

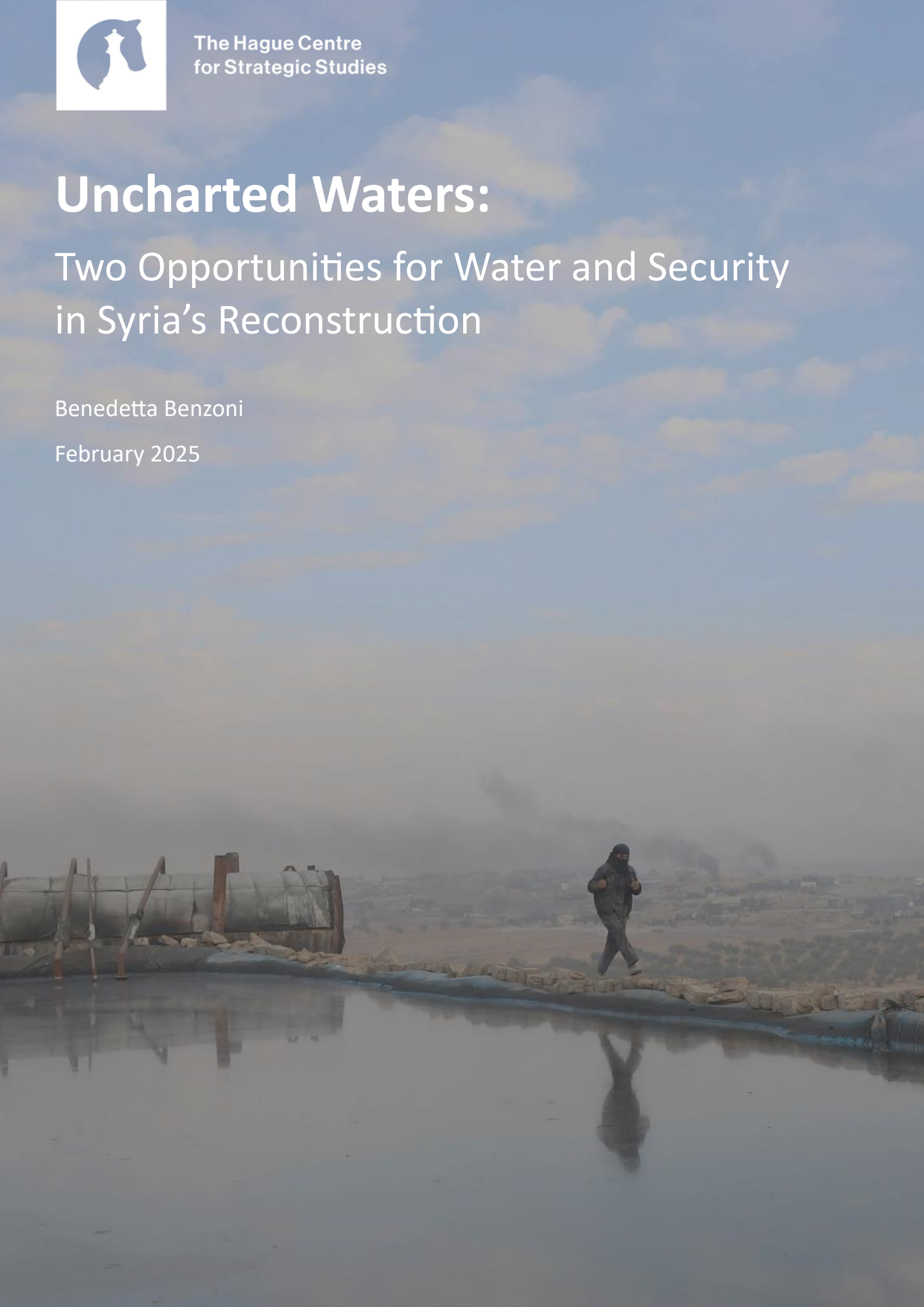


The Hague Centre
for Strategic Studies

Uncharted Waters: Two Opportunities for Water and Security in Syria's Reconstruction

Benedetta Benzoni

February 2025





Uncharted Waters: Two Opportunities for Water and Security in Syria's Reconstruction

Author:

Benedetta Benzoni

Editors:

Laura Birkman and Irina Patrahau

February 2025

The analysis presented in the paper, including the conclusions and recommendations, is the product of independent research. The responsibility for the content of this paper lies with the authors and the authors alone.

© *The Hague* Centre for Strategic Studies. All rights reserved.
No part of this report may be reproduced and/or published in any form by print, photo print, microfilm or any other means without prior written permission from HCSS. All images are subject to the licenses of their respective owners.

Cover photo:

[Pexels](#)

HCSS
Lange Voorhout 1
2514 EA The Hague

Follow us on social media:
[@hcssnl](#)

The Hague Centre for Strategic Studies
Email: info@hcss.nl

1. Introduction

As new horizons start to come into focus for Syria, many governance questions loom large for the transitional government led by Hayat Tahrir ash-Sham (HTS). Syria will have to recover from thirteen years of civil war which heavily featured the weaponisation of water, as well as from previous decades of water mismanagement under the Assad regime. In the context of post-war reconstruction, water politics may initially appear like a matter of secondary importance. However, the succession of droughts hitting the Middle East over the last years has brought the connection between water and armed conflict to the forefront, making the beginning of the HTS-led transition a key moment to redefine Syria's approach to water governance.

Water in Syria is more than just a vital resource; historically, it has also been a way for political leaders to maintain stability and political power. Control over water has become an entrenched part of strategic considerations for groups governing Syria, both due to the role played by water infrastructure in projecting power across the Syrian territory, and the fact that irrigation is currently the 'sine qua non' of food self-sufficiency ambitions. This understanding can help guide what kind of water policies could be acceptable to a new government, in a country that has always seen water as a strategic and sensitive resource.

This snapshot discusses two opportunities for an emerging free Syria. Firstly, it examines the potential to move towards a decentralised water management approach to encourage cooperation between different factions. Secondly, it argues for redesigning the role irrigation plays in agriculture in order to better navigate internal water and food-related security issues. As Syria boldly enters its reconstruction phase, this snapshot seeks to make an initial analysis of which areas of governance need improvement when it comes to mitigating water-related conflict and instability.

2. Water infrastructure and territorial control: A pluralistic approach

Hayat Tahrir Ash-Sham's Syrian Salvation Government made international news in May 2024 when it successfully reopened the Bala/Al-Balaa reservoir in Idlib, which had been closed for years during the Civil War. This permitted the irrigation of surrounding cropland, a move that inspired joy in local farming communities,¹ but came in the context of bitter and violent attempts to prevent it by the Asad regime. Over the course of the Syrian Civil War, control over water infrastructure has become a powerful symbolic and tactical tool to assert control over certain territories – however, this militarised and conflictual approach to water hardly bodes well for Syria's reconstruction process. This section argues that, moving forward, a balance will have to be struck between accounting for the security considerations of controlling water infrastructure, and the opportunity to strengthen water co-governance mechanisms between different groups to bolster peacebuilding efforts.

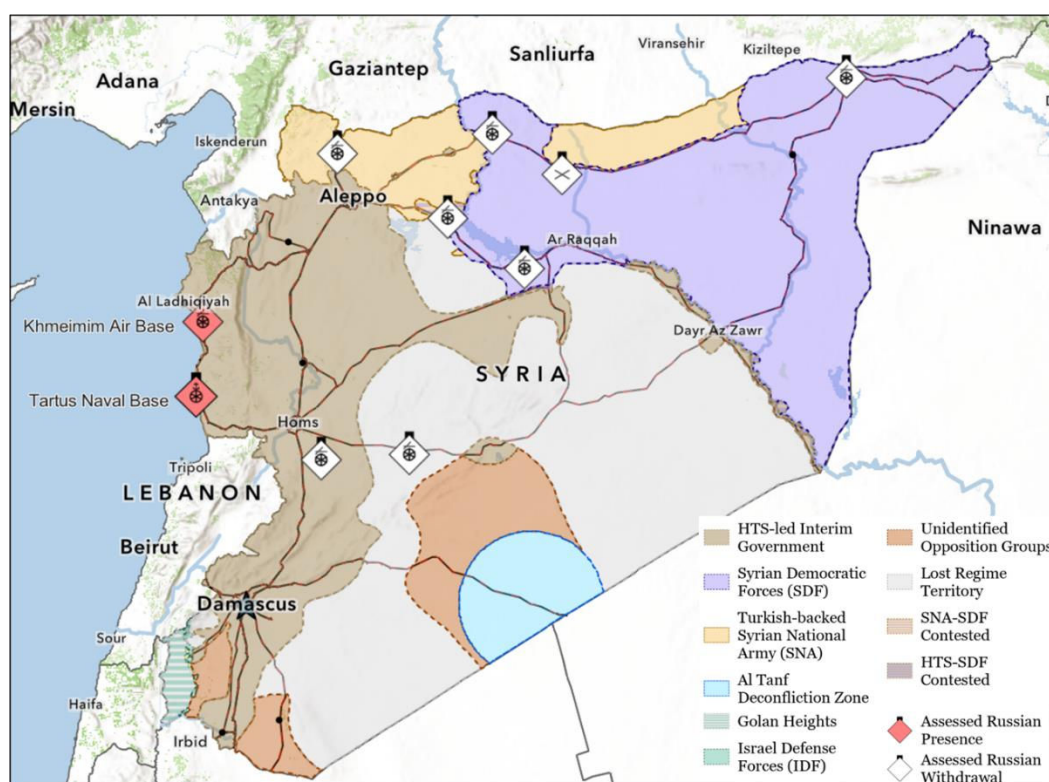


Figure 1: Assessed Control of Terrain in Syria as of February 9, 2025, 14:00 EST. As shown, almost all major rivers (shown in blue) traverse multiple jurisdictions. Source: Institute for the Study of War & Critical Threats Project.²

¹ 'Revived Reservoir a Lifeline for Syria Farmers', *RFI*, 31 May 2024, <https://www.rfi.fr/en/middle-east/20240531-revived-reservoir-a-lifeline-for-syria-farmers>.

² ISW-CTP, Map: Assessed Control of Terrain in Syria (Institute for the Study of War and AEI's Critical Threats Project, 9 February 2025), <https://storymaps.arcgis.com/stories/1933cb1d315f4db3a4f4dcc5ef40753a>.

2.1. The strategic advantages of controlling water infrastructure

For some analysts, dams function as a performance of centralised development, symbolising modernity and power.³ Controlling, maintaining and operating a dam can serve as a demonstration of three things: a group's organisational and technical capacity, its confidence in its ability to defend a large and vulnerable target, and also its capability to propel the country into a modern, developed era. The Assads' frenetic dam-building was a demonstration of their ability to build, operate, and control a centralised hydrological and electrical infrastructure network, as well as maintain material control over the Syrian territory and its landscape. As of 2009 (two years before the outbreak of the Civil War), the FAO counted over 160 dams throughout Syria⁴ - many of them enable irrigation-based agriculture, which can be important to curry favour with surrounding farming communities. A future administration may well have similar ambitions, as it seeks to prove it has the capacity to administer - and hopefully develop - larger areas.

Controlling water infrastructure (a dam, reservoir, pumping station, etc.) also enables the projection of power over a much larger territory than the dam itself without necessarily needing to execute a large-scale military operation over a large area. This works by seizing a dam that can be opened to create floods, or seizing a pumping station that provides a large area with drinking or irrigation water. Because of this high payoff, attacks on civilian water infrastructure became a tactic used by almost all parties to the Syrian Civil War, from rebel groups who seized the Ain al-Fijeh spring which provided drinking water to loyalist neighbourhoods in Damascus, to Daesh's seizure of critical dams, to Turkish forces systematically cutting off water sources to Kurdish areas in the Northeast. The Assad regime itself used airstrikes and ground attacks through proxy groups to destroy water plants and pumping stations in opposition-held areas; beyond weakening opposition groups, this also served to terrorise civilians and remind them of the dangers of opposing the regime.

Moreover, under the Assad regime, centrally-planned water infrastructure played a key role in projecting power in more remote parts of Syria, especially the Kurdish-inhabited northeast of the country. The construction of dams, notably the Tabqa dam, was a key element of the 'Arabisation' of the area under the Arab Belt Project: flooding certain areas during the construction process enabled the state to expropriate land from Kurdish farmers, in order to replace Kurdish villages with Arab settlements.⁵

2.2. The opportunity for decentralised water governance

During the Syrian Civil War, control over water infrastructure has been firmly tied to demonstrating power over territory and outcompeting other armed groups. In that sense, water provision has come to be a point of division, conflict, and fear. However, in a post-Assad era where HTS has claimed to support pluralism in politics, the collaborative management of water resources could represent a chance for dialogue and peacebuilding among the different parties to the Syrian Civil War.

³ Barnaby Joseph Dye, 'Dam Building by the Illiberal Modernisers: Ideological Drivers for Rwanda and Tanzania's Megawatt Mission', *Critical African Studies* 14, no. 3 (2 September 2022): 231–49, <https://doi.org/10.1080/21681392.2022.2074482>.

⁴ 'AQUASTAT Country Profile – Syrian Arab Republic', AquaStat Reports (Rome, Italy: Food and Agriculture Organization of the United Nations (FAO), 2008), <https://openknowledge.fao.org/server/api/core/bitstreams/388e6eb9-bab7-422d-9eac-dff3581ab9c0/content>.

⁵ Necmettin Türk and Joost Jongerden, 'Decolonisation Agriculture: Challenging Colonisation through the Reconstruction of Agriculture in Western Kurdistan (Rojava)', *Third World Quarterly* 45, no. 11 (23 July 2024): 1738–57, <https://doi.org/10.1080/01436597.2024.2374521>.

Water is a particularly appropriate starting point given that most water infrastructure networks and rivers traverse multiple jurisdictions. There has already been some level of cooperation and compromise between warring factions when it came to operating water infrastructure, even during the civil war. For example, between 2013 and 2017, Daesh and the Assad regime maintained an arrangement through which the regime continued to pay salaries to dam operators in the Daesh-controlled Tabqa and Tishrin dams, in exchange for the continued supply of hydroelectricity to the regime's military locations.⁶ In the city of Qamishli in 2019, the Assad regime and Kurdish forces came to a (controversial) arrangement whereby they took turns supervising drinking water sources, switching on a daily basis.⁷

After its success in taking Damascus, HTS has also demonstrated a certain level of adaptability and willingness to work with diverse governing entities. Syrian researcher Munqeth Othman Agha noted the beginning of negotiations, in December 2024, between HTS and local leaders in certain non-Sunni towns (including the majorly-Christian Wadi al-Nasara and the Shia-inhabited pocket around Zahraa) aimed at preserving existing local initiatives, which are critical in restoring basic services.⁸

At the same time, a large part of the Syrian northeast is governed by the Kurdish-led Syrian Defence Forces (SDF) through the Autonomous Administration of North and East Syria (AANES). The main points of contention between the SDF and HTS include their respective relationships with Türkiye, as well as the future level of autonomy for the Kurdish northeast and its security forces. HTS is backed by Türkiye,⁹ whose airstrikes on water infrastructure in the Syrian northeast - most recently the Tishreen Dam - continue to fuel conflict with the SDF.¹⁰ Despite this, the leaders of HTS and SDF recently reported having "positive" talks,¹¹ including reportedly setting up a joint military committee to explore potential avenues for integrating the SDF into Syria's national defence framework.¹² However, progress remains slow and extremely uncertain.

This past 'fragmentation' of Syria into multiple jurisdictions during the Civil War could end up proving a strength: it could encourage a decentralised form of governance that breaks the link between water infrastructure and totalitarian control, ending the regrettable tradition of endangering basic civilian services as a routine part of governance and warfare. It could also serve as a starting point for trust-building efforts between different groups, through the reopening of water infrastructure networks that span beyond lines of former military control and serve diverse communities.

⁶ Marwa Daoudy, 'Water Weaponization in the Syrian Conflict: Strategies of Domination and Cooperation', *International Affairs* 96, no. 5 (1 September 2020): 1362, <https://doi.org/10.1093/ia/iaa131>.

⁷ 'In Qamishlo the PYD Cut off Water and Sends It to the Regime Control Areas', *ARK News*, 22 July 2019, <https://www.arknews.net/en/node/11510>.

⁸ Munqeth Othman Agha, 'Governing the Day after in Syria', *Middle East Institute*, 19 December 2024, <https://www.mei.edu/publications/governing-day-after-syria>.

⁹ Joaquin Matamis, 'What Turkey Hopes to Gain From the HTS Offensive in Syria', *Stimson Center* (blog), 6 December 2024, <https://www.stimson.org/2024/what-turkey-hopes-to-gain-from-the-hts-offensive-in-syria/>.

¹⁰ Andrew Waller and Khabat Abbas, 'Protests and Bloodshed at Tishreen Dam, the Syrian War's Last Faultline', *Middle East Eye*, 31 January 2025, <https://www.middleeasteye.net/news/protests-bloodshed-tishreen-dam-syria-war-last-faultline>.

¹¹ Kardo Roj, 'Syria's HTS Leader Holds First Talks with Kurdish-Led SDF', *North Press Agency*, 1 January 2025, sec. REPORTS, <https://npasyria.com/en/120454/>.

¹² Haid Haid, 'Unity or Conflict: Where Are Fragile HTS-SDF Talks Headed?', *Al Majalla*, 3 February 2025, <https://en.majalla.com/node/324161>.

Of course, multiple competing priorities will have to be considered. HTS is currently intransigent on its desire for centralised governance; it will be acutely aware of the potential tactical advantage conferred to another armed group if it is permitted to control a water source. In general, the desire to reconstruct an image of a unified Syria may lend preference to the centralisation of water infrastructure networks. However, given the unique opportunities presented by this transitional phase, the new Syrian government would do well to seize the opportunity to encourage collaborative and decentralised water-governance arrangements. Such a move would ensure water infrastructure re-enters the civilian sphere after being militarised for so long, and could also represent a starting point for collaboration with the SDF.

3. Balancing food self-sufficiency with sustainable water use

Among the transitional government's main priorities for Syria is the restoration of essential goods and services, including irrigated farming for affordable food. While food prices have gone down due to the removal of army checkpoints throughout the country,¹³ and HTS is now looking to increase food imports, a key priority in the near future will likely be restoring domestic agriculture in order to enable Syria to produce its own food supplies. In Syria's relatively arid climate, large-scale agriculture is dependent on irrigation; tellingly, one of HTS' 11 proto-ministries back in December was not Agriculture, but "Agriculture and Irrigation."¹⁴ However, this section argues that in the face of Syria's extreme water stress and its link with internal instability and insecurity, it will be important for the transitional government to develop moderate and realistic goals for food self-sufficiency. Instead, it should ensure that the scarcity of water resources is accounted for in the design of agricultural policy, placing the focus on native crops and sustainable farming methods.

3.1. Food security in national security considerations

Over half of the Syrian population faces food insecurity as a result of the protracted civil war,¹⁵ with causes including frequent wheat shortages that hinder bread production. Under the Assads, one of the reasons given by farmers for wheat shortages was the difference between the state-set price of wheat and the real costs of wheat production - especially the cost of the *water* needed for wheat production. Irrigated wheat costs nearly double to produce compared to rainfed wheat (0,30\$ vs 0,16\$ pre-harvest cost),¹⁶ but given Syria's recurring droughts, irrigation is often the only option. The state-set price was often too low for farmers, incentivising them to smuggle wheat to Türkiye instead of selling it on the domestic market.

The inability of the Assad regime to ensure food security for its people is often cited as part of what eroded its support base. *Ramadiyeen* (grey people) is the name given to Syrians who, regardless of political developments, desire only "stability and steady provision of services," but according to internal observers, the regime's inability to fulfil this baseline meant "there are no more *ramadiyeen* left. Everyone hates the regime except the small group of people profiting from it."¹⁷ Since food insecurity overlapped with inefficient and illiberal governance, it presented as a manifestation of deeper-running governance failures instead of a temporary crisis, and threatened the security of the regime.

¹³ Andrew Waller, 'Falling Food Prices Ease Pressure as Syrian Lira Recovers on Markets', *Middle East Eye*, 8 January 2025, <https://www.middleeasteye.net/news/falling-food-prices-ease-pressure-syrians-amid-economic-challenges>.

¹⁴ 'A Radiography of HTS Military and Governance Capabilities' (Syria Report, 4 December 2024), <https://syria-report.com/a-radiography-of-hts-military-and-governance-capabilities/>.

¹⁵ 'Syria | World Food Programme', 31 July 2024, <https://www.wfp.org/emergencies/syria-emergency>.

¹⁶ Simav Heseni, 'Wheat Price "Disaster" in Northeastern Syria Spells Trouble for next Season', *Syria Direct* (blog), 6 June 2024, <https://syriadirect.org/wheat-price-disaster-in-northeastern-syria-spells-trouble/>.

¹⁷ Elizabeth Tsurkov and Qussai Jukhadar, 'Kneel and Starve: Under the Watchful Eye of the Secret Police, Syrians Go Hungry', *New Lines Institute*, 9 February 2021, <https://newlinesinstitute.org/state-resilience-fragility/civil-military-relations/kneel-and-starve-under-the-watchful-eye-of-the-secret-police-syrians-go-hungry/>.

Autonomy in agricultural production has been back on the Syrian agenda for another reason. The 2022 Russian invasion of Ukraine (the MENA region's largest supplier of wheat by a large margin, with a 20.8% share in 2021)¹⁸ caused a sharp rise in global wheat prices, highlighting the danger of relying on food imports. This is especially true for Syria, which is less able to shoulder sudden import price increases due to its fragile economic state and low stock of foreign reserves. An Arab analyst even connected this risk to geopolitical motivations, arguing that "subjecting Arab countries to food dependency by countries controlling the global economy is an integral part of those countries' strategy to subjugate, fragment and divide the Arab world;"¹⁹ this is not an unpopular view (see also Figure 3 below).

To address these risks, other import-dependent countries in the MENA are reviewing their agricultural policies, with Iraq recently stepping up subsidies aimed at improving food self-sufficiency.²⁰ In other words, the security dimensions of food self-sufficiency in Syria are both internal (fall in political support and social instability) and external (vulnerability to potential import disruptions).



Figure 2: Political cartoon from before the fall of the Assad regime, showing "Putin" firing a ball (the Earth) into the hole "food crisis." Caption: "Syria... the price of a loaf of bread has increased tenfold." Source: BeeHive: Middle East Social Media, 2022²¹

3.2. The evolution of irrigation-based farming in Syria

In Syria, food self-sufficiency was initially pursued (and achieved) through the heavy prioritisation of water-intensive agricultural policies, mostly undertaken under Hafez al-Assad in the 1970s. This notably included the construction of the hydroelectric Tabqa Dam and its reservoir Lake Assad, which formed the heart of a vast network of irrigation canals that revolutionised Syrian agricultural

¹⁸ 'Competitive Trade Analysis – Agri-Food and Seafood Trends in the Middle East and North Africa', Agriculture and Agri-Food Canada, 24 July 2024, <http://agriculture.canada.ca/en/international-trade/market-intelligence/reports/competitive-trade-analysis-agri-food-and-seafood-trends-middle-east-and-north-africa-0>.

¹⁹ Abdul Wahab Karim Al-Alwani, 'الأمن القومي العربي والأمن الغذائي.. أي علاقة تكامل؟', *Arabi* 21, 15 July 2022.

²⁰ Peter McMeekin, 'Iraq Suffers a Wheat-Surplus Headache', *Grain Central* (blog), 15 October 2024, <https://www.graincentral.com/markets/iraq-suffers-a-wheat-surplus-headache/>.

²¹ Jesse Weinberg, 'Syria's Wheat Crisis', *Moshe Dayan Center for Middle Eastern and African Studies*, BeeHive: Middle East Social Media, 2 October 2022, <https://dayan.org/content/syrias-wheat-crisis>.

production. Within 30 years, the irrigated area in Syria was roughly 150,000 hectares,²² with around 80% of this irrigation in the Jazira (Syria's "bread basket" region) depending on groundwater and rivers.²³ This was coupled with sweeping agricultural reforms that heavily pushed irrigation. Farmers were incentivised to grow extremely water-intensive crops, and offered cheap loans for well-digging as well as fuel subsidies to operate motorised water pumps.²⁴ All these methods together worked: Syria finally became self-sufficient in wheat in 1991.²⁵

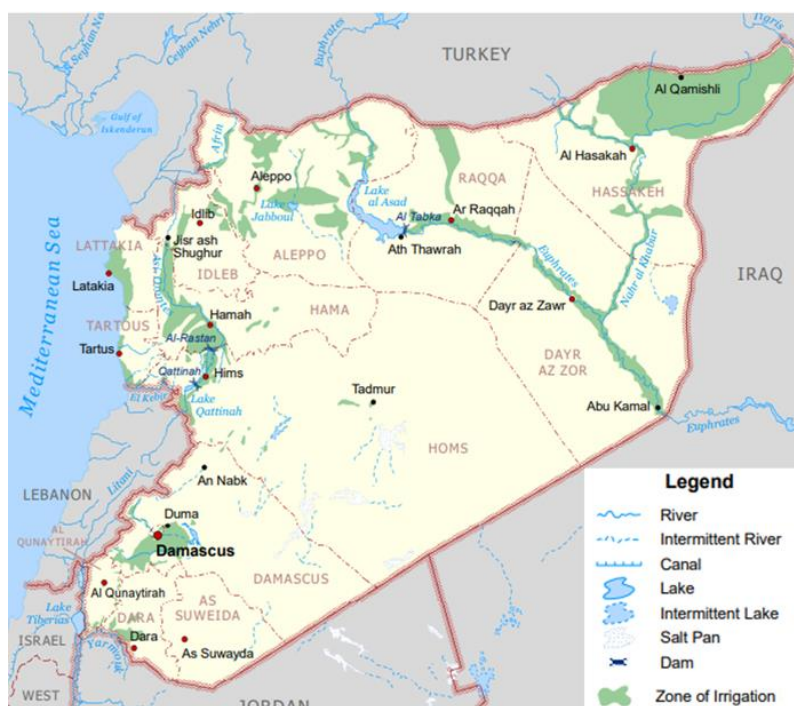


Figure 3: Map of Syria showing major water features before the Civil War, including irrigated areas and the Tabqa dam. Many dams are now damaged and irrigation has therefore reduced, but some political groups believe in restoring the above-shown level of irrigation. Map source: FAO - AQUASTAT, 2008²⁶

However, the over-reliance on irrigation-based agriculture had devastating consequences that undid much of the progress. By the time these water-intensive agricultural policies were lifted in the 1990s and 2000s, groundwater levels had fallen dramatically due to over-abstraction, improper irrigation techniques and faulty drainage systems had led to the salinisation of fertile soils, and two important rivers (the Balikh and the Khabour) were periodically drying up from over-use. Water had become a scarce resource, leaving the country ill-prepared to face the 2006-2011 drought, which quickly developed into a famine.

Faced with increasingly arid and unproductive farmland, and no longer able to access government support for irrigation, Syrian farmers left their lands en masse. This sudden rural-to-urban movement, as farmers settled into slums outside major cities, became a national displacement crisis

²² Jesse Casana, Jackson Cothren, and Tuna Kalayci, 'Swords into Ploughshares: Archaeological Applications of CORONA Satellite Imagery in the Near East', *Internet Archaeology (Digital Journal of Archaeology)* 2, no. 32 (2012/2013), <https://intarch.ac.uk/journal/issue32/2/3.3.html>.

²³ Ababsa, 'Syria's Food Security: From Self-Sufficiency to Hunger as a Weapon', 252.

²⁴ Anders Jagerskog, 'What Does Food Have to Do with Security in the Arab World?', World Bank Blogs, 20 December 2017, <https://blogs.worldbank.org/en/arabvoices/food-security-arab-world>.

²⁵ Ababsa, 'Syria's Food Security: From Self-Sufficiency to Hunger as a Weapon', 247.

²⁶ *Detailed AQUASTAT Map of Syria* (FAO, 2008), https://storage.googleapis.com/faoaquastat.appspot.com/countries_regions/pdf/SYR-map_detailed.pdf.

by 2009.²⁷ One of the cities to receive the most farmers was Daraa, where the March 2011 protests started.²⁸ For some analysts, the end of the Syrian state's pro-farmer benefits, which included all the irrigation incentives, symbolised the breakdown of the populist social contract that had kept the Assads in power despite their brutality.²⁹

3.3. The future of water use in agriculture

Ultimately, this past Syrian experience indicates the dangers posed by pursuing agricultural policies that are not adapted to the country's natural environment, and highlights the dangerous link between extreme water stress and social instability. This will be a critical point for the transitional government to consider, when they weigh the potential benefits of intensive, irrigation-based farming for food security with the security risks linked to extreme water stress.

The MENA is the most water-stressed region in the world, with 100% of the population predicted to live under conditions of extreme water stress by 2050.³⁰ Moving forward, it will be important that in the rush to rebuild the country, the new "Agriculture & Irrigation" and "Water Resources" ministers do not default to the pre-war policies of maximising irrigation. Instead, as many farmers in Syria are only just beginning to return to their lands and have not yet made significant investments based on the assumption that irrigation will resume as before, this is a unique moment to make a change. The transitional government, or whichever government succeeds it, has the opportunity to design a new agricultural policy intentionally, with a focus on long-term sustainability, producing crops that are adapted to the environment, and adapting farming methods to an increasingly dry climate. For better or for worse, their decisions will have socio-economic and political implications for Syria, but the spill-over into internal security risks can be mitigated through the development of sustainable agricultural policies.

²⁷ 'Syria Briefing: Village Dwellers Drawn to City Slums', ReliefWeb, 29 July 2009, <https://reliefweb.int/report/syrian-arab-republic/syria-briefing-village-dwellers-drawn-city-slums>.

²⁸ Hugh Macleod, 'Syria: How It All Began', *The World Media*, 2 August 2016.

²⁹ Raymond Hinnebusch, 'Identity and State Formation in Multi-sectarian Societies: Between Nationalism and Sectarianism in Syria', *Nations and Nationalism* 26, no. 1 (January 2020): 138–54, <https://doi.org/10.1111/nana.12582>.

³⁰ Samantha Kuzma, Liz Saccoccia, and Marlena Chertock, '25 Countries, Housing One-Quarter of the Population, Face Extremely High Water Stress', 16 August 2023, <https://www.wri.org/insights/highest-water-stressed-countries>.

4. Conclusion

After over a decade of civil war, water infrastructure in Syria is in a state of destruction and disrepair. As Syria begins the reconstruction process, the use of water governance for strategic goals will continue to be extremely relevant, especially as the HTS-led transitional government extends its control over new areas and various political groups start choosing where and how to rebuild water infrastructure - an exercise that cannot be done unilaterally, given that rivers and irrigation channels flow across several different administrative areas.

This moment of transition between the old regime and a new Syria offers the unique opportunity to create a more positive relationship between water and internal security. While water infrastructure has historically been instrumentalised to project power and control territory, there is an opportunity to encourage decentralised water governance, building trust between different factions, and demonstrate that the state is secure enough to allow for some devolution of power. Similarly, the transitional government must re-examine the role played by irrigation in agriculture, in order to effectively handle internal security concerns related to extreme water stress. For better or for worse, water management will continue to have consequences on the security of Syrians; a new government in Syria should take advantage of the transition to break with the past, and ensure its choices will lead to a peaceful and sustainable future.

5. Bibliography

- 'A Radiography of HTS Military and Governance Capabilities'. Syria Report, 4 December 2024. <https://syria-report.com/a-radiography-of-hts-military-and-governance-capabilities/>.
- Ababsa, Myriam. 'Syria's Food Security: From Self-Sufficiency to Hunger as a Weapon'. In *Syria: From National Independence to Proxy War*, edited by Linda Matar and Ali Kadri, 247–67. Cham: Springer International Publishing, 2019. https://doi.org/10.1007/978-3-319-98458-2_11.
- Abdul Wahab Karim Al-Alwani. 'أي علاقة تكامل؟ الأمن القومي العربي والأمن الغذائي..'. *Arabi 21*, 15 July 2022. Link.
- Agha, Munqeth Othman. 'Governing the Day after in Syria'. *Middle East Institute*, 19 December 2024. <https://www.mei.edu/publications/governing-day-after-syria>.
- Agriculture and Agri-Food Canada. 'Competitive Trade Analysis – Agri-Food and Seafood Trends in the Middle East and North Africa', 24 July 2024. <http://agriculture.canada.ca/en/international-trade/market-intelligence/reports/competitive-trade-analysis-agri-food-and-seafood-trends-middle-east-and-north-africa-0>.
- Al-Hajji, Faisal. 'هل يؤدي تحرير سوريا إلى فتح مجالات جديدة لحل المشكلة الكردية في المنطقة؟' (blog), 16 January 2025. Link.
- 'AQUASTAT Country Profile – Syrian Arab Republic'. AquaStat Reports. Rome, Italy: Food and Agriculture Organization of the United Nations (FAO), 2008. <https://openknowledge.fao.org/server/api/core/bitstreams/388e6eb9-bab7-422d-9eac-dff3581ab9c0/content>.
- ARK News. 'In Qamishlo the PYD Cut off Water and Sends It to the Regime Control Areas'. 22 July 2019. <https://www.arknews.net/en/node/11510>.
- Casana, Jesse, Jackson Cothren, and Tuna Kalayci. 'Swords into Ploughshares: Archaeological Applications of CORONA Satellite Imagery in the Near East'. *Internet Archaeology (Digital Journal of Archaeology)* 2, no. 32 (2013 2012). <https://intarch.ac.uk/journal/issue32/2/3.3.html>.
- Daoudy, Marwa. 'Water Weaponization in the Syrian Conflict: Strategies of Domination and Cooperation'. *International Affairs* 96, no. 5 (1 September 2020): 1347–66. <https://doi.org/10.1093/ia/iiaa131>.
- 'Detailed AQUASTAT Map of Syria'. FAO, 2008. https://storage.googleapis.com/fao-aquastat.appspot.com/countries_regions/pdf/SYR-map_detailed.pdf.
- Dye, Barnaby Joseph. 'Dam Building by the Illiberal Modernisers: Ideological Drivers for Rwanda and Tanzania's Megawatt Mission'. *Critical African Studies* 14, no. 3 (2 September 2022): 231–49. <https://doi.org/10.1080/21681392.2022.2074482>.
- Haid, Haid. 'Unity or Conflict: Where Are Fragile HTS-SDF Talks Headed?' *Al Majalla*, 3 February 2025. <https://en.majalla.com/node/324161>.
- Hesen, Simav. 'Wheat Price "Disaster" in Northeastern Syria Spells Trouble for next Season'. *Syria Direct* (blog), 6 June 2024. <https://syriadirect.org/wheat-price-disaster-in-northeastern-syria-spells-trouble/>.
- Hinnebusch, Raymond. 'Identity and State Formation in Multi-sectarian Societies: Between Nationalism and Sectarianism in Syria'. *Nations and Nationalism* 26, no. 1 (January 2020): 138–54. <https://doi.org/10.1111/nana.12582>.
- Jagerskog, Anders. 'What Does Food Have to Do with Security in the Arab World?' World Bank Blogs, 20 December 2017. <https://blogs.worldbank.org/en/arabvoices/food-security-arab-world>.
- Kuzma, Samantha, Liz Saccoccia, and Marlena Chertock. '25 Countries, Housing One-Quarter of the Population, Face Extremely High Water Stress', 16 August 2023.

- <https://www.wri.org/insights/highest-water-stressed-countries>.
- Macleod, Hugh. 'Syria: How It All Began'. *The World Media*, 2 August 2016.
- Matamis, Joaquin. 'What Turkey Hopes to Gain From the HTS Offensive in Syria'. *Stimson Center* (blog), 6 December 2024. <https://www.stimson.org/2024/what-turkey-hopes-to-gain-from-the-hts-offensive-in-syria/>.
- McMeekin, Peter. 'Iraq Suffers a Wheat-Surplus Headache'. *Grain Central* (blog), 15 October 2024. <https://www.graincentral.com/markets/iraq-suffers-a-wheat-surplus-headache/>.
- ReliefWeb. 'Syria Briefing: Village Dwellers Drawn to City Slums', 29 July 2009. <https://reliefweb.int/report/syrian-arab-republic/syria-briefing-village-dwellers-drawn-city-slums>.
- RFI. 'Revived Reservoir a Lifeline for Syria Farmers'. 31 May 2024. <https://www.rfi.fr/en/middle-east/20240531-revived-reservoir-a-lifeline-for-syria-farmers>.
- Roj, Kardo. 'Syria's HTS Leader Holds First Talks with Kurdish-Led SDF'. *North Press Agency*, 1 January 2025, sec. REPORTS. <https://npasyria.com/en/120454/>.
- Rudaw. '4 Civilians Killed in Strikes on Tishreen Dam: SDF'. 21 January 2025. <https://www.rudaw.net/english/middleeast/syria/18012025>.
- 'Syria | World Food Programme', 31 July 2024. <https://www.wfp.org/emergencies/syria-emergency>.
- Tsurkov, Elizabeth, and Qussai Jukhadar. 'Kneel and Starve: Under the Watchful Eye of the Secret Police, Syrians Go Hungry'. *New Lines Institute*, 9 February 2021. <https://newlinesinstitute.org/state-resilience-fragility/civil-military-relations/kneel-and-starve-under-the-watchful-eye-of-the-secret-police-syrians-go-hungry/>.
- Türk, Necmettin, and Joost Jongerden. 'Decolonisation Agriculture: Challenging Colonisation through the Reconstruction of Agriculture in Western Kurdistan (Rojava)'. *Third World Quarterly* 45, no. 11 (23 July 2024): 1738–57. <https://doi.org/10.1080/01436597.2024.2374521>.
- Waller, Andrew. 'Falling Food Prices Ease Pressure as Syrian Lira Recovers on Markets'. *Middle East Eye*, 8 January 2025. <https://www.middleeasteye.net/news/falling-food-prices-ease-pressure-syrians-amid-economic-challenges>
- Waller, Andrew, and Khabat Abbas. 'Protests and Bloodshed at Tishreen Dam, the Syrian War's Last Faultline'. *Middle East Eye*, 31 January 2025. <https://www.middleeasteye.net/news/protests-bloodshed-tishreen-dam-syria-war-last-faultline>.
- Weinberg, Jesse. 'Syria's Wheat Crisis'. *Moshe Dayan Center for Middle Eastern and African Studies*, BeeHive: Middle East Social Media, 2 October 2022. <https://dayan.org/content/syrias-wheat-crisis>.