the people." Activists are under threat of violence where their claims conflict with the interest of local landowners, as we heard from one informant. It is, however, difficult to determine the scale of such cases, given the secrecy surrounding them. Only occasionally do the media report on water scarcity protests or environmental mismanagement (Al Monitor, 2021).

More common, however, are protests about economic and social problems, such as unemployment, corruption or lack of transparency, insufficient public services, neopatrimonialism and dissatisfaction with ruling elites and the political duopoly (Fazil, Baser, 2021; Tinti, 2021). In November 2021 we observed firsthand the violent reaction of KRG towards student protests. A mild protest was suppressed by the police and armed Asayish forces. The narratives of environmental activists may create an image of government institutions, even at the municipal level, as inactive, devoid of their own initiatives, but, ready to implement some of the solutions they propose. There are government staff willing to address poor environmental management and therefore do not perceive environmentalists as enemies.

The traditional form of managing social disputes is through local councils and sheikhs. As King (2014) noted, Kurdish people rarely state their claims publicly, preferring to meet personally with people of higher status to try to convince them to act in their favor. Today, most offices in KR resemble Sheikhs Divan in their spatial organization and are always full of guests, who are welcomed according to custom with a drink and sometimes small snacks. In line with both the traditional approach to dialogue with a community and populist political marketing, high-ranking Kurdish politicians tend to engage in conversations with more prominent activists, whereas local offices and ministries are open for meetings with NGO workers and researchers. It is of course questionable whether such meetings are successful, given the lack of meaningful change in environmental politics. Reliance on such contacts and personal negotiations can explain why some non-Kurdish observers perceive Kurds as "complaining" without sufficient action. Of course, activists have been able to realize some of their ideas and projects with the support of municipalities.

Fifthly, oil-dependence is a significant impediment to progressive environmental governance. The extractive regime is widely accepted as a basis for the functioning of Kurdistan's economy and its social order (Tinti, 2021, p. 91). For the ruling elites, natural resources not only provide wealth, but also attract interest by foreign actors. As a *de facto* state, without membership in the UN system, KR is constantly negotiating its position vis-à-vis the Iraqi state and the international system, with oil revenues and global capitalist ties playing a crucial role in these attempts (cf. Kuruuzum, 2022). The pursuit of full statehood and sovereignty is supported by oil revenues.

The environmental movement is limited in its ability to address rampant development, oil-based economic activities and petro-capitalism. Apart from some highly involved activists who take part in international meetings about climate change and the water crisis, most of the interviewees did not dive into the mechanisms behind the climate crisis. They connected it with weather patterns and phenomena such as urban heat islands, around which they could organize local actions such as tree planting. As we mentioned, many did

not see any contradiction between studying oil engineering or similar sciences and their environmental work being funded from the industry.

8. Conclusion

It was quite surprising to read international reports and news about the Middle East facing catastrophic environmental outcomes, and then to see little protest in the KR. In Southern Kurdistan, activism around environmental concerns is a new phenomenon, led over the last decade by educated urban people. Modern environmentalism differs from the pioneering, local initiatives in nature protection that were organised by the leader of the Barzani tribe in the first half of the 20th century. Ahmed Barzani used his authority to enforce more sustainable use of natural resources. For the moment, the Barzan region is the only one with effective environment protections in KR.

In Bashur we found no climate strikes or Fridays for Future protests. Non-contentious mobilization around environmental and climate issues is led by environmental or health professionals and returned expats, many of them young. Women are involved as group members and leaders. Youth involvement in grassroots environmental work is relatively safe, linked to the opportunities provided by international actors who promote their environmental agendas in the region. Still, there is no mass movement and ecological awareness is limited. Organised action relies on the use of mass media and the Internet, grassroots initiatives, small-scale activism, including "do-it-yourself" actions which address some ecological problems in a pragmatic way, and building and sharing their know-how with other, often political, actors. NGOs dominate as an organizational form to approach policymakers through meetings with officials at the regional and municipal levels.

The role of activists as mediators and contributors to state-building in the field of the environment is visible. They aim to strengthen environmental governance, which they perceive as inefficient, or at least they seek to get support for their ideas and their implementation. Activists talk to officials to present their data-based assessments of environmental problems, which are often health-related. NGOs, although new, have developed significant know-how and social capital, which are useful for tackling some practical problems left unresolved by central and local governments. Their networking capabilities are evident in proposing ideas, such as connecting knowledge creators and knowledge users through a database or in projects. Creating links between actors provides a partial solution for the waste management problem. But these are the areas that do not confront the state, but rather are open spaces for cooperation between activists and the state.

We stress that while exploring the role of activists in post-conflict countries, we should not omit the power dynamics in which they function or the context of political ecology, which impact the choice of strategies and tactics in many ways. The prevalence of dutiful activism can also be explained by "populist authoritarianism" (Jad, 2004), where any critique of a state or the crossing of red lines can have severe consequences.

The expansion of industrial capitalism and the geopolitics of oil and water form an important context for understanding the opportunities and limits of civil society activities. The close links between extractivism and state building and autonomy, and the functioning of the economy, leave limited alternative socio-ecological imaginaries for the Kurds (cf. Tinti, 2021). Revenues from oil fields and prospective income from exporting gas abroad are crucial for the functioning of the state, as well as for the interests of the political elites and even for some environmental campaigns.

Further research is needed into the dynamics of environmental and climate activism. Their tactics and strategies are not static but evolve often in response to changing conditions and activists' ideas (O'Brien, *et al.*, 2018). The predominantly dutiful environmentalism in KR could evolve into "disruptive" or "dangerous" dissent, as has occurred among the Kurds of Turkey and Syria, and, to a lesser extent, in Iran. Climate activism in the West has radicalized when it is ignored by policymakers. We have shown that in the Kurdistan Region, a dependence on extractivism and oil revenues with their geopolitical importance cannot ignore the rapid deterioration in ecological and climate conditions impacting people's lives and ecosystems. The way the state will respond to these challenges and to the voices of activists will have a significant impact on the form and scale of future dissent.

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