

Environmental Rehabilitation and Global Profiteering in Wartime Iraq

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The wartime initiative to restore Iraq's southern marshes, according to American media, the United Nations, and the Iraqi government, has been a resounding success. Saddam Hussein had drained the marshes following the 1991 uprising that began in that region and threatened to depose him. Effectively, Hussein turned the environment into a weapon by destroying, on a grand scale, one of the Middle East's largest freshwater ecosystems.

Years later, when the United States invaded Iraq in 2003, the US government and its partners again used the marshes as a political tool. Iraqi exiles supported by the US government sought to restore the wetlands as a symbol for a new, post-Saddam Iraq. The project became a key emblem of the US war effort and the possibilities of post-war reconstruction. Since then, *The New York Times*, *BBC*, *National Public Radio*, and even *The Daily Show with Jon Stewart* have touted the efforts of biodiversity conservationists in Iraq's marshes with headlines like "Marshes a Vengeful Hussein Drained Stir Again" and "Resurrecting Eden."² In 2016, UNESCO named Iraq's marshes a World Heritage Site. That triumph has been a source of great national pride for Iraq, and political leaders like current Prime Minister Haider Al-Abadi and former President Jalal Talabani's wife Hero Ahmed have staged public appearances canoeing through the wetlands as a way of claiming the success of the marshes' restoration.³

Behind the scenes, however, environmentalism in Iraq has created a political opportunity for foreign corporations seeking a way into the country's cache of natural resources. The Iraqi government and the nongovernmental organizations (NGOs) spearheading reclamation have managed the marshes' restoration in ways that made it possible for foreign companies to profit from the initiative in other ways as well. By making an initial investment in the marshes' restoration, these global businesses later gained

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² Wong, Edward, (2004). Marshes a Vengeful Hussein Drained Stir Again. *New York Times*, National Edition, A1, A7.; Pelley, Scott (2011, June). Iraq's Marshlands: Resurrecting Eden. 60 Minutes, CBS News. Retrieved November 14, 2010, from <https://www.cbsnews.com/news/iraqs-marshlands-resurrecting-eden-24-07-2011/>.

³ Except for the names of governmental officials, I have changed all names in this article to protect the anonymity of my sources, as is customary in the discipline of anthropology.

access to Iraq's oil and water sectors, thereby generating opportunities for future windfall profits.

I first began researching the Iraq marshes' restoration in May 2003 shortly after the fall of Saddam Hussein, when I was a doctoral student conducting pre-dissertation research in London. I researched plans formulated by Iraqi exiles who anticipated returning to the country for the first time in decades in order to rebuild, and I soon began to focus my study on the restoration of Iraq's marshes. The United Nations Environmental Programme (UNEP) issued a 2001 report that documented, for the first time, the extent of Saddam Hussein's draining campaign: only 3 to 6 percent of Iraq's marshes remained.⁴ This destruction had been devastating for the many Iraqis who depended for their living on this environment.

The findings were also emotionally devastating for Iraqi exiles who had spent time in the marshes during family vacations or who had hidden there to escape government persecution. In 2004, at an academic conference focusing on the topic, I met Zaid Kubra, the CEO of *Green Iraq*, an NGO he founded precisely to rebuild Iraq's marshes. Kubra was an executive at a major engineering multinational, and he had quit his job and returned to Baghdad in order to pursue the marshes' restoration full time. At the conference, Kubra told me it was his dream to explore the marshes with his young daughters just as he had done with his father, a prominent water engineer: "I want them to love the marshes the way I love the marshes. I want to kayak with them from Kut to Chubayish. I want them to be part of it."

In 2006-2007 I conducted research with Kubra and his organization while living in Amman and making periodic trips to northern Iraqi Kurdistan to attend stakeholder meetings on marshes restoration, led by Kubra with representatives from the Iraqi Ministry of Environment, Ministry of Municipalities and Public Works, Ministry of Water Resources, and the Ministry of Agriculture, representatives of the Italian and Canadian government which funded the venture, private contractors commissioned by Green Iraq that included two multinational Italian engineering firms and Canadian biodiversity experts, and Green Iraq scientific staff. Outside of that concentrated period of ethnographic research, my investigation focuses on the entire trajectory of the US invasion and occupation of Iraq.

In the Middle East, as elsewhere, international corporations have long used biodiversity conservation as an opportunity to appropriate natural resources.⁵ This case of

⁴ United Nations Environmental Programme. (2001). *The Mesopotamian Marshlands: Demise of An Ecosystem*. Nairobi, Kenya: Division of Early Warning and Assessment, United Nations Environmental Programme.

⁵ See Grove, Richard H. (1995). *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*. Cambridge: Cambridge University Press. Davis, Diana K. (2007). *Resurrecting the Granary of Rome: Environmental History and French Colonial Expansion in North Africa*. Athens: Ohio University Press.; Chatelard, Géraldine. (2003) *Conflicts of Interest over the Wadi Rum Reserve: Were They Avoidable? A Socio-Political Critique*. *Nomadic Peoples* 7, 138-58.; Brand, Laurie A. (2001).

the restoration of Iraq's southern marshes follows a similar pattern. It also offers a glimpse into how the wartime reconstruction economy has worked in Iraq—and who has benefitted most.

War-Related Environmental Destruction

The US-led wars beginning in 2003, and before that, in 1991, caused large-scale environmental damage in Iraq, deeply affecting Iraqi citizens' livelihood and wellbeing. The decade of UN sanctions in between compounded the problem. From four days after Iraq's invasion of Kuwait in 1990 until the US invasion of Iraq in 2003, the United Nations Security Council imposed an embargo that banned all trade and financial transactions between Western nations and Iraq. These sanctions were designed to compel Saddam Hussein to withdraw from Kuwait and give up weapons of mass destruction.

Rather than meeting these goals, however, the sanctions led largely to the suffering of Iraqi citizens. The concurrent UN "Oil for Food" program designed to deliver humanitarian aid under sanctions was racked by corruption and exploited by Saddam Hussein who grafted millions from the program.⁶ As a direct result of the sanctions, infant mortality rates and other health indicators had spiked to alarming levels even before the 2003 US invasion.

Today the UNEP describes the state of Iraq's environment as dire.⁷ The Tigris and Euphrates rivers are highly polluted with industrial and military waste, posing a health risk for civilians. Throughout the 1990s and early 2000s, as a result of UN sanctions and Saddam Hussein's policies of retribution for the 1991 uprisings, sewage treatment systems in southern Iraq collapsed. Failing hydraulic infrastructure meant that in addition to overflowing sewers, surface water mixed with this waste.⁸ In addition to military waste, the discharge of hazardous industrial waste from oil and petrochemical complexes and refineries, fertilizer plants, and chemical plants and the runoff from small and medium sized industries like tanneries and garages further contaminated Iraq's water supply.⁹ Upriver dams in Turkey along the Tigris and Euphrates compound the problem of clean

Development in Wadi Rum? State Bureaucracy, External Funders, and Civil Society. *International Journal of Middle East Studies* 33, 571-90.

⁶ Otterman, Sharon. (2005, October). Iraq: Oil for Food Scandal. Council on Foreign Relations, Retrieved April 15, 2018, from <https://www.cfr.org/backgrounder/iraq-oil-food-scandal>. Reiff, David. Were Sanctions Right?, New York Times. Retrieved April 15, 2018, from <https://www.nytimes.com/2003/07/27/magazine/were-sanctions-right.html>.

⁷ United Nations Environmental Programme. (2003). Desk Study on the Environment in Iraq. Geneva, Switzerland. Republic of Iraq. (2013).; The National Environmental Strategy and Action Plan (2013-2017) for Iraq (In collaboration with UNEP, UNDP and WHO).

⁸ al-Mohammad, Hayder. (2007). Ordure and Disorder: The Case of Basra and the Anthropology of Excrement. *Anthropology of the Middle East* 2, 1-23. United Nations Environmental Programme. (2003). Environment in Iraq: UNEP Progress Report. Geneva, Switzerland.

⁹ idem, Desk Study on the Environment in Iraq.

water supply by reducing downriver water flow by up to fifty percent of the country's pre-dam supply.¹⁰

Iraq's soils have fared no better under the constant state of war: pollution from military debris including unexploded ordinance, spent cartridges, and military vehicles as well as radioactive material like depleted uranium from US munitions has contaminated the soil.¹¹ During the Gulf wars in 1991 and in 2003, the US shot about 1200 tons of ammunition in Iraq, compounding the contamination problem.¹²

As a result, rates of cancer grew exponentially: the overall incidence of breast and lung cancer, leukemia and lymphoma have doubled and tripled.¹³ In 2013, scientists documented 140,000 cases of cancer in Iraq, with 7,000 to 8,000 new cases registered each year since then. For Iraqi women, the incidence of breast cancer increased from 26.6 in the pre-war period to 31.5/100,000 in 2009 with 33.8 percent of breast cancers diagnosed in girls less than 15 years old.¹⁴ Birth defects have also increased exponentially. In Basra's maternity ward, rates of congenital birth defects increased 17-fold between the years 1994-1995 to 2003. The enamel from children's teeth born with these defects indicated three times higher rates of lead contamination than those of children living in unaffected areas in Iraq.¹⁵

Yet the US, with help from the UN, has hidden its culpability in polluting Iraq's environment. In 2013, the World Health Organization published a summary report denying that Iraq's high rate of congenital birth defects were the result of decaying US munitions, thereby assisting the US in covering up its substantial responsibility in creating catastrophic environmental destruction and related health problems.¹⁶ UNEP has acknowledged the vulnerable state of Iraq's environment, but in general, issues of pollution and environmentally generated human suffering have not received the same global attention as the acclaimed restoration of Iraq's marshes.

Scant global attention to war-related environmental pollution in Iraq, in contrast to international public acclaim around biodiversity conservation in that country, is directly

¹⁰ United Nations Integrated Water Task Force for Iraq. (2011). *Managing Change in the Marshlands: Iraq's Critical Challenge*, 21. Jongerden, Joost. (2018). *Dams and Politics in Turkey: Utilizing Water, Developing Conflict*. Middle East Policy Council. Retrieved January 7, 2018 from <http://mepc.org/dams-and-politics-turkey-utilizing-water-developing-conflict>.

¹¹ Programme, Desk Study on the Environment in Iraq. See also Rubaii, Kali. (2017). *Regimes of Imperception: Justice and Knowledge Production on Birth Defects in Iraq. Counterinsurgency and the Ethical Life of Material Things in Iraq's Anbar Province*. PhD diss., University of California, Santa Cruz.

¹² Faa, Armando. (2018). Depleted Uranium and Human Health. *Current Medicinal Chemistry* 25, 49-64, 54.

¹³ Fathi, Riyadh Abdullah. (2013). Environmental Pollution by Depleted Uranium in Iraq with Special Reference to Mosul and Possible Effects on Cancer and Birth Defect Rates. *Medicine, Conflict and Survival* 29, 7-25.

¹⁴ Faa, "Depleted Uranium and Human Health."

¹⁵ Al-Shammari, Ahmed Majeed. (2015). Environmental Pollutions Associated to Conflicts in Iraq and Related Health Problems. *Reviews of Environmental Health* 31, 245-50.

¹⁶ Ahmed, Nafeez. (2013, October). How the World Health Organization Covered Up Iraq's Nuclear Nightmare. *The Guardian*. Retrieved June 23, 2017 from <https://www.theguardian.com/environment/earth-insight/2013/oct/13/world-health-organisation-iraq-war-depleted-uranium>.

linked to international corporate and donor interests. Even as international forces have concealed US contributions to Iraqi environmental and health problems, they have used environmental rehabilitation to portray themselves as redeeming Iraq. “The environment” has thus taken on a key role in political maneuvering.

The Marshes’ Draining and Restoration

Iraq’s marshes constitute one of the largest wetlands ecosystems in the Middle East. They consist of three interconnected wetlands lakes—Hammar, Hawizeh, and the Central Marshes—formed by seasonal runoff at the delta of the Tigris and Euphrates Rivers in southern Iraq. At their fullest capacity in the 1970s, the marshes covered roughly 20,000 square kilometers, bisecting Basra, Maysan, and Dhi Qar provinces and inundating portions of the Iraq-Iran border area. Encapsulated in subterranean reserves below the marshes’ subsoil are giant and supergiant oil fields.

In 1991, southern Iraqi residents, including those from the marshes region, incited an uprising that began in the marshes and nearly deposed Saddam Hussein. In reprisal, Saddam Hussein drained the marshes throughout the early 1990s to salt encrusted mud fields and executed numbers of Shi’a clergy in retaliation for their presumed role in the uprising.

Many residents of the marshes fled at that time, relocating to Iran. Those that stayed struggled economically in an environment depleted of fish and water resources. Some turned to agriculture. Outside of the wetlands proper, Iraqis began to experience an upswing in the number and intensity of dust storms. However, for residents of the marshes, and for Iraqi exiles, some of whom fled through and hid in the marshes during the government crackdown on the Iraqi Communist Party beginning in the 1970s, the draining of the wetlands was more than an environmental or economic loss. It was a psychic wound that they felt needed to be addressed for national reconciliation during the post-Saddam reconstruction of Iraq. Iraqi exiles in the West, with their political connections to the US government and to legions of foreign donors, began to orchestrate and direct the marshlands’ restoration.

The Iraqi marshes’ restoration has been intimately tied to the US and UN occupation of Iraq. While the marshes have been a place of heritage for quite some time, touted as a kind of Sumer by Iraqi nationals and a place of Eden by British colonial officers, in the 21st century the reconstruction of Iraq’s marshes symbolized the US war effort, the vision Iraqi exile allies of the US had for the future, and the economic promise of Iraq’s reconstruction as envisioned by the UN.¹⁷ In 2004, President George W. Bush listed Saddam Hussein’s draining of the marshes as among the official reasons for going to war.¹⁸ In July 2004, at Saddam Hussain’s arraignment, an Iraqi judge charged him with seven crimes, among them

¹⁷ United Nations. (2003, May22). United Nations Security Council Resolution 1483. Geneva, Switzerland.

¹⁸ United States Congress. House Resolution 564. 108th Congress, Second Session. Retrieved September 1, 2008 from [http://thomas.loc.gov/cgi-bin/query/D?c108:34:./temp/~c108spTqWp: .](http://thomas.loc.gov/cgi-bin/query/D?c108:34:./temp/~c108spTqWp:)

the destruction of the marshes.¹⁹ In 2005, the preamble to the rewritten Iraq Constitution referenced Saddam Hussein's draining of the marshes as a charge to the nation to build a more ethical future and redress past wrongs.²⁰ This series of legal maneuvers represents the first time that heads of state and the international community cited environmental harm as a crime warranting the deposition of a world leader. They also demonstrate the significance of the marshes restoration project in the legal scaffolding of the Iraqi occupation.

Zaid Kubra, the Iraqi exile who founded the NGO Green Iraq to restore the marshes, participated in the US Department of State's *Future of Iraq Project*. The US State Department formed the project in early 2002, almost a year before the 2003 invasion, to gather Iraqi exiles active in the expatriate-led movement to remove Saddam Hussein from government—many of whom had been educated in the West; had earned professional stature and accumulated significant financial resources; and were living outside of Iraq in London, the US, and Australia for decades prior to the US invasion—to begin postwar planning for Iraq.²¹ Several prominent Iraqi exiles participated in the project and secured political stature or financial resources through their efforts to return to Iraq and launch NGOs or take positions in the post-Saddam Iraqi government. Kubra received seed money from the US State Department to form Green Iraq and developed political prominence through his participation in the endeavor that earned him financial and political resources that far surpassed anything local residents of the wetlands could access.

Initially, Iraqi exiles and marshes advocates conceived of the marshes' restoration largely as a project of scientific research and investigation rather than ecosystem engineering. Immediately following the 2003 US capture of Saddam Hussein, marshes residents broke Saddam-era dams that redirected waters into the Gulf, inundating the dried wetlands basins.²² Iraq's marshes are seasonal: the wetlands characteristically withstood periods of drought after which they flourished with ecological life. Despite the years of dormancy, after reflooding, flora and fauna spontaneously regenerated much as they would have during seasonal periods of drought and flood. However, in order to conserve the wetlands under international law, the Iraqi government needed to prove that

¹⁹ BBC News. Charges Facing Saddam Hussein. Retrieved July 17, 2012 from http://news.bbc.co.uk/2/hi/middle_east/3320293.stm.

²⁰ Government of Iraq. Constitution of Iraq. Ratified October 15, 2005.

²¹ The National Security Archive. New State Department Releases on the "Future of Iraq" Project. George Washington University. Retrieved October 26, 2009 from <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB198/index.htm>.

²² It is important to acknowledge that Saddam Hussein's relationship to the marshes was complicated. In the 1990s President Hussein made the case to drain the marshes in order to "modernize" the south by bringing roads, TVs, and health care to the remote region. While in the 1990s he retaliated against the south by draining the wetlands, in the mid-1970s he staged photo opportunities in the marshes to demonstrate his personal allegiance to southern tribes and invited a team of photographers and travel writers to Iraq to photograph and document the marshes for posterity. Though I do not have time to elaborate the complex history of Iraq's marshes here it is worth noting that the Ottomans and the British also sought to drain the marshes for economic purposes in order to irrigate adjacent agricultural fields. Further, the contemporary restoration of the marshes is strongly tied to the criminalization of Saddam Hussein and to the legal scaffolding of the US invasion and occupation of Iraq, a topic I explore at length in other work.

the marshes could support ecological life such as species of birds, fish, and flora that once thrived in its environs. In other words, international biodiversity conservation protocol required evidence. Zaid Kubra formed Green Iraq to provide that necessary proof, and gathered that data by directing Iraqi scientists into the epicenter of wartime violence.

Labor and Extraction

Green Iraq won the majority of its funding during the apex of the Iraq war. At the time, because of the violence, foreign contractors would not travel to the marshes or for that matter anywhere in Iraq south of Kurdistan. Instead, Green Iraq sent Iraqi scientists to the marshes, and these scientists were vulnerable to warring factions and to kidnapping by residents seeking to turn a profit by ransoming Green Iraq and its foreign investors for the safe release of their employees.

By 2005, Kubra had secured more than 34 million US dollars in multi-year bilateral aid contracts primarily from the governments of Italy and Canada. Kubra charmed donors with his charismatic stories about the wetlands. He recalled: “My first memory is me as a child in a wooden boat that had the motor right in the middle of the boat. It was a long boat, probably about 20 feet, covered. And my Dad in his pit helmet sitting and he had a sheikh with him and they’re talking and I got bored. I remember looking over the side of the boat and I was amazed to see the number of fish and I could see the bottom of the water and it was full of fish. I remember getting in a trance, peering over the side of the boat...These green tall reeds, sky high. In fact you couldn’t see the sky, you had to kind of peek from underneath the canopy to see the sky. It was hot, hot. I also have this memory of emerging out of this stream to the open lake and the breeze hitting you and the cooling down. I also remember the buzzing flies.” He often referred to remaking the marshes as a project to remake “Eden,” partly, he told me, for marketing purposes because of the biblical appeal in the West.

Kubra’s foreign donors specified in their memoranda of understanding that a sizable portion of their aid should be spent within the donor country (i.e, Italy and Canada). Kubra set the amount at 80 percent. In Italy, Kubra hired two Italian multinational hydraulic and environmental engineering firms to design marshlands infrastructure that would ensure a constant flow of water. In Canada, Kubra hired biodiversity conservation experts to train his scientific teams to conduct field research, like bird and habitat surveys, needed to prove the marshes were worthy of international protection by global environmental treaties such as the Ramsar Convention on Wetlands and the UNESCO World Heritage Convention.

Green Iraq formulated its labor arrangements to adapt to working conditions during this most violent period of the war, when Iraqi civilian casualties mounted to 2,500 a month.²³ To make it possible for foreign contractors to develop marshlands restoration plans, Kubra devised a system of contracting and subcontracting that served donor governments and foreign corporate interests. Kubra’s labor arrangement guaranteed

²³ Iraq Body Count. Year Four: Simply the Worst. Retrieved September 16, 2010, from <http://www.iraqbodycount.org/analysis/numbers/year-four/>.

international experts could operate from safety abroad by relying on Iraqi national scientists to conduct the field research they needed.

In fact, this labor structure was standard reconstruction practice: the UN imposed the arrangement throughout Iraq in 2003 following the Canal Hotel bombing that killed a UN envoy. After the bombing, the UN moved the majority of their 600 foreign national employees to Amman, leaving behind a skeleton crew of 50 who operated ensconced in Green Zone fortresses, from which they directed more than 4,000 Iraqi “facilitators” to carry out UN plans beyond the walls. At Green Iraq, Kubra implemented a similar policy. He hired a field team of more than 20 Iraqi national researchers, mostly men and a few women, who were students and professors in the biological sciences at the University of Baghdad and the University of Basra. Foreign experts contracted by Kubra subcontracted back to Green Iraq to hire their on-the-ground staff.

Iraqi nationals at Green Iraq were therefore responsible for the most dangerous and lethal labor of wetlands restoration. In winter 2004, marshes residents kidnapped Green Iraq’s field team during a research expedition. Kubra successfully ransomed the group after paying a hefty sum. For scientists like Samir Abdullah the dangers of the job were acute: “Marsh Arabs are mean,” he told me in 2006. Abdullah suggested that marshes residents didn’t care about the NGO’s scientific mission and instead sought to extort large bribes for security during Green Iraq’s research trips. Green Iraq field teams were undeniably interlopers on wetlands’ territory; hardly any of the scientific staff were originally from the wetlands. Though Green Iraq had conducted housing surveys and established relationships with prominent representatives of wetlands tribes, they had not engaged marshlands communities in designing and planning marshes restoration projects. As a result, marshlands communities did not feel ownership over the project, but identified it as a revenue source for a wholly different economy, one which they controlled.

Ali Suleiman, another member of Green Iraq’s field team who had been on that kidnapped outing, felt differently. In 2007 he told me “We have a duty to rehabilitate the marshes not just for the fish and the birds, but for the world.” Even after his team was kidnapped, Suleiman said he continued working for Green Iraq because at the NGO he felt that he was doing meaningful work that was globally important. He explained: “There are unique opportunities to work on the marshes because of the donors who are connected to the project. When I work on the marshes, I have a good position in the Ministry [of Environment] and my work is important.” At the same time, Suleiman’s efforts would only take him so far. He could participate in the field research and make recommendations to Italian and Canadian planning experts, but despite his firsthand experience of the marshes, he did not have a role in defining plans for restoration. Restoration planning was the purview of Green Iraq’s Italian and Canadian expert contractors; the memoranda of understanding between the NGO and its international government donors ensured their control over the process.

Thus, the international community has profited, economically and politically, from the environmental rehabilitation of Iraq. Green Iraq’s labor protocol indicates the extent to which foreign contractors, civil society organizations, and their Iraqi government partners

embraced an economic policy of value extraction that favored international interests in Iraq. “Extraction” commonly refers to industrial operations in natural resources sectors designed to remove mineral wealth from the earth while minimizing labor investment and financial risk. In Iraq, however, extractive practices have gone beyond this: foreign contractors guaranteed their security in Iraq by relying on Iraqi nationals who placed their lives in physical jeopardy in order to carry out foreign expert plans.

Moreover, Green Iraq’s system enabled foreign contractors to distribute responsibility for marshlands restoration to Iraqi citizens; if restoration faltered, international contractors could point not to their own shortcomings, but rather to the failings of Green Iraq’s scientific research teams, either due to their presumed lack of expertise or the extraordinary circumstances of wartime reconstruction. Typical of offshore industries that rely on distributed authority to protect their interests, foreign experts ensured that if problems arose with the marshes project, they would be attributed to the failures of Iraqi nationals’ ground operations.²⁴

Finally, a close examination reveals that international experts found opportunities for future resource extraction through their commitment to biodiversity conservation.

Profiteering

In the long term, foreign consultants associated with Green Iraq benefitted from the contacts they made with Iraqi government ministries and from the ties they built with oil and water companies. Kubra, the director of Green Iraq, laid the groundwork for close ties to the private sector. Before Green Iraq, he had been a corporate executive for a major multinational engineering corporation. Kubra often told me that the restoration of the marshes and corporate opportunity could feed off of each other, and in fact that the success of the biodiversity conservation initiative depended on creating the space for oil and water multinationals to extract resources from the wetlands environs. Kubra promoted extraction as a strategy for conservation by touting slant drilling as a way to protect wetlands ecology and prospect for oil at the same time.

Green Iraq’s access to and knowledge of the wetlands proved to be a vital resource for oil prospectors, one that the NGO’s high-level administrators could leverage to their benefit. During his work on marshes restoration, Kubra occasionally consulted for ConocoPhillips, Shell, and ExxonMobil to discuss the development of oil fields proximate to the marshes. In return, he asked these companies to fund various environmental projects he wished to pursue in the marshes. Oil multinationals also assisted UNEP in their survey of marshlands ecology by providing the organization with notes from their own field studies of the wetlands.

When a lead Iraqi administrator of Green Iraq had to flee the country after receiving several threats from various militia groups opposed to the US-led occupation—threats that

²⁴ Appel, Hannah, (2012). Offshore Work: Oil, Modularity, and the How of Capitalism in Equatorial Guinea., *American Ethnologist* 39, 692-709.

stemmed from his association with international organizations—he found work as an environmental advisor for a Russian oil conglomerate operating out of the Gulf. This demonstrates how valuable Green Iraq’s knowledge of the marshes was for oil companies and indicates the kind of symbiosis Kubra envisioned. By 2012, a United Nations Development Programme (UNDP) official told me that Kubra had moved on from Green Iraq to concentrate on other endeavors in the private sector. Kubra remained CEO of Green Iraq by title, but he concentrated on profitable business ventures in Iraq’s private sector, including work with the Iraqi Ministry of Oil, which hired him as a consultant to its department of environment.

Italian hydraulic engineers enjoyed a similar payoff from their early investment in the marshes’ restoration. In 2008, I visited the Italian offices of one of the two engineering firms responsible for the wetlands plan. As Gianni Moretti, engineer, gave me a tour, he conveyed the surprising news that his firm had lost money on the marshes’ restoration. Moretti told me that the firm pursued the project at a loss with the anticipation that they would establish solid political connections in Iraq’s water sector.

Years later, in 2012, I saw Moretti again at a garden party in Amman. The firm had ballooned since their early work in Iraq’s marshes. The head of that firm had even relocated to Amman with his family and opened a guesthouse in a desirable expatriate neighborhood for the company’s engineers traveling in and out of Baghdad for meetings. I asked Moretti if the firm’s work on marshes restoration helped them win contracts in Iraq’s water sector. “Yes,” Moretti replied, “that’s what ended up happening.”

Moretti’s firm won the contract from Iraq’s Ministry of Water Resources to develop a new comprehensive national strategy for the country’s water resources. An informant at UNDP later told me that the Italian firm had won the majority of other contracts from the Ministry of Water Resources and now enjoyed a controlling interest over Iraq’s water sector. “They cut up a slice of pie in Iraq,” the UNDP official said. The UNDP official indicated that Moretti’s firm’s investment loss in Iraqi marshes restoration was a deliberate strategy to earn more profitable public contracts in Iraq’s water sector. The firm’s gamble paid off in dividends.

Conclusion

The connections between Iraq’s marshes and global corporate extraction and prospecting demonstrates how some companies and individuals profit from war. The foreign firms contracted by Green Iraq made headway into Iraq through the wartime marshes’ restoration project, which depended on labor practices that put Iraqi scientists, not foreign experts, in harm’s way. These contracts, in turn, became their gateway to future contracts in Iraq’s public sector natural resources management, and gave high-up insiders access to knowledge of the marshes ecology that proved valuable enough to oil conglomerates that they were willing to pay for it.

Understanding the wartime reconstruction economy, thus, depends on the ability to track international donors and corporate experts as they bridge disparate economic

sectors, even in fields like biodiversity conservation and environmental repair that appear to be more about philanthropy and reconstruction than profit. It is undoubtedly an accomplishment for the Iraqi state that UNESCO recognized Iraq's marshes as a World Heritage Site. However, beneath the positive veneer of this achievement lurk questions about the sovereignty of the Iraqi state and its ability to govern its natural resource wealth independently of global corporate interests and profiteering.