

Resilience, Reciprocity and Recovery in Gaza: Drawing Lessons from Women-led Agribusinesses Amidst Conflict and Crisis



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Cover Image: UWAF members collecting dates for mutual aid and processing in Deir Al Balah, September 2024. Photo: Sara Shamaly

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1

Report Background

UWAF members in Khan Younis. GUPAP, 2021

This report, prepared and released in December 2024, is part of ‘Gaza Foodways’ (2021-2026) an action research project with the Palestinian Hydrology Group, the Gaza Urban and Peri-Urban Agriculture Platform (GUPAP), the University College of Applied Sciences in Gaza, and the Centre for Agroecology, Water & Resilience at Coventry University (UK). It is funded by IDRC in Canada.¹

Gaza Foodways [towards resilient women-led urban agroecological food systems] is a transdisciplinary research collaboration intended to contribute toward a ‘just transition’ to diversified low-carbon urban food and farming systems with a gender transformative focus. Together with the Urban Women’s Agripreneur Forum (UWAF), which was established by GUPAP in 2019, our emphasis has been on supporting new, and strengthening existing, networks of micro and small-scale producers and processors that restore eroded knowledge, recover lost resources and rebuild bonds between people and the landscape upon which they depend.

Between November 2021 and October 2023, strands of this work have included the establishment of City Food System Actor-networks in Gaza City and Khan Younis to bring together producers, officials, academics and civil society networks to build collaborative relationships for new ways of thinking and acting together to stimulate food system change. It also involved developing forms of popular and formal education around urban agroecology, including farmer-to-farming learning and organising, and a professional diploma in Urban Agroecology and Food Sovereignty hosted by UCAS, which was due to commence with 30 selected students on October 14th 2023. And four ‘challenge prizes’ had been awarded for transdisciplinary research that brought together women researchers co-developing social and technical innovations with UWAF members, to explore what innovations would look like when they are co-designed by women in response to the needs of women producers.

Since 07/10/23, the systematic destruction of infrastructure and Israel’s policy of starvation has severely disrupted food supply and exacerbated food insecurity across the Gaza Strip. However, urban and peri-urban farming, including rooftop gardens, community gardens, and small-scale farming initiatives, as well as wild harvesting has continued, providing at least some local and culturally appropriate foods. Gaza Foodways is now in the process of reorienting our contributions to their long task of recovery and healing. Direct cash payments are supporting UWAF members to continue their work to produce and organise. The diploma is being resurrected in response to an expressed desire by students to continue learning and to transform and rebuild their future. And plans to reconstruct Gaza’s only baladi seed bank in Al Qarara are underway, while people are working to multiply and get these seeds into the hands of more growers.

¹ <https://agroecology.world/gaza-foodways/>

1.2 Methodology

This report draws on several strands of the Gaza Foodways research. Prior to the current assault on Gaza, over May-June 2022, a survey was carried out with 168 women agripreneurs, many of whom are part of the now 300-strong Urban Women Agripreneurs Forum (UWAF) which represents nearly 10% of the overall women-led agribusinesses across the Gaza Strip. These women, between the ages of 21-60 years old, have been active across all five governorates, and deeply involved in various aspects of the food system, from farming and herding, to processing and marketing. This was followed up by a series of focus group discussions and interviews to clarify, validate, and deepen the data. A subsequent review of related policies and regulations was then undertaken to consider barriers and opportunities for women-led, regenerative food and farming systems. Since 07/10/23, UWAF members have continued to meet, self-organise and collect data, supported by GUPAP's staff on the ground, with monthly meetings with 20 representatives, and WhatsApp groups with over 100 UWAF members enabling discussions and surveys. In August 2024 a rapid needs assessment was undertaken across its 300-strong membership, and in November 2024 an online survey was conducted with 245 small-scale family farmers, men and women. This data, and the womens' stories of resilience and reciprocity, bring a new dimension to how the action research under Gaza Foodways was originally envisaged.

1.3 Objectives of the Report

This report aims to provide a comprehensive assessment of the impact of the war on women-led agribusinesses in Gaza, highlighting the resilience and agility of women and their enterprises. Specifically, the report will:

1. **Assess the Impact of the War:** Examine the extent of short- and long-term damage to women-led agribusinesses, infrastructure, and livelihoods.
2. **Highlight the Role of Urban Agriculture:** Illustrate how urban agriculture has contributed to community resilience during the crisis through specific examples and case studies.
3. **Recommend Support Initiatives:** Propose strategies for recovery and rebuilding, emphasising agroecological principles and farming practices suitable for highly-contaminated soils, capacity-building, and material support to ensure the sustainability and growth of women-led agribusinesses.

Understanding the challenges and leveraging the strengths of these women entrepreneurs is essential for developing policies and initiatives that foster a reparative, resilient, sustainable and sovereign food system in Gaza.



Herder in Rafah sheltering her flock, April 2024. FAO Youssef Alroz



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Glossary of Terms

Solar dryer Hanady Sufian Khalil-Herbeid in Beit Hanoun. GUPAP, 2022

Agroecology encompasses science, a set of practices and a social movement. It is also a way of understanding and designing territorial food systems using social, ecological, and political principles to regenerate nature and create a more just society. Organised around 10 elements,² its practices (i) rely on ecological processes as opposed to purchased inputs; (ii) are equitable, environmentally sensitive, locally adapted and controlled; and (iii) adopt a systems approach embracing management of the interactions among components rather than focusing only on specific technologies. It is rooted in indigenous and traditional practices intricately connected to ancestral knowledge(s), combined with scientific knowledge to address the polycrisis of chronic poverty and ill health, food insecurity, biodiversity loss and climate change.

Baladi refers to traditional food and farming traditions across the Levant - from the use of open pollinated seeds and breeds adapted to specific conditions, to ways of processing and cooking. Ba'ali refers specifically to innovative rain-fed cultivation methods adapted over many generations.³

Climate-smart Agriculture (CSA) and 'sustainable intensification' is an industry-led Global Alliance of agribusiness and multinational corporations that embraces and promotes a mix of high-tech, biotech and proprietary external input-dependent approach, including herbicide-tolerant crops, insecticides and fungicides, energy-intensive AI for data harvesting, genetically modified seeds and genetically engineered livestock and fish, proprietary technologies and patents on seeds, as well as energy-intensive livestock factory farming, large-scale industrial monocultures and biofuel plantations.⁴

Extractivism describes an economic and political model organised around profit, based on the exploitation and commodification of nature and labour, and by removing large amounts of a nation's natural commons.

² <https://www.tandfonline.com/doi/full/10.1080/26395916.2020.1808705>

³ <https://www.tandfonline.com/doi/full/10.1080/21683565.2018.1537324>

⁴ <https://www.boell.de/sites/default/files/2015-11-outsmarting-nature-synthetic-biology.pdf>

Food Systems. While food security encompasses components of availability, access and utilisation, a ‘systems’ approach provides an holistic analysis of how the current organisation of activities - including land and natural resource-use, production, processing and packaging, distribution and retailing, and patterns of consumption - impact food security. Understood as co-evolved social and ecological systems, it considers how adaptive management can lead to better decisions in the face of uncertainty and unpredictability.⁵

Foodways is a term that refers to the intersection of food culture, traditions and history while considering the cultural, social, and economic practices relating to the production and consumption of food.

Food sovereignty is an expression of communities’ and Indigenous Peoples’ power to determine how they grow, prepare, share and eat food and a reflection of their relationship to land and water. The more that power is equitably shared among all people in a food system, the more likely people will have access to adequate food; and the more that people’s relationship with land and water is based on care and reciprocity, the easier it is for people to establish relationships with each other.⁶

Just Transition is a framework of principles, processes and practices that build economic and political power in order to shift economies from exploitative and extractive paradigms towards sustainable production. The term is used by the trade union movement to secure workers’ rights and livelihoods, and by climate justice advocates to combat climate change and protect biodiversity.

Instrumentalism describes a conceptual approach that sees and adopts, for instance, narratives around women’s rights and ‘empowerment’ primarily through the lens of contributions to economic outcomes such as GDP growth. It is sometimes referred to as the “business case” for women’s rights.

Samoud or Social and Solidarity Economy (SSE) is a values-based approach to economic development with explicit social (and often environmental) objectives. It envisions facilitation of the economy through various solidarity relations such as cooperatives, mutual associations, and the protection of commons.

Social reproduction refers to the activities and institutions that are required for making life, maintaining life, and generationally replacing life. Social reproduction systems, or the creation of people, workers, societies and maintenance of social bonds, as well as social reproduction institutions, such as public education, health, care, water, transport, housing etc. They are gendered, carried out predominantly by women and girls whose physical and emotional labour is finite and goes largely unseen and unpaid.

Urban agroecology aims to identify and define newly articulated relations between communities engaging in land cultivation and soil stewardship that benefit nature on one hand, and urban consumers dependent on increasingly globalised and highly commodified food systems over which they have little control. Urban agroecology is about more than changing farming techniques in urban or peri-urban settings, it is also about re-imagining and transforming policy, planning, science and economies to bring about more just food systems.⁷

⁵ <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=7d4663825600de6cb4a2331b0da701d92cdd812b>

⁶ <https://www.un.org/unispal/document/right-to-food-report-17jul24/>

⁷ https://pure.coventry.ac.uk/ws/portalfiles/portal/13555286/RUAF_UAM_33_WEB_8_10.pdf



UWAF members collecting dates in Deir Al Balah, September 2024. Sara Shamaly

3 Executive Summary

The Gaza Urban and Peri-Urban Agriculture Platform (GUPAP) presents this report to document the profound challenges women-led agribusinesses face in Gaza amidst ongoing conflict and systemic barriers, highlighting their critical role in fostering resilience and recovery. Women agripreneurs, estimated at 3,000 before the current onslaught, form a cornerstone of Gaza's food systems, providing nutrient-dense and culturally important foods. However, repeated military offensives, environmental degradation, and systemic barriers such as lack of recognition in policy frameworks have severely impacted these enterprises. After the war, women will carry a disproportionate burden of care for orphaned children and relatives with violently acquired injuries. Here we consider the support structures required for family farming to be at the forefront of a just recovery, with a particular focus on women.

Today, the unprecedented military offensive continues to devastate Gaza's food and farming infrastructure and its agroecosystem. Destroyed farmlands littered with unexploded ordnance and toxic contamination only compounds these challenges. Women agripreneurs, many of whom are primary breadwinners, have been disproportionately affected, struggling to access land, resources, and financial support. Despite this, women have demonstrated remarkable adaptability, drawing on baladi skills and resources, community solidarity, and social innovation to sustain and provide for their communities.

Women play an important role in Gaza's food system, as farmers, fishers, shepherds and processors, while often going unrecognised and unheard.

Urban and peri-urban family farming has emerged as a linchpin, offering crucial food production capabilities even under constrained conditions, underscoring its importance in mitigating food shortages and fostering long-term sustainability. Amongst others, organisations such as GUPAP and the Urban Women's Agripreneur Forum (UWAF) advocate agroecological practices and principles among women-led and other food and farming enterprises that centre baladi foodways for the advancement of food sovereignty. Where external resources for agriculture are particularly scarce and vulnerable to geopolitical disruption, initiatives promoting food sovereignty are gaining traction to (re)build agrobiodiversity for food and nutritional security.

In this report we share data and stories gathered from some of the 300 members of UWAF who represent 10% of women with food enterprises in Gaza, captured before and during the current military

assault. These highlight the important role that women play in the food system, not least as farmers, fishers, shepherds and processors, while often going unrecognised and unheard.

As such, we highlight examples of women-led social innovations that demonstrate the power of solidarity in crisis and potential pathways for a just recovery. Community kitchens established by women have provided essential meals for displaced families. Their Community-led Solidarity Marketing Initiative has distributed over 18 tons of food to vulnerable households, fostering community bonds. Efforts to recover and multiply baladi seeds have highlighted the importance of local knowledge and seed sovereignty in rebuilding Gaza's food systems. A farming advisory service is being established by women for women to support increases in local food production. And a Solidarity Café will soon provide a supportive, warm space with internet connection as a meeting point where women can come together to learn, organise and support one another.

After the war, women will carry a disproportionate burden of care for orphaned children and relatives with violently acquired injuries, and should be at the forefront of a just recovery.

In the immediate term, it is essential to increase access to emergency relief, including in-kind materials, and cash support, not only to address urgent needs, but to lay the foundations of a just and inclusive recovery. Looking forward, Gaza's recovery must prioritize locally adapted, climate-sensitive, and people-centred food systems. Agroecology represents a viable and just alternative to extractive, input-intensive agricultural models, fostering resilience while addressing structural inequities. By centring women in these strategies, Gaza can rebuild a dignified, sovereign food system that ensures long-term sustainability and resilience.

The report concludes with policy recommendations, including formally recognising women as farmers with secure tenure rights, and integrating urban agroecology into national policies and urban planning strategies. Institutional, financial and material support will be critical in restoring livelihoods. And training initiatives tailored to agroecological practices, financial management, and territorial markets are essential to strengthening and raising the voices of women entrepreneurs.

As Gaza recovers and rebuilds, strategies should centre sovereign food and farming systems with an emphasis on healing people and nature. Given the historic levels of destruction and displacement, food aid will remain a reality for many in Gaza. Notwithstanding, baladi food and cultivation remains pivotal in providing diverse, nutrient-dense, culturally important and climate resilient foods capable of restoring a healthy agroecosystem and resisting future aggressions. As such, it should be prioritised and defended in recovery strategies. A radical re-imagining is required to centre womens' knowledges, skills and needs and to honour their solidarity and steadfastness as they recover Gaza's foodways.



Bedouin Herders, Khan Younis. Ahmed Sourani, 2021



Gaza Fishing Port. McAllister, 2022

4

Introduction

Gaza's rich history of food and farming is deeply intertwined with its cultural heritage. Over five millennia, Gaza City and its surroundings have been repeatedly occupied, besieged, destroyed and rebuilt. The traditional baladi food and farming system, managed and maintained by women and men together, embodies the region's cultural heritage and plays a vital role in a food secure and sovereign future. Baladi seed is at the heart of food sovereignty as it can be saved year-on-year, is adapted to local conditions, and requires few to no external inputs and less/no irrigation.

However, under Israel's illegal 17-year blockade of Gaza, the search for autonomy in the form of food security came at the expense of the very ecosystem that creates and sustains all life – with dire cost to human and environmental health. To bolster autonomous food 'security' on limited land, intensive production methods were prioritised by Gaza's authorities, agronomists and NGOs, funded by international institutions and INGOs. This quest for modernity demanded the importation of agricultural inputs, mostly from Israel, a major manufacturer of inputs associated with capitalist agrarian systems, due to the control it exerts over the borders and trade of the occupied Palestinian territory (oPt) of the West Bank, East Jerusalem and the Gaza Strip. In 2022 for instance, the Gaza Strip imported 4.6 million litres of synthetic fertilisers, over a million litres of herbicides and pesticides, and hundreds of thousands of tons of animal feed and input-dependent hybrid seeds from Israel. In 2022, the oPt was Israel's third largest export market – a captive market worth US\$4.6 billion to Israel.

Climate change, and blockade-induced economic hardship and its associated market conditions have long contributed to indebtedness across the food and farming sector.

In this scenario, production costs in Gaza increased as farmers invested in imported inputs and technologies, making their produce more expensive than highly subsidised industrial imports from Israel, sold into Gaza at just below the cost of local production. High-yielding hybrid varieties, often monocropped in polytunnels by Gaza's commercial producers, flooded local markets, threatening baladi varieties. As embattled family farmers strived to defend baladi food and farming systems in the face of increasing industrialisation, the intensive use of agrichemicals around them depleted the soil life, and nitrate leaching contributed to groundwater pollution -

damaging the very life support systems that Gazans depended upon, and will need again for their future survival.

Women-led urban agricultural enterprises, particularly those engaged in agroecological practices, have demonstrated remarkable adaptability and resourcefulness amidst the blockade and recurrent wars. Prior to 07/10/23 a quarter of Gaza's population derived their livelihoods from small-scale family farming, three quarters of whom were women.⁸ Many of these farmers have defended baladi food and farming systems; for some, their knowledge and capacity to grow food has kept them from starvation as the current assault has weaponised hunger.⁹ Yet climate change, and blockade-induced economic hardship and its associated market conditions have contributed to indebtedness across the sector, exposing farmers and their land to the forces of land speculation and elite accumulation.

Today, however, it is these baladi seeds, and the skills to cultivate them, that form an essential component of a 'commons' currency - surviving the siege and bringing hope. We might ask ourselves, are the ancient farming methods Gazans have resorted to simply coping strategies in times of recurring crisis, or might they represent urgently needed new ways of thinking and acting to create a dignified, resourceful and sovereign future under both occupation, and in a time of accelerating climate crisis?



Collective maamoul making under war, May 2021

⁸<https://agritrop.cirad.fr/592999/1/Marzin%20Uwaidat%20Sourisseau%202019%20Study%20on%20SSA%20in%20Palestine%20with%20FAO%20WBG%20final.pdf>

⁹<https://www.un.org/unispal/document/right-to-food-report-17jul24/#:~:text=The%20Special%20Rapporteur%20first%20provides,starvation%20and%20genocide%20in%20Gaza.>



5

Pre-War Study

Fragmented urban landscape in Gaza City

5.1 Overview of Data on Women-Led Agribusinesses

Before the 2023-4 aggressions, women-led agribusinesses played a pivotal role in Gaza's food system and its vibrant parallel economies, sustaining livelihoods and contributing to nutritional well-being despite significant challenges impacting the resilience of the food system in Gaza. These included the 17-year blockade, the recurring destruction of farmland and infrastructure, a lack of compensation for losses, and shrinking of, and restricted access to, fertile areas. These factors collectively undermined, or made impossible, the stability and growth of local food systems and women-led agribusinesses.

Women-led agribusinesses played a pivotal role in Gaza's food system and its vibrant parallel economies, sustaining livelihoods and contributing to nutritional well-being.

Contrary to the surprising ILO statement¹⁰ that women in Gaza 'generally do not work', according to the Palestinian Central Bureau of Statistics (PCBS), of the 25% of the population that derived its livelihood from farming, up to 75% of these were women.¹¹ According to our own study, 68% of respondents were primary breadwinners, indicating that income from their agribusinesses was the main or sole source of income for their families. These businesses were particularly important in urban settings, where over half of the women operated, emphasising the importance of urban agriculture in a context like Gaza, where space is limited and resources such as water and soil were already deteriorating. Urban production has become increasingly significant as it optimises limited space and resources and takes place in close proximity to urban markets and consumers - contributing to food system resilience.

While only five women in Gaza are recognised as fishers, it is thought that up to a half of the 23,520 people involved in the fishing sector – from sorting and processing fish, to mending nets – are women. An important source of protein, and central to Gaza's traditional foodways, fishing has seen a 65% reduction over two decades due to restricted access to coastal fisheries. These access restricted areas (ARAs) on sea and land also effect pastoralists grazing their sheep close to the boundary which holds a large percentage of grazing land. It is also believed that half of Gaza's 300 pastoralists are women, added to whom a majority of shepherds in Gaza are women and children.¹² All have been exposed to increased risk of targeting from Israel's excessive or lethal use of force against civilians in the ARAs.

¹⁰ <https://news.un.org/en/story/2024/04/1148296>

¹¹ <https://www.pcbs.gov.ps/site/512/default.aspx?lang=en&ItemID=3679>

¹² https://features.gisha.org/closing-in/?fbclid=IwY2xjawGtkuZleHRuA2FlbQlxMAABHSDUBduPXaeUVUySaRBHQnBWralwTbOW8_dpNHxQIGQy15vj5V7gNoNftg_aem_eYbBz5De28x78aIUQM4utA

5.1.1 Importance of Women-Led Agribusinesses to socio-economic resilience

Before the war, it is thought that some 20% of the women producers in Gaza were engaged in the capitalist market economy while others have contributed to the food system through myriad ways embedded in traditional practices of reciprocity and care, from producing for household consumption to sharing with neighbours, networks and community kitchens. This highlights the critical role women have played in sustaining community and its social fabric. While UWAF members constitute the formal face of food production as ‘agripreneurs’ engaged in the capitalist, or ‘formal’ market economy, other economies within which they and others have participated, such as the solidarity and care economies, often went overlooked.

Local networks facilitate knowledge sharing, skills development, and resource mobilisation, empowering women to act collectively within and across the food system.

One example, established in 2023, is the Community-led Solidarity Marketing initiative that distributed 18 tons of food produced by women-led SMEs to vulnerable families, further illustrating the resilience of these agripreneurs in sustaining food security and supporting their communities during the crisis. This initiative has strengthened the role of urban agriculture in addressing both economic and humanitarian needs in Gaza, and is still functioning today.

However, there was a notable disparity in perceptions of food system resilience among different age groups and types of agripreneurs - with half as many respondents below the age of 30 rating the food system's resilience as sufficient, compared with women agripreneurs between the ages of 30-60. This raises interesting intersectional questions relating to women's ages, educational attainment, social class and status, and expectations, requiring further research. Nonetheless, the lack of preparedness to shocks perceived by many members was largely attributed to the loss of land under Israeli-imposed ARA, which formed the heart of Gaza's family farming sector.¹³

UWAF Member Story: Hanadi Muhanna - Baladi Seed Bank (Al Qarara, displaced to Deir Al Balah)

Hanadi, along with her father Salama, selected 33 varieties of baladi seeds for their drought tolerance and disease resistance. These seeds were stored at Gaza's only heritage seed bank in Al Qarara, and shared with some 20 skilled farmers for multiplication who returned a percentage of seed for storage and distribution to around 250 family farmers. When the seed bank was destroyed in December 2023, Hanadi inventoried remaining seed still held with farmers and, with 10 farmers, began the task of planting for multiplication on loaned land in Deir Al Balah.



5.1.2 Agricultural Practices and Sustainability

According to the 2019 FAO report,¹⁴ agroecological farming practices to increase productive diversity enhance dietary diversification, improve health, increase adaptive capacity for climate change adaptation, and have positive impacts on household incomes and women's empowerment. Some, but by no means all, UWAF members integrated agroecological practices into their food production and processing. For instance, our study found that 60% of women-led agribusinesses utilised baladi

¹³https://www.dalia.ps/sites/default/files/reports/status_of_farmers_in_border_areas_in_the_gaza_strip_from_a_food_sov_perspective_0.pdf

¹⁴<https://openknowledge.fao.org/server/api/core/bitstreams/ff385e60-0693-40fe-9a6b-79bbef05202c/content>

practices which are vital for climate change adaptation and responsiveness to shocks, reflecting the deep-rooted traditional knowledge(s). The women attributed their access to such a diverse knowledge-base as being the result of either being passed down through generations, adopted through farmer-to-farming learning, or higher education.

At the heart of Gaza's foodways have been baladi seeds, crucial for maintaining the sustainability and sovereignty of food systems. In fact, over 85% of women agripreneurs used local seeds, valued for their adaptability and tolerance to Gaza's specific climatic and soil conditions, and for the taste and cultural significance of baladi foods. Importantly, unlike imported hybrid seeds that cannot be saved and adapted year-on-year, baladi seeds are not dependent on external inputs such as synthetic fertilisers, and, when planted in ba'ali or rainfed cultivation systems, require little to no irrigation.

UWAF member story: Amal Abu Mandeel – egg producer and marketer (Middle Area, displaced to Al-Mawasi)

Amal already faced tremendous hardship after her husband, also a farmer, was left paralysed by IDF fire close to the access restricted area. Renting a small peri-urban plot for \$70 a year, Amal kept baladi sheep and poultry, and was a linchpin for many small-scale egg producers - collecting from around 50 other poultry producers to sell. The war has destroyed many of the poultry houses and lives of all those involved in this economically and nutritionally important value chain.



5.1.3 Land access and secure tenure

Whether on family owned, rented or managed land, 37% of respondents were producing on rural (and potentially inaccessible) land in ARAs that already presented a safety risk; 9% produced on peri-urban land for production, and a majority of 54% were producing in urban spaces. Of the women engaged in primary production, 37% rented land, and 63% claimed ownership, whether through formal deeds, or as familial decision-makers. Of those 84 women producing on urban and peri-urban land, the majority were family 'owned' (11 were managed only, and 19 were rented) suggesting that these are household plots. Importantly, more data is required on perceptions of 'ownership' and its implications.

In addition to those women that do farm, according to a 2019 FAO study, 17% of households produced in home gardens of a little over 200 sq. metres. 92% of these gardens were used for food production – either for family consumption, sharing or bartering to ameliorate the stresses of blockade.¹⁵ Nonetheless, the role of women has gone largely unacknowledged in the census or other statistics, creating gender disparities in access to productive resources and services.

Land access and secure land tenure for women to farm successfully and safely, as individuals or as cooperatives, will be a critical consideration for a just recovery.

¹⁵<https://agritrop.cirad.fr/592999/1/Marzin%20Uwaidat%20Sourisseau%202019%20Study%20on%20SSA%20in%20Palestine%20with%20FAO%20WBG%20final.pdf>

Before the 2023-4 aggressions, despite political, legal, economic and cultural obstacles to secure tenure or ownership of land by women, 88% maintained that they had excellent to good control over their own assets as business owners bringing income into their family. Furthermore, this gave them freedom to move around to farm, market their produce and to organise.

In a future where the expansion of ARAs is anticipated, placing more fertility-rich soils further from reach for family farmers, urban and peri-urban farming will become more important than ever before. In this context, land access and secure land tenure for women to farm successfully and safely, as individuals or as cooperatives, will be a critical consideration.

UWAF Member Story: Huda Khousah – pastoralist
(from Jabalia, displaced to Al-Mawasi)

Huda Khousah, steadfast in her commitment to Bedouin traditions, is a powerful advocate for baladi breeds. She explains, “We have always kept baladi sheep. The other breeds introduce diseases, whereas the baladi breeds endure diseases and adapt to the shifting climate.” Huda’s advocacy underscores the importance of preserving traditional practices amidst the dual pressures of productivism under occupation. Furthermore, her deep knowledge of traditional breeds and associated ethno-veterinary methods are critical for a sovereign food system in the face of climate change.



5.1.4 Representation and Participation

Women producers are most severely impacted by climate change and food pricing, and disproportionately exposed to pesticide poisoning,¹⁶ yet are rarely heard in policy spaces. Key areas that comprise womens’ rights exist within the agricultural sector, which are deprioritised due to the recurring humanitarian crises. The mutually reinforcing conditions of military occupation and patriarchy deprive women of their general rights, as well as access to land and resources for social reproduction. Burdens of care for a population depleted and violently injured by war, shortages of food, fuel, energy and clean water have, over the decades, differentially compromised women’s political, civil, social and economic participation, exacerbating their vulnerability to multiple shocks.

The study highlighted a gap between women's perceived ability to influence decisions and their actual participation in different fora that are claimed to influence decision-making processes. While 61% of women said that they actively participated in a range of fora to which they were invited, only 24% felt that their voices were heard in these fora. This discrepancy suggests the dominance of elite actors and scientism, and a devaluing of different ways of knowing as represented particularly by baladi farmers. It also points to a lack of authentic participatory processes that enable women and other family farmers to actively contribute their expertise and experiences to food system debate and design. Participation in local networks and professional groups was deemed important by 68% of the women surveyed. These networks facilitate knowledge sharing, skill development, and resource mobilisation, empowering women to act collectively within and across the food and farming sector. It is imperative to address these gaps in both policy and participation in policy formulation.

¹⁶ <https://www.fao.org/3/cc0356en/cc0356en.pdf>



6

Policy Review & Implications

In the face of the overarching policy of de-development under occupation, no interventions can be made more technically effective as if it were a navigable mechanical obstacle. Any assessment of Gaza's agricultural policies must recognize the impacts of occupation and containment, in addition to internal governance challenges on local food systems. Policies aimed at resilience should be contextualised as part of a broader strategy to counter de-development, which encompasses land restrictions, military destruction, and the systematic depletion of resources critical to agricultural viability. The reality is that Gaza's agriculture has, for decades, operated under a series of constructed vulnerabilities, where autonomy over essential inputs has been systematically undermined and actively prevented.

Similarly, questions of policy cannot be addressed in isolation from the destruction of soils during multiple and devastating military aggressions in Gaza, the unprecedented influx of military toxins that are bioaccumulating in Gaza's agroecosystem, the control over water across the oPt, and the prevention of farmers, fishers and shepherds from accessing their lands and livelihoods. Nonetheless, Palestine's agriculture policies have consistently failed to invest in home-grown food systems, with only 1% of the budget dedicated to agriculture. Similarly, international support for agriculture constitutes less than 0.7% of ODA. The abandonment of farmers who produce nutrient-dense baladi food across the oPt has entrenched long-term dependencies on food aid.

No intervention in pursuit of 'resilience' or 'capacity' building can be made more technically effective as if it were merely a navigable mechanical obstacle.

Gaza retains an agriculture policy designed for rural agriculture, dating back to its adoption from Egypt in the 1950s, despite having no land designated as 'rural' since 2017. Nonetheless, given this rural focus, there is a surprising lack of pro-pastoral policies, or protection for pastoralists' land or livelihoods. If Israel is permitted to further expand the ARAs around the perimeter, any vestiges of Gaza's rural areas will be further eroded. A policy pertaining to urban agroecology and related support mechanisms is urgently needed to connect up, and protect, the farming that now takes place on fragmented land dispersed within and between Gaza's once growing cities.

6.1 Document Review

Of interest to our review were strategic plans, policies and regulations that relate to protection of farmland and agroecological food systems, including baladi seed and ways of cultivating and producing, and those that are supportive of women producers and small business owners. It also

draws on previous research undertaken on women's access to and ownership of land across the oPt.¹⁷ As such the following documents were reviewed:

1. *Collaborative Strategic Plan for the Advancement of the Agricultural Sector (2021-2026)*¹⁸ this 'comprehensive plan' sets strategic goals to enhance resilience, sustainability, and food security across the agricultural sector in Gaza.
2. *Palestinian National Agricultural Sector Strategy: A Resilient and Sustainable Agriculture 2017-2022*¹⁹ which aims to promote resilience and sustainable agricultural practices by supporting local farmers, improving food security, and managing resources efficiently.
3. *Cross-Sectoral National Gender Strategy (2017-2022)*²⁰ Developed by the Ministry of Women's Affairs, this strategy aims to promote gender equality in various sectors, including agriculture, by ensuring women's access to resources and decision-making roles.
4. *National Policy Agenda: Putting Citizens First (2017-2022)*²¹ this overarching policy document includes references to agricultural development and gender equality as part of broader national goals for resilience and sustainability.

Each of these documents was analysed for how well they address, or not, the specific needs of small-scale farmers, urban agroecology, and gender-sensitive agricultural support in Gaza. These were benchmarked against international human rights standards and frameworks such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Universal Declaration of Human Rights. The review highlighted significant policy gaps, especially around urban agroecology, small-scale farmer support, and inclusion of women in agricultural policy frameworks.

6.2 Key Gaps Identified

- **Lack of Urban Agroecology Integration:** The strategic plan does not explicitly recognize the existence of urban farming, or support urban agroecology – technical practices or social processes - essential for local food production resilience in Gaza.
- **Limited Support for Small-Scale Farmers:** Policies favour larger commercial enterprises, leaving small-scale and urban farmers, particularly women, with limited access to resources, and financial and technical support.
- **Inadequate Gender-Sensitive Policies:** Current frameworks insufficiently address the unique needs of women producers, impacting their access to land rights, financial support, and market inclusion.
- **Insufficient Inter-Ministerial Coordination:** Weak collaboration between ministries results in inefficiencies and missed opportunities to integrate urban agriculture within urban planning and resilience initiatives.
- **Data Gaps and Representation:** The absence of accurate, inclusive data on small-scale and urban farmers, especially women, hinders policy decisions and limits the visibility of these stakeholders in national planning.

¹⁷ <https://pwwsd.org/uploads/15949011091533037615.pdf>

¹⁸ <https://docs.google.com/document/d/1JMzdhO3e1SV6ywtMWiNg5D18WANMiODi/edit#heading=h.gidgxs>

¹⁹ https://www.unccd.int/sites/default/files/prais-legacy/Palestine%20C%20State%20of%202018/annexes/English%20Strategy%202017-2022.pdf?utm_source=chatgpt.com

²⁰ <https://nwm.unescwa.org/sites/default/files/2022-10/-----~1.PDF>

²¹ https://planipolis.iiep.unesco.org/sites/default/files/ressources/palestine_draft_final_npa.pdf

6.3 Policy Landscape and Support for Women-Led Agribusinesses

Current agricultural policies do not sufficiently recognize the urban and peri-urban agricultural realities specific to Gaza's context. They do not adequately support women farmers, limiting their access to essential resources, such as veterinary services, inputs, and financial assistance. This gap is particularly significant given that over 50% of agribusinesses in urban settings are managed by women, who are often the primary or sole income earners for their families. Many of these women lack formal recognition as landowners or farmers, which hinders their access to services, secure tenure, and financial aid necessary for sustainable growth.

Policies should formally acknowledge and integrate urban agroecology within the national agricultural strategy, specifically addressing urban farming challenges. Women-led agribusinesses, particularly in densely populated and resource-scarce urban environments, require tailored financial incentives, technical assistance, and infrastructural support. For instance, training in urban-specific farming methods, such as rooftop and vertical farming, and access to microfinance for urban-specific agricultural inputs are essential measures to be incorporated to build resilience within this sector.

An urban agroecology policy is urgently needed to connect up, and protect, Gaza's fragmented farmlands.

Gender-responsive policies are critical to addressing women entrepreneurs' unique challenges in accessing land, resources, and markets. To enhance the status and contribution of women within Gaza's agricultural landscape, it is recommended that policies facilitate formal recognition of women as farmers, secure tenure rights, and develop infrastructure that supports urban agroecology initiatives. Capacity-building programs tailored to the needs of women agribusinesses, such as training in financial management, marketing, and sustainable agroecological practices, are also essential to foster their resilience and empowerment in the agricultural sector.

For women producers specifically, the review revealed significant gaps in mechanisms for small-scale women farmers and women-led agribusinesses in Gaza. Their exclusion from essential support programs, such as vaccination and access to fodder, relates to a fundamental failure by the relevant authorities, particularly by the Ministry of Agriculture, to recognise the existence of women engaged in food and farming, and so to train women extension officers who can cater for, and represent, the needs of women committed to producing nutrient-dense baladi food and farming for home, community and/or markets.

More broadly, without any regulation that either recognises or addresses the impacts of industrial farming, or provides incentives for agroecological baladi farming systems, intensive production methods have been prioritised by the authorities, agronomists and NGOs alike, demanding the importation of agricultural inputs that became a major cause of soil depletion and groundwater pollution. In this scenario, production costs in Gaza increased as farmers were encouraged to invest in imported inputs and technologies, making their produce more expensive than highly subsidised industrial imports from Israel, sold into Gaza at just below the cost of local production. High-yielding hybrid varieties, often monocropped in polytunnels by Gaza's commercial producers, flooded local markets, competing unfavourably with baladi varieties. Family farmers were often heard saying that they fed Gaza from their own pockets, despite their baladi produce being in high demand. Even as embattled family farmers strived to defend baladi food and farming systems in the face of increasing industrialisation, the intensive use of agrichemicals all around them depleted life below and above ground, exposing them to increasingly resistant pests and diseases. After the military destruction over the past year, it is impossible to determine the health of Gaza's soils.

Without a coherent policy architecture that supports a long-term strategy towards a just transition to an agroecological food system, added to the persistent exposure to trauma, toxic pollution from industrial activities and munitions, poor diet due to a scarcity of nutrient-dense food, and industrially grown and imported ultra-foods, Gaza's already chronic disease burden will devastate future generations. Added to which, combination of climate change, and blockade-induced economic hardship and associated market conditions, added to regular military destruction, will continue to drive indebtedness across the sector, exposing farmers and their land to the ongoing forces of further land annexation that drive land speculation and elite accumulation from within, further entrenching the separation of Palestinians from their land.

6.4 In Summary

The study concluded with a call for developing policies and creating opportunities that foster diverse and inclusive decision-making processes. Such measures are essential to ensure the resilience and sustainability of Gaza's food system, particularly under the stress of ongoing and future shocks. The pre-war context for women-led agribusiness in Gaza was characterised by significant contributions to the local economy and food security, reliance on sustainable agricultural practices, and active participation in social networks. However, these enterprises faced substantial challenges due to occupation and associated political instability and resource limitations, as well as misrepresentation of women's roles and their under-representation in decision-making. Addressing these issues is crucial for building a reparative, resilient and sovereign food system in Gaza.

There is a need to make visible women engaged in food and farming who are committed to producing nutrient-dense baladi food and farming for home, community and/or markets.



UWAF members planning their Solidarity Marketing distribution, July 2024. GUPAP.



Clearing farm damage. AP, 2024

7 Impacts of the War on the Food System

The ongoing assault on Gaza over the past year has weaponised hunger, while profoundly impacting Gaza's food supply. The systematic targeting of fishing ports and farming areas including greenhouses, collective infrastructures such as flour mills and olive presses and Gaza's only heritage seed library, and irrigation wells, wastewater and waste disposal, as well as repeated targeting of bakeries and markets, is unprecedented. An estimated 70% of Gaza's greenhouses have been partially or completely destroyed,²² 83% of all plant life and 70% of farmland and orchards have been destroyed.²³ Soils will be contaminated with heavy metals and compacted by military vehicles, and littered with bomb craters and unexploded ordnance, which the UN estimates could take 14 years to clear.²⁴ By March 2024 damage to agriculture was already estimated at \$629 million.²⁵ Combined with the destruction of natural areas, waste treatment infrastructure, and debris removal, this amounts to over \$1.5 billion – before even considering the costs of environmental restoration and reconstruction. By July, the UN Special Rapporteur on the Right to Food, reported that approximately 93% of agriculture, forestry and fishing sectors combined had been destroyed.²⁶

UWAF members continue to organise, collect data and produce a range of fruits and vegetables for neighbours, markets and community kitchens.

7.1 Impact of the War on Women-Led Food & Farming Enterprises

Since the onset of the war, UWAF members have continued to organise and collect data, documenting the destruction of their agribusiness infrastructure and lands, resulting in the loss of income for their families. Additionally, they have faced difficulties in accessing and affording goods available in ad-hoc markets, as well as securing inputs such as seed and fodder in the hope of feeding what remains of their livestock or rebuilding their businesses in the midst of the ongoing bombardment and forced displacement. The lack of due compensation for losses during past wars further exacerbates their vulnerabilities, leaving them with limited means to recover.

Despite these challenges, local fresh food production, particularly in plant cultivation, has shown some resilience, and requires closer attention during recovery and reconstruction phases. Urban agriculture, focusing on vegetables like cucumbers, tomatoes, squash, eggplants, peppers, and sweet peppers, remained operational in some areas in the summer months, albeit on a limited scale and always under

²² <https://insecurityinsight.org/wp-content/uploads/2024/06/Conflict-Induced-Hunger-in-Gaza-June-2024.pdf>

²³ https://content.forensic-architecture.org/wp-content/uploads/2024/10/FA_A-Spatial-Analysis-of-the-Israeli-militarys-conduct-in-Gaza-since-October-2023.pdf

²⁴ <https://news.un.org/en/story/2024/04/1149051>

²⁵ <https://thedocs.worldbank.org/en/doc/14e309cd34e04e40b90eb19afa7b5d15-0280012024/original/Gaza-Interim-Damage-Assessment-032924-Final.pdf>

²⁶ <https://www.un.org/unispal/document/right-to-food-report-17jul24/>

threat of repeated destruction. This resilience highlights the crucial role of urban farming in mitigating food shortages during crises.

Zeinab Abed – baker & lead UWAF Coordinator
(from Rafah, displaced to Al-Mawasi)

"Many women agripreneurs have shown remarkable resilience despite the destruction. For instance, the UWAF coordination committee helped establish community kitchens in shelters serving displaced families. Additionally, members have been actively involved in the cultivation, harvesting and distribution of fresh food items through the CLSM initiative, ensuring access to fresh produce for families in need."



7.1.1 Rapid Assessment

A rapid assessment conducted during August 2024 through direct communication by UWAF's coordination team with its 300 members revealed that:

- 50% of women-led small and medium-sized agricultural enterprises have been partially or totally damaged and need comprehensive rehabilitation and reconstruction support.
- 20% of these are still operating but require accelerated support in the form of inputs, and advice on optimising increasingly scarce available resources to stabilise current operations.
- 30% of SMEs continue to produce, but at a reduced capacity due to a need for rehabilitation support, including raw materials. This relates to the medium to long-term, focusing on reconstruction and material recovery towards the recovery of full functionality.
- The economic performance analysis highlighted significant disparities in production between the northern and southern regions of Gaza, primarily due to water availability. Transitioning to micro-solar for irrigation in the southern region has improved production and led to benefits, indicating a pathway towards more autonomous and decentralised energy generation.

This rapid assessment laid the groundwork for a follow-up survey conducted online so as to reach producers that are displaced, or currently under siege in Gaza City and the North.

7.1.2 Family Farming Survey

Conducted in November 2024, this survey gathered responses from 245 family farmers and agripreneurs across Gaza across all 5 governorates, representing a diverse cross-section of Gaza's agricultural community.²⁷ Women comprised 83% of the sample, with the majority of respondents aged between 26 and 45, reflecting the active involvement of a younger people. Of respondents, 40% were engaged in food processing, 26% in crop production, 16% in livestock production or pastoralism, and 14% in mixed farming, with some engaged in other food related activities.

²⁷ Survey respondents: North Gaza (20%), Gaza City (25%), Middle Gaza (15%), Khan Younis (22%), and Rafah (18%).

7.1.2.1 Challenges in Agricultural Production

This survey identified several recurring challenges faced by respondents in maintaining agricultural production. The lack of water for irrigation was the most frequently reported issue, affecting 55% of participants. This was followed by limited access to seeds and inputs, cited by 48%, and the ongoing impacts of aggressions, which hindered 45% of respondents. Environmental challenges, including drought and flooding, affected 35%, while 40% noted a lack of financial support or credit as a barrier. On a severity scale, 70% of respondents rated these challenges as "Very severe," underscoring the urgent need for targeted interventions to support Gaza's agricultural sector.

Furthermore, the ongoing situation has severely disrupted agricultural operations for most, with the majority (62%) reporting damage to their critical infrastructure such as greenhouses, irrigation systems, and storage facilities. Additionally, 48% were unable to access their land, and 40% experienced direct losses of crops or livestock.

The economic impact of the conflict has been devastating. Over 76% of respondents reported income losses exceeding 50%, with 30% indicating catastrophic losses of more than 75%. The ability to employ workers or manage labour was similarly affected, with 65% of participants noting severe impacts on their workforce. The financial burden was further exacerbated by increased costs for essential inputs like seeds and fertilizers, affecting 55% of respondents, while disruptions in supply chains and market access hindered the operations of 50% of respondents. These findings highlight the far-reaching consequences of the conflict on Gaza's agricultural sector and the livelihoods dependent on it.

7.1.2.2 Perceptions of Pre-existing Agricultural Policies & Support

The survey also examined respondents' views on the effectiveness of agricultural policies. A significant proportion (60%) indicated that pre-existing policies will hinder their ability to recover from the destruction, while only 20% considered these policies to be even moderately effective. Key areas identified for policy improvement included support for women agripreneurs, better access to agricultural inputs and resources, and reforms in land use and access rights. Support for urban agriculture was also highlighted by 25% of respondents as an area requiring attention.

Respondents identified several areas of support critical to improving resilience in the face of ongoing siege and environmental challenges. Financial assistance or credit was the most commonly mentioned, by 70%, followed closely by access to water and irrigation infrastructure (65%) and support for market access (50%). Additionally, 45% of respondents emphasized the importance of training in sustainable agricultural practices, such as agroecology and urban farming, to adapt to challenges effectively, which was regarded as effective by 80% of respondents.

Despite the benefits of collective action, only 25% of respondents reported participating in cooperatives or networks such as GUPAP or other local organizations. This highlights a gap in community-level resilience at a territorial level that could otherwise provide effective farmer-led strategies such as equipment and skills sharing, bulking and collective marketing.

From resource shortages and infrastructure damage to economic losses and inadequate policy support, the survey findings underscore the urgent need for targeted interventions and support for social innovation. At the same time, the resilience strategies identified by respondents, including the adoption of regenerative agroecological practices and the need for financial and institutional support, provide valuable insights for shaping future policies.

7.2 Resourcefulness, Reciprocity and Care under Siege

Amongst others in Gaza, organisations such as GUPAP and UWAF advocate for and implement agroecological practices and principles among women-led and other food and farming enterprises that centre baladi foodways towards the advancement of food sovereignty. Where external resources for agriculture are particularly scarce and vulnerable to geopolitical disruption, initiatives promoting food sovereignty are gaining traction. In Gaza, these have involved the promotion of resource optimization through agroecology; technology sovereignty through small-scale energy generation for water pumping and harvesting for irrigation; and local seed adaptation with an emphasis on baladi seed to (re)build agrobiodiversity for food and nutritional security.

Women-led urban agricultural enterprises have shown remarkable resilience and adaptation, both before and during the bombardment. Community resilience through collective efforts such as collective care as seen through the establishment of community kitchens in shelters for displaced people have exemplified the ethics of steadfastness and solidarity.

- **Community Kitchens and Collective Care:** In the midst of the military offensive on Gaza, family-led community kitchens have emerged as crucial support systems. For example, a family-led community kitchen in a shelter for internally displaced people has provided vital nourishment – in the form of essential meals and a sense of community support and mutual aid during a time of crisis. Women have often been at the forefront of these mutual aid initiatives, as producers, processors, and cooks.



Eid al Adha. June 2024. GUPAP

- **Building Shared Capacities through Knowledge Exchange:** Since learning opportunities, intended to strengthen women-led research, practice and policy formulation and the advancement of women’s political participation in food system planning, organising and resourcing (farmer-to-farmer learning exchanges, and a professional diploma in Urban Agroecology & Food Sovereignty) were cut short on 07/10, UWAF members made a decision to take this into their own hands. As many have graduate and post-graduate qualifications in farming and food studies, they recently launched their own ‘family farming advisory service’, utilising WhatsApp groups and hotlines to provide technical support to women agripreneurs. This ensures that, given the lack of physical advisory services (for women even before the war), that women could still access essential advice and support for maintaining their small-scale agribusinesses. Many women are adopting agroecological practices such as composting, greywater harvesting, and integrated pest management that have enabled them to maintain productivity despite challenges like water scarcity and disrupted supply.
- **Community-Led Solidarity Marketing Initiative:** Established by GUPAP and UWAF before 07/11, this initiative had already collected and distributed 18 tons of fresh and processed baladi products from 50 UWAF members to over 200 vulnerable families. This supported FNS, strengthening community solidarity, and creating important connections between local producers, processors and consumers.²⁸ During Eid al Adha in July 2024, members again came

²⁸ [Community-led approaches to realise the Right to Food](#) (GUPAP June 2024)

together as an act of steadfastness, solidarity and care to produce the traditional sweets to break the fast which were both shared and sold at markets. Through this innovative approach seasonal crops and food products are sourced from women agripreneurs and distributed to displaced families now in shelters, many of which are operated by women-led NGOs that cater specifically to women, children, and the elderly. Since October 2024, a further 15 tons of fresh olives for preserving, and fresh and processes dates have been distributed as part this important mutual aid initiative, easing the harsh conditions "From women to women," reflecting the profound solidarity between women still farming and those that are displaced.

- **Baladi Seed Recovery:** Despite its destruction, Hanadi and Salama have inventoried seed remaining from Al Qarara seed bank which was distributed amongst its 200 farmers for multiplication at the beginning of 2023. They have since begun the task of multiplication on rented land in Deir Al Balah, where they are displaced, and from where they have begun the long task of recovery that centres local seed sovereignty and traditional agricultural knowledge.²⁹
- **Solidarity Cafe:** Another initiative developed by UWAF members has arisen from the need for a safe, warm space where women can come together in solidarity to organise and learn together - a place for coffee, conviviality and care. With electricity and internet in Deir Al Balah, the Cafe also aims to provide a focal point for the family farming advisory services, a place where women undertaking studies are also able to access reading, and a place to share knowledge and seed.

UWAF Member Story: Madleen Kulab – fisher (Gaza City, displaced to Deir Al Balah)

Madleen is a trailblazer, having been Gaza's only woman with her own boat. She learned her craft from her father since childhood, successfully combining fishing with tourism, taking families out to sea and preparing traditional seafood dishes. She is one of six UWAF members involved in fisheries, fixing nets and preparing and marketing fish. Madleen, along with Gaza's 3,700 other fishers, are now displaced to the middle area, risking their lives to fish with nets at the sea's edge.



²⁹ [Revival of Al Qarara seed bank](#) (GUPAP, September 2024)



Hanady Abu-Herbeid harvesting and solar drying Za'atar. GUPAP 2021

8

Divergent Post-War Food & Farming Strategies

8.1 Distinct visions for Gaza's Food System

In the coming months and years, Gaza is likely to be exposed to significant international pressure to re-make Gaza's food and farming system in its own industrialised image, heightening market dependence, and increasing pollution and biodiversity loss. It is notable that, in spite of the systematic targeting of food and farming and destruction of infrastructures (including water) for over a decade,

Input substitution, rather than acceleration, is a first step in reducing costs of production and thus increases farmers' profitability and competitiveness within territorial markets.

Gaza's food system took considerably longer to collapse than anticipated. A policy lesson is to increase diversification rather than specialisation, and strengthen localization and social organisation of food production and distribution.

There are two visions emerging for the future of food and farming in Gaza – both asserting a commitment to climate resilience. While both are able to supply enough food, their centres of power are markedly different. Many therefore highlight the incompatibility of these divergent visions. The first, climate-smart agriculture, is capital-intensive, extractivist, specialised, high-tech/-input dependent and technocratic with a commitment to shareholder profit; while the other, agroecology, is reparative, knowledge-intensive, diversified, place-based and people-centred with a commitment to equity and sovereignty. One practical concern with the first vision is the viability of increasing dependence on imported and proprietary inputs. Another concern is the concentration of power and corporate control of the food system. This vision represents the dangers of post-war reconstruction as war by other means where input-intensive and people-less technologies would deepen dependence on multinational corporations as a form of colonial modernity. This would exacerbate injustices in water, food and labour regimes, further pollute Gaza's agroecosystem, deepen power inequalities, and heighten vulnerabilities associated with occupation and blockade.

To achieve food sovereignty, there is a need to diversify through locally adapted polycultures, rather than further specialise through input-intensive monocultures. An emphasis on resource optimization is critical by, for instance, enhancing soil fertility through nutrient cycling of Gaza's organic wastes (which constitute over 50% of all landfill), and substituting synthetic fertilisers and pesticides with natural and locally-available alternatives that would dramatically reduce the leaching of nitrates and leachates into groundwater. And where farming is so embattled, and farmers' indebtedness was already so crippling, the viability of farming livelihoods is a central concern. Input substitution, rather than acceleration, is a first step in reducing costs of production and thus increases farmers' profitability and competitiveness within territorial markets. Importantly, there is a need for social and political transformation focused on improving ecological and human health and addressing issues of equity and participation in food systems governance, empowering farmers, particularly women, to exert agency over their production systems and ensure sustainable livelihoods. Rather than further entrenching dependence on external proprietary technologies, the notion of innovation should embrace principles of technology sovereignty based on accessibility that prioritises place-based solutions rooted in diverse local knowledges - controlled by people that have agency over it - with innovations co-designed with farmers according to specified needs.

With an understanding that decisions on food - how, where, and by whom it is produced, organised and governed - are inherently political, we take a position that the recovery of Gaza's agriculture, fisheries, and livestock sectors must be rooted a sovereign and a just transition towards place-based, climate-sensitive and people-centred food systems. Decisions about its post-war potential that lay out a decolonial pathway towards food sovereignty will need to be made by decision-makers entering into meaningful dialogues with all those with a stake in Gaza's food system - its farmers, fishers and shepherds, and its processors, marketers and consumers.

A narrow focus on recovering Gaza's formal economy risks rendering women's contributions to food and nutritional security invisible.

8.2 Future Prospects for a Just Recovery

Without formal recognition of women as farmers with tenure rights or as landowners women producers' access to services and available finance will also be further compromised. Three quarters of those working in food production are women, either as skilled yet unpaid labour on family farms, as skilled labour on commercial farms, or as business owners. Given the nature of Israel's targeted attacks on men, there is likely to be a significant skewing of the adult population towards women. Without formal recognition of their status, and possibly without evidence of land ownership given the targeting of municipal registries and records, women will lack land access and/or security of tenure.

The road to a just recovery and reconstruction is steep and littered with diversions and road blocks. Worth noting is the IPES-Food report that identifies four drivers of the 'land squeeze'³⁰ which, while taking in the global picture, resonate with Gaza's experience as a microcosm of pressures resulting from occupation, including the expansion of access restricted areas, and consolidation of control over the food system by industrial capital through the imposition of neoliberal policies.

1. Land Grabbing: Deregulation, financialisation & rapid resource extraction
2. Green Grabbing: conservation, carbon offsets & 'clean fuel' expansion
3. Expansion & Encroachment: urbanisation, and mega-infrastructure developments
4. Food System Reconfiguration: Agri-food sector industrialization & profit consolidation

³⁰ <https://ipes-food.org/wp-content/uploads/2024/05/LandSqueeze.pdf>

Rethinking food systems as central to post-war recovery in Gaza presents an opportunity to consider what a just recovery looks like – one that re-values baladi food and farming systems that are deeply rooted land stewardship, defends the right to food for all, and promotes an adaptive, resourceful food future that is resilient in the face of ongoing shocks.

In the likelihood of continued occupation and ongoing blockade, to intensify production with industrially produced external inputs will only exacerbate pressures on Gaza’s agroecosystem such as soil depletion, and water pollution and over-extraction, while leaving the Strip exposed to future rounds of siege. Furthermore, an intensifying land squeeze, or an outright land grab, will intensify widespread land concentration, fragmentation, and degradation, eroding meaningful access to and control over land for small-scale food producers,

peasants, pastoralists, fishers and marginalised groups.

Within their ‘day after’ planning, international actors tend to focus on the recovery of Gaza’s formal economy, which is not where the majority of Gazans make their living, particularly women. This narrow focus risks rendering women’s contributions to food and nutritional security invisible. This focus also ignores important parallel economies such as the solidarity, sharing, circular and Sumud economies within which women thrive and that, before and since 07/10/23, have been pivotal to Gaza’s resistance, resilience and survival. This raises concerns that while women may be a majority of adults alive after a ceasefire, and will carry a significant burden of care for ill and disabled family members, their contributions as farmers during the assault on Gaza will be overlooked through the recovery and reconstruction phases. Excluded from meaningful participation in decision-making on the future of Gaza’s food system, women’s voices for change will remain especially marginalised, invisible and misrepresented by domestic and international actors alike.

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UWAF beekeeper Samar Al-Baa. GUPAP 2021



9

Recommendations for Supporting Women Agripreneurs

9.1 Immediate Response Prior to a Ceasefire

Resulting from discussions with UWAF members since the middle of 2024, the Agripreneur Support Strategy outlines a three-phase approach to supporting women-led SMEs to address immediate needs for recovering their production. This highlights the need for crisis response plans that provide clearing of unexploded ordnance, soil repair, decontamination of water, infrastructure rehabilitation, strategic input stocks, and financial support to enhance resilience against future shocks. The first phase, selection, involves nominating SMEs based on their production capacity and location. The second phase is verification, where online forms are used to verify the nominated agripreneurs. The final phase, implementation, includes three modalities for delivering support: in-kind procurement of essential materials, community-led solidarity marketing, and cash support for women with personal bank accounts. In the medium to long-term, we highlight the following recommendations towards a just recovery.

Extension provision by women for women is needed to support agroecological farming systems transition and design.

9.2 Capacity Support for an Agroecological Transition

To support capacity for an agroecological transition, there first needs to be a collective vision for what this means and what is required. This would require building a movement between farmers, fishers and pastoralists, producers, marketers, researchers, scholars, and civil society organisations and consumers to identify knowledge gaps and agree on what the parameters for support might be to co-create diversified and resilient closed-loop production systems that support FNS while preserving and enhancing agrobiodiversity and local foodways. This could take various forms, including:

1. **Tailored Skill Development:** targeted training programs to rebuild and re-value diverse knowledge(s) focusing on agroecological practices, financial management, marketing strategies, and leadership skills tailored to the needs of women entrepreneurs in Gaza.
2. **Create networks for peer-to-Peer learning:** Facilitate platforms for interconnected women-led food and farming businesses to share knowledge, experiences, and best practices.
3. **Establish mentorship programs** where experienced entrepreneurs mentor newcomers, fostering a supportive community and promoting continuous learning.
4. **Professional diploma** for NGOs, extension workers, food activists and researchers in urban agroecology and food sovereignty tailored to Gaza's specific context, but also drawing in students from the West Bank and the region to create solidarity networks.

5. **Extension provision** by women for women through a concerted programme to train women extensionists in agroecological farming systems, transition and design.

9.3 Innovative Solutions

To overcome the multiplicity of challenges ahead, different innovations are required. Conventional views of innovation in agriculture often focus on the introduction and adoption of new technologies through ‘interventions’ and ‘knowledge transfer’. In this way, the very understanding of ‘innovation’ should be revisited and expanded beyond the purely technical to include social innovations such as cooperatives, commoning on vacant land, land access, markets and more collective infrastructure for processing. Given that reconstruction will present extreme pressures on land - particularly affecting women - greater emphasis should be placed on promoting:

1. Inclusive and participatory forms of innovation and its governance.
2. Social innovations that might include cooperatives catering for public procurement (to get healthy food into, for example, hospitals, schools, orphanages).
3. Citizen science with baladi farmers trialling nature-based solutions to remediate soils devastated by contamination and compaction.
4. Revisiting WASH regulations that depend on water-based sewage management with a view to nutrient cycling systems.
5. Incentives for investment in local food, energy and water schemes.
6. Knowledge co-production and sharing among communities and networks.
7. Responsible co-innovation between researchers and farmers informed by specified needs.
8. Innovative co-financing for farmers to access land for collective ownership and production.

9.4 Material and Financial Support for Food Systems Recovery

1. **Identify local and international organisations** to establish relationships around a commitment to an agroecological transition to build alliances for long-term support for a just recovery and reconstruction that centres local knowledges, supports the establishment of seed libraries and promotes the re-localisation of markets.
2. **Access to Finance:** Establish women-led and organised microfinance schemes or grants specifically for women-led agribusinesses to access affordable credit and investment. Provide financial literacy training, for those who require and request it, to empower entrepreneurs in managing finances and accessing funding opportunities.
3. **Rehabilitation and Reconstruction Assistance:** Mobilise resources to provide all farmers with essential materials for repairing soils, decontaminating water, and rehabilitating damaged infrastructure such as greenhouses, irrigation systems, and storage facilities.
4. **Farmer Managed Seed Systems:** The basis of a sovereign food system begins with open pollinated seed that has been selected, adapted and shared over generations that can be produced with no industrial inputs and little water. Policies are needed to preserve and distribute baladi seed through the establishment of seed libraries supported by agroecological practices to multiply genetically diverse baladi varieties for pest and drought resistance and nutrient-density.

Defence of farmland requires the monitoring, recording and suspension of any contested or undemocratic land transfers, land-use changes or land grabs without the full consent of women.

9.5 Policy Recommendations for Supporting Women-Led Agribusinesses

Current agricultural policies neither centre the urban and peri-urban realities of Gaza's food and farming systems, nor adequately recognize women farmers, fishers or pastoralists, limiting their access to essential resources such as veterinary services and financial assistance.

1. **Defence of farmland:** The monitoring, recording and suspension of any contested or undemocratic land transfers, land-use changes or land grabs without the full consent of women and other local people should be at the forefront of local and international policy.
2. **Investment in agriculture** that envisages a post-aid dependent oPt would begin with domestic and international recognition of the role of highly resilient and adaptive farming systems and those innovators that continue to practise and adapt it. This would include increasing the percentage of GDP and ODA to agriculture, and prioritising its allocation to baladi food and ba'ali cultivation systems, including to pastoralists and fishers.
3. **Gender-Responsive Policies** that recognize and address the unique challenges faced by women entrepreneurs. These include equal access to land, water resources, and markets, and integrate gender perspectives into food systems strategies and governance.
4. **Identification of urban land:** for collective urban agroecology by networks and cooperatives of women unable to farm out-of-reach and dangerous no-go areas, while reducing transport costs and waste associated with getting produce to markets.
5. **Introduce incentives for agroecological practices** such as relaxing regulations, tax breaks or subsidies, particularly for women-led agribusinesses employing baladi skills and protecting baladi foodways.
6. **Build integrated governance** for land, environmental, and food systems to halt land grabs, re-centre communities, and ensure a just and human rights-based transition. Bar speculative capital from land markets, and get land back into the hands of farmers.
7. **Lift and review regulations and standards regimes** that represent uneven barriers to market entry for small-scale producers. These should be lifted to enable a just recovery, and be comprehensively reviewed thereafter to satisfy local requirements, and incorporate, for instance, labour considerations and environmental impacts.
8. **Resist the imposition of proprietorial technologies** that would concentrate power over the agri-food system in the hands of international capital, and instead prioritise the establishment of locally adapted legal frameworks that recognise farmers' rights and guarantee equitable access to diverse seeds and livestock breeds.
9. **Prioritising the re-establishment and re-localization of markets** and support for communal infrastructures such as sorting, packing and processing hubs, and transportation infrastructures that provide greater processing and handling capacities for fresh products from small-scale farmers who adopt agroecological and other innovative approaches and improve their access to local food markets.
10. **Introduce supply management and import quotas** to guarantee stable prices and market outlets for food local producers and processors.
11. **Create municipal systems for organic waste collection** and integration into soils for fertility management. This could include support for location-specific community-led composting and sales to farmers across the Gaza Strip.



10 Conclusion

Throughout, we have examined the profound impact of the systematic assault on Gaza's entire food system, with a focus on women-led agribusinesses, highlighting the resilience and challenges faced by these agripreneurs amidst extreme adversity. The resilience displayed by women in Gaza is a testament to their unwavering determination and resourcefulness in the face of adversity. Despite enduring unimaginable setbacks, these entrepreneurs have leveraged local knowledge, community solidarity, and innovative approaches to sustain operations and support their communities.

This report has highlighted the opportunities that Gaza's reconstruction represents for global capital. As such, it warns of the dangers of post-war reconstruction as a 'continuation of war by other means' where input-intensive and people-less technologies would deepen dependence. Available evidence warns that this would exacerbate injustices in water, food and labour regimes of extraction, deepen the pollution of Gaza's agroecosystem, and heighten structured vulnerabilities associated with ongoing occupation and blockade. With an understanding that decisions on food – how, where, by whom it is produced and governed - are inherently political, we take a position that the recovery of Gaza's agriculture, fisheries, and livestock sectors must be rooted in a sovereign and just transition towards place-based, climate-sensitive and people-centred food systems.

Here we also drew on a policy review that revealed significant gaps. In the face of the occupation strategy of containment, de-development and regular destruction, no interventions can be made more technically effective as if they were a navigable mechanical obstacle. Any assessment of Gaza's agricultural policies must therefore recognize the impacts of occupation in addition to internal governance challenges on local food systems. Many reports have been produced on 'improving' Palestinian coping and resilience mechanisms, presented as simple technical or capacity building strategies. As such, we have sought to navigate this tension, calling for more effective strategies in Gaza, while avoiding pathologising its producers.

By fostering an inclusive and supportive ecosystem that values the diverse contributions of women to food and farming across different landscapes, Gaza can harness the resilience and innovation of its entrepreneurs to build a more dignified, sovereign and prosperous future. The journey ahead will require continued negotiation between government agencies, civil society organisations, international donors, and local communities to ensure that women-led agribusinesses thrive amidst adversity and contribute to Gaza's food and nutritional security and its economic resilience.