



**Foresight4Food**  
International Collaborative Initiative

# Understanding The Situation Of Smallholder Farming In Jordan

**FoSTr Jordan Policy Brief No. 4**

## Key messages

01

**The food system transformation process in Jordan requires an understanding of the contribution that smallholder farmers make to national food and nutrition security.** There is currently no official definition for “smallholder farmers” in Jordan; in general, it is mostly related to holding size, which is far from adequate in understanding smallholding. Additional features, such as farm system, landholding types, and commodities produced, are required to characterize Jordan smallholders.

02

**Smallholder farmers produce significant amounts of often fresh and low-input foods for Jordanian consumers, and therefore play a critical role in national food and nutrition security.** However, they face several significant limitations and challenges, including: i) limited access to finance, mainly due to lack of sufficient collateral; ii) shared ownership of their holding, which can complicate farm management; iii) limited access to inputs and markets; iv) lack of social security assistance; v) low levels of organization; and vi) high dependency on variable weather conditions and fluctuating rainfall. Hikes in land prices, especially near cities, also contribute to farmers leaving the land idle, as the increase in land value is far greater than the income that can be obtained from agricultural use.

03

**Looking ahead, key recommendations for action by various stakeholders include:** conducting further data collection and ongoing analysis of the roles and contributions of smallholder farmers to Jordan’s food and nutrition security; greater collaboration between smallholder farmers; encouragement of short, healthy food value chains; reorientating subsidies to better support and benefit smallholder farmers; and adjusting legislation to minimize landholding fragmentation.

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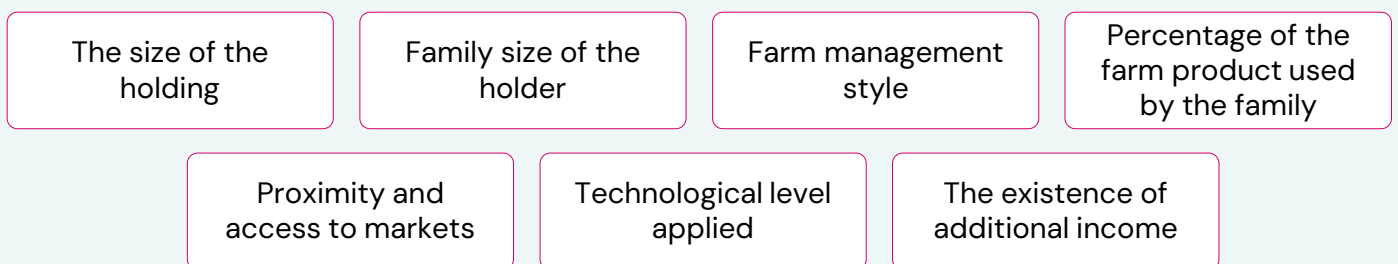
## Introduction

This policy brief is part of a series prepared by the Foresight for Food Systems Transformation (FoSTr) programme to provide decision-makers, politicians, researchers, and practitioners with relevant data, information, policy tools and recommendations that promote a collective understanding of critical issues concerning food system transformation. The need for these notes arose from the workshops conducted by FoSTr in May and November 2023 and other relevant occasions. Stakeholders highlighted the lack of awareness, appreciation and the need to adopt a holistic and comprehensive approach to food system transformation. This policy brief is intended as a diagnostic and issues paper rather than a detailed or analytical document in order to fit the purpose.

### Why the need to understand the situation of smallholder farming in Jordan?

Smallholder farmers are key players in Jordan's food system. They contribute to achieving food security, support rural development, and provide jobs. These farmers also contribute to the provision of low-input and organic, nutrient-rich, fresh products to consumers, and use short/direct supply systems (i.e., from farm to fork, particularly in healthy fruit and vegetables).

Yet, smallholders are poorly understood and, in the absence of well-evidenced information, prejudices against these farmers can prevail. Adopting a unified definition of smallholder/farmer is a complex and ambiguous task. The concept of "smallholding" takes several factors into consideration, including:



The Food and Agricultural Organization of the United Nations (FAO) defines smallholders as small-scale farmers, pastoralists, forest keepers, and fishers who manage areas varying from less than one hectare to 10 hectares. Smallholders are characterized by family-focused motives, such as favouring the stability of the farm household system, primarily relying on family labour for production, and using part of the holding's produce for family consumption.

This policy paper aims to demystify smallholder farmers in Jordan and answer some of the most pertinent questions surrounding them: Who are Jordan's smallholders, how important are they, and what do they contribute to food and nutrition security within the country? And, in recognizing their influence, what can be done to unlock their potential and involve them as key players in Jordan's food system transformation process?

## Research approach and methods

To explore the role of Jordan's smallholder farmers and synthesize this policy brief, the authors (see at the end of this policy brief) conducted literature reviews, interviews with various food system stakeholders, and consultations with policy and subject matter experts. The findings were reviewed by Foresight for Food Systems Transformation (FoSTr) team members, experts at the Ministry of Agriculture and the Food Security Council, and the policy and planning committee of the Food Security Council. Following this feedback, an updated version of the findings was presented to Jordanian food systems stakeholders during a FoSTr workshop held in April 2024. Feedback from participants was included in the final version of this policy brief. A FoSTr workshop held in April 2024. Feedback from participants was included in the final version of this policy brief.

<sup>1</sup>The [FoSTr programme](#) covers four countries in Africa, Asia and the Middle East. It provides Jordan with a country support facility for food systems foresight and scenario analysis. The country-led and multi-actor foresight process aims to assist stakeholders in their contributions to national food systems transformation. It supports the dialogue, analysis and understanding necessary for co-creating future food systems that are sustainable, healthy, equitable and resilient.

## Analysis and key findings

### 5.1 The context of smallholder farming in Jordan

According to the last agricultural census conducted in 2017, there were 107,707 holdings in total in Jordan, of which 75,414 were plant/crop holdings, 25,795 were animal holdings, and 6,495 were mixed holdings. Their total area was 2.818 million dunum (du), equivalent to 282 million ha, while the number of sheep and goats that year was around 3.8 million.

Around 75% of holdings were below 10 du (1 ha) in size, yet these accounted for just 8% of the total cultivated area in Jordan. Most holdings were located in Irbid Governorate (34,889), while the fewest were in Aqaba Governorate (2,473). In 2017, 69% of the rainfed areas were in Irbid, while 34% of the irrigated areas were in Balqa.

Tomatoes occupied the largest vegetable production area (32%), followed by potatoes, squash, eggplants, peppers, and cucumbers. Olive trees occupied 72% of the total fruit areas, followed by citrus, date palms, grapes, and peaches. The number of sheep was highest in Mafrq (845,000), followed by Amman, Karak, Zarqa, Maan and Irbid governorates.

**Table 1: Categories of holding size, their number, area, and percentages**

Holding size in du	No. of holdings	% of farmers (cumulative)	Area in du	%
Less than 10	80,455	75	234,910	8
Less than 20	90,630	84	394,940	14
Less than 50	100,737	94	737,549	26
Less than 100	104,221	97	1,000,335	35
More than 100	3,486	100	1,818,263	65
<b>Total</b>	<b>107,707</b>	<b>100</b>	<b>2,818,598</b>	<b>100</b>

Source: National Agricultural Census (2017), Department of Statistics and author's calculations

In 2017, the average family size per holding was 5.4 persons, up from 4.8 persons in 2015. Only 16% of households with a holding relied on agriculture as their primary source of income, while agriculture served as an additional or secondary source of income for the remaining 84%.

Ninety-three percent of the holdings were owned by individual farmers. Five percent were family-owned, while 2% were owned by others, such as companies and the government. The largest holdings (of more than 100 du) make up 65% of total agricultural land, but are owned by just 3% of farmers. Due to inheritance law and hikes in land prices, land fragmentation and the number of absentee farmers leaving their land idle are both increasing. Meanwhile, 94% of the holdings were managed by the holder himself, 3% were managed by family members, and 2% were managed by hired persons. Around 65% of farmers used the produce from their holdings for their own consumption.

<sup>2</sup>The agriculture census is conducted every 10 years; the last was in 2017. The Department of Statistics (DOS), in cooperation with the Ministry of Agriculture, is in charge of conducting and publishing the census results.

<sup>3</sup>A dunum equals 1,000 m<sup>2</sup> = 1/10 ha

## 5.2 Who are smallholders in Jordan?

Identifying smallholders in Jordan is complicated, costly, and time-consuming. Doing so requires detailed studies involving different farm models that consider holding/farm size, technological levels applied, and access to services, among other factors.

The following indicators can be used to help identify smallholders in Jordan (see Annex, Table 4, for the number and area per holding category):



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IFAD/Lana Slezić



**Holding size:** As mentioned above, the vast majority (around 97%) of Jordanian farmers own less than 100 du (10 ha). Together, they own 35% of the country's total agricultural area. Forty-seven percent and 69% of the sheep and goat-keeping holdings comprise less than 50 and 100 heads, respectively. Yet, a recent study showed that the annual net income per head of sheep is around Jordanian dinar (JD) 47, and noted that the yearly poverty line per family is around JD 4,700. Thus, when a family is financially dependent on sheep or goat farming, a holding of 100 heads of sheep or goats is needed for them to remain above the poverty line.



**Commodities produced:** The farm system (whether it is rainfed or irrigation-based) and farm intensity are also important considerations. Smallholder farmers mostly conduct extensive rainfed irrigation, and are extensive and semi-intensive sheep raisers. They produce cereals, vegetables, olives, fruits, milk, and meat.



**Holding production consumed by the farmer's family:** The 2017 census revealed that more than 50% of the food produced by farmers owning less than 25 du is consumed by the farmer's own family (see Annex, Table 5).



**Access to finance, markets, and other services:** Jordanian farmers in general, but particularly smallholders, face constrained and very limited access to finance from commercial banks. Small farmers, especially those in remote areas, also face difficulties in reaching markets and receiving services such as agriculture extension and veterinary care, including vaccinations.

## 5.3 Strengths, weaknesses, opportunities, and threats (SWOT) for smallholders in Jordan

Various aspects of smallholder farming can be framed through a SWOT lens in light of the food system.



**Strengths:** Smallholders constitute a large portion of the farming community, often produce food with low industrial inputs, and play a major role in the provision of – often fresh – food to both rural and urban consumers. Combined, these factors mean smallholder farmers play a notable role in food and nutrition security in Jordan.



**Weaknesses:** Many smallholder farmers are not well organized, have low incomes, often face high incidences of poverty, experience increased living costs due to higher-than-average family sizes, face high intensity in seasonal work, and have inadequate access to inputs and services. The general lack of data and information, particularly on smallholder markets, prevents many of these issues from being addressed and overcome.



**Threats:** The agricultural sector faces a number of threats, including climate change and weather variations, migration from rural areas, increased commercial value of agricultural lands (which leads to shifts towards other land uses, i.e., construction), and consumer preferences changing towards highly-processed, imported foods.



**Opportunities:** Smallholder agriculture, both crop production and livestock keeping, has a high potential for increased productivity through raised crop yields and production per animal. If well-organized smallholders can become a vocal power for rural communities and play a key role in Jordan's food system transformation, which would offer many opportunities for job creation.

<sup>4</sup>Redirection of sheep feed subsidy, Ministry of Agriculture, Jordan 2023

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IFAD/Lana Slezić





## Policy recommendations

The following strategies and initiatives are recommended to better support smallholder farmers and optimize their position in Jordan's long-term food and nutrition security.



### Increased research:

Smallholder farmers are key players in Jordan's food system, yet there remains poor understanding around what constitutes a "smallholder" and their specific requirements. Further research exploring this group is a necessity, especially to identify:

- Who smallholder farmers are
- Their economics and production systems
- How smallholders can serve and accelerate Jordan's food system transformation
- The potential impacts of food system transformation on different smallholder segments



### Organizational support:

Enhance organizational support for smallholders by facilitating the formation of groups and cooperatives. This would enable them to better access input supply, finance, marketing, extension, and veterinary services, ultimately improving their operational efficiency and sustainability.



### Capitalize on advantages:

Smallholders often have competitive advantages over larger-scale producers, such as having access to family members for labour force and highly-skilled labour, and greater opportunities to supply fresh, healthy food products through short value chains to (dedicated) consumers. These advantages should be further explored and better aligned to consumer demands for affordable, healthy foods.



### Re-evaluate subsidies:

Most agriculture subsidies in Jordan currently go to large-scale farmers. However, these subsidies should be redirected to better support smallholders. They should be used to promote and accelerate the food system transformation process by strengthening the resilience of smallholders and enhancing their capacity to supply healthy food. Additionally, more targeted approaches that align with food system transformation goals, such as "Markets for the Poor" initiatives and small-big farmer partnerships, should be adopted.



### Reassess holding regulations:

Agricultural holdings are subject to continuous fragmentation and distribution, largely due to inheritance regimes – so measures that limit their division and fragmentation should be adopted. For example, measures could include being allowed to sell the holding to a family member, authorize one family member to manage the holding, or establish a family cooperative or share-holding company. Farmers could also be motivated to merge adjacent smallholdings and become more profitable if merger fees are waived and they are afforded easier access to finance to cover merging and management costs.



### Provide greater value-add support:

Smallholders can be supported and encouraged to adopt and partake in activities that add value to their production. For example, support facilities to enhance processing and sales activities by smallholder farmers should be encouraged. For products such as for olive oil, grapes and figs, pomegranates, and others. These activities could support the supply of nutritious, healthy foods to Jordan consumers.

## Conclusion

Despite the absence of an official definition and data on smallholders, it is clear that this group accounts for a large percentage of landholders in Jordan.

To optimize the work of smallholders and elevate them to become major contributors to Jordan's food system transformation process, they should be included as integral and active partners at all stages of the transformation process: planning, implementation, and monitoring and evaluation. Smallholders should organize themselves so they can speak with a common voice to participate effectively in these stages; represent themselves at national levels; and become properly involved in all food system transformation.

Including smallholders in the change process is often complicated by the fact that their livelihoods are vulnerable and, for that reason, they are often risk averse. They have limited buffers, such as access to finance and services, and developing these in a sustainable manner takes much time and effort. Greater research on smallholders and food service providers is critical to devise appropriate and tailored responses to the challenges hindering these groups from being active players in the transformation process. Special attention should be given to establishing short value chains and functional, economic relations between smallholders and small businesses, such as retailers, restaurants, hotels, and canteens. In developing these links, issues around healthy food provisioning and reducing food waste can also be addressed.

The newly established Food Security Council constitutes a major step in ensuring coordination, policy coherence, complementarity, and shared responsibility in the food system transformation process. To maximize the opportunities for change afforded by the Council, research institutions and other food system stakeholders must make dedicated efforts to inform, raise awareness, and support the Council members and technical committees. This will help the Council members to better understand stakeholder challenges, opportunities, and potential actions required for meaningful food system changes.

## Note about authors of this policy brief

This policy brief was written by Dr. Walid Abed Rabboh, Country Facilitator at Foresight4Food, with input from Dr. Mahmoud Al Rabei and Dr. Nada Fraihat from the Ministry of Agriculture, Hashemite Kingdom of Jordan, and data provided by Engineer Tamer Al Rousan, Department of Statistics, Hashemite Kingdom of Jordan. The FoSTr program provides Jordan with a support facility for food systems foresight and scenario analysis. This country-led, multi-actor process is designed to support the dialogue, analysis, and understanding necessary to co-create sustainable, healthy, equitable, and resilient food systems.

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## Annex 1

**Table 2: Number and area of agricultural holdings by type of holding and governorate, 2017**

Governorate	Crops and livestock		Livestock		Crops		Total	
	Area (du)	.No	Area (du)	.No	Area(du)	.No	Area (du)	.No
Amman	233,829	1,013	8,060	3,021	200,603	7,239	442,492	11,273
Balqa	4,061	202	2,487	1,713	201,668	6,314	298,215	8,229
Zarqa	17,804	219	22,459	1,968	233,584	1,755	273,847	3,942
Madaba	9,645	409	3,790	1,161	65,845	3,329	79,280	4,899
Irbid	24,566	1,353	16,912	5,109	398,185	28,427	439,662	34,889
Mafraq	55,420	605	3,704	3,658	498,240	4,544	557,364	8,807
Jerash	8,331	488	317	1,004	89,451	6,906	98,099	8,398
Ajloun	3,529	268	294	706	56,552	6,166	60,376	7,140
Karak	106,385	1,015	2,281	2,451	162,439	6,759	271,105	10,225
Tafielah	19,976	279	591	822	36,691	1,925	57,258	3,026
Ma'an	65,040	473	411	2,313	169,069	1,620	234,520	4,406
Aqaba	4,194	171	399	1,869	91,787	433	96,380	2,473
<b>Total</b>	<b>552,780</b>	<b>6,495</b>	<b>61,705</b>	<b>25,795</b>	<b>2,204,114</b>	<b>75,417</b>	<b>2,908,598</b>	<b>107,707</b>

Source: DOS, Jordan

**Table 3: Areas and number of vegetables, fruits, sheep, and goats in 2007 and 2017 censuses, in addition to 2022 statistics (in thousands of du and thousands of heads)**

Item	2007 Census	2017 Census	2022 <sup>5</sup>
Rainfed vegetables	8	8	29
Irrigated vegetable	326	369	343
Total vegetables	334	377	372
Rainfed fruits	380	377	370
Irrigated fruits	433	403	456
Total fruits	813	780	826
Sheep	2,496	3,058	2,962
Goats	560	774	733
Total sheep and goats	3,056	3,832	3,695

Source: DOS, Jordan

**Table 4: Categories and indicators that might be used to identify small farmers in Jordan**

#### Plant holdings (du)

Source of water	Rainfed		Irrigated		
	Semi-intensive	Extensive	Intensive	Semi-intensive	Extensive
Vegetables	30	60	5	10	20
Olives	40	80	20	30	40
Fruits	30	60	10	20	30
Crops	50	100	20	30	40

Source: Authors' estimations

#### Animal holdings

	Intensive	Semi-intensive	Extensive
Sheep (head)	60	100	150
Cows (head)	8	12	16
Beehives (number)	20	30	40

Source: Authors' estimations

<sup>5</sup>Department of Statistics, 2024

**Table 5: Holding size and the ratios of the farm produce consumed by the family**

Holding size (du)	% of production consumed by the holder's family
1-2	99
3-5	94
6-10	79
11-20	56

Source: Agricultural Census, 2017, DOS



Image credit: IFAD/ Ivor Prickett/Panos