



DEAD LAND

ISLAMIC STATE'S DELIBERATE
DESTRUCTION OF IRAQ'S FARMLAND

AMNESTY
INTERNATIONAL



Amnesty International is a global movement of more than 7 million people who campaign for a world where human rights are enjoyed by all.

Our vision is for every person to enjoy all the rights enshrined in the Universal Declaration of Human Rights and other international human rights standards.

We are independent of any government, political ideology, economic interest or religion and are funded mainly by our membership and public donations.

© Amnesty International 2018

Except where otherwise noted, content in this document is licensed under a Creative Commons (attribution, non-commercial, no derivatives, international 4.0) licence.

<https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>

For more information please visit the permissions page on our website: www.amnesty.org

Where material is attributed to a copyright owner other than Amnesty International this material is not subject to the Creative Commons licence.

First published in 2018

by Amnesty International Ltd

Peter Benenson House, 1 Easton Street

London WC1X 0DW, UK

Index: MDE 14/9510/2018

Original language: English

amnesty.org



Cover photo: An abandoned farm just outside Sinune town north of Sinjar mountain. Before IS, farmers in the area grew olives, vegetables such as okra, tomatoes, onions, and cucumbers, as well as wheat.

© Alice Martins

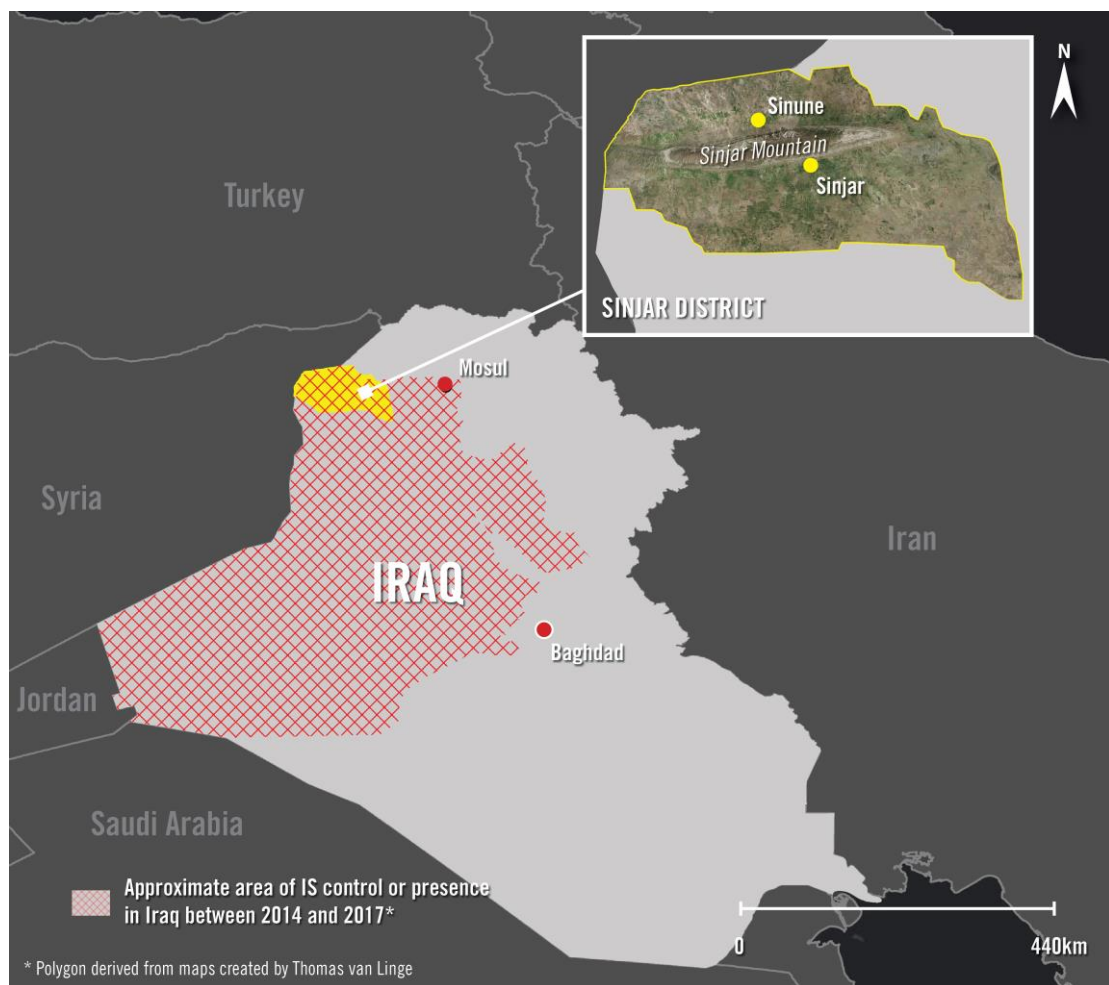
**AMNESTY
INTERNATIONAL**



CONTENTS

1. EXECUTIVE SUMMARY	5
2. METHODOLOGY	7
3. CONTEXT	8
4. FINDINGS	12
5. INTERNATIONAL LEGAL OBLIGATIONS	26
6. CONCLUSION	29
7. RECOMMENDATIONS	31

MAP



1. EXECUTIVE SUMMARY

“We have come back to dead land. It’s as if we never worked here at all”

Dakhil, early 20s, farmer in Sinjar district

Iraq declared military victory over the armed group calling itself “Islamic State” (IS) in December 2017. The government and its international partners are now involved in a long and complex process of rebuilding the shattered country. From Ramadi to Mosul and almost every city in between, the conflict reduced huge urban areas of Iraq to rubble – often in front of a global audience. Although the damage to Iraq’s countryside is as far-reaching as the headline-grabbing acts of urban destruction, the consequences of the conflict on Iraq’s rural residents are being largely forgotten.

In September 2018, Amnesty International conducted research on the destruction of Iraq’s rural environment and the subsequent effects on people living off the land. The research focused on areas in and immediately around Sinjar district in northwest Iraq, an area where much of the Yezidi community lived before 2014 and scene of some of the most extensive rural damage. In total, Amnesty International interviewed 69 people for this report, including 44 current or former farmers from rural areas.

Some of the destruction observed by Amnesty International appears to have been collateral damage from the fighting. But in many instances Amnesty International found evidence that IS deliberately targeted the rural environment that underpins the livelihoods of people living off the land.

Some of the clearest examples of this are related to irrigation wells. These wells were often sabotaged with rubble, oil, or other foreign objects. Blockage was often accompanied by theft and/or destruction of the pump, cables, generators and transformers. IS also burnt or chopped down orchards and pulled down and stole vital electricity lines. While this research primarily focused on areas in and around Sinjar district, Amnesty International spoke to farmers or former farmers in other parts of Iraq previously under the control of IS who described similar forms of deliberate destruction.

Destruction of an adversary’s property unless imperatively demanded by the necessities of the conflict constitutes a war crime. Such acts may also be “inhumane acts” constituting crimes against humanity, where they are committed as part of a widespread or systematic attack directed against a civilian population as part of an organizational policy. Efforts to hold IS responsible for crimes under international law should, where sufficient evidence exists, include these specific crimes.

For its part, the government of Iraq is obligated to take positive measures to assist individuals and communities to enjoy their rights to water, food and work. Specifically, Iraq should ensure there is adequate access to water resources for agriculture to ensure the right to adequate food. It should ensure that disadvantaged and marginalized farmers have equitable access to water and water management systems. In this respect, access to water resources is the missing link preventing farmers and former farmers from enjoying their right to gain a living by work and to be able to return to their homes and farms. Assistance is necessary for farmers who have returned to their land but are struggling to farm. It is also necessary for

former farmers who are still displaced – in the case of Sinjar’s former farmers, many of whom live in cities and camps in the Kurdistan Region of Iraq – and who consider their former rural livelihoods untenable. Iraq’s authorities have the responsibility to help establish conditions for, and to facilitate, the safe, voluntary return of the displaced to their homes.

The World Bank, economic policy institutes, and independent budgetary analysts have noted that oil-rich Iraq has the resources to fund much of its own reconstruction. Yet rural reconstruction has scarcely begun. Farmers and agricultural officials interviewed throughout the course of this research told Amnesty International they’ve received no government assistance. In November 2018, Amnesty International wrote to the various Ministries involved in rural reconstruction to seek further information on the government’s efforts in this area. To date, no response has been received.

Iraq adopted an official reconstruction plan in 2018. The plan includes an assessment of the extent of damage to the agricultural sector and outlines the costs of recovery over the next five years. The government needs to fund and implement this plan and urgently repair critical irrigation and other rural infrastructure. Much of Iraq’s countryside looks more or less the same as it did when recaptured from IS.

Iraq’s farmers and former farmers need urgent support to recommence farming. Farmers need assistance to replace their livestock and replant their orchards. They need help to repair lost or damaged tools, machinery, and greenhouses. Farm buildings and storage facilities have to be rebuilt. New wells will be required in some areas of the country; in others the extension of existing irrigation canal systems will be more appropriate.

To date, Iraq’s government has not begun to meaningfully address the full scale of destruction of agricultural livelihoods or implement plans to assist farmers to rebuild Iraq’s shattered land and the livelihoods it enables. As long as these areas lie in ruins, many hundreds of thousands of internally displaced people will be unable to return home. Even more will live in poverty. Given that some of these regions have been areas of discontent since 2003, there’s a real limit to how far Iraq’s recovery can sustainably progress without them.



An abandoned farm just outside Sinune town north of Sinjar mountain. Before IS, farmers in the area grew olives, vegetables such as okra, tomatoes, onions, and cucumbers, as well as wheat. © Richard Pearshouse/Amnesty International

2. METHODOLOGY

Between September and October 2018, Amnesty International researchers visited northern Iraq and interviewed 44 current or former farmers from rural areas. Although there has been no comprehensive assessment of the extent of the destruction of Iraq's rural environment, this research focused on areas in and immediately around Sinjar district where limited existing assessments indicate the extensive scope of destruction.

Of the 44 current or former farmers, 32 were from in and immediately around Sinjar district in Ninewa Governorate: 17 had returned to their farms to try to take-up farming again, and 15 were former farmers who were still displaced (mostly living in or around Dohuk, in the Kurdistan Region of Iraq, while others were still living in camps on Sinjar mountain). In addition to the 32 farmers and former farmers from Sinjar area, Amnesty International also talked to 12 current or former farmers from other parts of northern Iraq (Karamlesh, Qaraqosh, Bartella, Qayyara, Hawija and Kirkuk). Of these 12, nine had returned to their farms to try and recommence farming, and three were still displaced. All interviews were done in person except for two interviews done by telephone. Interviews were conducted in Arabic or Kurdish through an interpreter.

Amnesty International also interviewed 25 people knowledgeable about environmental and agricultural issues in Iraq, including nine officials working in federal, governorate and local government authorities, as well as academic researchers, activists, and representatives of non-governmental organizations (NGOs). Amnesty International also interviewed three water engineers with professional experience rehabilitating water infrastructure (particularly wells) in areas of Iraq (including the Sinjar area) previously under IS control.

In total, Amnesty International interviewed 69 people for this report.

To protect the confidentiality and safety of interviewees, some names and other identifying information have been withheld.

In November 2018, Amnesty International wrote to the Ministry of Agriculture, the Ministry of Migration and Displacement, the Ministry of Water Resources, the Ministry of Construction, Housing, Municipalities and Public Works, and the Ministry of Planning to seek further information regarding the government's approach to rural reconstruction. To date, Amnesty International has not received a response from any of these Ministries. A copy of this correspondence is attached in the Annex.

A currency conversion rate of US\$1 to IQD 1,187.50 has been used, the approximate rate of conversion at the time of research.

A land conversion rate of 1 Iraqi dunam to 2,500 square metres has been used.

3. CONTEXT

For much of the past few decades, rural Iraqis have known little but tumult. The Iran-Iraq war in the 1980s littered the 1,500km-long border strip with millions of land mines, while Saddam Hussein's brutal suppression of the Kurdish and Shi'a uprisings in the years before and after forcibly emptied swathes of the countryside.¹ Not content with beating the rebels in the south, Saddam Hussein ordered the draining of the great Mesopotamian marshes, the flattening of thousands of villages in the north, and the destruction of many of the famed date-bearing palm groves in the south.²

The Gulf War in 1990-1991 (and subsequent sanctions) then saddled the landscape with additional problems, including bombed water treatment facilities, agricultural facilities, and food warehouses.³ When the US-led coalition invaded in 2003, ushering in over a decade of near-unbroken disarray, isolated rural communities were particularly hard hit by the insecurity.⁴

IS compounded these troubles and added a whole bundle of new ones when it emerged in 2014. The group deliberately targeted key food-producing areas, particularly in the fertile Euphrates and Tigris river valleys, and then prioritized the seizure of dams, pump stations and other crucial water infrastructure in an attempt to make these lands prosper. It deployed trained personnel within its ranks to oversee key installations, such as at the Fallujah barrage and the Mosul Dam, and initially gave farmers extra fuel to deliver goods to market.⁵

As an entity with strong rural roots, IS appeared well aware of farming's importance to its 'caliphate's' long-term prospects. Aided by some favourable rains and captured stockpiles of seeds, it even made a fairly successful early fist of it, taking in a sizeable portion of its revenue from farming.⁶ At its peak, IS controlled up to 40% of Iraq's wheat-producing heartland, along with at least two-dozen major silos, several dams, and thousands of kilometres of irrigation canals.⁷

IS's keen awareness of the necessity of water extended into a recognition of its potential use in the conflict. One assessment notes:

¹ Ahmad al-Naemi, 'Iraq's landmines: a lethal legacy of old wars,' The New Arab, March 23, 2015, <https://www.alaraby.co.uk/english/features/2015/3/23/iraqs-landmines-a-lethal-legacy-of-old-wars> ; Fred Pearce, 'Draining life from Iraq's marshes: Saddam Hussein is using an old idea to force the Marsh Arabs from their home,' New Scientist, April 17, 1993, <https://www.newscientist.com/article/mg13818691-800-draining-life-from-iraqs-marshes-saddam-hussein-is-using-an-old-idea-to-force-the-marsh-arabs-from-their-home/>

² See, for example, Alexander Joffe, 'The environmental legacy of Saddam Husayn: The archaeology of totalitarianism in modern Iraq,' *Crime, law and social change* vol. 33(4), 2000, pp. 313-328.

³ Human Rights Watch, 'Objects Attacked: The Need For Full Disclosure And Accountability,' (1991), <https://www.hrw.org/reports/1991/gulfwar/>

⁴ International Committee of the Red Cross, 'Iraq: people living in rural areas remain among the most affected,' December 14, 2011, <https://www.icrc.org/en/doc/resources/documents/update/2011/iraq-update-2011-12-14.htm>

⁵ Peter Schwartzstein, 'Amid Terror Attacks, Iraq Faces Water Crisis,' National Geographic, November 5, 2014, <https://news.nationalgeographic.com/news/2014/11/141104-iraq-water-crisis-turkey-iran-isis/>

⁶ Hadi Jaafar and Eckart Woertz, 'Agriculture as a funding source of ISIS: a GIS and remote sense analysis,' *Food Policy*, vol. 64, October 2016, pp. 14-25.

⁷ Maggie Fick, 'Special Report: Islamic State uses grain to tighten grip in Iraq,' Reuters, September 30, 2014, <https://www.reuters.com/article/us-mideast-crisis-wheat/special-report-islamic-state-uses-grain-to-tighten-grip-in-iraq-idUSKCN0HP12J20140930> ; Amnesty International interview with Jamal Mohsin Ali, Director of Planning and Follow up, Ministry of Water Resources, Baghdad, September 29, 2018.

[IS] has repeatedly exploited water as a weapon in all its various facets... and has integrated this practice in its broader portfolio of warfare tactics. The number of cases in which IS has weaponised water by far outnumbers those attributed to all other conflict parties in Syria and Iraq together. There are essentially three main ways to use water as a weapon, namely by making sure that there is either too little, or alternatively too much water – both of which involve manipulating quantity – or that water is unusable, by reducing its quality. IS has repeatedly applied all three variants with drastic consequences at the local, regional and national level.⁸ [citations omitted]

Another observer writes how IS's control of water infrastructure enabled it "to exercise strategic or virtual control over disproportionate amounts of territory with a relatively small attacking force."⁹ By signalling its ability to deliver basic resources, IS even looked to water as a means of asserting its legitimacy among its new charges, particularly in Mosul, where some residents initially greeted it as a liberating force.¹⁰

Dams were vital to this strategy. The group seized Mosul dam, the largest in Iraq, in August 2014, before US and Kurdish forces beat it back days after.¹¹ IS also held the Fallujah barrage (on the Euphrates) from February 2014 to June 2016, and the Ramadi barrage (on the Euphrates) from May 2015 to January 2016.¹² Throughout the conflict, it also launched frequent unsuccessful attacks to seize the Haditha dam (on the Euphrates) as well as assaults behind the government's lines, like the Samarra barrage (on the Tigris).¹³

Most infamously, in 2014, IS used the Fallujah barrage to stymie an Iraqi army advance with floodwaters, before later blowing up most of its gates in 2016. Up to 12,000 families were evacuated in the middle Euphrates valley in the first instance; farmers in Baghdad's western agricultural belt then went without water for over two years after the barrage was blown in the second.¹⁴ Even now, water and energy facilities are thought to be a primary target of IS's remaining forces.¹⁵

Like many armed forces, IS showed scant regard for the environmental impact of its operations. It mined vast swathes of 'high-use land' to protect its positions – contributing to Iraq's status as one of the most mine-contaminated countries in the world.¹⁶ Among other damages, it blew up dozens of oil wells in Qayyara and around the Hamrin hills to conceal its movements from above, which in one instance left an 11km-long oil spill that has yet to be cleaned up.¹⁷

Then, when IS began losing territory, it changed tack. Its fighters took to eviscerating the landscape in ways neither strategic nor collateral. They sabotaged wells and burnt down orchards. They looted agricultural equipment, carting away anything that could be carried and often destroying what could not. IS boobytrapped everything from barns, to heavily-trafficked escape routes, and pump stations.¹⁸

This deliberate, wanton annihilation was particularly devastating in Sinjar district, the Yazidi heartland in Iraq's far northwest along the Syrian border. As adherents of a pre-Abrahamic faith with roots in Mesopotamia going back millennia, the geographically-isolated and politically-friendless Yazidis were a soft

⁸ Tobias Von Lossow, 'The rebirth of water as a weapon: IS in Syria and Iraq,' *The International Spectator* vol.51(3) October 2016, pp. 82-99.

⁹ Marcus DuBois King, 'The weaponization of water in Syria and Iraq,' *The Washington Quarterly*, vol.38(4) October 2015, pp. 153-169.

¹⁰ Tobias Von Lossow, 'The rebirth of water as a weapon: IS in Syria and Iraq,' *The International Spectator* vol.51(3) October 2016, pp. 82-99.

¹¹ See, for example, 'Iraq Crisis: US strikes aid Kurdish bid to retake dam,' BBC News August 16, 2014, <https://www.bbc.com/news/world-middle-east-28820509>

¹² Tobias Von Lossow, 'The rebirth of water as a weapon: IS in Syria and Iraq,' *The International Spectator* vol.51(3) October 2016, pp. 82-99.

¹³ Ibid; Amre Sarhan, "Army Forces Foil ISIS Attack on Samarra Barrage, Salahuddin," Iraqi News, January 3, 2016 <https://www.iraqinews.com/iraq-war/army-forces-foil-isis-attack-samarra-barrage-salahuddin/>

¹⁴ UN Environment, 'Technical Note: Environmental Issues In Areas Retaken From ISIL. Mosul, Iraq,' 2018 https://postconflict.unep.ch/publications/Iraq/Iraq%20Technical%20Note_September2017.pdf

¹⁵ See, for example, Alexander Theodosiou and Rebecka Lind, "Increasingly bold Islamic State attacks indicate aspiration to exploit civil-state tensions and seize control of Iraq's energy installations," IHS Markit, October 26, 2018 <https://www.janes.com/article/84074/increasingly-bold-islamic-state-attacks-indicate-aspiration-to-exploit-civil-state-tensions-and-seize-control-of-iraq-s-energy-installations>

¹⁶ The extent of landmine contamination in Iraq is unknown, although estimates provided at the end of 2017 suggest contamination in excess of 1,000 square kilometres. See International Campaign to Ban Landmines- Cluster Munition Coalition, 'Landmine Monitor 2018,' pg. 43 https://reliefweb.int/sites/reliefweb.int/files/resources/Landmine-Monitor-2018_final.pdf

¹⁷ Wim Zwijnenburg and Foeke Postma, 'Living under a Black Sky,' Pax, 2017 <https://www.paxforpeace.nl/publications/all-publications/living-under-a-black-sky>

¹⁸ Peter Schwartzstein, "The Islamic State's Scorched Earth Strategy," *Foreign Policy*, April 6, 2016

<https://foreignpolicy.com/2016/04/06/the-islamic-states-scorched-earth-strategy/> ; Regional Food Security Analysis Network (RFSAN), 'The Impact of ISIS on Iraq's Agricultural Sector,' 2016 <https://reliefweb.int/report/iraq/impact-isis-iraq-s-agricultural-sector> ; FAO, 'Agriculture and Livelihoods Needs Assessment in the Newly Liberated Areas of Kirkuk, Ninawa and Salahaddin,' February 2016.

target for IS. From August 2014, Yazidis and their overwhelmingly agrarian communities were to be on the receiving end of the conflict's most severe brutality.¹⁹

First, IS fighters rounded up and killed the men and boys who hadn't been able to seek sanctuary on the defensible heights of Sinjar mountain. Soon after, they abducted and sold an estimated six thousand young women and children into slavery elsewhere in Iraq and in Syria.²⁰ Many Yazidis sought refuge in Europe and other parts of the Middle East.

By the time the north side of the mountain was liberated in December 2014, and the south side in November 2015, thousands of years of Yazidi life had been more or less obliterated.²¹ The area was retaken from IS by forces of the Kurdish Regional Government (KRG) with coalition air support; control of the area passed to Iraq's central government in October 2017.²²

Across Iraq, tens of thousands of Iraqi civilians have been killed or injured in the conflict against IS.²³ Iraq's government and the World Bank estimate Iraq's total recovery and reconstruction needs at IQD 104.5 trillion (US\$88 billion) across the seven directly affected governorates over five years.²⁴ While many have returned, in September 2018 the number of people still internally displaced was estimated at two million, with over eight million still in need of humanitarian assistance.²⁵

The rate of people returning to their homes slowed considerably in 2018.²⁶

Agriculture accounts for around 4% of GDP and around 20% of employment, and it is the largest source of employment in rural areas.²⁷ But the conflict with IS eviscerated agricultural production, which declined by an estimated 40% over 2014 levels.²⁸ About two-thirds of Iraq's farmers had access to irrigation in 2014; that figure had fallen to 20% three years later.²⁹ Around 75% of cattle, sheep, goats and buffalo were lost, although losses were as high as up to 95% in some areas.³⁰ The long-term damage inflicted on Iraq's rural environment will reverberate for years to come. It's also exacerbated Iraq's already troubling food security.³¹

Were it not for the circumstances that contributed to IS's rise, the plight of rural Iraq might be just another sad, sordid footnote in the story of the war. But the group and its forebears thrived off rural poverty and resentments and found the vast, sparsely-populated hinterland a rich recruiting ground for waging insurgency.³² Without proper rural reconstruction, it could happen again. Already, in the jobless and insecure vacuum that IS left behind, officials are warning that desperate agricultural labourers are easy prey for IS recruiters. The armed group is re-gaining footholds and, in some instances, displacing villagers who'd recently returned home.³³

In the meantime, conditions for farmers in northern Iraq are only worsening – with potentially devastating consequences for the rest of the country. Iraq's upstream states appear determined to hold more water back. Turkey has constructed dozens of large dams in the Euphrates and Tigris watersheds, thereby

¹⁹ UN Human Rights Council, 'They Came to Destroy: ISIS Crimes Against the Yazidis,' June 16, 2016, A/HRC/32/CRP.2 https://www.ohchr.org/Documents/HRBodies/HRCouncil/ColSyria/A_HRC_32_CRP.2_en.pdf

²⁰ Amnesty International, 'Escape from Hell: Torture and Sexual Slavery in Islamic State Captivity in Iraq,' 2014 <https://www.amnesty.org/en/documents/mde14/021/2014/en/>

²¹ UN Human Rights Council, 'They Came to Destroy: ISIS Crimes Against the Yazidis,' June 16, 2016, A/HRC/32/CRP.2, Paras 175-187 A/HRC/32/CRP.2 https://www.ohchr.org/Documents/HRBodies/HRCouncil/ColSyria/A_HRC_32_CRP.2_en.pdf

²² For a detailed description of political and military control of Sinjar, see International Crisis Group, 'Winning the Post-ISIS Battle for Iraq in Sinjar,' February 20, 2018 <https://www.crisisgroup.org/middle-east-north-africa/gulf-and-arabian-peninsula/iraq/183-winning-post-isis-battle-iraq-sinjar>

²³ Government of Iraq, 'Iraq: Reconstruction and Investment – Reconstruction and Development Framework – Part 1,' February 2018, p. 1, <http://www.cabinet.iq/uploads/Iraq%20Reconstruction/Iraq%20Recons%20&%20Inves.pdf>

²⁴ Government of Iraq, 'Iraq: Reconstruction and Investment – Reconstruction and Development Framework – Part 1,' p. 7.

²⁵ OCHA, 'Humanitarian Bulletin Iraq: September 2018,' October 15, 2018, https://reliefweb.int/sites/reliefweb.int/files/resources/ocha_iraq_humanitarian_bulletin_-_september_2018.pdf

²⁶ OCHA, 'Humanitarian Bulletin Iraq: September 2018,' p. 4.

²⁷ World Bank, 'Iraq Economic Monitor: From War to Reconstruction and Economic Recovery,' October 2018, p. 2 <https://openknowledge.worldbank.org/handle/10986/29688>; FAO, 'Agriculture Damage and Loss Needs Assessment,' September 2017, p. 10 <http://www.fao.org/emergencies/resources/documents/resources-detail/en/c/1036368/>

²⁸ World Bank, 'Iraq Economic Monitor: From War to Reconstruction and Economic Recovery,' p. 2 <https://openknowledge.worldbank.org/handle/10986/29688>; FAO, 'Agriculture Damage and Loss Needs Assessment,' p. 1.

²⁹ Government of Iraq, 'Iraq: Reconstruction and Investment – Reconstruction and Development Framework – Part 1.'

³⁰ FAO, 'Agriculture Damage and Loss Needs Assessment,' p. 5.

³¹ FAO, 'Countries requiring external assistance for food,' September 2018 <http://www.fao.org/giews/country-analysis/external-assistance/en/>

³² Peter Schwartzstein, 'Climate Change and Water Woes Drove ISIS Recruiting in Iraq,' National Geographic, November 14, 2017 <https://news.nationalgeographic.com/2017/11/climate-change-drought-drove-isis-terrorist-recruiting-iraq/>

³³ See, for example, Rhys Dublin, 'Coalition analysis warns of potential Islamic State resurgence,' Foreign Policy, January 10, 2018 <https://foreignpolicy.com/2018/01/10/coalition-analysis-warns-of-potential-islamic-state-resurgence-iraq-isis-isil-terrorism-military/>

significantly cutting river flow into Iraq. Iran has dammed or diverted many of the Tigris' tributaries, which has hobbled southern Iraq's water supply and contributed to summer-long protests in Basra in 2018.³⁴

Iraq has experienced severe droughts in recent decades, particularly in 1998-1999 and 2007-2008.³⁵ It's gripped by one in 2018, so severe that the area under cultivation in 2018 is estimated by the Ministry of Agriculture at half what it was in 2017.³⁶ Over the long term, the situation is likely to deteriorate further. Scientific modelling of the effects of climate change on Iraq shows most regions of the country are likely to suffer a reduction in annual precipitation, especially by the end of the 21st century.³⁷



A typical irrigation well in Sinjar district in northern Iraq's Ninewa governorate - hundreds of these were sabotaged by IS fighters. © Amnesty International

³⁴ See Tobias von Lossow, 'More than infrastructures: water challenges in Iraq,' Netherlands Institute for International Relations, 2018 https://www.clingendael.org/sites/default/files/2018-07/PB_PSI_water_challenges_iraq.pdf; "No water or electricity: why southern Iraqis are at a breaking point," France24, July 24, 2018 <https://observers.france24.com/en/20180724-water-electricity-iraq-south-basra>

³⁵ Hameed, Maysoun, Ali Ahmadalipour and Hamid Moradkhani, 'Apprehensive drought characteristics over Iraq: results of a multidecadal spatiotemporal assessment,' *Geosciences* vol. 8(2) 2018, p. 58.

³⁶ "Iraq's cultivated areas reduced by half as drought tightens grip," AFP, August 5, 2018 <https://www.thenational.ae/world/mena/iraq-s-cultivated-areas-reduced-by-half-as-drought-tightens-grip-1.756996>

³⁷ Yasin Osman, Mawada Abdellatif, Nadhir Al-Ansari, Sven Knutsson, and Sadeq Jawad, "Climate Change and Future Precipitation in Arid Environment of Middle East: Case study of Iraq," *Journal of Environmental Hydrology* vol. 25 (2017), pp. 1-18.

4. FINDINGS

SINJAR AREA

“Wells are an agricultural resource for the people of the area. The worst thing is when you destroy a well: the trees and crops will die, the rest of the farm dies too... IS’s goal was to destroy the resources of a people that depend on crops and livestock.”

Local government official, Sinjar

Sinjar district lies in Ninewa governorate in north-western Iraq, some 120km west of Mosul and abutting the border with Syria to the north and west. Sinjar mountain, a 100km-long ridge running west to east just north of Sinjar town, divides the area into northern and southern sub-districts.

The area’s inhabitants are mostly Yezidi and Sunni Muslim, with smaller Christian and Shia Muslim populations. Officials in the local administration estimated the pre-crisis population of the district as around 550,000 people.³⁸ The local economy is largely rural, based on the cultivation of wheat, barley and vegetables, as well as livestock of mainly sheep and goats.³⁹

The conflict with IS wreaked immense destruction on agriculture in Sinjar district. Like most parts of rural Iraq, authorities have not conducted any comprehensive assessment of conflict-related damage to agriculture in this area. The following sources give some partial indications of the widespread destruction of agriculture in Sinjar.

- A rapid assessment of damage to Sinjar city by the Kurdistan Regional Government published in November 2015 estimated that 70% of livestock and 70% of crops and agricultural machinery (including water pumps) had been looted.⁴⁰
- In Sinune sub-district of Sinjar, the UN’s Food and Agriculture Organization (FAO) reported in 2016 that the (pre-IS) population of 120,000 sheep and goats declined to 35,000, while all 500 cows and 1,000 beehives were lost.⁴¹
- In Sinune sub-district of Sinjar, agricultural officials reported that IS destroyed, stole or burned around 85% of agricultural vehicles and machinery.⁴²

³⁸ Iraq Food Security Cluster Partners, ‘Sinjar Assessment: FSC Partners Report,’ August 2017, p. 4 https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/fsc_-_sinjar_report.pdf

³⁹ Amnesty International interview with anonymous agricultural official, Sinjar, September 16, 2018.

⁴⁰ Joint Crisis Coordination Center, Ministry of Interior, Kurdish Regional Government, ‘Shingal City Rapid Damage Assessment: The Early Recovery Needs,’ November 2015, p. 14.

⁴¹ FAO, ‘Agriculture and Livelihoods Needs Assessment in the Newly Liberated Areas of Kirkuk, Ninewa and Salahaddin,’ February 2016, p. 42.

⁴² See Welt Hungerhilfe (WHH), ‘Rapid Capacity Assessment of Agricultural Extension Workers in Sinjar and Al-Hamdaniya Districts,’ January 2018, p. 14

- A rapid needs assessment in August 2017 noted that 400 of 450 irrigation wells near Sinune were put out of use.⁴³

The Sinjar area was heavily mined by IS.⁴⁴ Extensive de-mining activities have taken place, particularly in Sinjar town and to the north side of Sinjar mountain. There are still widespread concerns regarding landmines particularly in villages to the south of Sinjar mountain.⁴⁵

About half of the people from the Sinjar area in 2014 have returned.⁴⁶ A review of Iraq's remaining internally displaced people, published in November 2018, found that people from Sinjar were the least willing to return compared to people displaced from other areas of Iraq.⁴⁷

A separate humanitarian assessment of why people were unwilling to return to Sinjar area, conducted in May 2018, found a combination of factors contributing to this unwillingness, including a lack of services in their area, a lack of livelihood opportunities, as well as damaged, destroyed or stolen property. The assessment noted:

*In the past the area was said to be heavily reliant on agriculture, especially in surrounding villages. However, due to the fear of contamination [with mines] the land was generally not being re-cultivated or used for grazing. In addition, returnee and expert [key informants] said that it had been a particularly poor year for rainfall, resulting in a lack of water for agricultural purposes. Pumps, generators and tractors have also reportedly been damaged or stolen. Finally, returnee [key informants] said that there was a lack of money to purchase materials necessary for restarting agricultural livelihoods.*⁴⁸

Another assessment of the destruction in and around Sinjar noted:

*For a region heavily dependent on agriculture for food and livelihoods, the lack of rehabilitation of this sector leaves circumstances grave for Yazidis to migrate home. Although [some] land mines have been removed from farmland, Yazidis are without resources needed for agricultural production and animal husbandry. Water also remains in short supply.*⁴⁹

When Amnesty International researchers visited the Sinjar area in September 2018, they witnessed the extent of the destruction of Sinjar's agricultural areas. Some of this damage was collateral damage from the fighting. However, in many instances, Iraq's rural environment was deliberately destroyed by IS.

IRRIGATION WELLS

"I am quite sure it was intentional: these sorts of items do not end up in the borehole or well pipes unless they are placed there"

Water engineer

Some of the clearest examples of IS's deliberate destruction are of irrigation wells.⁵⁰ Amnesty International spoke to 32 farmers or former farmers from Sinjar district, 19 of whom said that water wells had been destroyed in ways consistent with deliberate sabotage by IS. These 19 farmers or former farmers mentioned a total of 43 destroyed irrigation wells.

https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/whh_rapid_capacity_assessment_of_agricultural_extension_workers.pdf

⁴³ Iraq Food Security Cluster Partners, 'Sinjar Assessment: FSC Partners Report,' August 2017, pg. 56. A local non-governmental organisation assessed 383 wells in the Sinjar area as damaged or destroyed during the fighting with IS (the assessment did not claim to be comprehensive). Yazda, 'Need Assessment on Water Wells: Sinjar District,' undated.

⁴⁴ Nadia's Initiative, 'In the Aftermath of Genocide: Report on the Status of Sinjar,' 2018, p. 10 https://static1.squarespace.com/static/5771830a5016e1a544ba4318/t/5ac63dda88251b8bef460c7b/1522941415946/Status_of_Sinjar_Report.pdf

⁴⁵ REACH Initiative, 'Rapid overview of areas of return (ROAR): Sinjar and surrounding areas,' May 2018, p. 1

http://www.reachresourcecentre.info/system/files/resource-documents/reach_irq_rapid_overview_of_areas_of_return_roar_sinjar_and_surrounding_areas_june_2018.pdf

⁴⁶ See International Organisation for Migration, 'Displacement Tracking Matrix, DTM Round 98,' June 2018, p. 1 https://reliefweb.int/sites/reliefweb.int/files/resources/Round98_Report_English_2018_June_30_IOM_DTM.pdf

⁴⁷ International Organisation for Migration, 'Reasons to Remain: Categorizing Protracted Displacement in Iraq,' 2018, p. 11 <http://iomiraq.net/reports/reasons-remain-categorizing-protracted-displacement-iraq>

⁴⁸ OCHA, 'Humanitarian Bulletin Iraq: September 2018,' October 15, 2018, p. 4.

⁴⁹ Nadia's Initiative, 'In the Aftermath of Genocide: Report on the Status of Sinjar,' 2018, p. 25.

⁵⁰ While not the subject of this research, Amnesty International also identified a number of wells for drinking water that were also deliberately sabotaged by IS.

This damage was most commonly perpetrated by putting rubble in the well and/or water pipe. Amnesty International also observed one water well contaminated with oil and another well containing tyres and concrete blocks. Incapacitation of irrigation wells in these ways was often accompanied by theft and/or destruction of the pump and the pump's electrical system (including cables, electrical control boards, generators and transformers.)

According to water engineers interviewed during the research for this report, it is highly improbable that this form of the destruction – foreign objects introduced into a closed irrigation pump – could occur without the actual intention to inflict the damage. In the case of irrigation wells, it is difficult to understand how such infrastructure could have been regarded as a military objective.

Although research was not extensive in other areas of northern Iraq, Amnesty International's interviews with farmers and former farmers elsewhere in Ninewa governorate and in Kirkuk governorate revealed cases of deliberate destruction of irrigation wells by IS beyond Sinjar area.

During this research, a water engineer who worked to rehabilitate water infrastructure (including wells) in areas of Iraq (including the Sinjar area) in 2017, told Amnesty International:

Wells and boreholes were blocked by all sorts of foreign items pushed into them: oil and bits of metal but also clothes, garbage, old pumping equipment, pieces of old pipe, etc. I am quite sure it was intentional: these sorts of items do not end up in the borehole or well pipes unless they are placed there. The holes are covered with heavy lids that are not supposed to be moved by anyone, unless there is an operational/maintenance need.

Amnesty International spoke to another water engineer with professional experience repairing approximately 50 water wells in the Sinjar area over a two-year period from September 2016 to September 2018. The engineer described finding water wells with foreign objects in their water pipes, including rubble, metal screws and – in one memorable case – a live bullet. He explained:

The most common way for wells to be put out of action was to cut the [electrical] wire and to damage the electrical board. [IS] also stole a lot of [electrical] transformers. They also threw rubble into the well and the water pipe.

He noted that “it's not possible this rubble accidentally goes in [wells]. The [entrance to the] wells are above ground level and they have covers.”

A third water engineer told Amnesty International he had observed a similar form of destruction of water wells during his professional experience repairing approximately 30 wells in the Sinjar area from March 2015 to September 2018.

The biggest problem [with the wells] is that the cables have been cut and the pumps are stolen or inside the wells. The pipes are gone or broken. The electric boards are stolen or smashed. There are also little stones in pipes. They have deliberately opened the well and put things in. These rocks were not an accident: they have been thrown inside so that these wells could not be fixed.

Both water engineers who had worked extensively on irrigation wells in the Sinjar area considered that their own efforts to repair wells were small in relation to the extent of damage to wells in the area. They clarified that irrigation wells are only fixed when people return and have enough money to do so, but that many villages (particularly to the south of Sinjar mountain) remain mostly empty.

The cost of fixing an irrigation well will generally be a few thousand dollars, depending on the nature and extent of the damage and cost of replacement parts. Drilling a new well will be in the vicinity of IQD 10,000 (US\$8.50) to IQD 13,5000 (US\$11.5) per metre (for a borehole usually between 50-200 metres deep), while a pump will cost between IQD 120,000 (US\$100) to IQD 650,000 (US\$550) depending on its size. Replacing the electrical board and/or generator can also add substantially to expenses.⁵¹ For example, one farmer (Hakar, whose case is described below), estimated the cost of digging a new well and replacing the damaged pump and destroyed electrical system at IQD 6 million (US\$5,000).

These costs of reconstruction are beyond many farmers and former farmers. As noted below, many former farmers are unable to return to agriculture and so their income from their land is effectively zero. Even when some farmers are able to restart operations, their productive capacity will be severely curtailed. FAO notes that farmers income have reduced by more than 50% since pre-IS levels, with the poorest farmers estimated to earn around IQD 200, 000 (US\$170) per month.⁵²

⁵¹ Amnesty International interviews with anonymous NGO official, September 26, 2018.

⁵² FAO, 'Agriculture and Livelihoods Needs Assessment in the Newly Liberated Areas of Kirkuk, Ninewa and Salahaddin,' February 2016, p. 56.

Interviews with farmers or former farmers in and from the Sinjar area confirmed examples of deliberate damage to irrigation wells. As noted above, some farmers have returned to their farms since the area was retaken from IS and tried to restart their livelihoods. Dakhil is a farmer in his early 20s from a small village on the south side of Sinjar mountain. Prior to IS, he and his father grew wheat on approximately 350,000 square meters of land and also farmed sheep and chickens. Dakhil and his family fled IS's advance on 3 August 2014 and returned to the area in September 2017.

When Dakhil and his family returned, he felt that "We have come back to dead land. It's as if we never worked here at all." Crops, sheep and chickens were gone. Three generators and a centre crop pivot for irrigation were missing. The two buildings the family had owned for farming chickens were without roofing and all the feeding devices were also missing. IS had also blocked the farm's water well.

I don't know what's inside but [IS] have thrown something in. We tried to lower a pump in, but nothing can get down. There's no way this could be an accident: it's high off the ground, it was covered. They even broke the plastic piping. If you look at everything else they did to us, it's obvious they just didn't want us to be able to use this ever again... They took what they wanted and what they could not take, they broke.



A sabotaged irrigation well on a farm owned by Dakhil and his family on the south side of Sinjar mountain. "I don't know what's inside but [IS] have thrown something in," Dakhil told Amnesty International. © Alice Martins

Dakhil summarised the situation on his family farm by explaining that before IS, farming "wasn't great, but it was fine. It is not possible now." Although his house is still standing and has been partially repaired, he has been unable to plant crops or raise chickens as he did before. He added "Why have so few people returned? Because there is no income here... The situation is so hard. This area needs a lot of support if people are going to come back."

Hakar is a farmer in his mid-30s and owns a small farm of approximately 25,000 square metres on the south side of Sinjar mountain. He told Amnesty International that before IS he used a 100-metre-deep water well to irrigate his crops. He returned to find his irrigation well broken: the tube leading down to the pump had been severed and the pump stuck in the bottom of the well. He also believes IS threw rubble into the well. Although he is living on his property, he has been unable to resume farming. Pointing to the broken well, he told Amnesty International:

We have no water now, so we have to go to our neighbours to get [drinking] water. Without [irrigation] water, I can't grow anything... We cannot afford to fix this, or anything close. [Before IS] any house with money had a well and now they are all like this.

Hakar's father, Atyas – who also was a farmer before IS arrived – added “We have no money now. How can we rebuild if we don't even have enough to eat? I can't replant.”



A sabotaged irrigation well on Hakar's farm on the south side of Sinjar mountain. He told Amnesty International: "Without [irrigation] water, I can't grow anything... We cannot afford to fix this, or anything close. © Richard Pearshouse/Amnesty International



Hakar told Amnesty International that he returned to his farm to find the tube leading to the pump had been severed and the pump stuck in the bottom of the well. He also believes IS threw rubble into the well. © Richard Pearshouse/Amnesty International

Amnesty International visited an abandoned house in a small village just outside Sinune town to the north of Sinjar mountain. The nearby fields were barren. The entrance to the well was stained with oil, with oil stains also visible in and around ruptures in the black plastic irrigation pipe leading from the well. A large water tank near the well was empty and lengths of plastic irrigation pipes were nearby, broken and scattered. Another well on the same property was also destroyed, with rubble visible in the tube.



An empty water tank and a sabotaged irrigation well on an abandoned farm near Sinune town north of Sinjar mountain. A farmer from a neighbouring farm told Amnesty International that only five of the 10 families who used to live in the village pre-IS had returned. © Alice Martins



*On the left: a sabotaged irrigation well on an abandoned farm just outside Sinune town north of Sinjar mountain. © Alice Martins.
On the right: detail of a sabotaged irrigation well on an abandoned farm just outside Sinune town. The entrance to the well is stained with oil. © Richard Pearshouse/Amnesty International*

Emad, a neighbour of the abandoned farm, told Amnesty International that before IS, farmers in the area grew olives, vegetables such as okra, tomatoes, onions, and cucumbers, as well as wheat. Emad explained that the farm's owners had not returned, and that only five of the 10 families who used to live in the village pre-IS had returned. Emad added that he also had water wells on his 45,000 square metre farm before IS arrived, and that when they returned they found rubble in all five of them. The wells' five water pumps were also gone, along with the family's tractor.

As Emad told Amnesty International, "We need new wells because we cannot use these ones. We also need livestock and seeds."

Amnesty International also interviewed former farmers who were still displaced: some were still living in camps on Sinjar mountain, while others were living in or around Dohuk, in the Kurdistan Region of Iraq. All were unwilling to return under present conditions.

Soran is a former farmer in his early 30s who used to farm wheat, vegetables and grow olives and pomegranates. When he spoke to Amnesty he was living in a camp for displaced people near Dohuk. He went back for one day to see his house and his land.

It was painful to see this. My house was destroyed, flattened. Near the wells there were two or three small buildings for generators and [farming] equipment: they took the generators and destroyed the buildings. They took the two pumps from the two wells. They put stones over the wells: they ruined them so we couldn't use them again. There was a concrete base around the wells that was destroyed. They also wanted to destroy the metal pipe [protruding above the well], it was bent and broken.

Hadi is a former farmer in his mid-40s originally from a small village south of Sinjar mountain. He left the area on 3 August 2014 and went to Dohuk, where he was still living when Amnesty International interviewed him. Prior to IS, he supported his family by farming – wheat and vegetables (such as tomatoes and cucumbers) as well as olive and pomegranate trees and grape vines – on approximately 300,000 square metres of land. He returned briefly to see his farm and described what he saw as "pure destruction". He explained:

I had a well – 220 metres deep – as well as a generator and an irrigation pipe system. They threw rubble in my well and filled it to the top. My trees were chopped down – I could see the marks from chopping with a chainsaw. The irrigation system – from the pump to the pipes – was stolen. They did this to send a message: that you have nothing to return to, so if you survive don't even think of coming back.

Talking about his reasons for remaining in Dohuk, Hadi told Amnesty International: "Our lives depend on agriculture. I don't have anything now: no salary, no savings, just land which I cannot use."

OTHER FORMS OF DELIBERATE DESTRUCTION

[My olive trees] were chopped down and burnt: I could see cuts from an axe. It was on purpose, why else would they use an axe?

Majdal, a former farmer in his mid-50s

Amnesty International also identified other forms of the deliberate destruction of agricultural objects in and immediately around Sinjar district by IS, including the burning of orchards and the destruction and/or looting of electricity infrastructure.

Eylo is a farmer in his mid-30s from a village outside Sinune town to the north of Sinjar mountain. Before IS arrived, he farmed wheat and vegetables and grew olives on approximately 150,000 square metres. Unlike many of his neighbours, he has returned. He explained that "When I first came back [my farm] was a disaster, it was destroyed." He told Amnesty International:

Before IS I had 400 olive trees, now I have 250 because a lot were burnt down. They were burnt before this area was liberated, there was no fighting here then. My neighbour told me what happened, he stayed.

Majdal is a former farmer in his mid-50s from Solakh, a small village on the south side of Sinjar mountain to the east of Sinjar city. Before the arrival of IS in August 2014, he grew vegetables such as cucumbers and tomatoes as well and olives and figs on 30,000 square metres of land owned jointly with his brothers. He and his family continue to live in a camp for internally displaced people near Dohuk, where they moved shortly after fleeing the IS advance. He has returned briefly to see the state of destruction of his farm.

There is nothing left. Now the house is destroyed, and all the trees burned down. We had 100 olive trees but when I went I didn't see a single tree in any direction. They were chopped down and burnt: I could see cuts from an axe. It was on purpose, why else would they use an axe? They wanted us to lose everything. They didn't want us to be able to come back to our land.

The two irrigation wells on his land were blocked by rubble. He told Amnesty International that his children are keen to leave the camp and return, but that there is little to go back to. He added "How can we go back? There is no house, no food, no security, nothing."

Elias is an unemployed man in his late 40s from a small village on the south side of Sinjar mountain. When he returned to his village in late 2015, immediately after it was recaptured from IS control, he found his cousin's well in ruins. Concrete blocks and tyres were visible in the dug well. Elias added that he found the generator, cables and pump missing. He told Amnesty International:

When we left Sinjar [in August 2014] everything was ok and our water well was good. But when we liberated Sinjar and kicked out IS, we saw that all these wells were like this.



A sabotaged dug well from a small village south of Sinjar mountain. It used to belong to the cousin of Elias; when Elias returned concrete blocks and tyres were visible in the well. © Emilienne Malfatto

Avdar is a former farmer in his mid-20s from a village to the south side of Sinjar mountain. Prior to the arrival of IS he farmed olives, tomatoes and cucumbers on his family's 250,000 square metre farm. After IS's advance in August 2014 Avdar spent three months on Sinjar mountain before moving to live in a camp for internally displaced people near Dohuk (where he was still living when he spoke to Amnesty International). He told Amnesty International: "We went back to see our land and the situation was so bad: Da'esh destroyed everything, they left nothing for anyone." He suspects it was IS who stole the wheat crop that his family had harvested just before IS advanced, as well as his 100 sheep.

Avdar also described the looting of electricity infrastructure. A group of 20 families from the village had pooled money to bring an electricity line to their village from a larger village approximately 12 km away. They

had constructed their own electricity posts and also pooled money to purchase electricity cable, control panels and transformers. The rationale of the investment was to reduce the operating costs of running water pumps for irrigation, given the expense of diesel-powered generators. Avdar explained that he saw IS removing the crucial electricity infrastructure from their village while he was living on Sinjar mountain:

This is how our things were stolen: when we were trapped on the mountain, we saw a lot of heavy vehicles moving in our village. They took all of the electrical system, each transformer cost IQD 4.75 million (US\$4,000). Every part you can name is gone – the wires, the pylons.

The looting of the electricity line by IS was also described by two other former farmers from the same area, both also living in Dohuk when interviewed by Amnesty International.⁵³



A farm north of Sinjar mountain is visible in imagery from 30 August 2014 and 30 June 2018. On 30 August 2014, after IS had taken over the area, crop lines are visible in fields around the farm. Though IS left this area in December 2014, on 30 June 2018, the entire area appears dry and there is no evidence of recent planting. Many of the olive trees are no longer visible.

⁵³ Amnesty International interviews with Destan, September 24, 2018 and Hadi, September 20, 2018.



Imagery from 31 August 2014, 18 November 2015 and 29 June 2018, shows a farm approximately four km west of Sinjar. On 31 August 2014, IS had just entered the area. A pile of crop residue from a recent harvest is visible in the field. On 18 November 2015, imagery shows the field during the time when IS left the area. The lack of distinctive lines and a new road suggests the field had likely not been planted. On 29 June 2018, the field does not appear planted as typical in years before IS arrived.

OTHER AREAS OF NORTHERN IRAQ

“We’ve received no help from anybody, not from the government, not from any international organization.”

Abdulaziz, a former farmer in his early 70s

Amnesty International conducted research in other areas of Iraq, interviewing 12 farmers or former farmers from Karamlesh, Qaraqosh, Bartella, Qayyara, Hawija and Kirkuk. While Amnesty International’s research was limited in scope, those interviews made it clear that IS deliberately destroyed parts of Iraq’s rural environment in areas outside the main area of research.

Albazi is a farmer in his late 50s from Qaraqosh, about 30 km southeast of Mosul. His 20,000 square metre plot on the outskirts of the town used to be an orchard of olives, pomegranates and citrus trees. When Amnesty International researchers visited the farm it was completely empty, with just a few stumps visible in the dry earth. Albazi told Amnesty International he believed IS had thrown concrete blocks in his well. The blocks had trapped the old pump at the bottom of the well and the generator he used to own was missing.

Kamal is a former farmer in his early 30s from near Daquq, a town approximately 50 km south of Kirkuk city. He had fled IS with his family to live in Kirkuk city, where he works selling onions and tomatoes by the side of the road. He had returned briefly to visit his farm and saw it contaminated with mines. He told Amnesty International, “This is no kind of life [in Kirkuk] but I can’t go back.” He explained:

The explosives are still all there. It’s to make people scared to leave, so they stay in IS lands. IS told us this. They said if you leave, either we or the mines will kill you.

Khalif is a former farmer in his early 30s. Prior to 2014 he lived on a farm in a small village about 20 km from the town of Qayyara in southern Ninewa governorate, on the east bank of the Tigris river. He used to grow wheat and plants for animal fodder on approximately 550,000 square metres of land. He went back briefly in May 2018 to see his old house and farm: his house was destroyed and his land contaminated with mines. Pumps and pipes were taken, and both his wells were filled with rubble.

Unable to farm, Khalif has moved along with his family to a small village on the periphery of the town of Qayyara, where he works in a small shop. He lamented “I haven’t received help from anyone: not the government nor any non-governmental organizations.”

Abdulaziz, a former farmer in his early 70s, used to grow cotton on 50,000 square metres of land a few kilometres from Qayyara. When Abdulaziz showed Amnesty International the remains of his farm, the dug well on his property was full of debris and rocks and the land barren. Beside the disused well was the toppled square structure of concrete blocks that had previously housed the pump and generator.

This well was working 24 hours a day. It never stopped working. But look at it now. They stole the pump and all the equipment. They threw rubble in the well. If you wanted to use it, you’d have to pull a lot of things out of it. It would need a lot of digging. IS stole the pipe leading from the well to the channels. They also used a bulldozer to topple the pump house.

Abdulaziz now supports his family by selling fuel from a stand on the side of the road in Qayyara, supplemented by an army pension. He noted ruefully:

We’ve received no help from anybody, not from the government, not from any international organization. We need help digging the well, getting a pump. I have to dig new canals, buy new pipes, everything.

RECONSTRUCTION EFFORTS AND FUNDING SHORTFALLS

“With oil prices expected to rise, Iraq’s government will have ample fiscal space to finance reconstruction.”

World Bank, October 2018

A limited number of programs and initiatives have been set up to revive the areas that were retaken from IS and to repair agricultural and water infrastructure.⁵⁴ Media reports and policy think-tanks noted a lack of funds among the ministries and official authorities responsible for various facets of Iraq’s reconstruction in 2017. For example:

- In 2017, the country’s official reconstruction unit, the Reconstruction Fund for Areas Affected by Terrorist Operations (REFAATO), was seriously underfunded.⁵⁵
- In 2017, the Ministry of Water Resource’s infrastructure investment budget was small, with only about half actually transferred.⁵⁷
- In 2017, the Ministry of Agriculture received one of the smallest allocations in Iraq’s budget, with the largest part of the agricultural budget allocated to budget items such as salaries and pensions, as opposed to necessary infrastructure investment.⁵⁸

In early 2018, Iraq’s government published a detailed reconstruction framework.⁵⁹ Agriculture features as a component of one of five pillars, economic development. The plan notes:

*The most urgent requirement of the agricultural sector is restoring farm machinery and other input delivery systems (access to roads, market places, and irrigation systems) for farmers to resume their agricultural activities.*⁶⁰

The plan put total agricultural reconstruction needs across the seven directly affected governorates at IQD 4 trillion (US\$3.4 billion) over five years, with IQD 1.2 trillion (US\$1 billion) needed urgently in the first year.⁶¹ “Repair of critical irrigation infrastructure” is among the priorities for the first year of the plan under the pillar of economic development.

However budget data from the Ministry of Finance showed that, between January and July 2018, total government expenditure on investment in the agricultural sector across the country was IQD 341 billion (US\$283 million).⁶² Within this, the Ministry of Agriculture’s investment expenditure over this period was just IQD 630 million (US\$525,000).⁶³

This lack of funds was repeatedly mentioned during Amnesty International’s meetings with ministerial officials in Baghdad. Mahdi Al-Kaisy, the deputy minister of agriculture, told Amnesty International: “We

⁵⁴ UNDP and the Iraqi Council of Ministers preside over a IQD 650 billion (US\$550 million) ‘stabilization’ fund. Under this fund there has been some reconstruction of Iraq’s battered system of infrastructure for distributing water for domestic use, mostly in urban areas. See, for example, UNDP Iraq, ‘Funding Facility for Stabilisation, Annual Report 2017,’ 2017, pp. 46-51. The World Bank had provided a financing package of IQD 890 billion (US\$750 million) for reconstruction in the seven governorates, the Emergency Operation for Development. See World Bank, ‘Iraq - Emergency Operation for Development Project: additional financing (English),’ 2017, <http://documents.worldbank.org/curated/en/224371509674450419/Iraq-Emergency-Operation-for-Development-Project-additional-financing> In February 2018, the UN launched a two-year Recovery and Resilience Program that addresses Iraq’s humanitarian-development nexus, for which the UN sought IQD 570 billion (US\$482 million) in the first year. As part of the UN’s Recovery and Resilience Program, FAO proposed a IQD 110 billion (US\$92 million) programme to help revive Iraqi agriculture: FAO, ‘Restoration of agriculture and water systems sub-programme 2018-2020,’ 2018, <https://reliefweb.int/sites/reliefweb.int/files/resources/CA15111EN.pdf>

⁵⁵ Raya Jalabi and Michael Georgy, “Special Report: This man is trying to rebuild Mosul, he needs help-lots of it,” Reuters, <https://uk.reuters.com/article/uk-iraq-mosul-official-specialreport/special-report-this-man-is-trying-torebuild-mosul-he-needs-help-lots-of-it-idUKKBN1GX16G>

⁵⁷ Ibid.

⁵⁸ Expert Working Group on Climate-Related Security Risks, “Iraq: Climate-related security risk assessment,” 2018, p. 7 <https://www.eastwest.ngo/sites/default/files/iraq-climate-related-security-risk-assessment.pdf>

⁵⁹ Government of Iraq, ‘Iraq: Reconstruction and Investment – Reconstruction and Development Framework – Part 1,’ 2018.

⁶⁰ Ibid., p. XIX.

⁶¹ Ibid., p.23.

⁶² Ministry of Finance, ‘State account until July 2018 for the Federal Budget,’ July 2018, <http://mof.gov.iq/Pages/MainMof.aspx>

⁶³ Ibid.

have priorities – to improve these [damaged] areas, to rebuild seed centres, veterinary hospitals, and all the support systems. But not all funds are available.”⁶⁴ A senior official at the Ministry of Water Resources estimated the total cost of salvaging IS-damaged water infrastructure at IQD 710 billion (US\$600 million) across 100 sites but told Amnesty International the ministry lacks the resources to fix even major facilities.⁶⁵

In and around Sinjar district, local officials told Amnesty International there was no government support for agricultural reconstruction. A local government official in Sinune told Amnesty International:

People fled to [Sinjar] mountain, leaving everything behind. Now they have their land, but nothing else. They have no money to rebuild... In general, the level of agriculture [production] has reached its lowest point. Nobody pays attention to it. What kind of reconstruction [of agriculture] has been done? Nothing.

An agricultural official in Sinune told Amnesty International, “Nobody has helped us. Nothing. We don’t see help from any government.” Another agricultural official from the Sinjar area – himself still displaced near Dohuk – told Amnesty International:

We don’t know why we didn’t receive any assistance yet... We need support from the government or [international] organisations to operate our wells again. If this happens, if services are offered, people will start going back.

In March 2018, Iraq adopted a budget of IQD 104.5 trillion (US\$88 billion), based on a projected oil price of \$46 a barrel.⁶⁶ Oil prices rose well above that during 2018. Budget data from the Ministry of Finance showed a budget surplus of IQD 15 trillion (US\$12.5 billion) between January and July 2018.⁶⁷

The World Bank, economic policy institutes, and independent budgetary analysts have noted that oil-rich Iraq has the resources to fund much of its reconstruction. As observed by the World Bank, “With oil prices expected to rise, Iraq’s government will have ample fiscal space to finance reconstruction.”⁷³ One budgetary analyst notes:

*[Iraq’s] government should have a cumulative surplus of \$18.8 billion by the end of 2018 which can be used to start the reconstruction process, which coupled with the likely surplus of \$9.3 billion in 2019 would give the country a great deal of flexibility to fund further reconstruction over the near-term. This flexibility would be augmented by \$30 billion, over five years, in investments and trade credit guarantees that Iraq received during the Kuwait Conference in February [2018].*⁷⁴

Another analyst notes:

*Rapidly recovering oil prices have seen the return of Iraq’s investment budget and are providing a unique opportunity for the government to rebuild war torn cities and provide services for millions of citizens.*⁷⁵

⁶⁴ Amnesty International interview with Mahdi Al Qaisy, Deputy Minister, Ministry of Agriculture, Baghdad, September 27, 2018.

⁶⁵ Amnesty International interview with Jamal Mohsin Ali, Director of Planning and Follow up, Ministry of Water Resources, Baghdad, September 27, 2018.

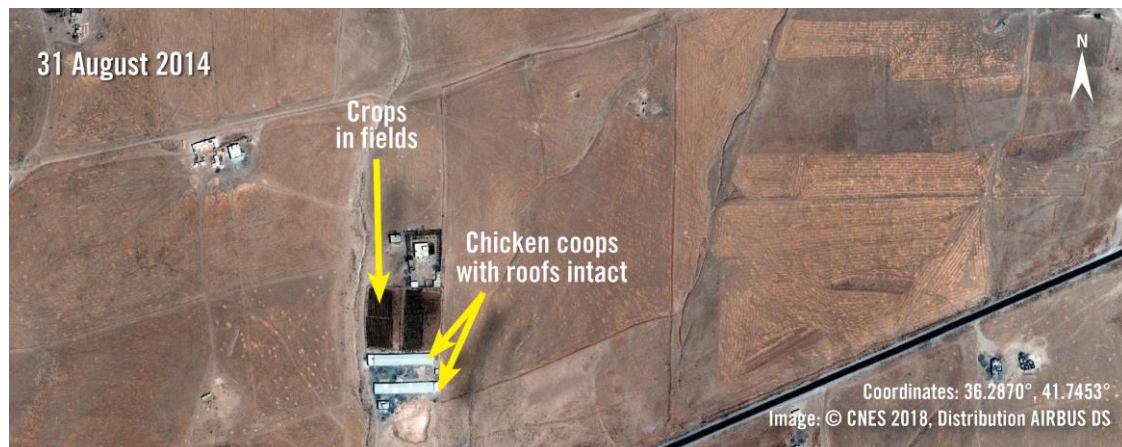
⁶⁶ Government of Iraq, ‘The Federal State Budget for the Republic of Iraq for the Fiscal Year 2018,’ March 3, 2018, <http://www.iraq-iccme.ip/pdf/archives/20180420-01/2018-budget-En.pdf> ; “Iraqi parliament approves \$88 billion 2018 budget- lawmakers,” Reuters, March 3, 2018 <https://www.reuters.com/article/mideast-crisis-iraq-budget/iraqi-parliament-approves-88-billion-2018-budget-lawmakers-idUSL8N1QJ4G6>

⁶⁷ Ministry of Finance, ‘State account until July 2018 for the Federal Budget,’ July 2018, <http://mof.gov.iq/Pages/MainMof.aspx> ; Ahmed Tabaqchali, ‘Budget surplus soars but markets continue to bottom,’ Iraq Business News, September 6, 2018. For estimates of the 2018 budget surplus, also see Robert Tollast, Yesar Al-Maleki, Harry Istepanian, ‘Iraq’s 2019 Draft Budget Law: A Turning Point In Iraq’s Reconstruction?’, Iraq Energy Institute, 2018, and Oxford Institute for Energy Studies, ‘Iraqi oil: industry evolution and short term and medium-term prospects,’ October 2018, p. 32 <https://www.oxfordenergy.org/publications/iraqi-oil-industry-evolution-short-medium-term-prospects/>

⁷³ World Bank, ‘Iraq’s Economic Outlook,’ October 2018, <https://www.worldbank.org/en/country/iraq/publication/economic-outlook-october-2018>

⁷⁴ Ahmed Tabaqchali, ‘Forget the donations, stupid: New dynamics in Iraq reconstruction,’ Iraq Business News, June 15, 2018 <http://www.iraq-businessnews.com/2018/06/15/forget-the-donations-stupid-new-dynamics-in-funding-reconstruction/>

⁷⁵ Luay al-Khateeb, ‘Iraq’s Post Government Formation Economic Outlook,’ Al Shaarq Forum, October 2018, <https://www.sharqforum.org/2018/10/24/iraqs-post-government-formation-economic-outlook/>



A farm approximately nine km west of Sinjar town can be seen in imagery from 31 August 2014, and 29 June 2018. On 31 August 2014, imagery shows the farm just after IS entered the area. Roofs are visible on the two chicken coops. The fields north of the chicken coops have crops visibly growing. In imagery from 29 June 2018, a small area of the field appears planted and the chicken coops are still without roofs.

5. INTERNATIONAL LEGAL OBLIGATIONS

WAR CRIMES AND CRIMES AGAINST HUMANITY BY IS

International humanitarian law (IHL, the laws of war) applies in situations of armed conflict. In Iraq, there is currently a non-international armed conflict involving forces aligned with the central government and the KRG, including international coalition members, and the armed group calling itself Islamic State and other armed groups opposed to the government. The rules of IHL therefore apply and are binding on all parties to the conflict, including IS. These rules and principles seek to protect anyone who is not actively participating in hostilities, including civilians. Article 14 of the 1977 Additional Protocol II explicitly prohibits the starvation of the civilian population as a mean of combat and protects objects that are indispensable to the survival of the civilian population.⁷⁸ The provision provides a non-exhaustive list of foodstuffs, agricultural areas for the production of foodstuff, crops, livestock, drinking water installations and supplies and irrigation works.

All parties are bound by customary international humanitarian law applicable to non-international armed conflict. Under customary international humanitarian law applicable to non-international armed conflict, “parties to the conflict must at all times distinguish between civilian objects and military objectives. Attacks may only be directed against military objectives. Attacks must not be directed against civilian objects.”⁷⁹

Certain serious violations of international humanitarian law are war crimes. Many of these crimes are codified in the Rome Statute of the International Criminal Court. The Rome Statute does not explicitly define attacks on civilian objects as a war crime in non-international armed conflicts. It does, however, define the destruction of the property of an adversary as a war crime unless such destruction be “imperatively demanded by the necessities of the conflict”.⁸⁰ Under customary international humanitarian law, directing attacks against civilian objects is a war crime.⁸¹

Under IHL, individuals, whether civilians or military, can be held criminally responsible for war crimes. Leaders and commanders of armed groups must be particularly diligent in seeking to prevent and repress such crimes. Military commanders and civilian superiors can be held responsible for crimes committed by their subordinates if they ordered such acts or if they knew, or had reason to know, such crimes were about to be committed and did not take necessary measures to prevent their commission, or to punish crimes that

⁷⁸ Iraq is not a party to the 1977 Additional Protocol to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) but these are rules of customary international humanitarian law (IHL) applicable in non-international armed conflicts: ICRC Customary IHL Study, Rules 53 and 54. The authoritative list of rules of customary international humanitarian law is found in the ICRC’s Customary IHL Study, Jean-Marie Henckjaerts and Louise Doswald Beck, Cambridge University Press, 2005. See also <https://ihl-databases.icrc.org/customary-ihl/eng/docs/home>

⁷⁹ ICRC Customary IHL Study, Rule 7.

⁸⁰ Rome Statute of the International Criminal Court (ICC), Article 8(2)(e)(xii).

⁸¹ ICRC Customary IHL Study, Rule 156.

have already been committed.⁸² Individuals are also criminally responsible for assisting in, facilitating, aiding or abetting the commission of a war crime.⁸³

Crimes against humanity are prohibited acts committed as part of a widespread or systematic attack directed against a civilian population as part of a government or organizational policy.⁸⁴ Unlike war crimes, crimes against humanity may be committed in peacetime, as well as during armed conflict. IS have deliberately targeted the civilian population, and their crimes have been widespread, as well as systematic in nature, and have been part of the group's organizational policy. Prohibited acts include "inhumane acts of a similar character [to the other acts enumerated in the Rome Statute] intentionally causing great suffering, or serious injury to body or to mental or physical health." The crimes against humanity committed by IS against the civilian population, which include murder, persecution, torture, rape and sexual slavery, also include the inhumane acts of extensive destruction of property not imperatively demanded by the necessities of the conflict.

INTERNATIONAL HUMAN RIGHTS LAW

International human rights law applies both in peacetime and during armed conflict and is legally binding on states, their armed forces and other agents. It establishes the right of victims of human rights violations to remedies, including justice, truth and reparation. Iraq is a state party to several major human rights treaties, including the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Covenant on Civil and Political Rights (ICCPR).

In 2010, UN General Assembly recognized "the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights."⁸⁵ As is the case with other rights, states have an obligation to respect, protect and fulfil the right to water.

The Committee on Economic, Social, and Cultural Rights (CESCR), the UN body of independent experts tasked with monitoring states parties' compliance with the Covenant and providing guidance on the obligations arising under the ICESCR has noted that the "human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights."⁸⁶ It considers that the right to water also obligates states to respect, protect, and fulfil other human rights that critically depend on water, including the rights to an adequate standard of living, food, and work.

The Committee has noted that "priority in the allocation of water must be given to the right to water for personal and domestic uses."⁸⁹ However the Committee notes the duty in article 1, paragraph 2, of the Covenant (which provides that a people may not "be deprived of its means of subsistence") and has held that parties "should ensure that there is adequate access to water for subsistence farming."

The Committee has also highlighted the obligation of states to ensure sustainable access to water resources for agriculture to realize the right to food.⁹¹ It has emphasized "Attention should be given to ensuring that disadvantaged and marginalized farmers, including women farmers, have equitable access to water and water management systems, including sustainable rain harvesting and irrigation technology."⁹² It has also stated that water "is essential for securing livelihoods (right to gain a living by work.)"⁹³

⁸² ICRC Customary IHL Study, Rule 153.

⁸³ Rome Statute of the ICC, Art 25.

⁸⁴ Rome Statute of the ICC, Art 7(2).

⁸⁵ UN General Assembly Resolution, The human right to water and sanitation, UN Doc. A/RES/64/292, July 29, 2010.

⁸⁶ Committee on Economic, Social and Cultural Rights, General Comment 15, The Right to Water, UN Doc. E/C.12/2002/11, January 20, 2003, para 1.

⁸⁹ Ibid., para 6. On the right to water and productive uses of water, see Ralph Hall, Barbara Van Koppen and Emily Van Houweling, "The human right to water: the importance of domestic and productive water rights," *Science and Engineering Ethics* vol. 20(4), 2014, pp. 849-868 and Anne Hellum, "Engendering the human right to water and sanitation: integrating the lived experiences of women and girls," in Malcolm Langford and Anna Russell (ed.), 'The Human Right to Water: Theory, Practice and Prospects,' Cambridge University Press, 2017, pp. 300-345.

⁹¹ Committee on Economic, Social and Cultural Rights, General Comment 12, The Right to Adequate Food, May 12, 1999, UN Doc E/C.12/1999/5, paras 12 and 13. Committee on Economic, Social and Cultural Rights, General Comment No. 15, The Right to Water, UN Doc. E/C.12/2002/11, 20 January 2003, para 7.

⁹² Committee on Economic, Social and Cultural Rights, General Comment No. 15, The Right to Water, UN Doc. E/C.12/2002/11, 20 January 2003, para 7.

⁹³ Committee on Economic, Social and Cultural Rights, General Comment No. 15, The Right to Water, UN Doc. E/C.12/2002/11, 20 January 2003, para 6.

The Committee has clarified that the right to food creates an obligation on States to pro-actively engage in activities intended to strengthen people's access to and utilization of resources and means to ensure their livelihood, including food security.⁹⁵

The Committee has also called on Iraq to "develop a human-rights-based strategy on drought preparedness, taking into consideration the national drought management policy guidelines of 2014, and take effective steps, other than compensation for farmers, to assist those most affected by drought."⁹⁶

Victims of gross violations of international human rights law and serious violations of international humanitarian law include the victim's right to "adequate, effective and prompt reparation for harm suffered".⁹⁷ Reparations can take the form of restitution, compensation, rehabilitation, satisfaction and guarantees of non-repetition.⁹⁸

PROTECTIONS FOR INTERNALLY DISPLACED PEOPLE

The international legal protections due internally displaced people have been set out in the United Nations Guiding Principles on Internal Displacement, , a collection of norms derived from international human rights, humanitarian and refugee law.⁹⁹ The Guiding Principles do not create new norms but collate, restate and to some extent interpret a range of norms and principles enshrined in a range of existing human rights standards. Whatever the original circumstances of the displacement, the competent authorities have the responsibility to help establish conditions for, and to facilitate, the safe, voluntary return of the displaced to their homes.¹⁰⁰ The authorities have the duty to help the displaced recover their property and possessions, and where this is not possible, to obtain appropriate compensation or another form of just reparation.¹⁰¹

⁹⁵ Committee on Economic, Social and Cultural Rights, General Comment 12, The Right to Adequate Food, May 12, 1999, UN Doc E/C.12/1999/5, para 15.

⁹⁶ Committee on Economic, Social and Cultural Rights, Concluding Observations on the Fourth Periodic Report on Iraq, October 27, 2015, UN Doc E/C.12/IRQ/CO/4, para 52.

⁹⁷ UN General Assembly, Basic Principles on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, UN Doc. A/Res/60/147, 2005, principle 11.

⁹⁸ Ibid., principle 18.

⁹⁹ UN Guiding Principles on Internal Displacement, UN Doc. E/CN.4/1998/53/Add.2, February 11, 1998, <http://daccess-ddsny.un.org/doc/UNDOC/GEN/G98/104/93/PDF/G9810493.pdf?OpenElement>

¹⁰⁰ Principle 28(1)

¹⁰¹ Principle 29(2) These rights are also articulated in the UN "Pinheiro Principles." These principles state that, "All refugees and displaced persons have the right to have restored to them any housing, land and/or property of which they were arbitrarily or unlawfully deprived, or to be compensated for any housing, land and/or property that is factually impossible to restore as determined by an independent, impartial tribunal." See UN Economic and Social Council, 'Principles on Housing and Property Restitution for Refugees and Displaced Persons,' UN Doc. E/CN.4/Sub.2/2005/17, 28 June 2005, principle 2.1.

6. CONCLUSION

It is a dangerous error to ignore the environmental consequences of armed conflict. Damage and destruction of natural resources can cause long-term impacts on civilians, undermining livelihoods and contributing to poverty, forced migration and simmering social tensions.

Destruction of property, unless imperatively demanded by the necessities of the conflict, constitutes a war crime. Such acts can also constitute crimes against humanity, where they are committed as part of a widespread or systematic attack directed against a civilian population as part of an organizational policy.

Criminal law therefore represents one potential avenue to address IS's deliberate environmental destruction. But at the domestic level, the trials of actual and suspected IS fighters by Iraqi courts has proven deeply problematic.¹⁰² In addressing crimes by IS, Iraqi courts have sentenced defendants to long prison terms and death following proceedings falling far short of international standards for fair trial. The criminal justice system has been used as a tool for revenge for crimes committed by armed groups such as IS, rather than for the delivery of justice to the victims of these groups.

At the international level, Iraq is not a party to the Rome Statute, the treaty that established the International Criminal Court (ICC) nor has Iraq indicated any openness to becoming a member of the court. That leaves the possibility of investigations and prosecutions against people accused of serious crimes in Syria and Iraq under the international law principle of universal jurisdiction. Investigations are underway in some European countries.

In September 2017, the United Nations Security Council passed UNSC Resolution 2379 establishing an investigative team "to support domestic efforts to hold ISIL (Da'esh) accountable by collecting, preserving, and storing evidence in Iraq of acts that may amount to war crimes, crimes against humanity and genocide" for anticipated use in future criminal proceedings in Iraq or possibly in other national courts.

The investigation should include IS's crimes related to the environment.

The legal framework protecting the environment in relation to armed conflicts remains underdeveloped.¹⁰³ This is particularly true for measures intended to minimise or address the environmental harms caused by non-state actors. Both human rights and environmental law offer the potential of complementing international humanitarian law during conflicts and informing standards of environmental protection in their wake.

Amnesty International therefore welcomes the International Law Commission's efforts to identify principles based on these bodies of law and establish new standards for the protection of the environment, and those

¹⁰² See, for example, Human Rights Watch, 'Flawed Justice: Accountability for ISIS Crimes in Iraq,' December 5 2017, <https://www.hrw.org/report/2017/12/05/flawed-justice/accountability-isis-crimes-iraq> ; Amnesty International, 'Retaliatory executions do not amount to justice for victims of 'Islamic State'', June 29, 2018 <https://www.amnesty.org/en/latest/news/2018/06/iraq-vengeful-executions-will-not-bring-justice-to-victims-of-is/>

¹⁰³ On the challenges of using international criminal law to protect the environment in armed conflict, see Matthew Gillett, "Eco-struggles: Using international criminal law to protect the environment during and after non-international armed conflict," pp. 220-253, in Carsten Stahn, Jennifer Easterday and Jens Iverson, (eds.) *Environmental Protection and Transitions from Conflict to Peace*. Oxford University Press, 2017. On the challenges of using international criminal law to protect water infrastructure in armed conflict, see Mara Tignino, 'Water during and after armed conflicts: what protection in international law?' Brill Academic Publishers, 2016.

who depend on it, before, during and after armed conflicts.¹⁰⁴ In relation to water, Amnesty International also welcomes the efforts of the Global High-Level Panel on Water and Peace to address linkages between water and armed conflict in an integrated and comprehensive manner.¹⁰⁵

Beyond the use of international criminal law, there are other avenues to address IS's destruction of the rural environment. The government has an obligation to provide compensation or another form of just reparation to all civilians whose homes, farms and property have been destroyed, including those whose irrigation wells and/or other agricultural infrastructure have been destroyed. It also has a duty to create conditions that will facilitate the safe, voluntary, and sustainable return of farmers and others displaced from areas in and around Sinjar district.

As a priority within its reconstruction efforts, the Ministry of Agriculture needs to take the lead in government efforts to substantively address the breadth and gravity of the destruction of agricultural livelihoods. Iraq's farmers (and former farmers) urgently need support to recommence farming. Mine clearance of agricultural fields should continue as a priority. Farmers need assistance to repair lost or damaged tools, machinery, and greenhouses. They need help to replace their livestock and replant their orchards. Farm buildings and storage facilities have to be rebuilt. Some areas of the country will need new wells, while in others it will be more appropriate to extend existing irrigation canal systems.

Assistance to farmers and former farmers needs to be provided in the context of broader challenges to Iraq's agricultural sector. As noted, Iraq's problems with drought will worsen in the future, so the Ministry of Agriculture's assistance to farmers should include trainings and incentives for farming practices that reduce vulnerability to less precipitation.

Assistance should encourage sustainable farming. There are risks associated with a rapid, unplanned and practically uncontrolled increase in groundwater abstraction. Government authorities need to measure the rates of groundwater depletion and manage groundwater abstraction through establishment of a culturally appropriate regulatory regime and stakeholder participation.

Of course, the Ministry of Agriculture will need a sufficient budget to provide this assistance. As noted above, the needs of farmers are identified in Iraq's reconstruction plan but, to date, the government has not adequately funded the plan to address those needs. The government needs to fund and implement the reconstruction plan and urgently undertake critical repairs of irrigation and other agricultural infrastructure. Doing so would be both just and wise.

¹⁰⁴ For an overview, see International Law Commission, Protection of the Environment in Relation to Armed Conflicts, http://legal.un.org/ilc/summaries/8_7.shtml

¹⁰⁵ Global High-Level Panel on Water and Peace, 'A Matter of Survival,' 2017 https://reliefweb.int/sites/reliefweb.int/files/resources/A_Matter_of_Survival_FINAL.pdf

7. RECOMMENDATIONS

RECOMMENDATIONS TO THE GOVERNMENT OF IRAQ

Amnesty International urges the government of Iraq to:

- provide compensation or another form of just reparation to all civilians whose homes, farms and property have been destroyed, including those whose irrigation wells and/or other agricultural infrastructure have been destroyed;
- implement the priorities for agricultural reconstruction identified in the Government of Iraq's "Reconstruction and Development Framework" (2018), including through quantifiable targets, a fixed time frame for implementation, and sufficient budget allocations to the Ministry of Agriculture, the Ministry of Water Resources, and the agricultural directorates in the affected governorates in order to address the reconstruction needs set out in that Framework;
- create conditions for, and facilitate, the safe, voluntary, and sustainable return of farmers and others displaced from areas formerly under IS control, including areas in and immediately around Sinjar district;
- ratify the Rome Statute and declare that the International Criminal Court has jurisdiction over the situation in Iraq for all crimes committed in the conflict;
- enact legislation criminalizing war crimes and crimes against humanity.

RECOMMENDATION TO THE MINISTRY OF AGRICULTURE

Amnesty International urges the Ministry of Agriculture to:

- In conjunction with the Ministry of Water Resources, and the agricultural directorates in the affected governorates, as appropriate, provide support to Iraq's farmers and former farmers to recommence farming, including:
 - assistance to repair or replace lost tools, machinery, and buildings;
 - assistance to replace lost livestock, crops and/or orchards;
 - assistance to repair or replace destroyed or damaged water irrigation systems.

RECOMMENDATIONS TO ALL STATES AND DONORS WHO ASSIST AND SUPPORT THE GOVERNMENT OF IRAQ

Amnesty International urges all states and donors who assist and support the Government of Iraq to:

- continue to provide support for Iraq's agricultural reconstruction, including de-mining efforts;

- urge the government of Iraq to address the priorities for agricultural reconstruction identified in the Government of Iraq’s “Reconstruction and Development Framework” (2018), including through quantifiable targets, a fixed time frame for implementation, and sufficient budget allocations;
- ensure that any international co-operation and assistance programmes for reconstruction are consistent with international human rights standards, prioritise the most marginalised and disadvantaged whilst contributing to the realisation of minimum essential levels of economic, social and cultural rights for all those who need this support, and are implemented in a non-discriminatory manner;
- publicly condemn unlawful practices that violate international humanitarian law such as unlawful destruction of civilian property.

RECOMMENDATION TO THE UN INVESTIGATIVE TEAM

Amnesty International urges the UN investigative team to promote accountability for Da’esh / ISIL crimes (UNITAD) to:

- include IS’s crimes related to the environment, such as the unlawful destruction of civilian property, within the scope of investigation.

ANNEX

AMNESTY INTERNATIONAL
MENA REGIONAL OFFICE

www.amnestymena.org

e: mena@amnesty.org
t: (+ 0) +961 1 748751
f: (+ 0) +961-1-748754

114 CAIRO STREET, MASSABKI & SERHAL
BUILDING, BLOC A, 7TH FLOOR,
HAMRA, BEIRUT, LEBANON



To:
Minister of Agriculture
Minister of Water Resources
Minister of Planning
Minister of Municipalities and Public Works
Minister of Migration and Displacement

CC
Minister of Foreign Affairs

Your Excellency,

I am writing to you in reference to research Amnesty International is conducting regarding the extensive destruction of Iraq's rural environment by the armed group calling itself Islamic State (IS) between 2014 and 2017, its effects on people dependent on agriculture or raising livestock, and the government's efforts to address the destruction, namely with a view to ensure the population's right to water and the necessary conditions to facilitate the safe, voluntary and sustainable return of the displaced civilian population.

Our research has focussed on areas in and immediately around Sinjar district in Ninewa governorate, where the limited existing assessments indicate the destruction was extensive.

Our research to date has documented a number of serious concerns related to these issues, including:

- Extensive destruction of Iraq's rural environment caused by the conflict with IS: agricultural production declined by an estimated 40 per cent. While approximately two-thirds of Iraq's farmers had access to irrigation in 2014, that figure had fallen to 20 percent in 2017;
- Evidence that IS deliberately targeted the rural environment that underpins agricultural livelihoods: some of the clearest examples of this are related to the sabotage of irrigation wells. IS also burnt or chopped down orchards and pulled down and stole vital electricity lines;
- A lack of assistance to farmers and former farmers to rebuild Iraq's shattered land and rural livelihoods: Farmers and former farmers need assistance to repair lost or damaged tools, machinery, greenhouses, irrigation systems and storage facilities;
- A lack of clear planning to begin reconstruction of rural Iraq. Many damaged villages remain much as they were soon after being retaken from IS control.

As many of our findings relate to the work of your Ministry, Amnesty International is committed to ensuring our report properly reflects the views, policies and practices of your Ministry and the Government of Iraq.

Amnesty International – Lebanon registered under Council of Ministers Decree 2764. Ministry of Finance number 532669
VAT number: 532669-604

We hope that you will be able to respond to these questions so that your views are accurately reflected in our reporting. In order for us to take your answers into account in our forthcoming report, we would appreciate a written response by 10 December.

Reconstruction budget

- 1) External analysts have noted that Iraq will have a 2018 budget surplus of Iraq's budget for 2018 estimate that Iraq will have a surplus of between \$19 billion and \$24 billion.¹ Does the Government of Iraq have a budget surplus in 2018? If so, please specify the most recent estimation of the amount of the surplus.
- 2) Has the government of Iraq used any of 2018 budget surplus to fund capital expenditures for reconstruction in Iraq? If so, please specify the amount of such allocations.
- 3) Does Iraq's draft budget for 2019 allocate any funds for capital expenditures for reconstruction? If so, please also provide details on the draft capital expenditures for reconstruction.

Reconstruction plans

- 1) Does the Government of Iraq have a plan for the reconstruction of the areas affected by the conflict with IS? If so, please provide a copy of this plan.
- 2) Does that Government of Iraq's reconstruction plan, or any other relevant document, specify any provisions for the reconstruction of Sinjar district? If so, please provide a copy of this plan or document.

Agricultural reconstruction plans

- 1) Does the Government of Iraq have a plan (either stand-alone, or integrated) for the reconstruction of Iraq's agricultural sector? If so, please provide a copy of this plan. Please also provide the investment budget allocated for the implementation of this plan in 2018.
- 2) Does the Government of Iraq's laws and policies on agriculture support small-holder and subsistence farmers? If so, please specify how.
- 3) Does the Government of Iraq laws and policies on agriculture support the provision of agricultural loans on favourable terms, or other means of economic support, to farmers or former farmers?

Irrigation infrastructure

- 1) Has the Government of Iraq undertaken any assessment of the conflict-related destruction of irrigation infrastructure (such as irrigation canals and pumping stations, irrigation wells, etc.)?

¹ See World Bank, Iraq's Economic Outlook, October 2018, <https://www.worldbank.org/en/country/iraq/publication/economic-outlook-october-2018> ; Robert Tollast, Yesar Al-Maleki, Harry Istepanian, "Iraq's 2019 Draft Budget Law: A Turning Point In Iraq's Reconstruction?", Iraq Energy Institute, 2018 <https://iraqenergy.org/wp/2018/10/29/iraqs-2019-draft-budget-law-analysis/>; Ahmed Tabaqchali. Budget surplus soars but markets continue to bottom, Iraq Business News, September 6, 2018 <http://www.iraq-businessnews.com/2018/09/06/budget-surplus-soars-but-markets-continue-to-bottom/>

- 2) Does the Government of Iraq have a plan (either stand-alone, or integrated) for the reconstruction of the irrigation infrastructure? If so, please provide a copy of this plan. Please also provide the investment budget allocated for the implementation of this plan in 2018.
- 3) Which Office or Ministry in the Government of Iraq is responsible for oversight of privately installed irrigation wells?
- 4) Does the Government of Iraq collect data on groundwater abstraction? If so, please indicate how that data can be publicly accessed.
- 5) Does the Government of Iraq have a plan to regulate private irrigation wells? If so, please provide a copy of that plan.

Internally displaced

- 1) Does Iraq have a plan for ensuring the conditions to facilitate the safe, voluntary and sustainable return of the displaced civilian population? If so, please provide a copy of that plan.
- 2) If so, does this plan provide for the re-establishment of rural livelihoods? If so, please specify.
- 3) An IOM review of people's unwillingness to return among Iraq's remaining internally displaced population, published in November 2018, found people displaced from Sinjar the least willing to return compared to people displaced from other areas of Iraq.² Does Iraq have any plans to ensure the conditions exist in and around Sinjar district to facilitate the safe, voluntary and sustainable return of the displaced civilian population? If so, please specify.

In addition to the information requested above, please include any other materials, statistics and government actions regarding the issue of reconstruction of agricultural damage and the government response that you consider would be important for a better understanding of this issue.

Thank you in advance for your time in addressing these urgent matters.

Yours sincerely,



Lynn Maalouf
Middle East Research Director
Amnesty International

² International Organisation for Migration, "Reasons to Remain: Categorizing Protracted Displacement in Iraq," 2018, p. 11. <http://iomiraq.net/reports/reasons-remain-categorizing-protracted-displacement-iraq>

**AMNESTY INTERNATIONAL
IS A GLOBAL MOVEMENT
FOR HUMAN RIGHTS.
WHEN INJUSTICE HAPPENS
TO ONE PERSON, IT
MATTERS TO US ALL.**

CONTACT US



info@amnesty.org



+44 (0)20 7413 5500

JOIN THE CONVERSATION



www.facebook.com/AmnestyGlobal



[@AmnestyOnline](https://twitter.com/AmnestyOnline)

DEAD LAND

ISLAMIC STATE'S DELIBERATE DESTRUCTION OF IRAQ'S FARMLAND

One year after Iraq declared military victory over the armed group calling itself Islamic State (IS) our report finds that IS's deliberate destruction of Iraq's rural environment continues to have debilitating effects on poor, small-holder farmers. The research focusses on the area around Sinjar, where most of the Yazidi community lived before 2014 and scene to some of the most extensive rural destruction. Irrigation wells were often sabotaged with rubble, oil, or other foreign objects, and pumps, cables, generators and transformers stolen or destroyed. IS also burnt or chopped down orchards and pulled down and stole vital electricity lines.

Much of Iraq's countryside looks more or less the same as it did when recaptured from IS. Farmers and agricultural officials interviewed throughout the course of this research told Amnesty International they've received no government assistance.

Efforts to hold IS responsible for crimes under international law should, where sufficient evidence exists, include these specific crimes. For its part, the government of Iraq should provide Iraq's farmers and former farmers with urgent assistance to recommence farming.