



ENVIRONMENTAL POLITICS SERIES

FOOD SOVEREIGNTY AND WATER GOVERNANCE IN JORDAN

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About the project

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Introduction

Purpose and Scope

With 53% of households vulnerable to food insecurity, Jordan's "National Food Security Strategy, 2021-2030" report lists as exacerbating factors the "influx of Syrian refugees, decreased remittances from Jordanians working abroad, diminishing support to [the UN Relief and Works Agency for Palestine Refugees in the Near East], and lately, the outbreak of COVID-19".¹ These externally mediated crises should be viewed not as isolated shocks but as revealing the structural vulnerabilities of a food system that urgently requires reorientation toward food sovereignty.

Such reorientation must begin with centering the caretakers of the land. Despite being the lifeline of Jordan's domestic food system, small farmers have only a few lifelines extended to them in terms of agricultural support, tenure rights, and social protections. At the same time, large-scale farms that could harness economies of scale for domestic food needs remain largely export driven. Jordan now imports over 95% of its food needs for wheat and barley and 100% of its needs for sugar² – staple crops that once constituted important domestic industries³. It is therefore imperative to analyze the historical and political processes that have dislocated Jordan's food system from the needs of its producers and consumers.

As of 2023, Jordan cultivated only 58% of classified arable land (2.09 million dunums – a unit of land measure equal to about 1,000m²) in a context where cultivated land has declined by a staggering 47%

between 1983 and 2023.⁴ This trend is particularly concerning given that only 4% of Jordan's land area is formally classified as arable.⁵ However, there are questions about whether current land classifications and associated legislation reflect the country's true agricultural potential and whether they adequately address the urgent need to protect agricultural land. In northwestern Jordan alone, an estimated 123,000 dunums of rainfed agricultural land were lost to urban encroachment between 2000 and 2015.⁶

Jordan's agricultural potential is further undermined by the sweeping characterization of the country as "water poor" – a framing that overlooks agricultural traditions attuned to climatic stressors and the regional settler and extractive colonialism that exploits Jordan's water resources.

The expansionist vision of a "Greater Israel" does not spare the fertile lands and resources of the Jordan Valley, long a target of colonial agricultural enterprise.⁷ Moreover, the advancing

1 "The National Food Security Strategy, 2021-2030", Hashemite Kingdom of Jordan, June 2021, p. 6, available at <https://jordan.un.org/sites/default/files/2022-10/Document%202%20-%20The%20National%20Food%20Security%20Strategy.pdf> (Jordan, "The National Food Security Strategy").

2 Jordan, "The National Food Security Strategy".

3 Omar Al Atiyat, "History of the Sugar Industry in Jordan", Jordan Heritage, 13 November 2017, available at <https://www.jordanheritage.jo/researches/activities-heritage/sugar-industry-in-jordan/>

4 Department of Statistics, "Jordan in Figures 2024" (Arabic), Hashemite Kingdom of Jordan, 2024, available at https://dosweb.dos.gov.jo/databank/JordanInFigures/Jorinfo_2024.pdf; Department of Statistics, "The Main Structure and Land Use in Plant-based Agricultural Holdings", Hashemite Kingdom of Jordan, 2007, available at https://dosweb.dos.gov.jo/DataBank/Analytical_Reports/Agriculture/census/papers/paper_2.pdf

5 Department of Lands and Survey, "Jordan's Cadastre", Presentation at the Improving Land Governance in Jordan: Towards Sustainable Development and Urbanization workshop, UN Habitat, 2024 (Department of Lands and Survey, "Jordan's Cadastre").

6 Rana N. Jawarneh, Ammar Abulibdeh, Nadeem Hashem, Muheeb Awawdeh, Talal Al-Awadhi, Meshal M. Abdullah, and Ahmed M. El Kenawy, "Assessing and predicting land cover dynamics for environmental sustainability in Jordan's arid ecosystems using CA-Markov model", Remote Sensing Applications: Society and Environment, Vol. 35, August 2024, available at <https://doi.org/10.1016/j.rsase.2024.101262>

7 Al Jazeera, "Jordan condemns Israeli accounts for publishing maps that include parts of its territory" (Arabic), 7 January 2025, available at <https://sl1nk.com/ztboka6>

genocide, ecocide, and weaponization of food and environment in Gaza and historic Palestine as a whole has laid bare how famine can be engineered in contexts where entire populations are denied sovereignty over their food, land, and natural resources.

Building on the Arab Group for the Protection of Nature's (APN) research, advocacy, and on-the-ground interventions to support farmers in Jordan, this study traces the relationship between the aforementioned structural challenges and the emergent shocks that compound farmer vulnerability at different stages of the value chain. We focus on the lived realities of those who cultivate the land and the root causes that reproduce the conditions of their precarity and dispossession. We are particularly attentive to how fragmentation manifests across land systems, farmer-to-farmer relations, and accountability processes emanating from the commodification of land, production, and agricultural labor. In doing so, we avoid simplistic framings that homogenize farmers or romanticize smallholders or family farming without disentangling the capitalist processes that fragment agricultural production and engineer class divisions away from collective organizing and production systems. To the best of our knowledge, this is the first study to systematically document the full cycle of agricultural production in Jordan, from inputs to markets, informed by a food sovereignty perspective.

In parallel, we map the policies, entities, and institutional arrangements that govern food and agriculture, interrogating how agricultural challenges are often addressed in ways that return farmers to a pre-crisis, survival state, absorbing the very shocks that structural injustices generate. Through consultations with diverse actors, often positioned in tension within the food system, we seek to establish areas of consensus on key challenges and recommendations presented in this study, creating a space and basis for dialogue that bridges fragmented perspectives.

Methodology

We devised a mixed-method participatory approach that centers local food producers, small-scale farmers, and agricultural workers across three workstreams:

Qualitative data collection

Qualitative data was gathered from 19 focus group discussions (FGDs) and 15 interviews with farmers and agricultural workers across Ghor al-Shamali, Ghor al-Wast, Ghor al-Jnoub (in the north, central, and southern Jordan Valley, respectively), Zarqaa, and Mafraq, along with key informants and experts in Amman. While the study primarily focuses on small producers, who are often overlooked in national consultations and strategy processes, we also conducted interviews with medium- and large-scale producers to contextualize recurring challenges and gaps impacting food producers irrespective of their scale. Feedback loops were introduced that engaged experts and key informants throughout the collection stage.

Iterative processes of synthesis and validation of field data through consultations

Two consultations were convened as part of an iterative process of validation and synthesis of key challenges, existing pathways, and responsible bodies within the food system. The first consultation engaged 73 small-scale farmers and agricultural workers across the Jordan Valley, combining open plenary discussions, working group discussions, and focused surveys. The second engaged over 100 actors, including key decision-makers and policymakers, public institutions and agencies, NGOs and civil society organizations (CSOs), unions and associations, institutions of knowledge production and dissemination, and the private sector. It also included 24 male and female small-scale farmers and workers, alongside large-scale farmers, brought together in a unique setting that allowed their perspectives to be heard in plenary and across all thematic working groups.

Parallel process of secondary research

The qualitative data and consultations were complemented by ongoing secondary research on conceptual and legal frameworks, structural drivers rooted in historical processes that materialize in contemporary policies and interventions, and strategies of food security and water governance.

The different workstreams were guided by eight key determinants of food sovereignty categorized in the three essential stages of agricultural production:

Preparation: Access to and quality of land,

water, and finance as a key prerequisite for food production.

Cultivation: Access to quality pesticides, fertilizers, and seeds as vital agricultural inputs; and examining the essential role of agricultural labor through a rights-based lens.

Post-harvest: Equitable participation of small farmers in post-harvest processing, distribution, and market systems as a critical determinant of their ability to secure fair prices and sustain livelihoods.

To provide focused and manageable analysis within the fixed timeframe of the study, we selected the Jordan Valley for the farmer consultation. As Jordan's food basket, the region remains crucial to the realization of Jordanian food sovereignty, and its high concentration of farmers renders it a key site of analysis for understanding the structural challenges they face. The Jordan Valley has been the experimental grounds for agrarian reforms that have resulted in food system shifts. Its fertile alluvial soils and unique microclimate enabling year-round cultivation have been leveraged to increase production; however, its mineral wealth has increasingly brought agriculture into contention with resource extraction.⁸

To ensure our regional focus did not narrow analytical scope, the national-level consultation, additional targeted interviews, and secondary research helped address potential gaps.

Conceptual Foundations and Principles for Equitable Food and Water Governance

Food Sovereignty

The concept of food sovereignty must be situated within the highly politicized arena of food security governance, which defines food security as a state that “exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.”⁹ This framing reduces food security to food availability and equates “access” to food with access to the market; food sovereignty, on the other hand, centers communities’ access to and control over land, productive resources, inputs, and production decisions.¹⁰

The right to food – as recognized in the Universal Declaration of Human Rights and legally binding treaties that Jordan has signed and ratified, such as the International Covenant on Economic, Social, and Cultural Rights – suggests that food security should be approached systemically rather than as the right to a set caloric intake.¹¹ General Comment No. 12

⁸ “The Jordan Valley”, Jordan Touristic Sites, available at <http://www.kinghussein.gov.jo/tourism4.html>

⁹ Food and Agriculture Organization of the UN, “Policy Brief: Food Security”, June 2006, available at https://www.fao.org/fileadmin/templates/faoitally/documents/pdf/pdf_Food_Security_Cocept_Note.pdf

¹⁰ Rami Zurayk, Anne Gough, Ahmad Sourani, and Mariam Al Jaajaa, “Food Security Challenges and Innovation: The Case of Gaza”, Food Insecurity in Protracted Crisis Forum, 13-14 September 2012, available at https://www.fao.org/fileadmin/templates/cfs_high_level_forum/documents/FS_Challenges_Innovation_-_Gaza_Arab_Group.pdf (Zurayk et al., “Food Security Challenges”).

¹¹ UN, “Universal Declaration of Human Rights”, 10 December 1948, available at <https://www.un.org/en/about-us/universal-declaration-of-human-rights>; UN, “International Covenant on Economic, Social and Cultural Rights”, 16 December 1966, available at <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>

on the right to food specifically links notions of “access” and “availability” with accessibility to land and natural resources, and outlines the entitlement to adequate reparation for those whose right has been violated.¹² In this way, the right to produce food must be operationalized within the framework of justice and self-determination not only as an aspiration, but also as a legally binding benchmark. By deploying a rights-based lens that treats food as a matter of sovereignty rather than as a commodity alone, systemic violations that undermine local agency, access to productive resources, and food cultures can be traced and redressed.

It is also important to address the Arab region’s situated barriers to food sovereignty. As Ajl notes, the concept of food sovereignty, and the broader “agrarian question” as articulated in Latin American discourse around peasant and landless farmers, cannot be flatly extrapolated to the Arab region.¹³ As such, this report teases out the condition of landlessness to reveal a “rootedness” and availability of land that have been systematically targeted through processes of colonial and military dispossession. Ajl rightly observes: “states have literally lost agricultural capacity and even populations” and that “war has been a central mechanism for such de-development”.¹⁴ This de-development sustains material dependency, thus pacifying grassroots resistance to conditions of dispossession.

Identifying the Farmer

The need to demystify the farmer was evident during our multi-actor consultation, where tensions surfaced around how the farmer is defined. Large landowning, industrial actors claimed to be the “real farmers”, while small farmers raised their worn hands to affirm that they are the ones who steward the land. While we recognize the importance of

varying scales of farming, our report avoids reducing farmers to a homogenous identity. Instead, we need to understand how different farmer classes have emerged through negotiating a capitalist mode of production, thus manifesting differential access to land, agricultural inputs, capital, and decision-making capacities. We build on Lanzendorfer’s farmer typology, adapted by Aydın, which broadly lays out the social relations of production manifest in Jordan’s agricultural landscape.¹⁵

- Large farmers wield disproportionate capital and influence. While some large farmers produce for the local market and prioritize domestic food needs, many own large commercial farms that serve export production, treating agriculture chiefly as an investment and sustaining input-intensive production through a web of farm managers, middlemen, wage laborers, and tenants.
- Smallholders are mostly reliant on family labor to sustain production; they can differ in access to land and capital.
- Landless sharecroppers and tenants have emerged in the face of absentee landlordism. They navigate varying relationships with landlords concerning farm management, the division of harvest returns, production costs, and rent. As farm operators, they can both work for landowners and hire wage labor.
- Wage laborers are the most isolated from the means of production, forming a mobile labor force compelled to make high-stakes decisions to take on risky and underpaid work for household survival and advancement.¹⁶ At the same time, this group is a key force in labor rights mobilization.

While this typology offers some conceptual precision to class relations among farmers, Zurayk and Dirar remind us not to treat such categories as fixed and deterministic, leading to misinformed interventions

12 UN, “E/C.12/1999/5: General Comment No. 12 on the right to adequate food”, 12 May 1999, available at <https://www.ohchr.org/en/documents/general-comments-and-recommendations/ec1219995-general-comment-no-12-right-adequate-food>; Zurayk et al., “Food Security Challenges”.

13 Max Ajl, “Does the Arab region have an agrarian question?”, *The Journal of Peasant Studies*, Vol. 48, no. 5, 2021, available at <https://doi.org/10.1080/03066150.2020.1753706> (Ajl, “Does the Arab region have an agrarian question?”).

14 Ajl, “Does the Arab region have an agrarian question?”, p. 4.

15 Matthias Lanzendorfer, *Agricultural Mechanization in Jordan*, Göttingen: Edition Herodot, 1985; Zülküf Aydın, “Commercialization and Commoditization in the Jordan Valley: Producers, Merchants and the State”, *METU Studies in Development*, Vol. 19, no. 4, 1992, available at <https://open.metu.edu.tr/handle/11511/110592> (Aydın, “Commercialization and Commoditization”).

16 Aydın, “Commercialization and Commoditization”.

and the co-option of the farmer identity.¹⁷ Rather, they point to the relations between categories, which we factor into this report to identify opportunities for alliances between farmers facing the same root causes, albeit from varied social positions.

Justice

The notion of just transition has recently entered food systems governance discourse to promote an inclusive shift to greener modes of food production. Yet ambiguity around what justice is being invoked and for whom raises questions about whose voices, interests, and needs are truly centered in this transition. Moreover, knowledge production around just transition policy frameworks has been concentrated in the global north, where the bulk of historical emissions have occurred, and countries resist substantial carbon mitigation, particularly in relation to their carbon-intensive military-industrial complex.

Despite the Paris Agreement stating that climate action must be pursued “in a manner that does not threaten food production” and “in the context of sustainable development and efforts to eradicate poverty”, foreign-funded greening projects in the Arab region have prioritized nonproductive afforestation, leveraging trees and arable lands as carbon offset sites for the global north.¹⁸ Similarly, climate change adaptation programs commonly center Western technologies, inputs, and expertise, subverting their intended purpose of building local efficiency and sustainability. Echoing De Bruin et al.’s call for conceptual precision in discussions of justice in food systems, this report engages with three interrelated dimensions of justice: distributive, procedural, and recognition.¹⁹

- Distributive justice concerns the fair allocation of the costs and benefits of transitioning food systems.²⁰
- Procedural justice asks who is included or excluded from decision-making, how power is distributed, and how governance structures are made accountable.²¹
- Recognition justice interrogates who or what is conceived as a valid subject of justice, the temporality and spatiality of justice considerations, and the relations of accountability. This brings historical and intergenerational justice into the framework of food systems transformation.²²

Flattening conceptions of justice in just transition frameworks can obscure the structural drivers of hunger, agricultural land loss, and ecological degradation,²³ often recast as emergent crises or isolated “shocks”.

Additionally, often bundled within the just transition discourse is the language of resilience building. In this context, Soubry and Sherren caution against the simplistic invocation of “equilibrium resilience” as opposed to “evolutionary resilience” in food systems transitions.²⁴ They draw on Scott’s typology in which equilibrium resilience functions to maintain dominant systems of food production through honing their shock absorption capacities, whereas evolutionary resilience seeks systemic

17 Zurayk and Dirar, “Farmer-Led Water User Associations in Agricultural Water Management”, in *The Oxford Handbook of Food, Water and Society*, pp. 224-250. Oxford University Press, 2018 (Zurayk and Dirar, “Farmer-Led Water User Associations”).

18 UN, “Paris Agreement”, 12 December 2015, Article 2, available at https://unfccc.int/sites/default/files/resource/english_paris_agreement.pdf (UN, “Paris Agreement”).

19 Annemarijke de Bruin, Imke J.M. de Boer, Niels R. Faber, Gjalte de Jong, Katrien J.A.M. Termeer, and Evelien M. de Olde, “Easier said than defined? Conceptualising justice in food system transitions”, *Agriculture & Human Values*, Vol. 41, March 2024, available at <https://doi.org/10.1007/s10460-023-10482-y> (De Bruin et al., “Easier said than defined?”).

20 Clement Loo, “Towards a more participative definition of food justice”, *Journal of Agricultural and Environmental Ethics*, Vol. 27, October 2014, available at <https://doi.org/10.1007/s10806-014-9490-2> (Loo, “Towards a more participative definition”).

21 Helen Coulson and Paul Milbourne, “Food justice for all?: Searching for the ‘justice multiple’ in UK food movements”, *Agriculture and Human Values*, Vol. 38, February 2021, available at <https://doi.org/10.1007/s10460-020-10142-5>; Loo, “Towards a more participative definition”.

22 Nancy Fraser and Axel Honneth, *Redistribution or Recognition?: A political-philosophical exchange*, London: Verso, 2003; David Miller, “Justice”, in *The Stanford Encyclopedia of Philosophy*, eds. Edward N. Zalta and Uri Nodelman, Stanford, CA: Metaphysics Research Lab, Stanford University, 2017.

23 De Bruin et al., “Easier said than defined?”.

24 Bernard Soubry and Kate Sherren, “‘You keep using that word...’: Disjointed definitions of resilience in food systems adaptation”, *Land Use Policy*, Vol. 114, March 2022, available at <https://doi.org/10.1016/j.landusepol.2021.105954>

change.²⁵ In this context, APN has been working to decolonize resilience discourse in terms of redressing root causes, affirming that “building resilience must include policies and actions that not only assist communities in coping with or absorbing ‘vulnerabilities’ and ‘crises’, but act to resolve, resist, and prevent them and their manifestations from reoccurring”.²⁶

In sum, the depoliticized language of just transition tends to fixate on an abstract, sustainable future while bypassing historical, socio-economic, and ecological injustices that reverberate through food systems. Rather than centering justice on a simple caloric intake, we center it on the right to remain on the land, to return, to restore, and to resist.

Water as Foundational to Food Sovereignty

Access to safe water is the life-sustaining pillar of sovereign food systems, societies, ecologies, and futures. For this reason, it has long been politicized, commoditized, and weaponized as a geostrategic and economic lever. In the Arab region, water challenges have long been framed in terms of innate scarcity. For instance, a World Bank Group report describes Jordan as facing an “existential water crisis”, being one of the “most water-scarce countries in the world”.²⁷ Such language appears to locate the existential threat in the environment rather than in the mismanagement and transboundary weaponization of water resources. This deliberate misdiagnosis has equally been leveraged to restrict community agency and

access.²⁸ Specifically, the colonial construct of Arab dryland and desert ecologies as barren and neglected has been functional to the disintegration of local food systems and dispossession of communities; it invalidates indigenous agricultural practices attuned to local hydrological cycles and diverts water toward ecologically destructive afforestation and monocultural production.²⁹ In Bilad al-Sham (the Levant), this brazenly converges in Zionist settler-colonialism that inherited British efforts to restructure and “rationalize” perceived under-utilized regional water flows.³⁰ From across historic Palestine to the Banias springs in the Golan Heights, and the Hasbani–Wazzani river and aquifer system in Lebanon, Jordan too contends with the occupation’s hydro-hegemony, which undercuts, if not intentionally de-develops, its agricultural systems.³¹

To deflect from Israeli hydro-hegemony and preserve their market competitiveness, US and other external development actors have promoted import dependence.³² Here, colonization and capital have found their ideological consolidation in the “virtual water” concept that emerged in the

25 Mark Scott, “Resilience: A Conceptual Lens for Rural Studies?”, *Geography Compass*, Vol. 7, no.9 4 September 2013, available at <https://doi.org/10.1111/gec3.12066>

26 APN, “Resilience Building for Sustainable Food Security and Nutrition”, Plenary speech, 15 October 2015, para. 4, available at <https://www.apnature.org/en/resilience-building-sustainable-food-security-and-nutrition>

27 World Bank Group, “Jordan: Country Climate and Development Report”, November 2022, available at <https://openknowledge.worldbank.org/server/api/core/bitstreams/7c81ff9b-6f43-5648-be15-b2e2b25d1d33/content>

28 Hussam Hussein, “An analysis of the discourse of water scarcity and hydropolitical dynamics in the case of Jordan”, PhD thesis, University of East Anglia, 2016, available at <https://ueaeprints.uea.ac.uk/id/eprint/63066/> (Hussein, “The discourse of water scarcity”).

29 Diana K. Davis, *The arid lands: History, Power, Knowledge*, The MIT Press, 2016.

30 John Broich, “British water policy in Mandate Palestine: Environmental orientalism and social transformation”, *Environment and History*, Vol. 19, no. 3, August 2013, available at <https://www.jstor.org/stable/43298498>

31 Joe Stork, “Water and Israel’s Occupation Strategy”, Middle East Research and Information Project, 17 July 1983; Ammon News, “Israel supplies Jordan with polluted water and steals 700 million cubic meters annually” (Arabic), 13 May 2010, available at <https://www.ammonnews.net/article/60528> (Ammon News, “Israel supplies Jordan with polluted water”); Hussein, “The discourse of water scarcity”.

32 Livia Perosino, “Agriculture in Jordan at the Time of Climate Change: Identifying Casualties between

Imperialism and Environmental Degradation”, *Noria Research*, 2 January 2024, available at <https://noria-research.com/agriculture-in-jordan-at-the-time-of-climate-change-identifying-causalities-between-imperialism-and-environmental-degradation/> (Perosino, “Agriculture in Jordan”).

Arab region in the 1990s.³³ The concept holds that so-called “water-scarce” countries should import food rather than grow it, thereby importing the water embedded in those goods.³⁴ Paradoxically, the push toward trade-based food security in Jordan has promoted the overproduction of water-intensive cash crops, such as tomatoes. At the same time, structural adjustment programs (SAPs), under the counsel of Bretton Woods institutions, have entrenched the commodification of water through pricing mechanisms and water markets in the Arab region. The promotion of cost recovery models that heighten water tariffs effectively shift the cost of market restructuring to food producers and rural economies.³⁵ This was largely based on the ill-conceived external push to economize resource use for “profitable”, alongside a broader agenda to re-allocate water away from perceived low-value agriculture toward so-called “higher value” non-agricultural uses.³⁶ Such models persist through differently packaged programs, such as integrated water resource management, that risk the same pattern of shifting responsibility to end-users, particularly farmers, rather than redressing infrastructural and central governance failures.³⁷ This shift has deepened hydro-social inequities and reshaped the valuation of water use and knowledge, increasingly framing water as a commodity and isolating farmers who resist or are unable to take part in export-oriented and cash crop production.

33 Perosino, “Agriculture in Jordan”; John Anthony Allan, “Fortunately there are substitutes for water otherwise our hydro-political futures would be impossible”, in *Priorities for water resources allocation and management*, London: Overseas Development Administration, 1993.

34 Perosino, “Agriculture in Jordan”.

35 Jane Harrigan, Hamed El-Said, and Chengang Wang, “The IMF and the World Bank in Jordan: A case of over optimism and elusive growth”, *The Review of International Organizations*, Vol. 1, September 2006, available at <https://doi.org/10.1007/s11558-006-9490-8> (Harrigan et al., “The IMF and the World Bank”).

36 Timothy Liptrot and Hussam Hussein, “Between Regulation and Targeted Expropriation: Rural-to-Urban Groundwater Reallocation in Jordan”, *Water Alternatives*, Vol. 13, no. 3, 2020, available at <https://www.water-alternatives.org/index.php/alldoc/articles/vol13/v13issue3/599-a13-3-17/file> (Liptrot and Hussein, “Between Regulation and Targeted Expropriation”).

37 Ben Lamoree and Frank van Steenberg, “From value to finance: making IWRM work”, *Journal of Contemporary Water Research & Education*, Vol. 135, no. 1, December 2006, available at <https://doi.org/10.1111/j.1936-704X.2006.mp135001012.x>

Participatory Governance

Since the first World Food Summit in 1996, grassroots and civil society participation has become a key thread of “good governance” in food security frameworks. Though touted as a platform for community ownership and accountability, critical scholarship highlights how uneven power relations determine the parameters of participation, or worse, leverage participation to absolve accountability.³⁸ While the shift from multilateralism to multistakeholderism in food-related forums has broadened the scope for civil society participation, it has also enabled corporate capture of food systems dialogue under the guise of broadening stakeholder participation.³⁹

In response to the deepening corporate capture, CSO movements boycotted the 2021 World Food Summit and organized a counter-summit to challenge its legitimacy.⁴⁰ Within these international and intergovernmental spaces that influence global food systems governance, CSOs from the global south contend with entrenched asymmetries such as predetermined agendas that seek their tokenistic, end-stage engagement.⁴¹ This dynamic is evident in the way some foreign-funded Arab CSOs adopted the slogan “Arabs Take the Lead” during COP18 in 2012, which ultimately serves global north interests in diverting attention from its responsibility to reduce emissions.⁴²

To prevent participatory governance from

38 Bill Cooke and Uma Kothari, eds., *Participation: The New Tyranny?*, Zed Books, 2001.

39 Food Systems 4 People, “Multistakeholderism and the corporate capture of global food governance”, April 2023, available at https://foodsystems4people.org/wp-content/uploads/2023/05/EN_Analysis-report-2023_FS4P.pdf

40 APN, “ANFS, APN and their international partners organize the Global People’s Summit on Food Systems Coinciding with the United Nations summit”, 2021., <https://www.apnature.org/en/media/%D8%A7%D9%84%D8%A3%D8%AE%D8%A8%D8%A7%D8%B1/anfs-apn-and-their-international-partners-organize-global-peoples-summit-food-systems>

41 Mariam Al Jaajaa, “Arab Civil Society Winning Battles in International Fora”, IFPRI Egypt, 24 March 2016, available at <https://egyptssp.ifpri.info/2016/03/24/arab-civil-society-winning-battles-in-international-fora/>

42 Rana Khaled, “March calls on region’s leaders to forge ahead on climate change”, *Egypt Independent*, 18 November 2012, available at <https://cloudflare.egyptindependent.com/march-calls-region-s-leaders-forge-ahead-climate-change/>

becoming a tool for control, it must move from procedural and administrative engagement toward the coproduction of knowledge that would inform agricultural policy and programming.

Historical Context of Food and Water Governance in Jordan

Long before British cartographers carved out Transjordan's borders, the region was contoured by deeply layered and ecologically attuned forms of life and land relations. The world's oldest piece of bread, dating back 14,400 years, was found in the Black Desert of northeastern Jordan.⁴³ Some of the earliest evidence of cultivated wheat and barley (7,500-5,500 BCE) was found in Wadi Qalat of Tafilah.⁴⁴ Sugar was a flourishing industry that reached its peak during the Mamluk period (1250-1517 CE) with export markets that spanned as far as Florence, Italy.⁴⁵

Jordan's complex food system was shaped and sustained by precolonial agrarian systems often organized around a communal ethic seen in the *musha'* (collective landholding) tradition, whereby village lands were collectively tended to balance

soil fertility, water access, and grazing rights.⁴⁶ Indigenous water management innovations, from the Nabataean cisterns of Petra to the agricultural terraces of Jordan's highlands, have long attuned agricultural practices to their local climatic and geological conditions.⁴⁷

The communality and diversity that marked Jordan's agricultural landscape were enclosed by successive powers. With the onset of Ottoman rule, the *musha'* tradition was brought into contact with a new land registration and codification scheme, including the classes of *miri* (state agricultural land), *matruke* (communal land), and *mawat* (dead state land) – primarily to facilitate administration and tax collection.⁴⁸ On the colonial premise that communal tenure was averse to agricultural modernization, the British mandate (1921-1946) dismantled *musha'* by enforcing the privatization, parcellation, and cadastral registration of land.⁴⁹ From 1927, the mandate sought to inscribe its conception of land ownership via large-scale cadastral surveys that charted precise boundaries between land claims and aimed to formalize individual ownership, while

43 Faculty of Humanities, "Archaeologists discover bread that predates agriculture by 4,000 years", University of Copenhagen, 16 July 2018, available at <https://humanities.ku.dk/news/2018/archaeologists-discover-bread-that-predates-agriculture-by-4000-years/>

44 Andrew N. Garrard, Sue Colledge, Christopher Hunt, and Rebecca Montague, "Environment and subsistence during the Late Pleistocene and Early Holocene in the Azraq Basin", *Paléorient*, Vol. 14, no. 2, 1988, available at https://www.persee.fr/doc/paleo_0153-9345_1988_num_14_2_4453

45 Omar Al Atiyat, "History of sugar production in Jordan" (Arabic), 13 November 2017, Jordan Heiritage, available at <https://www.jordanheritage.jo/researches/activities-heritage/sugar-industry-in-jordan/>

46 Ruth Kark and David Grossman, "The communal (*musha'*) village of the Middle East and North Africa", in *Policies and Strategies in Marginal Regions*, eds. W. Leimgruber, R. Majoral and C-W Lee, UK: Ashgate, 2003 available at https://www.academia.edu/4125917/82_KARK_and_GROSSMAN_The_Communal_musha_Village_of_the_Middle_East; Martha Mundy, "The State of Property: Late Ottoman Southern Syria, the Kaza of 'Ajlun (1875-1914)", in *Constituting Modernity: Private Property in the East and West*, ed. Huri İslamoğlu, New York: I.B. Tauris, 2004.

47 Charles R. Ortloff, "The water supply and distribution system of the Nabataean city of Petra (Jordan), 300 BC-AD 300", *Cambridge Archaeological Journal*, Vol. 15, no. 1, 5 May 2005, available at <https://doi.org/10.1017/S0959774305000053>; Jonathan Mabry and Gaetano Palumbo, with a contribution by Ian Kuijt, "The 1987 Wadi el-Yabis Survey," *Annual of the Department of Antiquities of Jordan*, Vol. 32 1988, available at https://publication.doa.gov.jo/uploads/publications/63/ADAJ_1988_32-275-306.pdf

48 Husam Jamil Madanat, "Land Tenure in Jordan", *Land Tenure Journal*, June 2010, available at <https://www.fao.org/4/i1634t/i1634t06.pdf>

49 Mohamed F. Tarawneh, *Rural Capitalist Development in The Jordan Valley: The case of Deir Alla – The Rise and Demise of Social Groups*, Sidestone Press, 2014 (Tarawneh, Rural Capitalist Development).

also forming the “Department of Lands”.⁵⁰ With the Land Settlement Law in 1933, private title was institutionalized, yet Jordan’s vast rangelands were often left in a legal vacuum or reclassified as mawat – a linguistic and legal marginalization of customary claims and agricultural potential that shapes contemporary land planning.⁵¹

To facilitate the shift from subsistence to capitalist production, the British mandate sought “improved” seed varieties, applied customs exemptions to machinery imports, and established agricultural experimentation stations.⁵²

In the face of broader colonial reforms, resistance among local communities took diverse forms including through the rejection of land taxes, targeting colonial infrastructure, and the felling and use of trees in state forest land that had been barred from productive use by the British mandate.⁵³

The 1948 Nakba, marked by the ethnic cleansing of over 750,000 Palestinians and the violent establishment of the Israeli settler-colonial state, reshaped Jordan’s agrarian and demographic landscape. The inauguration of the National Water Carrier of Israel in 1964, which usurps vast amounts of water from the Sea of Galilee (Buhairat Tabariyyah in Arabic) and develops a hydro-hegemonic infrastructure that captures upstream flow, initiated the large-scale and ongoing monopolization of

cross-border water resources.⁵⁴

The construction of the East Ghor Canal which began in 1959 – primarily funded by USAID – catalyzed a shift in agriculture in the Jordan Valley. By expanding the irrigated area, the canal unlocked new terrain for export-oriented and commercial-scale agriculture. As part of a series of related land reforms, external actors such as USAID and the International Bank for Reconstruction and Development pushed to reorganize large land plots into small plots, suited to the cultivation of vegetables as “a new cash crop”. Cereal crop production diminished significantly as a result.⁵⁵ While one of the aims here was to encourage small-owner cash-crop cultivation, the state allowed landholders to register land under the names of family members. Together, this enabled the further dispersion of land ownership among family members – including members living outside the valley – rather than necessarily redistributing that land to smallholders for active cultivation.⁵⁶ Land fragmentation and absentee landlordism were cemented alongside wage labor, sharecropping, and tenancy-based production to maintain intensive cultivation.

The Jordan Valley development projects initiated in the 1950s further necessitated centrally managed water allocation, mechanized inputs, pesticides and fertilizers, and market integration mechanisms. Credit institutions were formed to meet the heightened need for liquidity. Yet prohibitive loan conditions meant large farmers were better positioned to capitalize on credit streams, forcing small farmers to turn to the private market to access informal credit.⁵⁷ Lenders thus deepened their foothold in Jordan’s agrarian landscape.

Despite the unsustainable agricultural shift, Jordan’s economic strategy nonetheless retained a focus on import substitution, strengthening local production, and shielding markets from foreign competition. As such, farming accounted for nearly 40% of Jordan’s GDP in the 1950s compared with 6.9% today, a decrease largely caused by the sector’s

50 Frederick Wojnarowski, “Settling land, unsettling people: Living with and contesting land, social change and grand schemes in rural central Jordan”, *History and Anthropology*, Vol. 35, no. 5, 2024, available at <https://doi.org/10.1080/02757206.2023.2220342> (Wojnarowski, “Settling Land, Unsettling People”); Michael R. Fischbach, *State, society, and land in Jordan*, Social, Economic and Political Studies of the Middle East and Asia, Vol. 75., Brill, 2000; Department of Lands and Survey, “The Historical Development of The Department”, available at https://www.dls.gov.jo/EN/Pages/The_Historical_Development_of_the_Department.

51 Tarawneh, *Rural Capitalist Development*; Wojnarowski, “Settling Land, Unsettling People”.

52 Vartan Manoug Amadouny, “The British role in the development of an infrastructure in TransJordan during the Mandate period, 1921-1946”, PhD dissertation, University of Southampton, 1993, p. 14, available at <https://eprints.soton.ac.uk/462123/1/381419.pdf> (Amadouny, “The British role in TransJordan”).

53 Amadouny, “The British role in TransJordan”.

54 Yousef Abd-Alraheem Irshaid, “Consequences of the Israeli hydro-hegemony on the Jordanian water security”, *Review of Economics and Political Science*, Vol. 6, no. 3, 2021, available at <https://doi.org/10.1108/REPS-09-2019-0123>.

55 Tarawneh, *Rural Capitalist Development*, p. 21.

56 Tarawneh, *Rural Capitalist Development*.

57 Aydin, “Commercialization and Commoditization”.

subsequent liberalization.⁵⁸

From 1989 onward, World Bank and International Monetary Fund SAPs reshaped Jordan's agricultural landscape through destabilizing neoliberal policy reforms. Loan conditions pushed for the dismantling of Jordan's public agricultural supports and subsidies, lifting of pricing controls and import protections, privatization of agricultural inputs and credit support, and the enforcement of water tariffs to channel "efficient" water use toward export-oriented agriculture, alongside pressuring the reallocation of water resources to non-agriculture sectors.⁵⁹ Claiming market distortion, the World Bank further lobbied for the dissolution of a key state-led agricultural marketing body, initially established to support farmers including through improving producers' access to inputs and secure outlets for crop sales.⁶⁰ The reduction of state support coincided with the collapse of key export markets in Iraq and the Gulf following the 1991 Gulf War. Unable to leverage alternate trade networks, producers have borne the burden of surging input costs and exposure to global market volatility. Punishing cycles of debt and the confiscation of land upon default have forced many to abandon agriculture.⁶¹

Jordan's accession to the World Trade Organization in 2000 further consolidated and legally bound its commitments to trade liberalization, locking its food system into a profoundly asymmetric marketplace. Western and other major agricultural exporting states, often wielding heavily subsidized agricultural sectors, inundated Jordan's market

with cheap staple foods.⁶² This accelerated the undermining of Jordan's wheat sector, as imported wheat could be sold at prices which undercut domestic production, including US wheat often under the diplomatic banner of "food aid".⁶³ Successive restructuring has slashed production from nearly 300,000 tons of wheat in 1964 to a mere 30,000 tons in 2022, supplying only around 3% of the Kingdom's wheat needs.⁶⁴ Such structural trade imbalances have ensnared Jordan in low-value and resource-intensive cash crop production, fixing its peripherality in the global food system.⁶⁵

Moreover, structural adjustment lending deepened land commodification forged during British Mandate rule, advancing further marketisation. The 1994 Agricultural Sector Adjustment Loan conditioned finance on land-market deregulation in the Jordan Valley, specifically by extending private lease periods to up to 30 years, thereby loosening restrictions on land consolidation to facilitate larger-scale, export-oriented agricultural production.⁶⁶ Seeking to expand market-oriented development in urban areas, the 1996 Housing Finance and Urban Sector Reform Project pushed to increase the availability of smaller residential plots through zoning reforms, extend development rights to private developers, and streamline regulatory

58 Helen Chapin Metz, ed, *Jordan: A Country Study*, 4th ed., Federal Research Division: Library of Congress, 1991, available at <https://www.loc.gov/item/91006858/>; The Jordan Times, "Agricultural sector achieves 6.9% economic growth – DoS", 6 April 2025, available at <https://jordantimes.com/news/local/agricultural-sector-achieves-69-economic-growth-dos>

59 Harrigan et al., "The IMF and the World Bank"; Liptrot and Hussein, "Between Regulation and Targeted Expropriation".

60 Harrigan et al., "The IMF and the World Bank"; Leila Al-Ajib, "Closure of the Agricultural Marketing Corporation", *Tiber*, 27 January 2021, available at <https://l1nq.com/nfgmyfn>.

61 Harrigan et al., "The IMF and the World Bank".

62 Marta Vidal, "Wheat blessing: Jordan's grassroots movement for food sovereignty", *Al Jazeera*, 7 February 2022, available at <https://www.aljazeera.com/news/2022/2/7/jordanian-initiative-fighting-for-food-sovereignty> (Vidal, "Wheat blessing").

63 Livia Perosino, "Deconstructing the market: agrarian change and social differentiation in Jordan", *The Journal of Peasant Studies*, Vol. 51, no. 5, 2024, available at <https://doi.org/10.1080/03066150.2023.2287093> (Livia Perosino, "Deconstructing the market"); Mariam Al Jaajaa, "Enhancing Food Sovereignty Begins with Confronting the Roots of Agricultural Neglect", in *Re-rooting: Self Determination and Autonomous Practices*, Darat al Funun, 2024.

64 IndexMundi, "Jordan Wheat Production by Year", Dataset, available at <https://www.indexmundi.com/agriculture/country=jo&commodity=wheat&graph=production>; Batool Almasri, "Jordan far from reaching wheat self sufficiency", *Jordan News*, 9 February 2022, available at <https://www.jordannews.jo/Section-109/News/Jordan-far-from-reaching-wheat-self-sufficiency-12866>

65 Perosino, "Agriculture in Jordan".

66 World Bank, "Implementation Completion Report: The Hashemite Kingdom of Jordan – Agricultural Sector Adjustment Loan (Ln. 3817-JO)", June 1997, available at <https://documents1.worldbank.org/curated/en/366151468043442927/pdf/multi-page.pdf>

processes, although these reforms were contested by planning bodies in Jordan and only partially implemented.⁶⁷ Nonetheless, these measures represented external attempts to expand the role of private capital in the consolidation, division and allocation of land in Jordan.

At the same time, land has been increasingly subject to speculation and revalued as a commodity for its exchange value rather than its “agricultural productive potential”.⁶⁸ The groundwork for the starkly uneven consolidation of land was thus laid. As of 2017, 77% of landowners held less than 9.7% of privately owned agricultural land, while just 0.5% – the largest landowners – owned 41.6%.⁶⁹ With urban encroachment shifting land values, farmland has been subdivided and sold for residential and commercial development, fragmenting productive units. Legislation has institutionalized fragmentation, including Temporary Law No. 79 (1966) allowing the subdivision of land to a minimum of ten dunums in regulated areas, and Land Use Bylaw No. 6 (2007) permitting construction on agricultural land.⁷⁰ These factors are collectively reflected in the loss of an estimated 1,690,000 dunums of agricultural land to urban centers, cities, and villages.⁷¹

The COVID-19 pandemic brought the food system’s

structural vulnerabilities to light, prompting the government’s development of the National Food Security Strategy, which largely excluded relevant and active CSOs and small-scale producers from genuine participation. Several strategies have been released since, mediated by intergovernmental organizations, where engagement remains tokenistic, such as the National Plan for Sustainable Agriculture.⁷² A constant across these strategies is the establishment of Jordan as a regional food hub, consolidating Jordan as a center for storage, logistics, processing, knowledge transfer, and investment. While export-oriented agribusiness continues to be prioritized, few avenues seek to redress the isolation of small producers and the stark reliance on imports.

In presenting our findings on the key determinants of food sovereignty and water governance, we reveal how these structural contradictions manifest in Jordan’s food system.

Assessing Food Sovereignty in Jordan Through the Full Agricultural Cycle

Preparation Stage

Finance

Access to finance is the first component of a farmer’s journey to productive land use. Adequate and affordable financing enables farmers to invest in agricultural inputs, infrastructure, and labor, ensuring production continuity. However, rising input costs and declining crop revenues have forced many farmers to seek loans through different

67 World Bank, “Implementation Completion Report (SCL-40710) on a Loan in the Amount of US\$20 Million to the Hashemite Kingdom of Jordan for a Housing Finance and Urban Sector Reform Project”, October, 2002, available at <https://documents1.worldbank.org/curated/en/355681468774266675/pdf/multi0page.pdf>

68 Wojnarowski, “Settling Land, Unsettling People”, p.1275.

69 Jordan Department of Statistics, “Agricultural Census 2017: Main Results” (Arabic), 2018, available at <https://dosweb.dos.gov.jo/wp-content/uploads/2017/08/Agr2.pdf>

70 Razi Diab, “Land, Housing and Property in Jordan: A Review of the Legal, Institutional, and Administrative Frameworks”, UN-Habitat, 2024, available at https://unhabitat.org/sites/default/files/2024/05/land_housing_and_property_in_jordan_report.pdf (Diab, “Land, Housing and Property”); “Temporary Law No. (79) of 1966 on the Regulation of Cities, Villages and Buildings” (Arabic), Hashemite Kingdom of Jordan, available at <https://l1nq.com/uod1qg4>

71 Ministry of Agriculture & International Land Coalition, “Stakeholder Strategy for Land Governance and Management in the Hashemite Kingdom of Jordan”, 2022, available at https://moa.gov.jo/ebv4.0/root_storage/ar/eb_list_page/nes_jordan_final_version_arrived_6_july2023-0.pdf (Ministry of Agriculture & International Land Coalition, “Stakeholder Strategy for Land Governance”).

72 Hashemite Kingdom of Jordan, “National Plan for Sustainable Agriculture (2022-2024) under the National Food Security Strategy, 2021-2030” (Arabic), available at <https://faolex.fao.org/docs/pdf/jor225446.pdf> (Jordan, “National Plan for Sustainable Agriculture”).

mechanisms, exposing them to repeating cycles of debt that in turn make them ineligible for funding. For example, in 2023 over 13,000 farmers in the Jordan Valley were in debt and risked facing legal action due to possible defaults.⁷³

Farmers can access finance through commercial banks, ministerial programs, the Agricultural Credit Corporation (ACC), input suppliers, and private financiers. Commercial banks provide loans at high and often variable interest rates, driven by neoliberal policies tied to the World Bank and International Monetary Fund SAPs.⁷⁴ These loans carry a significant risk of default, which can result in the bank pursuing legal action to seize the farmer's land as allowed in Article 28 of the Jordanian Execution Law No. 25 of 2007 (amended in 2025).⁷⁵ This law sets a minimum level of protection by prohibiting the seizure of land necessary to secure the livelihood of the farmer and their family, but it does not clearly define the necessary elements for assessing such livelihood. Moreover, while the 2025 amendments to the law prohibit debtor imprisonment, farmers and traders observed that debtors' risks have increased; they have reduced credit opportunities, limiting farmers' access to financing from public and private creditors.⁷⁶

Ministries and government programs offer interest-free loans, often in partnership with private banks, particularly for water and land-related projects under the National Food Security Strategy.⁷⁷ Farmers may also receive in-kind support such as pesticides or solar panel assistance through projects such as those implemented by the UN's Food and

Agriculture Organization.⁷⁸ However, a crucial challenge lies in the lack of clarity surrounding eligibility and selection criteria; farmers report that they are uncertain whether they qualify and often assume that they do not. This reflects a clear gap in how grant opportunities are communicated and a lack of flexibility when deadlines are missed.

Importantly, land ownership is typically required as collateral for some substantial credit facilities, minimizing access to farmers who lease land and have informal tenure relations. The ACC, however, provides zero- or low-interest loans with flexible terms accessible to farmers who own or rent land that meet eligibility criteria.⁷⁹ For example, in 2019 the ACC disbursed a total of 27 million Jordanian dinars (about US\$38 million) in loans to 3,300 farmers on the condition that they own or lease land.⁸⁰ In another case, through a project implemented by an international NGO, small-scale farmers who owned or rented land could access zero-interest loans from the ACC. To qualify, farmers were required to participate in the project's farmer field schools (FFS) focused on good agricultural practices, and the loans had to be used to purchase irrigation equipment and adopt new agricultural technologies.⁸¹

However, some loans provided by credit facilities, such as those for water infrastructure, are priced higher than what smallholder farmers typically need. This pricing disparity can lead to inefficient use of funds: farmers may redirect the loan toward other pressing expenses, increasing the likelihood of default. Budgets and criteria are set centrally in Amman, with limited room for regional adaptation

73 Rayya Al Muheisen, "Jordan Valley farmers 'exhausted' from mounting debt crisis – Union leader", The Jordan Times, 4 March 2023, available at <https://jordantimes.com/news/local/jordan-valley-farmers-%E2%80%98exhausted%E2%80%99-mounting-debt-crisis-%E2%80%94union-leader>

74 Harrigan et al., "The IMF and the World Bank".

75 "Execution Law No. 25 of 2007" (Arabic), Hashemite Kingdom of Jordan, available at <https://jordan-lawyer.com/2016/02/15/jordan-execution-civil-law/>

76 Jordan News Agency (Petra), "Amended Execution Law provision on debtor imprisonment takes effect Wednesday", 24 June 2025, available at https://www.petra.gov.jo/Include/InnerPage.jsp?ID=72895&lang=en&name=en_news

77 Jordan, "The National Food Security Strategy".

78 Food and Agriculture Organization of the UN, "Lowering costs via efficiency gains of solar energy systems in Jordan", 2025, available at <https://www.fao.org/energy/projects/project-details/lowering-costs-via-efficiency-gains-of-solar-energy-systems-in-jordan/en>

79 Agricultural Credit Corporation, "Foundations and Rules of Lending for 2007" (Arabic), available at <https://www.acc.gov.jo/sites/default/files/loan-basis.pdf>

80 Maram Kayed, "Credit corporation loans to agriculture sector garner mixed responses from farmers", The Jordan Times, 11 January 2020, available at <https://jordantimes.com/news/local/credit-corporation-loans-agriculture-sector-garner-mixed-responses-farmers>

81 Jordan News, "HortiFuture, ACC launch zero-interest loans for Jordanian farmers", 8 April 2023, available at <https://www.jordannews.jo/Section-109/News/HortiFuture-ACC-launch-zero-interest-loans-for-Jordanian-farmers-27988>

and local feedback mechanisms.

In the absence of sufficient public financing or grants, farmers often resort to borrowing from private financiers – such as traders in the Amman Central Market, plant nurseries, and agricultural companies – and issuing postdated checks in exchange for capital. These arrangements leave farmers vulnerable to fluctuating prices and production losses caused by political and economic instability, inadequate infrastructure, and climate shocks. High transportation costs sometimes exceed profits, forcing farmers to abandon harvests rather than sell at a loss. Amman Central Market operators do not charge interest: they profit from reselling farmers' produce and bear no risk in the event of crop failure. Nonrepayment of these debts can lead to legal action that may force farmers to sell their land or even put their homes up as collateral, as they often have no other assets with which to secure loans.

These financing systems face structural challenges that limit their effectiveness:

- Rising input costs combined with low returns from selling crops contribute to debt accumulation and liquidity shortages, leaving farmers unable to cover production costs or cultivate their land.
- Agricultural loans and informal financing agreements transfer most of the risk onto the farmer.
- Farmers report a lack of diversity and awareness of financing options, in part due to the absence of a comprehensive, reliable database of available financiers and tools. As a result, many farmers are either unaware of their eligibility or do not know how to apply to interest-free loan programs. Weak institutional capacity within farmers' associations further limits their ability to prepare project proposals for funding.
- Coordination failures among government bodies, credit institutions, and CSOs exacerbate the structural challenges, resulting in duplication of support or loans for crops that cannot be irrigated due to water shortages.
- Power dynamics remain skewed toward private financiers and centralized institutions, leaving small-scale producers with little bargaining power and minimal involvement in identifying

financing priorities.

- Lack of follow-up and accountability after loans are disbursed, combined with the absence of transparency on default rates or their root causes, further undermine confidence in the system.

Limited risk mitigation tools further compound these challenges. Governmental steps are underway through the newly issued Agricultural Risk Mitigation Fund Law (2025), which restructures the former Agricultural Risk Management Fund (2009) to rebuild confidence among farmers and investors, yet challenges persist.⁸² The current amendments revise the membership structure and eligibility criteria, but the scope remains largely focused on climate-related risks, excluding other hazards such as fires (whether arson-related or natural). To access compensation, farmers must submit a claim through the Ministry of Agriculture's local governorate office. However, most farmers interviewed could only speculate about how to access the fund or what it covers; they were unaware of how to submit a claim. Although the 2025 amendments introduce broader coverage beyond frost damage, specialized technical committees to oversee assessment and disbursement, and higher compensation rates, including partial coverage for unregistered small-scale producers, their effectiveness in addressing farmers' needs and awareness gaps is yet to be assessed.

Land

Access to land, a central pillar of food sovereignty, is shaped by a complex and often conflicting system in Jordan. Questions remain around how much land is currently cultivated, how much is arable but unused, and what areas could be reclaimed for production. While only 4% of the Kingdom's total area (fewer than 4 million dunums) is officially classified as arable, the former Minister of Agriculture reported in 2020 that 25 million dunums were suitable for

82 UNDP, "Jordan Introduces Agricultural Risk Mitigation Fund Law to Strengthen Food Security and Climate Resilience", 6 August 2025, available at: <https://www.undp.org/jordan/press-releases/jordan-introduces-agricultural-risk-mitigation-fund-law-strengthen-food-security-and-climate-resilience>

production.⁸³ This stark discrepancy raises questions around whether official land classifications capture Jordan's agricultural potential, and what structural factors thwart cultivation. Accordingly, inadequate planning and cross-sectoral competition for land place producers in competition with capital, undercutting food sovereignty.

The protection of agricultural land as a national priority remains tenuous. The Law of Planning of Cities, Towns, Villages, and Buildings No. 79 of 1966 and Land Use Regulation No. 6 of 2007 largely centralize decision-making power among the Higher Planning Council. This body can recommend the reclassification of agricultural land, with the MOA limited to observer status despite the presence of other ministries with voting rights, and without representation from farmers and agricultural workers.⁸⁴ Fragmented governance among urban planning institutions – including the Higher Planning Council, regional councils, and the Jordan Valley Authority (JVA) – further undermines coordinated protection of arable land, leaving it vulnerable to conversion into nonagricultural uses.⁸⁵ This is reflected in the loss of around 47% of Jordan's arable agricultural land between 1997 and 2017, as well as 233,000 dunums lost to urbanization that are located in prime agricultural zones that receive over 350mm of rain annually.⁸⁶

The pressure to intensify production on a shrinking land base exacerbates degradation: 41%

of Jordan's land shows reduced productivity.⁸⁷ Responsibility for this is often shifted to farmers and Bedouin pastoralists, echoing historical colonial narratives that blamed “overgrazing” to justify land grabs.⁸⁸ This narrative bypasses the need to embed safeguards against the fragmentation of agricultural land and coordinate restoration efforts to accommodate the diverse land and tenure needs of Jordan's producers.

FGDs held in the Jordan Valley further revealed that inheritance-based subdivision and disputes over the dissolution of shared plots further compound fragmentation. These disputes intersect with gender relations, complicating tenure protections and highlighting the uneven distribution of risks and benefits within households and communities. While national strategies, including the Stakeholder Strategy for Land Governance, promote tenure security and participatory land governance among women and youth, mechanisms for implementation that are responsive to rural social relations and the root causes of rural dispossession are slow to be created.⁸⁹

State lands, comprising around 70% of Jordan, constitute a significant site of tension.⁹⁰ Despite national strategies promoting agricultural land reclamation, actors continue to face barriers to accessing state land to enhance local food production. The Department of Lands and Survey oversees state lands under the Real Estate Ownership Law No. 13 of 2019; it manages leasing, allocation,

83 Department of Lands and Survey, “Jordan's Cadastre”; Al-Mamlaka TV, “Minister of Agriculture: 25 million dunums constitute Jordan's agricultural land” (Arabic), 2020, available at <https://url-shortener.me/YDH>

84 “Law of Planning of Cities, Towns, Villages, and Buildings No. 79 of 1966”; “Land Use Regulation No. 6 of 2007”, Hashemite Kingdom of Jordan, available at <https://bit.ly/4qnXxPD>; Ministry of Agriculture & International Land Coalition, “Stakeholder Strategy for Land Governance”.

85 Diab, “Land, Housing and Property”.

86 Al-Ra'i, “Urban Sprawl: An Expanding Threat Encroaching on the Tranquility of Agricultural Lands” (Arabic), 4 July 2019, available at <https://alrai.com/article/10491955>; Ministry of Agriculture & International Land Coalition, “Stakeholder Strategy for Land Governance”.

87 Ministry of the Environment, “Final Country Report of the Land Degradation Neutrality Target Setting Programme”, Hashemite Kingdom of Jordan, 2018, available at https://www.unccd.int/sites/default/files/ldn_targets/2019-05/Jordan%20LDN%20TSP%20Country%20Report.pdf

88 Taraf Abu Hamdan, “Soil, Dirt, Earth: Deserts, Rural Communities, and Power in Jordan”, *Environmental Politics in the Middle East and North Africa*, Project on Middle East Political Science Studies, Vol. 46, May 2022, available at <https://pomeps.org/soil-dirt-earth-deserts-rural-communities-and-power-in-jordan>

89 Ministry of Agriculture & International Land Coalition, “Stakeholder Strategy for Land Governance”.

90 Dina Dahood Dabash, “Jordan Land Sector Assessment: Background Paper”, UN Habitat, 2023, available at https://arablandinitiative.glt.net/sites/default/files/2023-12/docs/jordan-land-sector-assessment_19.12.2023.pdf

and expropriation.⁹¹ However, its mandate rarely accounts for complex social relations around production, leaving renters, herders, and wage laborers underrepresented in tenure considerations. Notably, many farmers have rehabilitated, lived on, and cultivated such land for decades yet face legal limbo and penalization for encroachment.⁹²

These dynamics intersect with broader land expropriation legislation in Jordan. In addition to state land governance by the Department of Lands and Survey, both state and private land may be expropriated for projects deemed to serve “public utility” under the constitution. Moreover, the JVA is authorized by Article 21 of the Jordan Valley Development Law to expropriate and immediately acquire land shares within the Jordan Valley with the approval of the Council of Ministers.⁹³ However, the constitution stipulates that no property may be expropriated without “consideration of a just compensation”.⁹⁴

Yet, Real Estate Ownership Law No. 13 stands in contradiction to this: Article 192 authorizes expropriation of up to 25% of a lot without compensation for so-called “linear projects”.⁹⁵ Moreover, Article 186 fails to explicitly recognize compensation for tribal stewardship, customary tenure, or “illegal” occupation, cementing the relationship between people and land in terms of commodity-based individual ownership.

Consolidating more than 13 legislations and 19 bylaws, the law facilitates the elimination of joint ownership, streamlining land transactions, transforming miri (state) lands into Mamluka (private) lands, and incentivizing investment.⁹⁶

91 Department of Lands and Survey, “Jordan’s Cadastre”; “Real Estate Ownership Law (as amended in 2025)” (Arabic), Hashemite Kingdom of Jordan, available at <https://jordan-lawyer.com/2019/07/01/real-estate-law-jordan-year-2019/> (Jordan, “Real Estate Ownership Law”).

92 Diab, “Land, Housing and Property”.

93 “Jordan Valley Development Law”, Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor63018E.pdf> (Jordan, “Jordan Valley Development Law”).

94 The Constitution of the Hashemite Kingdom of Jordan, Article 11, 1 January 1952, available at https://istd.gov.jo/EBV4.0/Root_Storage/EN/EB_Pages/Constitution_of_the_Hashemite_Kingdom_of_Jordan.pdf (The Constitution of Jordan).

95 Jordan, “Real Estate Ownership Law”; Diab, “Land, Housing and Property”.

96 Jordan, “Real Estate Ownership Law”.

Article 96 permits dissolution of property by holders of at least three-quarters of the shares without requiring the consent of remaining or dissenting parties, provided that the remaining shares cannot be divided independently or collectively. With dissenting parties limited to buyouts or having their shares purchased at possibly depressed rates that may not reflect livelihood losses, this precludes just compensation for socioeconomically disadvantaged groups, including rural communities.⁹⁷

Recent amendments to the Real Estate Ownership Law facilitated foreign property ownership in specific areas for non-Jordanian Arab individuals, as well as non-Jordanian legal entities, companies, associations, political parties, charities, sports clubs, and religious associations.⁹⁸ This infusion of capital into Jordan’s land market is reflected in reports from many smallholder farmers, claiming that foreign buyers offered three to four times the standard price for their farmland. While some saw this as an opportunity to gain capital and repay debts, others refused to sell, fearing broader patterns of dispossession.

Dispossession is further manifested through the conversion of agricultural land to extractive use. This was poignantly displayed during interviews in Ghor es-Safi in the Jordan Valley, where an impending land expropriation was being advanced without information, due participation, or clear compensation from relevant bodies.

On 29-10-2025, the Council of Ministers ratified an expropriation request by the Department of Lands and Survey to acquire approximately 3,499 dunums of land in Ghor es-Safi and Ghor Fifa for a railway project that links the Arab Potash Mining Company’s facilities in Ghor es-Safi to the industrial port in Aqaba, as well as other “projects and purposes” of the company. Around 62% of the expropriated land (2,179 dunums) belongs to 76 families. The remaining areas – owned by institutional entities including the JVA and the ACC – have been leased to and cultivated by farmers and relied upon by agricultural workers for decades.

The environmental and social impact assessment conducted for the project failed to consult relevant actors, including affected agricultural communities, CSOs, and relevant ministries, including the MOA,

97 Diab, “Land, Housing and Property”.

98 Jordan, “Real Estate Ownership Law”.

adequately assess socio-economic impacts, or present its findings to the relevant competent committee, as required by the Environmental Classification and Licensing Regulation No. 69 of 2020.⁹⁹ Moreover, it became apparent that the railway route had been later relocated from the expropriation site to a new location. Despite this, the original expropriation decision remained in force in favor of the Arab Potash Company, where approximately 60% of shareholders are non-Jordanian entities.

For a decision that could sacrifice some of Jordan's most strategic and irreplaceable national agricultural land, as well as the livelihoods of many communities dependent on it, such oversights raise grave concerns.

Moreover, the dispossession of agricultural land in the Jordan Valley cannot be decoupled from the geopolitical position the valley has along Jordan's longest border with the Israeli occupation, where cross-border fires set by settlers and Israeli occupation forces to expand the Jordan Valley "buffer zone" have further constrained farmers' ability to access and cultivate their lands.

Water Governance for Agriculture

Jordan is widely recognized as one of the most water-scarce countries in the world; framing this scarcity solely as an imminent climate change crisis overlooks its social and political construction that has been shaped by transboundary water appropriation, overexploitation of groundwater, rising urban and industrial demand, weak infrastructure, and poor management.¹⁰⁰ Indeed,

the urgency of Jordan's water depletion and the accelerating impacts of climate change – seen in prolonged drought periods, intensified flash floods, and crop failure – cannot be ignored. Yet the struggle over water also cannot be reduced to assumptions of inevitable scarcity. Reclaiming the control, safety, use, and meaning of water requires confronting the colonial and neoliberal diversion of water from sovereign food production.

Groundwater remains the backbone of irrigation, supplying around 210 million m³ annually, followed by surface water and treated wastewater (increasingly relied upon), together accounting for the country's total irrigation supply. Although nearly half of the country's total water supply (48.6%) is used for irrigation, small producers bear the brunt of scarcity, facing unequal access to water and mounting pressure to abandon farming.¹⁰¹ Dominant policy narratives, reinforced by multilateral and donor organizations, frame agriculture as an inefficient water user and promote the reallocation of water toward urban and industrial use and export-oriented production: "The only way to cut the overdraft is to reduce agricultural use and increase water-use efficiency".¹⁰² This view overlooks food as a fundamental necessity. These narratives also persist despite systematic inefficiencies in Jordan's water infrastructure: in 2023, the Ministry of the Environment reported that only 70% of households were connected to the sewage system, indicating nonagricultural water losses.¹⁰³

The governance and legislative framework for water in Jordan is extensive and centralized. The Ministry of Water and Irrigation is responsible for national water policy, planning, and water resource management. Under its umbrella, the Water Authority of Jordan (WAJ), established by Law No. 18 of 1988, manages all water supply and wastewater services, acting

99 "Regulation No. 69 of 2020 Environmental Classification and Licensing made by virtue of Clause A of Article 5 of the Environment Protection Law No. 6 of 2017", FAOLEX Database, 2 June 2025, available at <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC225229>

100 Mohammad Al-Addous, Mathhar Bdour, Mohammad Alnaief, Shatha Rabaiah, and Norman Schweimanns, "Water Resources in Jordan: A Review of Current Challenges and Future Opportunities", *Water*, Vol. 15, no.21, 2023, available at <https://www.mdpi.com/2073-4441/15/21/3729>; Ministry of Water and Irrigation, "The National Water Strategy 2023-2040", available at: https://www.mwi.gov.jo/EBV4.0/Root_Storage/AR/EB_Ticker/National_Water_Strategy_2023-2040_Summary-English_-ver2.pdf (Ministry of Water and Irrigation, "National Water Strategy").

101 Ministry of Water and Irrigation, "National Water Strategy".

102 Liptrot and Hussein, "Between Regulation and Targeted Expropriation"; George T. Keith Pitman, "Jordan: An Evaluation of Bank Assistance for Water Development and Management", World Bank Operations Evaluation Department, 2004, p. 7, available at <https://documents1.worldbank.org/curated/en/288391468773738105/pdf/Jordan-An-evaluation-of-Bank-assistance-for-water-development-and-management.pdf>

103 Ministry of the Environment, "Jordan's Fourth National Communication on Climate Change", 2023, available at https://moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/jordans_4th_national_communication_report.pdf

as the operational arm of the ministry.¹⁰⁴ This law designates all water resources as state property; prohibits any work involving water or sewage without WAJ's approval; and authorizes licenses for groundwater extraction, well drilling, distribution of irrigation water to users, and the establishment of water user associations (WUAs). In parallel, the JVA, created under Temporary Jordan Valley Development Law No. 18 of 1977 (amended by Permanent Law No. 19 of 1988), holds a specialized mandate for the development and management of land and water resources including irrigation infrastructure within the Jordan Valley.¹⁰⁵

Underground Water Bylaw No. 85 of 2002 further affirms state control over groundwater, requiring licenses for extraction and defining the minimum land area and other conditions for licensing, as well as granting WAJ power to acquire public and private wells.¹⁰⁶ The Groundwater Sustainability Policy of 2016 sets priorities for the protection of groundwater recharge areas and includes restrictions on well licensing and conditions for government expropriation of water-use rights in the case of higher-priority purposes where compensation is provided.¹⁰⁷ More recently, a 2022 regulatory framework for drilling groundwater wells in the Jordan Valley established additional eligibility licensing requirements: it ties them to specific agricultural units and land ownership conditions, obligates farmers to provide financial guarantees, and allows JVA and WAJ staff to monitor usage.¹⁰⁸ Interviews with farmers indicate that well-drilling costs are prohibitive for small producers due to the high capital investment required. Many farmers who were driven by scarce water supply to assume this financial burden discovered that the well water had high salinity levels and required additional investment in desalination or treatment.

104 "Law No. 18 of 1988: Water Authority Law", Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor1338Eoriginal.pdf>

105 Jordan, "Jordan Valley Development Law".

106 Ministry of Water and Irrigation, "Underground Water Bylaw No. 85 of 2002", Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor63017E.pdf>

107 Ministry of Water and Irrigation, "Groundwater Sustainability Policy", Hashemite Kingdom of Jordan, 2016, available at: https://www.pseau.org/outils/ouvrages/mwi_groundwater_sustainability_policy_2016.pdf

108 "Foundations for Drilling Saline Ground Wells in the Jordan Valley Region of 2022" (Arabic), Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor212795.pdf>

Private sector actors also hold significant influence: the Arab Potash Company secured preferential water allocations in exchange for financing dam construction, while fertile land remains "thirsty".¹⁰⁹ Donors and international agencies exert strong influence by funding major water programs, often promoting agricultural technologies like hydroponics as the "savior" solution to water scarcity. However, these projects frequently fail to consider the local context and the needs of small farmers.¹¹⁰ The technologies are often expensive and difficult to maintain, leading to adoption failure when donor support ends. They require substantial freshwater to operate and are limited to certain crops in which Jordan is already self-sufficient, raising questions about how effectively such interventions contribute to achieving food sovereignty.

WUAs are becoming increasingly important as the JVA transfers distribution management to them.¹¹¹ However, they lack a dedicated legal framework specifically governing their operations and accountability mechanisms, increasing the risk of ineffectiveness or co-optation.¹¹² Each geographic area functions under different governing structures, and the local power dynamics are reflected within the associations, often reinforcing existing inequalities and further marginalizing small or impoverished farmers.

Where do small producers fit into this picture? Several factors complicate their water access. Strict legal requirements, such as the land ownership condition for well-drilling licenses, make it difficult

109 Shorouk Omar and Muadh Al Zurek, "Drinking water in the service of the potash industry in southern Jordan Valley: Factories 'watered' while farms left thirsty", ARIJ, 1 December 2023, available at <https://arij.net/investigations/southern-jordan-valley-en/>

110 Razan Zuayter, "The Illusion of Agricultural Technology in Marginalized Countries: Hydroponics in Jordan and the Arab World" (Arabic), Rai Al Youm, 6 September 2022, available at <https://bit.ly/48ZNyZE>

111 Jordan Times, "JVA signs 6 agreements to transfer water distribution management to associations", 1 March 2025, available at <https://jordantimes.com/news/business/jva-signs-6-agreements-transfer-water-distribution-management-associations>

112 Mohamed Hassan Tawfik, Hadeel Al-Zawaidah, Jaime Hoogesteger, Maha Al-Zu'bi, Petra Hellegers, Javier Mateo-Sagasta, and Amgad Elmahdi, "Shifting Waters: The Challenges of Transitioning from Freshwater to Treated Wastewater Irrigation in the Northern Jordan Valley", Water, Vol. 15, no. 7, 2023, available at <https://www.mdpi.com/2073-4441/15/7/1315>

for those cultivating state-owned or fragmented land to access groundwater. Water allocation often favors industrial users and large-scale projects, leaving small producers to compete for limited resources while facing stricter administrative and legal barriers, higher costs including electricity expenses to operate water pumps, and potential fines. The situation is further exacerbated by climate-induced increases in evaporation and deteriorating water infrastructure, with 50% of water lost to leaks and inefficiencies.¹¹³ Consequently, water-related debts to national institutions place additional pressure on smallholder farmers, who may also rely on costly informal water sources.

In addition, the deterioration of surface water quality due to pollution – such as in the case of King Talal Dam – can negatively affect crop quality, often forcing farmers to adopt alternative treatment methods at additional cost.¹¹⁴ Among the 70 farmers surveyed, 17% reported poor water quality and 61% said irrigated water was of medium quality. Small producers and farmers also reported that gaps in information and limited public transparency regarding distribution schedules and water availability hinder effective planning. Most respondents (76%) reported receiving insufficient water for irrigation; some attributed this to scarcity and climate change, while others pointed to reduced water allocations and inequitable distribution from the JVA.

These challenges cannot be understood in isolation from the broader geopolitical context. Around 40% of Jordan's water resources are transboundary, including surface and groundwater sources such as the Yarmouk River basin shared with Syria, the Disi

aquifer shared with Saudi Arabia, and the Jordan River basin usurped by the Israeli occupation.¹¹⁵ While bilateral agreements exist to govern these shared resources, violations undermine Jordan's rightful access. In the case of the Disi aquifer, a history of unequal extraction for export-oriented agricultural production coupled with Saudi Arabia's technological and capital advantage has accelerated the depletion of this nonrenewable groundwater source.¹¹⁶ The Israeli occupation maintains a hydro-hegemony over Jordan's water resources through a range of strategies. Reports and official confirmations remain ambiguous, but evidence indicates continuous violations of the 1994 Wadi Araba Treaty. One report asserted that the occupation usurps between 600 and 700 million m³ of water annually from the Jordan River and its tributaries, largely through the Israeli National Water Carrier's diversion of water to the Naqab desert to serve its colonial projects.¹¹⁷ This control has also been reinforced through the building of dams on the lower Jordan River such as the Degania Dam and the Alumot Dam. The occupation has extracted groundwater from the al-Ghamr area unchecked, leading to numerous natural wells drying up. In addition, the occupation has on several occasions delivered polluted water to Jordan, with documented cases in 1998 and 2009.¹¹⁸

Moreover, wastewater and agricultural waste are discharged into the river, compounding its decline.¹¹⁹

113 Economic and Social Commission for Western Africa, "Vulnerability assessment of the water sector to climate change in Jordan", Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region, 2022, available at <https://www.unescwa.org/sites/default/files/pubs/pdf/vulnerability-assessment-water-sector-climate-change-jordan-english.pdf>; Ministry of Water and Irrigation, "Jordan Water Sector Facts and Figures", 2022, available at https://www.mwi.gov.jo/ebv4.0/root_storage/ar/eb_list_page/jordan_water_sector_-_facts_and_figures_2022.pdf

114 Mamoun A. Gharaibeh, Ammar A. Albalasmeh, and Mohammad M. Obeidat, "Assessment of Water Quality of Key Dams in Jordan for Irrigation Purposes with Insights on Parameter Thresholds", *Water*, Vol. 16, no. 12, 2024, available at <https://www.mdpi.com/2073-4441/16/12/1726>

115 Kathryn Cheeseman, "Water Resource Management in Jordan: An Annotated Bibliography", K4DD Rapid Evidence Review 200, 2025, available at <https://doi.org/10.19088/K4DD.2025.031>

116 Connor Mullen, Marc F. Müller, Gopal Penny, Fengwei Hung, and Diogo Bolster, "Hydro economic asymmetries and common-pool overdraft in transboundary aquifers", *Water Resources Research*, 58, 2022, available at <https://doi.org/10.1029/2022WR032136>

117 Ammon News, "Israel supplies Jordan with polluted water"; Mark Zeitoun, Karim Eid-Sabbagh, Michael Talhami, and Muna Dajani, "Hydro-hegemony in the Upper Jordan waterscape: Control and use of flow", *Water Alternatives*, Vol. 6, no.1, February 2013, available at

118 Annika Kramer, "Challenges to Water Cooperation in the Lower Jordan Basin", in *Water Resources Planning and Management*, R.Q. Grafton and K. Hussey, eds., Cambridge University Press, 2011.

119 Munther J. Haddadin, ed., *Water resources in Jordan: Evolving policies for development, the environment, and conflict resolution*, Routledge, 2006, available at <https://doi.org/10.4324/9781936331604>

Against this backdrop, Jordan purchased additional water from the Israeli occupation, effectively buying back its stolen resource.¹²⁰ This theft is starkly visible in the occupation's literal drying of the Dead Sea.¹²¹ In the face of this, the Israeli occupation continues to expand its settler-colonial project, growing its control over land and resources and leveraging water dependency to push for normalization projects. One such example was the 2022 "water-for-energy" deal, advanced by EcoPeace Middle East, which faced widespread opposition in Jordan, leading to the consequent cessation of the deal.¹²²

Cultivation Stage

Seeds

While efforts are being made to improve access to and management of seeds in Jordan, farmers still struggle with access to quality seeds amid increasing prices, reduced awareness, and impacts of climate change.

Although the Department of Statistics provides an accessible database that tracks agricultural prices over time, the data does not distinguish between seed types, such as hybrid or heirloom, nor between imported and domestically produced varieties.¹²³ While farmers and market traders voice concern over rising seed costs, local seed producers maintain that prices remain affordable for smallholder farmers.

Legal and regulatory pathways do exist to monitor and place controls on seed prices. Competition Law No. 33 of 2004 indicates the government can,

in theory, regulate seed prices under Article 4(B).¹²⁴ The Council of Ministers may temporarily impose price controls in exceptional situations, such as the approval of seed price controls for the 2025-2026 season to encourage barley and wheat cultivation.¹²⁵

While providing critical support for farmers, such measures tend to be implemented without a systematic plan to strengthen local production of staple crops. Small farmers in particular claim that wheat and barley cultivation is challenging to maintain due to increasing economic vulnerability, diminishing access to water supplies, and foreign competition. During the multi-actor consultation, a wheat expert affirmed that not only is wheat heavily subsidized in the country of origin, such as the US and EU, but there are also critical concerns regarding the quality and nutritional value of imported wheat, which can sometimes be "older than five years or nearly expired".¹²⁶

Over the past decade, Jordan's seed production industry has grown significantly, from six companies in 2011 to more than 36 in 2023.¹²⁷ In February 2025, when questioned on the rising price of imported tomato seeds, the former Minister of Agriculture acknowledged a gap in price control, but qualified this by highlighting Jordan's global market competitiveness in exporting 80% of its domestic seed production to 50 countries.¹²⁸ This reveals that seed production is largely oriented toward export markets while smallholder farmers struggle to access and adopt locally produced hybrid seeds.

In our field research survey of 46 smallholder farmers, 71% preferred hybrid seeds over heirloom varieties. In a follow-up question answered by only 14 farmers, 10 indicated a preference for

120 Mohammad Ersan, "Can Jordan ever escape Israel's grip on water resources?", The New Arab, 13 March 2024, available at <https://www.newarab.com/analysis/can-jordan-ever-escape-israels-grip-water-resources>

121 Philippe Pernot, "'They steal and humiliate us': Why water is at the centre of Jordan-Israel tensions", The New Arab, 21 December 2023, available at <https://www.newarab.com/analysis/why-water-centre-jordan-israel-tensions>

122 Arab Group for the Protection of Nature, "Fact Sheet: Water-For-Energy Deal: The Enemy's Water is Occupation", Jordan BDS, 2023.

123 Department of Statistics, "Average Price of Seeds, and Bulbs in The Kingdom by Kind and Crop 2017 – 2025", available at Average Price of Seeds, and Bulbs in The Kingdom by Kind and Crop 2017 - 2025

124 "Competition Law No. 33 of 2004", Hashemite Kingdom of Jordan, available at [https://www.mit.gov.jo/ebv4.0/root_storage/en/eb_list_page/competition_law_no_\(33\)_of_the_year_2004.pdf](https://www.mit.gov.jo/ebv4.0/root_storage/en/eb_list_page/competition_law_no_(33)_of_the_year_2004.pdf)

125 Jordan News Agency, "'Agriculture': Start of Receiving Locally Produced Wheat and Barley Crops", 21 July 2025, available at: <https://sl1nk.com/z3nrhgz>

126 Multi-actor Consultation, Amman, 24 August 2025.

127 The Jordan Times, "Jordan's seed exports reach 65 countries globally, Hneifat", 13 July 2023, available at <https://jordantimes.com/news/local/jordans-seed-exports-reach-65-countries-globally-%E2%80%94-hneifat>

128 Arif Al-Saaida, "Tomato seeds in Jordan are more expensive than gold" (Arabic), Khabarni, 17 February 2025, available at <https://www.khabarni.com/news/694699>

imported hybrid seeds rather than locally produced hybrids. Domestically produced hybrid seeds could offer a more economically viable option to increasingly expensive imports. However, limited farmer awareness alongside strong competition from established international and regional companies has prevented national producers from becoming the default and most accessible option for smallholder farmers. Farmers also cite limited time and financial capacity to experiment with alternative varieties. Interviews and surveys highlight that labeled seed packets with clear usage information often cost more, motivating some smallholders to buy cheaper, unlabeled seeds from local markets. These seeds sometimes fail, yet economically vulnerable farmers report having no alternative amid limited capital, extension support, and mechanisms of redress.

The issue of transparency of origin is further compounded by gaps in regulation and screening of cross-border seed imports. For instance, while Jordan is not formally listed among the Israeli occupation's major seed export markets, farmers in the Jordan Valley have reported the use of defective Israeli seeds and seedlings obtained through unofficial channels and called for stricter cross-border monitoring¹²⁹. Not only does this fracture mechanisms of redress for defective seeds, but it also raises concerns around normalizing agricultural relations with the Israeli occupation, as expressed by Jordanian farmers and agricultural organizations.¹³⁰

Farmers also reported the financial burden of being locked into the seasonal repurchase of hybrid seeds to avoid potential productivity losses if they are replanted. The lack of targeted research around the potential reuse of hybrid seeds creates an information gap that corporate actors leverage to ensure ongoing demand.

Amid increasing corporate control and the privatization of agricultural knowledge, an often-

overlooked gap lies in public awareness of GMOs. Jordan's regulatory framework restricts the entry and use of GMO seeds into the market and mandates the registration of imported vegetable seed varieties to ensure compliance. For example, Article 10 of Instructions No. Z/13 of 2022 requires the seeds registration applicant to provide "a certificate confirming that the seedlings and seeds are non-genetically modified, including their trade name, and issued no more than one year prior to the date of receipt".¹³¹ Furthermore, Organic Agriculture Bylaw No. 31 of 2024, issued under Agriculture Law No. 13 of 2015, prohibits the use of GMOs or materials derived from them.¹³² In 2018, however, the Food and Drug Affairs Committee recommended easing the existing import ban on GMOs following lobbying efforts by American agricultural representatives. CSOs led by APN protested the decision and successfully maintained the restrictions.¹³³

Despite this regulatory framework and civil society advocacy, studies reveal gaps in transgenic material screening and phytosanitary standard monitoring. A 2020 study detected GMO material in corn seed samples in Jordan that was derived from the cauliflower mosaic virus commonly used in genetic engineering technology.¹³⁴

For imported potato seeds, instructions were revised to remove the requirement for laboratory testing in Jordan, though visual inspections and phytosanitary certificates from the country of

129 Ola Abdel Latif, "Farmers Confirm and 'Agriculture' Denies Importing Diseased Israeli Seeds", Al-Ghad, 17 October 2011, available at <https://ammanxchange.com/art.php?id=42b5249f6a73b57d3e2875bba524833e28ee212d>

130 Sarah Abu-Saad, "Agricultural Sector Opposes Hniefat on 'Taking Advantage' of Israeli Relations", Jordan News, 18 January 2022, available at <https://www.jordannewsjo/Section-109/News/Agricultural-sector-opposes-Hniefat-on-taking-advantage-of-Israeli-relations-12038>

131 "Instructions No. (Z/13) of 2022 Instructions of Registration Conditions and Procedures of Vegetable Seeds and their Origins (Imported and Locally Produced) including their Production and Trading Conditions issued under Clause 17.B and 18.b of Agriculture Law No. 13 of 2015 (as amended)" (Arabic), Hashemite Kingdom of Jordan, available at <https://www.agroberichtenbuitenland.nl/documenten/2022/07/18/jordan-new-seed-registration-instructions>

132 "Organic Agriculture Bylaw No. 31 of 2024, issued under Agriculture Law No. 13 of 2015" (Arabic), Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor232353.pdf>

133 ARIJ, "Jordan: Groups protest import of GMOs", 26 June 2018, available at <https://en.arij.net/news/jordan-groups-protest-import-of-gmos/>

134 Abeer Aburumman, Hussein Migdadi, Muhanad Akash, Aayed Al-Abdallat, Yaser Hassan Dewir, Muhammad Farooq, "Detection of genetically modified maize in Jordan", GM Crops & Foods, Vol. 11, no. 3, 2020, available at <https://doi.org/10.1080/21645698.2020.1747353>

origin are mandatory.¹³⁵ While intended to minimize delays, this revision leaves smallholders vulnerable to defective or diseased imports with limited recourse, as affirmed by farmers left to deal with defective potato tubers.

Finally, farmers have expressed growing concern over the impacts of climate change on seed quality and productivity. While national strategies acknowledge these challenges and include objectives to promote high-yield, drought-resistant, and salinity-resistant plant varieties, as outlined in the Green Growth National Action Plan, these goals have yet to be translated into concrete actions.¹³⁶

National efforts are underway to enhance self-sufficiency in seed and sapling production while preserving local and indigenous plant varieties. The national seed storage unit established in 1993 at the National Agricultural Research Center aims to conserve “native plant heritage with a focus on plant genetic resources for food and agriculture”.¹³⁷ In 2025, the national seed bank was inaugurated as an extension of this unit within the framework of the National Plan for Sustainable Agriculture, the National Food Security Strategy, and the Economic Modernization Vision.¹³⁸ The seed bank would strengthen food security by preserving crop diversity, combining local conservation efforts with foreign knowledge exchange. Complementing these initiatives, a government-supported initiative is establishing a local laboratory for potato seed production to reduce import dependency. However, as several interviewees and small producers emphasized, the extent to which such efforts will translate into tangible improvements for farmers on the ground remains unclear.

135 Jordan, Instructions No. (Z/13) of 2022.

136 Ministry of the Environment, “Agriculture Sector Green Growth National Action Plan 2021-2025”, 28 October 2020, available at <https://www.sustainability.gov/pdfs/ggi-jordan-agriculture.pdf> (Ministry of the Environment, “Agriculture Sector Green Growth”).

137 National Center for Agricultural Research, “National Seed Bank”, available at https://www.narc.gov.jo/EN/Pages/National_Seed_Bank

138 Jordan, “National Plan for Sustainable Agriculture”; Jordan, “National Food Security Strategy”; Ministry of Planning, “Jordan’s Economic Modernization Vision 2030”, 2023, available at https://www.mop.gov.jo/EBV4.0/Root_Storage/EN/EB_HomePage/vision-en.pdf (Ministry of Planning, “Jordan’s Economic Modernization Vision”).

Fertilizers and Pesticides

For some farmers, the following interrelated structural drivers limit their capacity to reduce chemical fertilizer and pesticide use to adopt viable biobased and organic alternatives:

- the weakening of public agricultural support;
- the increasing prevalence of pesticide-resistant pests due to repeated pesticide use;
- the pressure to reduce risk of crop failure in an increasingly competitive and liberalized market system;
- inactive regulatory frameworks; and
- the lack of farmers’ capacity to effectively diagnose diseases and transition toward sustainable pest management.

Field visits across the Jordan Valley revealed serious constraints that farmers face in accurately diagnosing pests or diseases affecting their crops. A striking example from the 2025 agricultural season was the farmers’ varied understandings of an outbreak of a pest that disrupted watermelon growth. In the southern Jordan Valley, several farmers attributed the problem to corrupted saplings from the nursery itself, while others in the north believed it was a lack of water. Interviews with experts, including an organic farm owner and seed expert, stated that it was an aphid outbreak.

Ongoing deficiencies in public diagnostic processes and knowledge-sharing mechanisms reflect systemic gaps in technical extension services. Farmers cited inconsistent visits from extension agents; as a result, private actors would recommend expensive pesticides without proper diagnosis. One farmer cultivating bananas recounted losing his entire crop after a local company advised using costly and inappropriate chemical pesticides. Most farmers linked excessive pesticide use with soil degradation and decreased production.

The challenge of distinguishing corrupted saplings from pest infestation alongside unresolved debts with agricultural suppliers leaves farmers reluctant to pursue any form of redress. However, compensation mechanisms exist. One agricultural association head recounted that a farmer received compensation after documenting infested saplings, and a local governor noted that collective legal claims could be pursued.

Regarding the production of agrichemical inputs, while Jordan is a major fertilizer producer, supply is prioritized for export markets, with exports reaching US\$1.38 billion in 2024.¹³⁹ As one farmer noted during the multi-actor consultation, they were unable to access local fertilizers for the season, highlighting the extent to which production is oriented toward export rather than domestic agricultural needs.

Jordan has a broad set of laws and regulations governing soil protection and pesticide and fertilizer use, but enforcement remains limited, with controls including random farm inspections for pesticide-use violations and residue testing of produce at the Amman Central Market.¹⁴⁰ The issue is usually framed as one of farmer behavior, with enforcement relying on inspections and fines; this fails to address the structural constraints that perpetuate dependency on chemicals that impact crops, animal products, and soil quality.¹⁴¹ For example, Instruction No. G/4 of 2022 – regulating the registration, import, and trade of pesticides and biological control agents – prohibits the registration of microbial biopesticides containing more than one active ingredient, effectively restricting the trade of locally produced or organic alternatives.¹⁴² Interviews with regulatory officials confirmed that lobbying by pesticide importers continues to influence these processes. This dynamic has

also revealed the double standard in international regulation and enforcement; countries that have banned certain pesticides domestically, including in the EU, continue to export them abroad.¹⁴³

While there are regulations that recognize the need for sustainable transitions, measures to support them remain inadequately implemented. Jordan's National Climate Change Policy identifies tax exemptions on organic fertilizers and biopesticides as an indicator of policy formulation for addressing soil erosion and land degradation, yet it is unclear whether such exemptions have been implemented.¹⁴⁴ Likewise, Article 5 in the instructions for registration, production, import, and sale of agricultural fertilizers and plant growth regulators permits production of organic fertilizers from poultry, cattle, and plant waste, but price disparities make domestic use costly.¹⁴⁵ While initiatives like the EU-funded “Decentralized Composting in Small Towns” project promote organic composting, they often function as tokenistic, small-scale pilots confined to urban settings, excluding rural smallholders who could benefit from localized input cycles.¹⁴⁶

Recent policies, such as the Organic Agriculture Bylaw No. 31 of 2024, mark a growing institutional interest in organic farming and agroecological

139 Trading Economics, “Jordan Exports of Fertilizers”, 2024, available at <https://tradingeconomics.com/jordan/exports/fertilizers>

140 Soil Protection Regulation No. 25 of 2005 assigns responsibility for soil protection and the management of agricultural chemicals to the Ministry of the Environment.

141 Jihad Al-Hawadi, “Banned organochlorine pesticides still in our food: the presence of organochlorine pesticide residues in milk, meat, liver, and kidney in Jordan cattle”, *Systematic Reviews in Pharmacy*, Vol. 11, no.11, November 2020, available at https://www.researchgate.net/publication/350453199_Banned_Organochlorine_Pesticides_Still_in_Our_Food_The_Presence_of_Organochlorine_Pesticide_Residues_in_Milk_Meat_Liver_and_Kidney_in_Jordan_Cattle; Ghaith Radwan Algharibeh and Malik Salah AlFararjeh, “Pesticide residues in fruits and vegetables in Jordan using liquid chromatography/tandem mass spectrometry”, *Food Additives & Contaminants: Part B, Surveillance*, Vol. 12, no. 1, 2019 available at <https://doi.org/10.1080/19393210.2018.1548505>

142 “Instructions No. (Z4) of 2022 on Registration, Import, Marketing and Trade of Pesticides and Biological Agents under Agriculture Law No. 13 of 2015 and its amendments” (Arabic), Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor219677.pdf>

143 Crispin Dowler, “Interactive map: the EU’s banned pesticide trade”, *Unearthed*, 16 December 2025, available at <https://unearthed.greenpeace.org/2025/12/16/interactive-map-eu-banned-pesticide-trade/>; One report identified 88 highly hazardous pesticides in use in Jordan as of 2020: Land and Human to Advocate Progress, “Jordan National Situation Report on Highly Hazardous Pesticides (HHPs)”, August 2020, p. 14, available at https://ipen.org/sites/default/files/documents/final_jordan_national_situation_report_on_hhps_28_august_2020.pdf

144 Hashemite Kingdom of Jordan, “National Climate Change Policy of the Hashemite Kingdom of Jordan, 2022-2050”, September 2022, available at <https://www.undp.org/sites/g/files/zskgke326/files/2023-03/National%20Climate%20Change%20Policy%20of%20the%20Hashemite%20Kingdom%20of%20Jordan%202022-2050.pdf>

145 “Instructions for the Registration, Production, Importation, Analysis, and Sale of Agricultural Fertilizers and Plant Growth Regulators, and Their Amendments No. (6/Z) of the Year 2021, issued pursuant to Article 20 of the Agriculture Law and its amendments No. 13 of the Year 2015” (Arabic), Hashemite Kingdom of Jordan, available at <https://bit.ly/48O1g33>

146 Ministry of Agriculture, “Agricultural Projects” (Arabic), 2019, available at <https://moa.gov.jo/AR/ListDetails/>

practices.¹⁴⁷ However, both experts and farmers confirmed that certification processes remain inaccessible and impose prohibitive standards. Moreover, the inability of small farmers to transition is compounded by their limited capital and capacity to experiment with and adopt alternative practices. Capacity here refers not only to knowledge but also to access to time, land, and the security necessary for trial and error. Interviews with organic producers highlighted how organic farms function as critical spaces of experimentation, restoring locally grounded knowledge beyond the rigid standards of European organic certification.

The FFS approach was originally designed by the Food and Agriculture Organization to strengthen integrated pest management (IPM), and emphasized biological control, crop rotation, and reduced reliance on chemical pesticides. It was first introduced in Jordan through an initiative launched by APN in 2005 to support smallholders in meeting IPM certification standards. However, over time, the implementation of FFS by national and international actors diverged from its original purpose, shifting toward general themes such as water efficiency and productivity, and covering fragmented topics with little relevance to farmers' immediate pest management needs. This shift illustrates how externally driven interventions can detach from local realities. The absence of a dedicated national mechanism to coordinate, monitor, and promote IPM adoption and limited civil society engagement have further constrained progress.

Labor

The legal and structural marginalization of agricultural workers in Jordan has effectively turned agricultural labor into a site of cost-cutting in an input-intensive and globalized agricultural economy. While agricultural workers were excluded from Jordan's initial labor law passed in 1960, protections were incrementally extended, most notably through the 2008 repeal of their exclusion from the labor law.¹⁴⁸ In 2021, a separate regulation for agricultural workers was issued,

Agricultural Workers' Regulation No. 19 of 2021 (amended in 2025), outlining wages, working hours, leave, employer obligations, and social security provisions.¹⁴⁹ However, as a separate regulation, it faces obstacles to its activation, enforcement, and effective institutional integration.

Building on legal analyses by Tamkeen, the Phenix Center for Economic & Informatics Studies, and Porticus, our field research confirms the institutionalization of precarity as a defining feature of agricultural labor.¹⁵⁰ Critically, Article 12 of the Agricultural Workers' Regulation requires employers "involve their agricultural workers in the insurance schemes covered by the provisions of the Social Security Law".¹⁵¹ This move is undermined without amending Article 4 of the Social Security Law, which excludes "irregular" workers, defined as those who work less than 16 days a month or those who are not paid monthly.¹⁵² This exclusion would then appear to raise uncertainties around the social security rights of the around 38% of hired labor categorized as "casual" in 2019 across crop and livestock production – we assume "casual" and "irregular" are the same according to their respective formal definitions.¹⁵³

Further, Article 59 of the Social Security Law (as per a 2023 amendment) restricts agricultural

147 Jordan, "Organic Agriculture Bylaw No. 31 of 2024".

148 Tamkeen, "An Overview of the Agricultural Workers Regulation No. (19) of 2021 and Key Insights", 2024, available at <https://tamkeen-jo.org/sites/default/files/2024-12/An-Overview-of-the-Agricultural-Workers-Regulation-No.-19-of-2021-and-Key-Insights.pdf> (Tamkeen, "An Overview of the Agricultural Workers Regulation").

149 "Regulation No. (19) of 2021: Regulation of Agricultural Workers", Hashemite Kingdom of Jordan, available at [https://www.mol.gov.jo/EBV4.0/Root_Storage/EN/EB_List_Page/Regulation_No_\(19\)_of_2021_Regulation_of_Agricultural_Workers_Issued_pursuant_to_Paragraph_\(B\)_of_Article_\(3\)_of_the_Labor_Law_No_\(8\)_1996.pdf](https://www.mol.gov.jo/EBV4.0/Root_Storage/EN/EB_List_Page/Regulation_No_(19)_of_2021_Regulation_of_Agricultural_Workers_Issued_pursuant_to_Paragraph_(B)_of_Article_(3)_of_the_Labor_Law_No_(8)_1996.pdf) (Jordan, "Regulation No. 19").

150 Tamkeen, "An Overview of the Agricultural Workers Regulation"; Phenix Center for Economic & Informatics Studies, "Improving Working Conditions for Workers in the Agricultural Sector in Jordan", 2024, available at http://labor-watch.net/uploads/en_labor-watch_net_638759158451952315.pdf (Phenix Center, "Improving Working Conditions").

151 Jordan, "Regulation No. 19".

152 Phenix Center, "Improving Working Conditions"; Social Security Corporation, "Social Security Law: Law No. (1) for the year 2014 and its amendments According to the latest amendments until April 16, 2023", Hashemite Kingdom of Jordan, available at <https://www.ssc.gov.jo/wp-content/uploads/2025/02/law-26.1.2025-compressed.pdf> (Social Security Corporation, "Social Security Law").

153 Department of Statistics, Agricultural Statistics Bulletin, Hashemite Kingdom of Jordan, 2019, available at https://dosweb.dos.gov.jo/DataBank/Agri/Agr_2019.pdf

workers' coverage to work injuries and maternity insurance alone, narrowing an already structurally flawed protection scheme.¹⁵⁴ From consultation with CSOs active in this space, we learned that state inspection capacities remain critically under-resourced, limiting enforcement of even minimal protections. For the smallholders we interviewed, operationalizing labor rights is financially unfeasible without state support to supplement the cost. With corporate agribusinesses better positioned to finance social security provisions, uneven enforcement procedures could edge out the competition of small-scale farmers.

Many smallholder farmers expressed a sense of helplessness in their limited ability to support workers in times of injury. One farmer recounted that after a snakebite, the only help he could offer was to drive the worker to the hospital. "There is no compensation, only private insurance", which remains unaffordable for many. Transportation to the worksite also carries risk: workers relayed several accidents during transit on overcrowded and unlicensed vehicles. In the field, workers face heatstroke, dehydration, and injury; respiratory illnesses and poisoning from prolonged work in greenhouses and pesticide exposure are slow-developing harms. The implementation of the Agricultural Workers' Regulation is further complicated by the network of unregulated intermediaries (shawish) who have emerged amid the retraction of state financial and agricultural extension support. Shawish mediate relationships between employer and employee, facilitating work opportunities as well as access to production inputs. They tend to operate in the absence of labor contracts through which workers can claim labor rights.¹⁵⁵ Repeated attempts to license an independent union have been blocked despite Article 23 of the constitution requiring that the state enable free trade union organization.¹⁵⁶ Several workers we spoke with expressed reluctance to join informal independent agricultural workers unions. While the Jordan Valley Farmers Union – as a formal entity – is a key stakeholder in sectoral dialogue, farmers pointed to the union's tendency to reduce agricultural struggles into issues of market access. The root causes of labor rights violations tend to

slip through the cracks.

Between 2019 and 2023, the International Labour Organization's PROSPECTS project sought to influence legislation by supporting the inclusion of agricultural workers under the General Trade Union of Water, Agriculture, and Food Industry as an interim step toward forming a dedicated agricultural union.¹⁵⁷ However, the workers we engaged with expressed unease around membership under this union, fearing the further dilution of their voices. Additionally, Article 98(e) of the labor law excludes non-Jordanian nationals from founding employee associations, further rendering a large segment of the workforce structurally disadvantaged.¹⁵⁸

Understanding the national composition of Jordan's agricultural labor force is complicated by the absence of a comprehensive registry of agricultural workers. While non-Jordanians are said to comprise 43.7% of Jordan's hired agricultural labor force as of the 2019 agricultural census, our field research uncovered numerous accounts of unregistered Jordanian and non-Jordanian laborers.

In the context of this, the precarity experienced by migrant laborers is further institutionalized through Jordan's sponsorship or kafala system that binds workers to the contractual terms laid out by sponsors. The power asymmetry is partly sustained by work permit renewals that can be submitted in a worker's absence, and fees that sponsors can extract in exchange for travel and employment.¹⁵⁹ Here, our field research revealed a concerning pattern wherein migrants paid sponsors for employment agreements that never materialize in work upon arrival. Stories also revealed employers leveraging bureaucratic loopholes to trade employee contracts and exceed migrant labor quotas.

The informalization of agricultural labor has further reorganized work along gendered lines. The exodus of Jordanian male workers has also led to

154 Phenix Center, "Improving Working Conditions"; Social Security Corporation, "Social Security Law".

155 Phenix Center, "Improving Working Conditions".

156 The Constitution of Jordan.

157 International Labour Organization, "Agricultural workers take their first step towards unionization in Jordan", 3 October 2022, available at <https://www.ilo.org/resource/news/agricultural-workers-take-their-first-step-towards-unionization-jordan>

158 "Jordanian Labour Law No. (8) of 1996 and its Amendments", Hashemite Kingdom of Jordan, available at [https://jtgcu.org/ebv4.0/root_storage/ar/eb_list_page/jordanian_labour_law_no._\(8\)_of_1996_and_its_amendments.pdf](https://jtgcu.org/ebv4.0/root_storage/ar/eb_list_page/jordanian_labour_law_no._(8)_of_1996_and_its_amendments.pdf)

159 Phenix Center, "Improving Working Conditions".

an increase in Jordanian female workers. Farmers highlighted during FGDs how female laborers were preferred for their work ethic and precision, as well as being able to employ them at lower wages due to gendered valuation of labor. Field interviews revealed accounts of women going into labor while harvesting, underscoring the inaccessibility of maternity leave. The lack of water, sanitation, and hygiene infrastructure bears further harm for women, whose biological and cultural needs are routinely discounted. This is a cross-generational reality. One farmer noted: “Women are now working the fields until their 80s, even 90s, because they have no other option,” referring to the lack of retirement funds and increasing debts. Amidst this, female farmers and workers have formed coalitions alongside local civil society to assert and negotiate their rights in the field.

Research into indebtedness often focuses on male farmers; however, our field research confirms an emerging class of female debtors who take out loans in their own names when male relatives are no longer eligible. Shouldering financial risk compounds their vulnerability and intersects with a culture of shame. During FGDs, female agricultural workers discussed how shame does not emerge from working the land, but rather from being stripped of land through expropriation or default and being bound as laborers through relations of indebtedness to intermediaries and employers. In this increasingly common condition of familial indebtedness, family labor remains a necessity for rural households.

Given that family labor constitutes a vast majority of agricultural labor in the Kingdom, children may participate alongside their family members in agricultural work.¹⁶⁰ It is important to avoid framing child labor as an inherently exploitative practice, considering it is a longstanding feature of rural social reproduction. Yet our interviews with local civil society indicate that it can become a market-induced survival strategy amid prohibitive input costs, cyclical indebtedness, and decreased state support. It was therefore unsurprising that FGDs

revealed a decline in youth interest in agriculture compared with other sectors given its lack of protection. Agricultural work was often discussed as an unviable income source since small-scale farmers struggle to maintain their livelihoods. This is pushing families to preemptively sell land, further fracturing Jordan’s productive land base.

Post-harvest Stage

Food Processing

Food processing is a vital pillar of food sovereignty, anchoring the production of value-added and preservable foods within local supply chains and opening the scope for import substitution and regional trade. The food industry sector currently meets roughly 50% of the local market demand, indicating existing capacity and significant growth potential.¹⁶¹

Bilateral donors and development agencies have invested heavily in this space, particularly through support to small- and medium-sized enterprises that nonetheless overlook what small producers consistently identify as a structural problem of unequal access to processing and production facilities. Most notably, only home-based businesses within the Greater Amman Municipality were required to register and obtain a license. USAID’s LENS project supported extending home-based business registration to all municipalities to facilitate their integration into the formal market.¹⁶² Such initiatives tend to reduce the development of Jordan’s food processing sector to promoting formal market integration for microprocessors, framing the informal market as the main obstacle. This overlooks the key structural drivers of market liberalization – which have allowed large, established actors to consolidate control over infrastructure, capital, and processing policy – and the marginalization of rural collectives that could pool resources to challenge this concentration of power.

Jordan’s Economic Modernization Vision calls to “expedite elimination” of the “food processing shadow market” and promote “vertical integration”,

160 Tamkeen, “The Status of Jordan’s Agriculture Sector”, December 2024, available at <https://tamkeen-jo.org/sites/default/files/2024-12/The-Status-of-Jordans-Agriculture-Sector.pdf>; Jordan Ministry of Agriculture, “Sector Plan for Agricultural Extension 2024–2030”, 2024, available at <https://faolex.fao.org/docs/pdf/jor230564E.pdf>

161 Jordan, “The National Food Security Strategy”.

162 Local Enterprise Support Project, “Launch of the Home-Based Business Regulations – October 19, 2017”, available at <https://jordanlens.org/activity/launch-home-based-business-regulations-october-19-2017/>

meaning the consolidation of multiple stages of the agrifood supply chain under larger firms' control, typically through contracting arrangements that centralize capital and agricultural decision-making.¹⁶³ Without state-supported marketing platforms, such interventions raise concerns about how smaller enterprises and producers can maintain their autonomy or domestic food production when entering contracts with large-scale companies oriented toward exports. The risks of contractual asymmetry are exacerbated by the lack of targeted and effective union representation for small producers resilient to corporate capture.

These dynamics extend into livestock and dairy processing, where smaller producers face constraints that emanate from vertically integrated supply chains. Small poultry and cattle farmers highlighted how major companies rely on their own contracted farms and slaughterhouses, leaving little room to purchase from small-scale producers. Because small producers lack liquidity, they are often unable to secure essential inputs such as D01 (Day-old) chicks, feed, or veterinary supplies since suppliers avoid farmers that are unable to pay upfront. Without strong cooperatives or union structures, producers cannot pool capital to reduce costs, negotiate fairer prices, or influence policy to compel bigger companies to purchase their produce through unions, limiting their ability to access processing channels.

Larger producers face their own structural challenges, including dependence on imported fodder and the tendency of state institutions to procure cheaper imported chicken instead of locally sourced. This dual reliance on foreign inputs and imported products further entrenches vulnerabilities across the sector.

Small-scale food processors also pointed to barriers that complicate the shift toward forming alternative local economies. Producers noted that compliance demands – such as contradictory requirements across multiple government entities, annual inspections, and the high cost of testing each product – create a prohibitive burden unless producers operate at scale. Minimum facility size requirements and the cost of certificates in particular hinder emerging enterprises looking to enter regional

markets. Existing regulatory frameworks shaped by obsolete industrial models fail to accommodate diversified, seasonal, and small-batch production or recognize its importance to cultural continuity and national food sovereignty.

Attempts to form a union of small producers revealed how fragmented incentives and individualistic behaviors shaped by exploitative market structures and the retraction of state support can undermine collective organizing. Case studies showed how wealthy actors often bypass cooperative structures by offering higher prices to individual producers, fracturing collective bargaining power and limiting the ability of cooperatives to operate as market players.

Agro-processing plants, positioned as a key “growth-promoter” in the Green Growth National Action Plan for agriculture, have prompted concerns around the destabilizing injection of capital into Jordan’s food processing sector.¹⁶⁴ Rather than framing these plants as means of localizing control over domestic agrifood supply chains, official discourse presents them as a way of “shifting to export agriculture and absorbing surplus production”.¹⁶⁵ This vision is taking shape through the pilot agro-park in Jordan Valley, south of Ghor es-Safi, listed as one of the projects reforming export capacities in Jordan’s Reform Matrix crafted alongside the World Bank.¹⁶⁶ While we were told the agro-park and its processing factories sought to increase smallholder participation, on-the-ground accounts indicate the contrary. During the initial experimental phase of the project, we learned of an investor who attempted to grow a costly tomato variety to supply the factories, restricting participation of existing producers. The crop failed, stagnating the project and stoking distrust among local producers around the agro-park. This demonstrates how investor-driven and context-deprived interventions can

163 Ministry of Planning, “Jordan’s Economic Modernization Vision”, p. 43.

164 Ministry of the Environment, “Agriculture Sector Green Growth”.

165 Jordan News Agency, “Hneifat checks on progress in agricultural food plants in Southern Jordan Valley”, 16 November 2023, para.5, available at https://petra.gov.jo/Include/InnerPage.jsp?ID=54637&lang=en&name=en_news&cat=en_news#:~:text=During%20his%20tour%20in%20the,to%20more%20than%20350%20tonnes.

166 Ministry of Planning, “Jordan Updated Reform Matrix”, Hashemite Kingdom of Jordan, May 2023, available at https://mop.gov.jo/ebv4.0/root_storage/en/eb_list_page/jo_updated_reform_matrix_final_eng_may2023-0.pdf

further detach small producers' stakes from value-added production across the supply chain.

The date industry is another case. Date production in the Jordan Valley is monopolized by large-holder farmers with disproportionate access to water and capital. Smallholder farmers in the Jordan Valley discussed the impossibility of producing dates due to prohibitive entry points. CSO interventions highlight challenges of redistributing date palms for high-value processing to encourage smallholder participation. A redistribution initiative was discussed where large-holder farmers refused to pass date saplings to smallholder farmers, claiming they were ill-equipped to manage a pest infestation that was affecting date palms in the Jordan Valley. Lack of access to capital and pest management support intersect in ways that can thwart redistribution efforts, intensifying existing bottlenecks.

Cold chain access (temperature-controlled storage and transportation) is another key infrastructural determinant of equitable local processing capacity. Both the multi-actor and farmer consultations pointed to limited or unaffordable cold chain infrastructure as a recurring barrier for timely market entry to secure fair prices, including among citrus growers in the northern Jordan Valley. Notably, interviews with large-scale persimmon producers in Mafraq also revealed how these challenges extend beyond small farms. Although large producers successfully lobbied to restrict persimmon imports from the Israeli occupation, they too emphasized the need to expand domestic cold chain infrastructure to stabilize supply chains amid fluctuating import controls.

Despite state- and donor-driven interventions to broaden cold chain access, challenges emerge when associations that represent small producers are excluded from decision-making processes. For example, small producers mentioned during interviews that collective storage facilities often failed due to the lack of consensus on how long farmers would need to keep their produce in storage: some producers had an urgent need for cash, while others were able to wait for a well-timed market entrance. Interviews appeared to confirm that a successful collective storage space requires more than investor capital, as was often claimed in interviews with actors from the public sector: it requires managing those facilities in ways that respond to the producers' varying socio-economic

conditions.

Access to temperature-controlled transportation to processing or manufacturing sites is also a barrier for small-scale producers. For example, APN sought to support molokhia farmers with roadside stalls by planting and processing their harvest, responding to the unmet demand in Jordan. Processing facilities agreed to take on the produce, but without access to temperature-controlled transport, the molokhia risked spoiling before arrival.

Small producers also echoed the need for support in sorting, packaging, and licensing to access higher-value markets. While this continues to be a key site of donor financing, interviews with agricultural experts presented concerns around public-private partnerships that are aligned to the investor ethic of short-term capital and exit opportunities and poorly aligned to local capacities to sustain and develop technological interventions. This conundrum is reflected in the closure and investor abandonment of large-scale rural food processing facilities designed through top-down approaches that positioned small-scale producers as end-point beneficiaries rather than stakeholders, compounded by the absence of cooperatives or producer associations. Farmers pointed out one concrete example: a donor-funded dehydration unit intended to absorb surplus production that is no longer operational. Key questions emerged among farmers around the lack of viable accountability mechanisms or locally grounded roadmaps for the sustainable transfer and uptake of food processing knowledge and technology.

Market Access and Trade

Decades of neocolonial restructuring have remade Jordan's agricultural markets, enlisting its food system into circuits of global capital at the expense of local ownership. From 1989, International Monetary Fund and World Bank loan conditions compelled Jordan to diminish state protections and effectively entrust its agricultural sector to the free market. Archetypal SAPs followed, wherein southern countries such as Jordan were organized as sites of extraction and disposal by the northern countries. To justify the grounds for fiscal austerity measures, international financial institutions called out Jordan's so-called "strong antiexport bias" and the "constraints on investment and business

operations”.¹⁶⁷ To correct these so-called economic and trade “distortions”, reform packages stripped direct state subsidies to the agricultural sector, lifted tariff protections on imported goods, and deregulated land and agricultural credit markets, thus “unlocking” Jordan’s agrarian landscape for highly subsidized external and corporate competitors.¹⁶⁸

Cost recovery mechanisms were another dimension of agricultural reforms, often replacing state subsidy with a user-pays model to cover the cost of service, allowing the market to determine “efficiency” in resource use while leaving systemic barriers intact. As such, the burden of cost recovery further pressured agricultural livelihoods.¹⁶⁹ Notably, the 1994 Agricultural Sector Adjustment Loan, funded by the World Bank and Germany’s Kreditanstalt für Wiederaufbau, sought to rationalize water and land for “optimal use” and promote the shift to perceived “higher-value” export horticultural crops through highly contentious, often-resisted water tariffs. The tariffs were critiqued for risking the entrenchment of rural poverty, neglecting structural constraints many small-scale and indebted farmers face to “optimize” water use,¹⁷⁰ and ultimately failing to improve cost recovery or water use efficiency.¹⁷¹ Loan conditions further intensified pressure to steer production away from perceived lower value yet key staple crops; for instance, through the elimination of procurement subsidies on locally-produced cereals.¹⁷²

One of the most severe interventions pushed by the World Bank was the closure of the aforementioned state-led agricultural marketing body, which provided farmers with assistance in securing market outlets for their produce.¹⁷³ While a World Bank report assessing Jordan’s agricultural market liberalization celebrated that “distortions between internal and world market prices have been largely eliminated”,¹⁷⁴ another World Bank assessment frankly acknowledged the broader reforms “were not sufficient to ensure that farmers reaped the benefits of adjustment”, further noting “many small farmers and herders were marginalized by reduced profitability and its impact on rural poverty was generally negative [...]”.¹⁷⁵ The cost of evidently harmful agricultural liberalization has been borne by farmers.

Jordan’s accession to the World Trade Organization in 2000 necessitated the further removal of trade barriers, part of a broader process of global market integration, including the US-Jordan Free Trade Agreement, and the EU-Jordan Association Agreement.¹⁷⁶ While these agreements claim to promote mutually advantageous free trade passageways for Jordan, nontariff barriers (largely by EU actors) in prohibitive food-safety standards continue to stymie Jordan’s trade of value-added products.¹⁷⁷ At the same time, Jordan’s farmers are exposed to the vicissitudes of free market competition with imports from often heavily

167 World Bank, “Jordan Private Sector Assessment”, 25 August 1995, pp.6-40, available at <https://documents1.worldbank.org/curated/en/236011468752118723/pdf/multi0page.pdf>

168 Harrigan et al., “The IMF and the World Bank”.

169 Harrigan et al., “The IMF and the World Bank”.

170 Jean-Philippe Venot and François Molle, “Groundwater depletion in the Jordan highlands: can pricing policies regulate irrigation water use?”, *Water Resources Management*, Vol. 22, 2008, available at <https://doi.org/10.1007/s11269-008-9260-x>; Liptrot and Hussein, “Between Regulation and Targeted Expropriation”.

171 World Bank, “Performance Assessment Report: Jordan – Agricultural Sector Adjustment (Loan No. 3817-JO) and Agricultural Sector Technical Support Project (Credit No. 3818-JO)”, January 2003, available at <https://documents1.worldbank.org/curated/en/310281468774272698/pdf/multi0page.pdf> (World Bank, “Performance assessment report”).

172 World Bank, “Performance assessment report”; Liptrot and Hussein, “Between Regulation and Targeted Expropriation”.

173 Harrigan et al., “The IMF and the World Bank”.

174 World Bank, “Agriculture Sector Adjustment”, (n.d.), available at <https://documents1.worldbank.org/curated/en/701421570650078966/pdf/Jordan-Agriculture-Sector-Adjustment.pdf>

175 World Bank, “Performance assessment report”, p.11.

176 The White House, “Overview : US-Jordan Free Trade Agreement (FTA)”, President George W. Bush archives, 28 September 2001, available at <https://georgewbush-whitehouse.archives.gov/news/releases/2001/09/20010928-12.html>; European Commission, “EU trade relations with Jordan. Facts, figures and latest developments”, available at https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/jordan_en

177 Svetlana Valieva, “Water Accounting for Agricultural Water Stewardship in Jordan Valley: Harnessing Geospatial Tools and Analysis for Improving Water Allocation Functions and Its Productivity”, Consolidated Terms of Reference (ToR), March 2019, available at <https://documents1.worldbank.org/curated/en/402641593703126686/pdf/Consolidated-Terms-of-Reference-ToR.pdf>

subsidized foreign agricultural sectors,¹⁷⁸ which can operate as a form of structurally induced dumping. For instance, hundreds of thousands of tons of US wheat have previously been sold at artificially low prices that subvert local production, often under the label of “food aid”.¹⁷⁹ Despite Jordan having anti-dumping legislation, questions remain as to whether donor pressure around “aid” consignments might impact its implementation.

Additionally, the lessening of import protections has further allowed cheap regional citrus and vegetable produce to flood local markets despite Jordan’s current vegetable overproduction, with a self-sufficiency rate of 133%.¹⁸⁰ Farmers’ protests against imports that outmatch local produce are typically met with short-term and reactive market restrictions.

Together, all these components have cultivated a condition of extreme import dependence and, by extension, vulnerability to market shocks, including regional border closures resulting from colonial-driven wars. In 2023, the country imported 3.7 billion dinars (about US\$5.2 billion) in agricultural products, while exporting around 1.13 billion dinars (about US\$1.59 billion), indicating an agricultural trade deficit of 2.57 billion dinars (about US\$3.62 billion).¹⁸¹ In light of this, Jordan’s Economic Modernization Vision calls for expanding “domestic markets by replacing imports with local products” to enhance national food security. This objective is undercut by the export growth target set at 350% without a corresponding quantifiable goal to boost

domestic production.¹⁸²

Within this liberalized market landscape, the Amman Central Market emerged in the 1990s as a mechanism to “rationalize” agricultural supply and demand. In practice, it instituted a centralized infrastructure that binds small producers to an extractive network of market intermediaries.¹⁸³ Codified through the Wholesale Markets System for Horticultural Products of the Greater Amman Municipality, issued under Articles 5 and 75 of the Municipalities Law No. 41 of 2015, wholesale sales of horticultural products within the municipality’s boundaries are prohibited outside of the Amman Central Market, thus consolidating negotiating power within it.¹⁸⁴ This creates a suffocating conundrum for marginalized producers, who are unable to afford cold storage and transportation to access the Amman Central Market.

Over time, the Amman Central Market has become a site for informal credit relations. Indebted farmers who are ineligible for formal lending due to lack of collateral often turn to merchants who act as creditors, binding them to extractive arrangements that force producers to operate as price takers. Farmers discussed during FGDs how merchant creditors can secure fixed commissions from the farmer’s produce, while the farmer absorbs all the risk. More extreme cases included outright refusal of merchants to pay indebted farmers, alongside inconsistent produce weighing and grading. Furthermore, the concentration of cold storage space in the Amman Central Market enables merchants to store produce and flood the market when advantageous.¹⁸⁵ Farmers noted that while this structure can be partially bypassed through diversification into smaller regional markets, such as Jerash or Ajloun, legal action threatened by lenders can draw them back to the Amman Central Market. Prices can be kept artificially low for consumers, further eroding the small producers’ meager profit margins.

178 Vidal, “Wheat blessing”.

179 The Jordan Times, “Jordan signs grant deal to receive 100,000 tonnes of US wheat”, 2 February 2017, available at <https://jordantimes.com/news/local/jordan-signs-grant-deal-receive-100000-tonnes-us-wheat>; Daniel Enoch, “US wheat heads to Jordan to aid with Syrian refugee crisis”, Agri-Pulse, 10 May 2015, available at <https://www.agri-pulse.com/articles/5366-us-wheat-heads-to-jordan-to-aid-with-syrian-refugee-crisis/amp>; Perosino, “Deconstructing the market”.

180 Jordan, “The National Food Security Strategy”; Omar Obeidat, “Farmers want gov’t to ban onion imports to reduce sector’s losses,” The Jordan Times, 25 February 2015, available at <https://jordantimes.com/news/local/farmers-want-gov%E2%80%99t-ban-onion-imports-reduce-sector%E2%80%99s-losses>.

181 The Jordan Times, “Agricultural imports drop by 10.4%, exports increase by 16% in 2023”, 21 March 2024, available at <https://jordantimes.com/news/local/agricultural-imports-drop-104-exports-increase-16-2023>

182 Ministry of Planning, “Jordan’s Economic Modernization Vision”, p.43.

183 Livia Perosino, “Deconstructing the market”.

184 “Wholesale Markets System for Horticultural Products of the Greater Amman Municipality (Regulation No. 169/2016), 26/10/2016”, Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor193978.pdf>; “Amended Law on Municipalities 2015”, Hashemite Kingdom of Jordan, available at <https://faolex.fao.org/docs/pdf/jor202487E.pdf>

185 Livia Perosino, “Deconstructing the market”.

At the farm level, these dynamics manifest in an informational and economic deficit. Some tomato producers in the Jordan Valley describe farming as “gambling”: hoping past successes will carry over into the next season despite an absence of reliable market data and an agricultural calendar. Cyclical overproduction and price collapse are compounded by the lack of coordination between producers, the MOA, unions, and Amman Central Market actors. Stories abound with entire harvests being destroyed or abandoned because transportation costs exceed depressed returns.

Indeed, these are contributing factors to Jordan’s estimated 55% rate of fruit and vegetable loss. While the World Bank tends to narrowly attribute such loss to farmer practices, such as “poor post-harvest management”, our field research unveils structural drivers in the isolation of farmers from market information and price-point controls, infrastructure and storage support, and decision-making processes.¹⁸⁶

Despite Jordan’s consumer protection framework, the integration of consumption and consumer interests into market policies remains limited. Gaps in the monitoring and control of imported foods can pose public health issues that consumers are often unaware of.¹⁸⁷ CSOs continue to contend with global trade pressures and the lack of a concrete governance platform to impact policy in a substantive way.

Without this representation, the lack of alignment between consumer needs – away from globalized food cultures – and what can be produced domestically remains unaddressed. For example, imported products, including rice, have largely supplanted locally produced cereals, such as jareesh and maftool, in local diets, illustrating how consumer preferences interact with historical and socio-economic forces in ways that entrench import dependence and further distance domestic

production from local dietary needs.

Structural Drivers

This study traces the following root causes that create the precarity and dispossession that afflict Jordan’s agricultural sector and undermine its path to food sovereignty.

- **So-Called “Liberation” via Commodification and Accumulation**

The British mandate embedded colonial logic into Jordanian agriculture through the notion of “improvement” which commodified local agricultural ecologies into engines for cash crop and export production. To do so, Jordan’s productive resources had to be “liberated” by successive neocolonial actors via the dissolution of communal modes of tenure, cultivation, seed preservation, water distribution, and labor, which were commodified and forced into global capital circuits.

- **Fragmentation and Dissolution of Collective Tenure**

Farmers who contend with untenably small plots and insecure tenure relations are the legacy of this process of “liberation”. Jordan’s “super green revolution”, under the counsel of USAID and others, resulted in large landholdings being divided in favor of small family-run units to heighten cash crop production.¹⁸⁸ Paradoxically, the expansion of small, fragmented, often-absentee farm units has depressed yields and incomes. Farmers lack surplus liquidity to invest and scale, locking Jordanian agriculture into a cycle of chronic indebtedness and the subversion of productive potential.

Real Estate Ownership Law No. 13 of 2019 further entrenches this model by formalizing the dissolution of collective tenure.¹⁸⁹ By eliminating the legal recognition of communalism, this law forecloses a farming structure that could facilitate

186 World Bank, “Project Information Document (PID)”, Rural Employment and Agri-Food Transformation Project, 17 November 2020, available at <https://documents1.worldbank.org/curated/en/962131618486906065/pdf/Concept-Project-Information-Document-PID-Rural-Employment-and-Agri-Food-Transformation-Project-REAP-P167946.pdf>

187 Marzban, S., et al., “Food safety knowledge and practices among food handlers: A systematic review,” *Food Control*, Vol. 132, 2022, available at <https://www.sciencedirect.com/science/article/abs/pii/S0956713521006496>

188 Sharif Elmusa, *A harvest of technology: The super-green revolution in the Jordan Valley*, Center for Contemporary Arab Studies, Georgetown University, 1994; Tarawneh, *Rural Capitalist Development*.

189 Diab, “Land, Housing and Property”.

cost-sharing and sustainable land stewardship to scale agricultural production. Instead, farmland is increasingly absorbed into financial circuits, where credit institutions, urban developers, and international investors benefit from a liberalized land market. Inflated land values compel producers to sell to settle debt, further fracturing the arable land base.

• **Neoliberal Trade as a Vector of Dispossession**

Liberating Jordan from its so-called market “distortions” in structural adjustment programming necessitated slashing Jordan’s import controls and agricultural subsidies, with the effect of further subsidizing global north market dominance. Northern and other major agricultural exporting states often protect their producers through subsidies, nontariff barriers and export surplus goods, including under the humanitarian screen of food aid.¹⁹⁰ Such structural injustices deepen Jordan’s dependence on imports and donor support. Furthermore, the future of Jordan’s food system has been normalizing import dependency as the inevitable trade-off for its “water poor” status, while paradoxically enhancing its export capacities for water-intensive crops.

• **How “Public Benefit” Is Determined**

“Public benefit” is often presented as neutral; in practice it is isolated from meaningful public participation. Under contemporary land governance in Jordan, land can be expropriated in the name of public benefit, and investor priorities can shape land-use change.¹⁹¹ Decisions labeled as serving the public benefit are often evaluated for their potential for immediate returns; this prioritizes sectors such as mining and construction over agriculture, which has long-term returns. Land is thus revalued primarily in terms of its exchange value rather than its agricultural, cultural, or ecological significance. This exclusion is institutionalized through inadequate environmental impact assessment processes that can marginalize impacted communities – arguably the people treated as barriers to the public benefit, as opposed to being the public who

should benefit. This raises urgent questions: what are the determinants of “public benefit”? How can communities influence this determination in ways that do not sacrifice but rather strengthen Jordan’s agricultural potential?

• **Donor-driven Climate Governance**

Climate governance recycles the neocolonial claim that land-based cultivation is incompatible with Jordan’s so-called water-scarce environment. Hydroponic systems, inaccurately touted as water-saving, and other “soilless” technologies are promoted as the solution.¹⁹² This sets a profoundly unjust precedent normalizing landless production as an adaptation measure while overlaying structural drivers of scarcity, foremost Israeli water theft. The same actors that finance the Israeli occupation leverage Jordan’s impending water crisis as an experimental ground for water-saving technologies.

Greenwashing embeds Israeli relationships within Jordan’s agricultural trajectory by advancing initiatives that promote “peacebuilding” via transboundary cooperation on water and natural-resource management. These initiatives conflate Jordan’s climate-adaptation responsibilities with adapting to a settler-colonial regime that monopolizes shared water resources and has openly signaled intentions to annex Jordanian territory. In this context, Jordan’s agricultural future appears to be undermined by partnerships convened by foreign actors who arguably violate their extraterritorial duty of nonrecognition by treating a violent occupation as a legitimate environmental partner.¹⁹³ As a result, Jordanian farmers are left to absorb the environmental risks of the occupation’s violations, from settler fires to cross-border water contamination and chronic shortages.

• **Dispossession of Agricultural Knowledge**

Dispossession reaches the very core of agricultural knowledge. Disinvestment from local supply

190 Gawain Kripke, “Food Aid or Hidden Dumping? Separating wheat from chaff”, Oxfam International, 24 March 2005, available at <https://policy-practice.oxfam.org/resources/food-aid-or-hidden-dumping-separating-wheat-from-chaff-114492/>

191 Diab, “Land, Housing and Property”.

192 Ministry of the Environment, “Agriculture Sector Green Growth”.

193 Article 41(2) of the Responsibility of States for Internationally Wrongful Acts stipulates: “No State or international organization shall recognize as lawful a situation created by a serious breach... nor render aid or assistance in maintaining that situation.” UN General Assembly, “Responsibility of States for Internationally Wrongful Acts”, 2001, available at https://legal.un.org/ilc/texts/instruments/english/draft_articles/9_6_2001.pdf

chains feeds distrust in local inputs of production. For example, without secure land, time, or capital to absorb the risks of experimentation with local seed varieties, farmers are unable to shift their purchasing and cultivation behaviors. This structural dependency can easily be misread as an “awareness gap”.

Similarly, disinvestment from IPM – a holistic method that emphasizes biological control, crop rotation, and reduced reliance on chemical pesticides – deepens reliance on imported agrochemicals. FFS that were once useful in providing guidance on IPM have become sites of dispersed and methodologically ungrounded programs. Knowledge production continues to be isolated from the land; it is instead given to farmers in the form of top-down guidance. At the same time, stringent pesticide-residue tracing required by export markets, such as the EU, can place uneven pressure on farmers in Jordan through supply chain monitoring systems that are often removed from the financial and contextual feasibility of the safety protocols they impose. These same EU actors benefit from legislation that allows them to shirk extraterritorial obligations and export domestically banned agrochemicals to the region.¹⁹⁴ The need to re-localize knowledge of the seed, soil, and agroecosystem thus remains critical.

• **Limits and Opportunities of Collective Agency**

Fragmentation and market-driven individualism limit farmers’ bargaining power; unions and cooperative structures with potential to defuse bottlenecks remain largely unsupported. Without collective representation, farmers incur exorbitant costs, sell below market value, and lack the leverage to influence policies that could mandate manufacturers to purchase from cooperatives at fair prices.

Efforts to formalize small enterprises and promote contract farming are presented as paths to market access. Yet large, highly consolidated industries are unlikely to purchase from small, distant producers due to economic inefficiency. Without unions or cooperatives, these formalization measures risk compounding financial and bureaucratic burdens on small-scale producers rather than improving their market position.

Yet moments of agrarian solidarity emerge to forge an alternate path for Jordan’s food systems. For over 23 years, APN, an independently funded and people-led movement, has worked to root 12,000 Jordanian small-scale farmers in their lands through tangible agricultural support and influence food policy on the national and international level, including stopping or relocating investments that threatened agricultural land. APN, alongside other CSOs, has further negotiated with governments on the contents of the Voluntary Guidelines on the Tenure of Lands, Fisheries, and Forests recognizing communal land rights, which Jordan is yet to implement.

It is also critical to center how counter-knowledge persists and evolves in parallel. Interviews with the “Al Barakeh Wheat” project, which works to revive local wheat production alongside farmers, shone light on renewed confidence in local supply chains where farmers were directly provided with heirloom seeds and could witness successful harvests.

Against an isolating neoliberal market system, potential for agrarian solidarity continues to be cultivated. For instance, large-scale persimmon farmers collectively halted imports from the Israeli occupation to the benefit of small-scale farmers. Jordanian seed networks express readiness to support regional food sovereignty movements, including APN’s efforts to restore Gaza’s agricultural capacities against starvation. Solidarities clearly emerge when struggles are anchored in shared, material injustice, transcending colonial borders.

Fragmentation is never total. Collective agency reappears whenever structural harm is made visible. Food sovereignty requires scaling these solidarities into durable coalitions capable of reclaiming governance over land, water, labor, seeds, inputs, and trade. This is a trajectory of food sovereignty that does not simply prepare Jordan’s food systems for impending shocks or crises but rather prevents their re-emergence.

We argue that Jordan has the capacity to shift course by freeing farming practices from monocrop and export-oriented production; engaging the farmer as a knowledgeable, rights-based subject; and honoring their secure presence on the land. These processes must further address the injection of capital and colonial spillovers into Jordan’s agricultural systems that undercut the localization of production.

¹⁹⁴ Crispin Dowler, “Interactive map: the EU’s banned pesticide trade”.

Recommendations

Based on the findings of this study, this section outlines key recommendations that could be implemented by different groups to strengthen food sovereignty and enhance water governance in Jordan.

Crosscutting Recommendations

Participatory Governance and National Ownership

- **Reform the “public benefit” framework** with a transparent, participatory review of legal criteria for project approvals, centering food sovereignty as a pillar of national development.
- **Enhance transparency and accountability in agricultural governance** by mandating public disclosure of financing decisions, project criteria, and policy rationales.
- **Institutionalize dialogue** by establishing a multistakeholder platform for policymakers, food producers, and civil society to deliberate on food policies and programs.
- **Vet external projects** via inclusive national and community screening mechanisms to ensure donor-driven strategies align with local priorities.

Redress Land and Food System Liberalization

- **Assess agricultural liberalization and free market policy impacts** to guide reforms that reinstate state protections.
- **Restore state support** with input subsidies and price controls that shield local food systems from global volatility and exploitative investment.
- **Prevent land speculation** by mandating safeguards against the commodification of land and other productive resources to protect collective ownership and agricultural resource management.

Collective Organization and Unionization

- **Enforce freedom of association** with active legal frameworks for specialized cooperatives and unions representing all producer categories (small-scale farmers, agricultural workers,

pastoralists, fishers, and food processors) to ensure direct participation in decision-making.

- **Strengthen collective organizations** to coordinate input procurement, negotiate fair prices, and improve market access.

National Food Systems Roadmap

- **Conduct periodic assessments** of food demands and nutritional needs to be shared with producers.
- **Develop and publish a national cultivation roadmap** tailored to soil, water, climate, and market shifts that will:
 - expand staple crop cultivation and diversification (e.g., wheat, barley, or alternative staple crops in areas no longer suitable for wheat);
 - coordinate seasonal crop planning to prevent oversupply; and
 - promote diversified crop systems to reduce vulnerability to pests, diseases, and shocks.
- **Prioritize local inputs** by restricting the export of locally produced pesticides and fertilizers until domestic needs are met, avoiding planting delays and disruptions to seasonal production.
- **Expand the food processing sector horizontally** to respond to local producer and consumer needs.
- **Promote the consumption of locally produced food** and encourage dietary shifts toward traditional, locally sourced products.
- **Support locally led agricultural projects and initiatives** that restore land and food production systems and drive local employment and development.

Knowledge Production and Agricultural Extension

- **Promote locally led research** across critical, understudied areas of Jordan’s food system, including the relationship between pastoralism and food sovereignty; up-to-date data on grazing capacity; climate change; and the economic viability of locally produced fodder compared to imported feed.
- **Revive traditional and collective agricultural practices**, such as rainwater harvesting, soil regeneration, pest management techniques,

and agricultural waste recycling.

- **Strengthen and institutionalize agricultural extension services**, particularly for small-scale farmers, through the establishment of specialized entities that provide regular follow-up, technical support, and early intervention. This should include structured communications and regular meetings between agricultural extension officers and farmers to identify and address structural and emerging challenges.
- **Facilitate peer-to-peer knowledge exchange** across farming and rural communities to strengthen community capacity and support diversified production.
- **Update, unify, and enhance transparency of agricultural and census data** to align policies with the changing dynamics of Jordan's agricultural landscape. This should include the meaningful involvement of farmers, cooperatives, CSOs, and governorates in data collection and verification.

Protection of Farmers' Rights

- **Strengthen coordination between technical experts and lawyers specialized in environmental law** to ensure that technical analyses and scientific data are translated into legally admissible evidence for use in litigation on violations impacting agricultural communities.
- **Establish a voluntary legal committee** operating across all governorates in cooperation with the Jordan Bar Association and relevant CSOs to provide legal support, representation, and authorization for farmers' cases for little or no cost.

Arab Integration

- **Promote regional Arab integration** grounded in complementarity, mutual food needs, knowledge exchange, and responsible investment, and adopt a rights-based approach that resists normalization of Israeli settler-colonial resource theft and expansion.

Finance

Loan Design, Accessibility, and Risk Protection

- **Enhance the effectiveness and scope of the Agricultural Risk Mitigation Fund** by

amending eligibility, disbursement conditions, and coverage for environmental risks including wildfires.

- **Improve access to public financing** by simplifying loan requirements, extending grace periods, and introducing phased lending mechanisms linked to monitoring and evaluation.
- **Establish public agricultural insurance schemes** that protect farmers from loan default to remediate entrenched debt cycles.

Input Affordability and Price Stability

- Strengthen farmers' access to affordable, high-quality, locally produced agricultural inputs (seeds, fertilizers, pesticides) through expanded government exemptions and subsidies, alongside justice-based lending frameworks to reduce reliance on high-cost private financing.
- Increase oversight and accountability of price monitoring mechanisms to reduce farmers' vulnerability to rising costs.

Institutional Coordination and Rights-Based Financing

- Strengthen coordination among public institutions and agencies, including the Central Bank, the ACC, the MOA, and the private sector, to expand and align concessional or interest-free lending for agricultural inputs, well drilling, and water desalination.
- Require donors and financial institutions to redesign financing schemes, including green finance and carbon credit programs, to ensure they are rights- and justice-based, aligned with local agricultural priorities, and fully accessible to small-scale farmers without imposing exclusionary conditionalities.
- Establish adaptive, governorate-based funds to respond to context-specific challenges and agricultural potential. This includes creating employment opportunities; monitoring, evaluating, and adjusting financing priorities; and diversifying crops, including staple crops, to ensure fair returns for farmers.

Participatory Governance and Capacity Building

- Develop a participatory national agricultural financing platform that enables cooperatives and unions to influence financing priorities and

policies and consolidates agricultural financing tools and support funds with clear, accessible information on funding amounts, eligibility criteria, and application procedures.

- Invest in capacity building for farmers and their associations through specialized training programs to reduce self-exclusion and improve fund utilization. This should focus on collective procurement coordination, shared financial risk management, loan application, and proposal development.

Land

Land Use Reflective of Agricultural Potential

- **Open the revision of land-use maps and classifications to public deliberation and review**, including farmers, cooperatives, CSOs, agricultural specialists, and the MOA. As part of this process:
 - embed safeguards to prevent externally driven or colonial-era classifications from determining agricultural potential;
 - clarify the governance structure and agricultural potential of public lands vested in the state and JVA; and
 - align national agricultural strategies with revised land-use classifications that reflect Jordan's climate and agricultural diversity.
- **Strengthen and develop natural rangelands as a primary source of local feed production** to reduce reliance on imported feed.

Protection and Restoration of Agricultural Land

- **Protect agricultural and rainfed land** through coordinated legal and policy measures across all relevant bodies – addressing interconnected pressures such as urbanization, plot fragmentation, competition with other economic sectors, and desertification – supported by an integrated, transparent monitoring system to report and redress land-use violations.
- **Support the rehabilitation and equitable redistribution** of uncultivated or salinity-affected lands through national programs that prioritize soil recovery and cultivation of crops suited to local environmental conditions (e.g., olives and jujube).

- **Adopt traditional and collective rangeland management**, including the Hima system, which has been used historically in Jordan to regulate seasonal grazing and restore vegetation cover.

Tenure Rights and Security

- **Recognize and formalize all forms of land tenure rights** through equitable and just protections (including the review of leases with the JVA), particularly for those on rehabilitated lands, ensuring clear contract durations to protect farmers from sudden and unjustified loss of tenure.
- **Review and revise real estate ownership legislation** to:
 - protect communal ownership against its privatization and targeted dissolution;
 - redress constitutional violations that allow land expropriations without compensation; and
 - amend laws that enable foreign land purchases that inflate prices and serve external interests over national food sovereignty.
- **Mandate public disclosure of all decisions and projects** affecting or expropriating agricultural land, including clear evidence of “public benefit”, consideration of alternatives, alignment with food security and land-use planning, and communications in plain language accessible to affected communities.
- **Strengthen legal mechanisms to protect farmers' rights**, including enabling them to file collective and individual lawsuits as a key tool for accountability and safeguarding their rights in cases of land expropriation, land-use change, and damage to livelihoods.

Awareness and Capacity Building

- **Address information gaps** on land rights, agricultural land conservation, and rural housing regulations by establishing accessible awareness and extension programs for farmers and agricultural workers.
- **Strengthen community-based monitoring, mapping, and documentation initiatives** to counter gaps in official data and land classification systems.
- **Integrate local Bedouin knowledge into planning policies and regulated grazing**

practices, thereby contributing to enhanced food security and climate change adaptation.

Water

Transboundary Water Justice and Coordination

- **Strengthen regional cooperation** by reviewing the status of joint water agreements with neighboring Arab countries to improve management of transboundary water resources and by encouraging exchange of expertise.
- **Encourage investment in national and regional water projects with Arab countries**, instead of agreements or projects with the Israeli occupation, to ensure water security and national sovereignty.
- **Secure Jordan's water rights**, especially those violated by the Israeli occupation, by revisiting administrative and diplomatic decisions that enabled the appropriation of Jordan's fair share of surface and groundwater resources, and develop national plans for restoring and utilizing the waters of the Baqoura and Ghumar area and the Jordan River basin.

Equitable and Participatory Governance

- **Adopt integrated water management policies** that clearly define the roles and coordination mechanisms between government agencies, the private sector, WUAs, and farmers in ensuring equitable water distribution and access as well as institutional accountability.
- **Reform regulations for accessing groundwater sources** by lowering well-drilling fees and easing licensing requirements for small-scale farmers, and shift away from approaches that revoke farmers' water access toward measures that support them with alternative solutions.
- **Establish or strengthen national co-governance platforms** that allow farmers at all scales a voice in high-level irrigation planning and decision-making.
- **Activate and reform existing local water co-management processes** to ensure responsiveness to power asymmetries between large- and small-scale farmers (such as within WUAs), and activate feedback and complaint mechanisms.

- **Review and adjust current metrics of water-use efficiency and associated water tariffs** to avoid discouraging small-scale agriculture and staple crop diversification.
- **Publish clear and accessible data** on water allocations, distribution schedules, and stock levels to enhance farmers' capacity to plan and adapt.

Water-Use Efficiency, Infrastructure, and Non-conventional Supply

- **Advance strategic national projects**, such as the National Water Carrier, to secure additional water sources for small-scale farmers and reduce competition between industrial, urban, and agricultural water uses.
- **Strengthen urban water management legislation** by mandating rainwater harvesting systems in new buildings and regulating the construction of ponds and cisterns, enhancing groundwater renewal and protecting irrigation water supply.
- **Rehabilitate national water networks** to minimize water losses and optimize resource utilization.
- **Support small-scale farmers** by rehabilitating drip irrigation systems and installing on-farm water harvesting and storage infrastructure for small-scale farmers.
- **Conduct participatory, applied research on water-saving and harvesting technologies** to evaluate traditional and modern approaches to ensure locally informed and economically viable solutions.
- **Expand and upgrade wastewater treatment infrastructure**, ensuring that more households are connected to sewage networks and improving treatment quality to maximize reuse in agriculture.
- **Increase the number of dams** to collect a larger amount of rainwater and enhance oversight on water quality in existing dams used for irrigation to reduce negative impacts on soil and sensitive crop varieties.
- **Establish national policies to invest in the desalination of brackish groundwater**, including decentralized small-scale projects.

- **Subsidize electricity costs for small-scale farmers** through electricity bill subsidies and support for solar-powered water pumps to reduce energy burdens, avoid electricity cut-offs, and ensure reliable irrigation.
- **Evaluate and adopt locally suitable agricultural technologies** that are easily accessible to farmers and aligned with environmental needs to increase water-use efficiency.

Seeds

Seed Regulation and Governance

- **Strengthen government oversight of imported seeds and seedlings** by enforcing rigorous testing, precautionary sample retention, and transparency requirements, while curbing foreign lobbying that weakens biosafety and quality control.
- **Localize seed production chains** to improve small farmers' access to affordable, nationally developed alternatives by supporting the experimentation, preservation, and development of local heirloom and hybrid seed varieties, regulating seed prices, and incentivizing local seed production for the domestic market.
- **Establish participatory decentralized or community-owned seed banks** in rural areas that smallholder farmers have access to.

Farmer Rights and Accountability

- **Strengthen collective legal mechanisms** that enable farmers to pursue claims against suppliers, address knowledge gaps in legal avenues, and expand insurance compensation mechanisms based on successful regional experiences.

Crop Rotation, Soil Health, and Climate Resilience

- **Implement and institutionalize incentivized crop rotation programs** on irrigated and rainfed lands (private and state), including wheat or barley at least once every four years, guided by governorate-specific guidance on seed suitability and soil health.
- **Promote the cultivation of drought-resistant and climate-resilient crops** (e.g., quinoa and

sorghum) to enhance agricultural diversity.

Strengthen Local Cereal and Staple Crop Systems

- **Strengthen local wheat production** by supporting fair producer prices, supplying bread-suitable and high-yield local varieties (e.g., durum), and mandating a minimum proportion of durum wheat in mills, which provides higher nutritional value than the refined common wheat currently dominating consumption. This should be supported by ensuring processing and milling capacity for durum wheat.
- **Encourage the consumption of local cereal grains and traditional products** (e.g., freekeh, jareesh, and maftoul) to reduce dependence on imported rice and bread.

Research and Extension Support

- **Provide targeted agricultural extension services** that make agroecological knowledge accessible, guiding farmers in selecting appropriate seed varieties and farming practices suited to local ecological and market conditions.
- **Strengthen links between farmers, universities, and research institutions** to support the development, testing, and dissemination of locally adapted crop varieties.
- **Encourage scientific research on trade-offs between short and long wheat varieties** to optimize both grain productivity and straw yield.

Fertilizers and Pesticides

Regulation, Quality, and Market Oversight

- **Review and enforce import standards and licensing requirements for agrochemicals**, including quality control testing at entry points and maintaining a public registry of approved suppliers and products.
- **Implement price monitoring and regulation and provide subsidies** for locally produced fertilizers and pesticides.
- **Conduct regular market inspections and sampling** of pesticide residues, particularly within the Central Market.
- **Conduct awareness campaigns** to improve

knowledge of certified and safe products for farmers, retailers, and consumers.

- **Develop and reform legal and regulatory frameworks for local production of organic and biobased fertilizers and pesticides** to ensure quality and safety, and update regulations and legislation related to the import of such fertilizers to allow the approval of new products, boost production, and reduce costs.

Sustainable Agricultural Practices

- **Invest in and encourage the national production of organic agricultural inputs**, including organic pesticides and recycling organic agricultural waste – including farm residues and central markets and household waste – into compost, peat, and treated poultry manure.
- **Strengthen communication and coordination mechanisms between farmers and the MOA** to deliver timely, need-based extension services, including regular on-farm visits, coordinated spraying during pest outbreaks, and the provision of natural pest control solutions.
- **Clarify and regulate the role of private companies** in pest diagnosis and agricultural support to ensure they complement rather than replace public extension services.
- **Institutionalize FFS and IPM**, providing accessible and affordable certification to strengthen farmers' capacity in pest and disease diagnosis, IPM application, and compliance with quality and safety standards.
- **Strengthen partnerships with Jordanian research centers**, including the National Center for Agricultural Research, to conduct applied studies on plant disease reduction and implement targeted capacity-building programs.

Labor

Rights-based Safeguards

- **Activate, enforce, and strengthen Agricultural Workers' Regulation No. (19) of 2021** to redress inconsistencies that weaken legal safeguards for all categories of agricultural workers (formal, informal, and seasonal), including women and migrants, ensuring fair wages, safe and reliable transportation, regulated working hours,

occupational health and safety protections, and sanitary facilities.

- **Review and modify National Aid Fund criteria** to ensure those accessing social security provisions or in need of welfare assistance are not disqualified, thus encouraging enrollment in social security.
- **Review and modify social security criteria to ensure agricultural workers have full access to benefits**, as insurance for agricultural workers is currently restricted to maternity leave and work-related injury. Support these measures with awareness campaigns on registration and entitlements.
- **Ensure state subsidization and provide incentives for smallholder farmers** to implement health and safety regulations for all agricultural workers.

Unionization and Collective Representation

- **Uphold constitutional guarantees that protect the formation of free trade unions**, as well as the International Labour Organization's Convention No. 87 on freedom of association and collective bargaining, by formalizing worker unions.
- **Strengthen existing worker networks and establish participatory forums** to enhance solidarity, representation, and advocacy-experience exchange among agricultural workers.
- **Strengthen independent unions and CSOs to support agricultural workers in accessing justice**, including through legal support, labor rights monitoring, advocacy, and training agricultural workers in accessing the Ministry of Labor's complaint platforms.

Food Processing

Strategic Guidance and Market Alignment

- **Reorient food processing policies and strategies to prioritize domestic market demand**, including crop selection guides and planting schedules for value-added production, while ensuring such strategies can respond to producers' varying socio-economic circumstances, increase employment, and ensure equitable producer prices.

Support for Small-scale and Community-led Processing

- **Allocate public funding and targeted incentives to establish or upgrade small-scale, community- and women-led agro-processing facilities** – such as drying, pickling, preserving, citrus flower distillation, and packaging and handling – while ensuring access to land, water, and energy.
- **Develop affordable, cooperative-managed storage and cooling infrastructure near cultivation sites**, including temperature-controlled transport, to reduce post-harvest losses and support producers in timing their market entrance.
- **Direct state support to small producer associations, cooperatives, and unions** and facilitate fair procurement agreements and partnerships between them and processing facilities to improve their access to value-added markets and reinforce horizontal production chains.
- **Strengthen screening of and community and local expert oversight over foreign and state-led projects in the processing sector** to ensure they accurately respond to local needs and challenges.
- **Support initiatives by rural households and CSOs**, including in the Badia region,¹⁹⁵ to produce and process local food products and connect them with short value chains that deliver direct benefits to communities.

Market Access and Trade

Safeguard Local Food Systems

- **Protect local agricultural products and farmers from the negative effects of free trade liberalization** by establishing import regulations to prevent foreign competition and market saturation that undermine local crop production, particularly during peak cultivation periods; implementing antidumping measures; and providing incentives that favor domestic production over imports.
- **Adopt procurement policies that require**

public and private institutions, as well as food assistance providers, to prioritize sourcing food from local producers or by setting a minimum quota.

Central Market Reform and Alternative Market Pathways

- **Ensure an inclusive, nationally owned process of Amman Central Market reform**, including addressing bottlenecks, distrust between farm and market actors, and predatory lending, while implementing enhanced transparency, participatory governance across farmer and producer bodies, fair pricing mechanisms (e.g., based on weight rather than packaging), and supply chain traceability.
- **Study the effectiveness of reactivating the Amman Central Market auction system** to ensure the availability of transparent and up-to-date information on agricultural product prices for all parties, enabling farmers to make informed production decisions based on market realities and reducing the pricing dominance of intermediaries.
- **Implement cooperative-led transport initiatives** to support farmers' access to the central market through cost-sharing mechanisms that alleviate prohibitive transportation costs.
- **Develop alternative market pathways** – such as e-commerce platforms, farmer-managed outlets, and direct-to-consumer channels – to strengthen producer connections and support cooperative-led distribution.
- **Reinstitute the national Agricultural Marketing Board** to provide farmers with guidance and facilitate access to outlets for their products in domestic and regional markets.

Promoting Local Products and Traditional Diets

- **Conduct public consumer awareness campaigns through media and educational channels highlighting the value of local products and traditional diets** to drive consumer demand and support domestic agriculture.
- **Build trust in local value-added products**, such as honey, by ensuring up-to-date national traceability and quality control mechanisms (including specifications and standards and testing equipment) that are coordinated with and accessible to producer associations, while

¹⁹⁵ The Badia region constitutes 80% of Jordan's land area and is home to pastoral and agro-pastoral communities that rely heavily on rangelands and livestock for their livelihoods.

enhancing screening processes to prevent false marketing of imported products as “local”.

- **Encourage youth engagement in the agricultural sector** by aligning academic curricula with labor market needs; offering institutional incentives; strengthening pathways from education to employment; and promoting awareness of the social, economic, and strategic value of working in agriculture.

About the Arab Reform Initiative

The Arab Reform Initiative is an independent Arab think tank working with expert partners in the Middle East and North Africa and beyond to articulate a home-grown agenda for democratic change and social justice. It conducts research and policy analysis and provides a platform for inspirational voices based on the principles of diversity, impartiality, and gender equality.

About the Arab Group for the Protection of Nature

The Arab Group for the Protection of Nature (APN) is an independent non-profit organization concerned with the protection of the environment and natural resources of Arab countries against all hazards, including the destructive impacts of wars and foreign occupations. APN was established in April 2003 by a group of motivated people who aim to protect the Arab environment alongside regional and international organizations.



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