



CAUSES OF CHANGES IN THE SOCIO-ECONOMIC STRUCTURE OF THE JORDAN VALLEY REGION FROM 1997 TO 2020 (CASE OF ALDEBAB)

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Abstract

This study aimed to understand the reasons behind the changes in socio-economic structures in the Debab area in the Jordan Valley - Deir Alla, from the 1990s until 2020, and shed light on the future of agriculture in this region. This study employed a qualitative approach with anthropological analysis tools, conducting 51 interviews, including 2 focused group. This study concludes the prominent causes of these changes: legislation and development of laws that do not align, in terms of implementation, with the real needs and challenges of the studied area; property fragmentation; water issues; labor problems; small landholders being compelled to compete in the market despite unfair conditions, and the withdrawal of protections that decreased the profitability of agriculture. This study anticipates that small landholders are the most vulnerable group and likely to shrink. The sustainability of agriculture as a way of life is estimated at 13.7%. Additionally, the study anticipates a high rate of land sales in the future, posing a threat of displacement for the inhabitants of the Jordan Valley. Regarding labor, developments in the situation of Jordanian female labor, as well as Egyptian and Syrian labor, including their children, are expected.

Keywords: Jordan Valley, agricultural socio-economic structure, market liberalization, small landholders.

1. Introduction

As a condition for joining the World Trade Organization, Jordan began implementing agricultural reforms in alignment with neoliberal policies, favoring the privatization of the agricultural sector. This led to a significant decrease in government support through the elimination of subsidies and incentives, abolishing standard pricing for agricultural goods, and imposing high interest rates on agricultural loans. The agricultural reform also shifted the focus to export-based food security, excessively relying on foreign labor to achieve local productivity. Moreover, Jordan's challenging water situation worsened due to the water strategy of the Zionist entity, leaving Jordan and Syria with saline water, significantly impacting local agricultural activity (APN, 2018). Additionally, recent security conditions resulting in the closure of marketing outlets through Iraq and Syria - Jordan's gateways for exports - have notably affected small landholders and farmers. This situation resulted in various challenges, including the phenomenon of rural to urban migration, the dominance of intermediaries in agricultural product marketing, fragmentation of agricultural properties, weakened cooperative associations, increasing number of farmers unable to cultivate their lands, high unemployment rates, and rising farmer debts, leading many to face legal action. However, beyond these phenomena, deeper changes and transformations have affected farmers' relationships with the agricultural sector and their social and economic organization, which this study aims to uncover, understand its causes, and predict its consequences.

Study Objectives:

The study seeks to understand the reasons and future of changes in the social forms of production in the study area from 1997 onwards. It aims to achieve the following objectives:

1. Understand the reasons for the decline in the agricultural situation and the timeframe of its onset.
2. Identify key events that influenced the agricultural situation.
3. Understand the opinions of the people in the study area regarding methods to cope with the agricultural decline.
5. Explore the opinions of the people in the study area regarding the future of the land.

Relation of the Study to Modern Marxist Theory: Articulation of Modes of Production:

Modern development theories' emphasis on the distribution of production and their neglect of class struggle, especially in clearly class-defined fields like agriculture, necessitates a return to Marxist analysis and its development to understand the changes and predict new forms of production resulting from the entry of capitalist production into pre-capitalist or industrial production into social production.

The theory of "Modes of Production," derived from the intellectual tools of Marxist anthropology, presented a new perspective on production forms in the Third World after the advent of capitalism. It differentiated between the expansion of the capitalist mode in the sixteenth century in the West and its later expansion in Third World countries. In the former, pre-capitalist production patterns either transformed or completely vanished in the face of capitalist patterns. In the latter case, pre-capitalist production patterns were preserved and destroyed simultaneously. They were destroyed as structures by depleting labor and raw materials (the basis of pre-capitalist production) with the onset of capitalist production. However, they were preserved as fields for producing agricultural means and new production relations with labor forces, maintaining extremely cheap extracted raw materials (Fitzgerald, 1983).

To understand the real role of industrial production in social production, we turn to Kautsky's work (Banaji, 1980). In his research, he relied on agricultural statistics and questionnaires in England, America, and France (1892) and Germany (1895). He sought to understand the connection between the general structure of capitalist agriculture and the overall development of capitalism.

Kautsky found that production focus occurred through the sale of multiple holdings by a single owner. Consequently, cooperatives served as a basis for one of the highest forms of large-scale capitalist agriculture. For large landowners, it was not useful to entirely expel small landholders; they provided them with labor. This is why large landowners and capitalists consistently pass laws artificially supporting small landholders. Small-scale farming becomes stable when it does not compete with large-scale agriculture and becomes a contracted labor force for it. The relationships between large landowners and small landholders closely resemble the relationships between capitalists and proletarians. Kautsky dedicated a specific chapter to the "transition of farmers to proletarians" by transforming them from owners and farmers on their lands into various forms of wage labor. Kautsky explored the fundamental features of capitalist development in agriculture. The more capitalism advanced, the greater the challenges faced by commercial farming, such as land monopolies (land rent) and issues related to inheritance and suspended properties. In Europe, drastic agricultural changes resulted from the competition of cheap grains imported from America, Argentina, India, Russia, and other countries. This reality, driven by industrial development seeking new markets, led to the collapse of grain production in Europe under the pressure of this competition, leading to decreased yields. Kautsky argued that pre-capitalist production forms disintegrate in the face of capitalism, a concept expressed through the Liquidation Theory, introducing a theory articulating pre-capitalist production forms. And determined the capitalist nature of vast agricultural production that paving the way for a new social character in agricultural production, as capitalism grows, in these elements: increasingly apparent; increased leasing, mortgaging, and agricultural manufacturing. (Banaji, 1980)

Kautsky, in his theoretical analysis of agricultural policy, opposed any attempts to support or rescue the agricultural economy. He believed that communal farming cannot bring back extensive communal agriculture. He asserted that the radical transformation of agriculture by capitalism, initially a process, rapidly turned peasants into wage laborers, prompting rural exodus. He advocated raising awareness about the importance of collective defense, implementing laws concerning working age and farmers' rights, and ensuring other tenants for a better life.

Meillassoux (1980) added to this theory by discussing the changes caused by capitalism on pre-capitalist production forms. He criticized anthropological approaches studying pre-capitalist production forms, arguing that they provide insufficient information about the essential aspects like "the social organization of production." He meant the economic organization involving who works with whom, for whose benefit, where the workers' products go, who manages this process, and how the economic system reproduces itself.

Meillassoux disagreed with Kautsky's belief that capitalism had dissolved pre-capitalist production forms. Instead, he argued that capitalism reintegrated and intertwined them, giving preference to the peasant production form locally. Despite capitalism's dominance in the agricultural sector, small peasant production forms survived by utilizing family labor to cope with challenging conditions. Capitalism transformed these forms from simple to

diverse, providing a clearer picture of the articulation of production forms.

Foster-Carter (Fitzgerald, 1983) emphasized that the problem of capitalist articulation does not merely preserve pre-capitalist production forms but sometimes challenges them actively. James Petras and Colin Leys (Fitzgerald, 1983) added a new dimension to the issue. They focused on this theory in Third World countries, often referred to as neo-colonial regimes. They argued that the core issue lies not in articulating pre-capitalist production forms influenced by the capitalist pattern but in focusing on "classes as the prime mover of history." Class structures interact cooperatively, adapting to capitalism's expansion and directing production externally while exploiting it internally. This interaction significantly affects the agricultural sector, creating forced labor relationships to expand the capitalist pattern.

This discussion implies that while pre-capitalist production forms found no alternatives for their reproduction, capitalism found ways to reproduce itself and expand, as noted by Kautsky and Meillassoux. Mohammad Tarawneh's study (Tarawneh, 2013) examined the impact of capitalism on the social forms of agricultural production in a specific Third World region, namely the Jordanian-Ghor- Deir Alla. He established a connection between history and anthropology, illustrating the economic-social composition's evolution in the studied area under capitalism. The study explored production relationships and the influence of internal and global factors on production forms until 1986, identifying adaptable forms and those susceptible to dissolution or transformation into other forms.

Factors influencing this situation included the dense and forced migration of Palestinians in the late 1940s, the introduction of modern agricultural machinery leading to specific families monopolizing thousands of mortgaged hectares, and the implementation of USAID and agricultural lending programs. These programs targeted not only large-scale farmers but also smallholders. Tarawneh pointed out that Ghoranis perceived immigrant labor as the cause of Ghor's tragedy during that time.

2. Method

In this study, a qualitative analysis approach was employed, utilizing the principles of focused and in-depth social anthropological field studies. Research tools included participant observation and focused interviews with individuals and groups, as well as open-ended interviews.

Concerning agricultural lands, the participants were questioned about their lands, in addition to the region key informant, and number of prominent senior farmers and large landowners to verify the areas and distribution of agricultural lands, including those that were sold and those that were not. The study involved frequent field visits to agricultural lands from various directions, including the mountains overlooking the area from the north and east.

2.1 Study Community:

The study community comprises residents of the Debab area in Deir Alla district of Al-Balqa Governorate. Debab is a small area consisting of several families, with Al-Gharaigher family being the most prominent and largest. The population of the area, according to local residents, is approximately 2,300 individuals. Knowing that there is no pre-prepared database documenting its population numbers.

2.2 Study Sample:

The sample was chosen using the snowball sampling method and key informants. This approach served the study well, ensuring a representative sample. The study included a series of free interviews with a knowledgeable person about the study's subject matter. Additionally, several meetings were held with individuals from the area including participating in various agricultural activities. The activities included questions related to the study's topics and whether they knew people affected by the study's problem. Subsequent interviews were conducted with them. The required number of participants was reached through this process.

The sample consisted of 51 participants, including large landowners, owners of small plots, shareholders and tenants, agricultural laborers, and two focused groups: one comprising women from the research area and another comprising Syrian laborers in the research area.

In terms of age groups, the sample was divided into 4 participants below 40 years old, 36 participants between 40-70 years old, and 9 participants above 70 years old.

Regarding the nature of agricultural work, the sample was divided into three main groups:

1. First Group: Consisted of 3 farmers who owned large estates, known as large landowners, representing the second generation after the agricultural reform law that abolished large estates and distributed the land among farmers. In this study, anyone owning more than one agricultural unit was considered a large landowner.
2. Second Group: Included small landholders. Small landholders were defined as local landowners or shareholders (sharecropping system) or tenants (the Lease Farming system) whose cultivated land did not exceed 2 agricultural

units. This term is referred to in foreign literature as "small farmers". In this study, they were referred to as small landholders. This group was further divided into two sections: 19 landholders who owned small plots and 17 landholders who did not own land but were beneficiaries (tenants and shareholders), including those who had abandoned farming or sold their lands. One of them owned land outside the Debab, separated by a flood channel between Debab and Abu Al-Zigyan. He was included in the Debab lands. This group also included a focused group of women from the Debab area.

3. Third Group: Consisted of 10 farmers working in agriculture for wages (agricultural laborers). This group also included a focused group of Syrian laborers. The total number of participants in this group was 11.

2.3 Study Tools:

The study tools included participant observation, focused interviews, and open-ended interviews.

2.4 Spatial Boundaries of the Study Area: Debab falls administratively under the Deir Alla municipality. It is bordered by the Jordan Valley Road and the town of Deir Alla (where the historical Deir Alla Hill) to the west. To the east and south, it is bordered by the settlements of Al-Sawaleh and Abu Al-Zigyan, which are part of the Maaddi municipality. Some agricultural units overlap between Debab and Sawaleh to the south. The flood channel from the King Talal Dam separates it from Abu Al-Zigyan to the east. It is bordered by Dharar bin Al-Azwar area to the north and by the village of Al-Rawieha to the northeast, ending at Al-Diyafa Palace. Internally, Debab is divided between housing and agricultural lands. Housing comprises the unsuitable parts for agriculture, as they are hilly terrains that were expropriated by the Jordan Valley Authority in the late 1970s, forming a residential tiger with a total area of approximately 160 dunums. Agricultural Debab covers an area of approximately 1,650 dunums, according to the area's residents. The study focuses on agricultural lands within Debab, which amount to approximately 1,650 dunums, and those overlapping with Rawieha, totaling approximately 90 dunums. Consequently, the total study area covers approximately 1,740 dunums.

2.5 Steps in Analyzing Interviews Results:

The interviews' content was recorded through rapid note taking and capturing keywords during the interviews. These notes were then transcribed shortly after the interviews were completed, either immediately after the interview or during the return journey to Amman. Subsequently, the transcriptions were organized and categorized based on the established protocols. This process occurred concurrently with the interviews and took no more than two weeks after their completion. Once all interviews were transcribed and organized, the analysis process began. The first step involved transcribing the results onto tables to facilitate classification, understanding, and interpretation. The content of all participants' responses was extracted and placed into these tables. Following the transcription of the interview content, the frequencies and percentages of the responses' content for all questions and topics were calculated and compiled into tables to facilitate the analysis and interpretation process. The next step involved analyzing these results and describing the nature of the participants' responses to the interview questions based on these tables, constituting the content analysis stage.

3. Data Analysis and Discussion: Reasons and Future of Changes in the Socio-Economic Structure of the Jordan Valley Region: This section includes a discussion of the following topics: the reasons for the decline in the agricultural situation, the timeframe for the onset of this decline, the key events that led to the decline, marketing problems, and the methods and means to deal with the agricultural decline. What is the future of the land?

Forty-four researchers responded to this section, with some of them citing multiple reasons for the decline in the agricultural situation, while others pointed to a single reason that, for them, constituted a fundamental axis Table (1): Distribution of Participants' Answers Regarding the Reasons for the Decline in the Agricultural situation

3.1 Challenges of the Agricultural Sector and Labor:

Labor Contracts: In the past, Egyptian workers used to be patient with delayed payments; if their money was delayed, they would wait until they could travel back to Egypt. But not anymore. Nowadays, within months, even days, if you don't pay them their dues on the same day, they won't accept it. Moreover, there's no one to go to. The competition for them is fierce because their numbers are limited. Naturally, their prices have increased significantly.

This sentiment was echoed by many participants. When asked about the reasons, (9) nine of them pointed to one of the causes of the deterioration in the agricultural sector: The Sale of labor contracts. This practice involves exploiting work permits given by the state to landowners, allowing them to bring in mostly Egyptian labor. The landowner might not need all the allocated labor, so they sell part of the permits. Since agricultural work permits are the cheapest among all types of work permits, being priced at 500JD for example, landowners sell them for 1000JD or more. This sale is often facilitated through an Egyptian worker already present on the land, who then brings in relatives or others. The worker obtains an agricultural permit and either works independently (not tied to

a specific land) or leaves the Jordan Valley entirely, seeking higher-paying jobs (industrial, construction, etc.) elsewhere. This exploitation, widespread according to the participants, especially among prominent members of the Farmers Union and large landowners, has led to two major problems, raising costs for farmers.

Firstly, this exploitation is one of the main reasons for increasing the lease farmland (for tenants) price.

Secondly, it is the primary cause of the rise in wages for Egyptian labor, their reduced numbers, increased competition for them, and their shift from monthly to daily labor. The following quotes illustrate the gravity of the situation. One of the major landowners said, "How do you think the leasing price increased? The landowner lease farmland price for 4000, and then he sells contracts for 3000. So, the leasing price came to him for free... the landowner raised the leasing price to profit as well... so the leasing price and labor costs increased." Another participant stated, "Now I have 50 plastic houses; on one dunum, I need 3 workers, but because there are plastic houses, you can hire 6 for each, which equals 90 workers. You only need 30 from them. You sell the contracts of the remaining 60. Either the Egyptian worker brings more workers, or he works independently on a daily wage or leaves the Jordan Valley. This made labor scarce, and their wages increased, and naturally, the lands became even more expensive."

Furthermore, one of the leaders of labor in a major investor's establishment in the area emphasized the danger, stating, "Now, everyone got involved in this business. Some made a lot of profit from it and became wealthy... the big shots were the ones selling labor... in the end, we couldn't find a single worker, and if we did, we paid them 20 dinars per day and they were satisfied."

The repercussions of this exploitation do not stop here. The government decision to cancel work permits for an unspecified period in 2020 and the current shortage of Egyptian agricultural laborers predict an extensive reliance on Syrian laborers by the region's farmers which requires providing tents, water, and electricity. This is due to the reluctance of local labor and the inability of Syrian labor to perform the strenuous tasks assigned to Egyptian laborers, forcing it to work beyond its capacity and involve family children, posing a risk to their education.

Jordanian Labor's Disinclination towards Agricultural Work:

Some participants indicated that one reason for the labor shortage is the reluctance of Jordanian laborers to work in agriculture. Female labor is not provided with any protection, and there is no social protection for farmers and agricultural laborers, contrary to the Universal Declaration of Human Rights Article 22. The International Labor Organization defines social protection as "a comprehensive set of strategies based on a lifecycle approach and aimed at protecting workers in their places of employment in the organized and unorganized economy from unfair, unsafe, and unhealthy working conditions." International Labor Conference (2008).

There is a wide scope for improving work and social protection currently available to rural workers concerning their working conditions or the increased susceptibility to the risk of losing their jobs. Agricultural work is inherently strenuous, requiring significant physical effort such as prolonged standing, bending, and repetitive movements in uncomfortable body positions. The risk of accidents increases due to fatigue, poorly designed tools, and rough terrains. While technological advancements have reduced the physical toll of agricultural work, they have introduced other risks such as machine use and the intensive use of chemicals without adequate safety measures and training. Rural workers are among the least benefited from protection worldwide in terms of access to basic health services, worker compensation systems, long-term disability insurance, and survivor benefits. Those who cannot work due to old age suffer from poverty and dependence, especially since retirement systems do not cover farmers and agricultural laborers. (International Labour Conference, 2008). Figures (1, 2, 3) illustrate the significant disparity between the growth of imported labor, male Jordanian labor, and female Jordanian labor. (Source: Department of Statistics, 2020).

Figure 1: Permanent Labor in Deir-Alla since 1995 till 2020

Figure 2: Seasonal Labor in Deir-Alla since 1995 till 2020

Figure 3: Temporary Labor in Deir-Alla since 1995 till 2020

The difference between the years 2015, 2018, and 2020 in permanent labor confirms what the participants mentioned: that the government used to announce the opening of border crossings at the beginning of the season. This whetted the appetite of investors to take loans, import foreign labor, and engage in ventures that ultimately

led to their collapse after 2017.

The increasing numbers of foreign laborers after 2010 brought a new and growing presence of female foreign labor. In the years 2015 and 2018, seasonal female labor constituted more than 66% of the foreign labor force. Confirming the problem of labor contracts the significant shift from permanent and seasonal labor to temporary labor among foreign laborers. There was also a noticeable decline in the participation of female foreign labor, dropping from 66% in the seasonal workforce to 5% in the temporary workforce in 2020.

The existence emergence of child labor among the temporary foreign workforce in 2020 confirming the predicted result by the researcher, that the consequences of labor contracts is leading to increased reliance on Syrian laborers and their children.

The limited presence of Jordanian female labor in permanent and seasonal employment, and the high number of them in temporary work, highlights the difficulties in developing women's employment in a sector that should guarantee them social protection.

Male labor tends to work in temporary agriculture, yet foreign labor surpasses them in both quantity and growth in wages.

3.2 Fragmentation of Ownership:

Large Landowners:

While the original landowners had direct connections with Deir Allah, residing or frequently visiting, overseeing land cultivation themselves, most of their children's lives revolve outside Deir Allah and the entire Jordan Valley, either in Amman or abroad. This explains why approximately 1% of the lands owned by large landowners are utilized for housing. This led them to adopt two predominant behaviors after land distribution:

1. Consolidation: Combining the shares and assigning them to a single family member who decides either to consolidate them further or distribute them among heirs.

2. Direct Distribution: Allocating shares directly among heirs, usually due to the absence of any family member entirely dedicated to managing the land. This results in each heir acting independently.

These behaviors explain the presence of what is known as "Bour" which is Neglected land equivalent to 42.2% of large landowners' lands. It's worth noting that this category did not exist before 1997. Most of these agricultural lands were actively used by local farmers in the region. The absence of a category (Neglected land- Bour) in the 1997 agricultural census underscores this fact. However, this category was introduced in subsequent agricultural censuses in 2007 and 2017. It is defined as "land left unused for more than three agricultural seasons and in need of reclamation to become productive." In 2017, the area of Neglected land- Bour was 13,347 dunums in Al-Balqa Governorate (Department of Statistics Jordan, 2017). This significant change is evident in aerial images of the region on Google Earth (Appendix 1).

Another aspect of the fragmentation of large landowners' properties involves some residents of Iskan Al-Debab not owning residential lands or plots. This situation has forced some of them to encroach upon agricultural lands owned by large landowners, leading to subsequent legal problems. Landowners have the legal authority to evict them and demolish their homes. Consequently, this has led to the allocation of residential plots outside the state's regulations. Some residential lands in Debab, owned by major landowners, have not been regulated by the Jordan Valley Authority for water or electricity. Nonetheless, these landowners exploit these lands by allocating them as unregulated residential plots and selling each plot at a relatively high price. The researcher visited this area and found several problems faced by residents. Primarily, these houses are built on hills "Halal", meaning they are made of soil and not rocky or prepared for housing like other residential lands in Debab. This makes these homes unsafe in the long run. Additionally, the houses are arranged haphazardly because each cluster of houses surrounds a single electrical transformer, increasing the burden on consumption and raising electricity costs for the residents. However, these haphazard settlements complicate any future attempts at organizing infrastructure by the Jordan Valley Authority.

Small Landowners:

The problems arising from property fragmentation can be summarized as follows:

Firstly: Due to disagreements among heirs regarding the priority of agricultural use and their internal conflicts, the economic viability of agricultural land diminishes. Some participants have described the cultivation of these lands as "for nothing". Consequently, farmers seek alternative income sources, gradually diverting their attention away from farming as a primary occupation. For instance, ten participants among small landowners turned to secondary professions, while another seven completely abandoned farming. This explains the 11.9% portion of neglected lands.

Secondly: Socially, any agricultural land use becomes socially uncomfortable if some family members intend to use it for housing. Constructing any residential unit creates severe disputes among siblings. Many participants expressed these problems as, "Everyone wants to build on the inherited land. The fragmentation of properties and using agricultural land for housing only because so-and-so built on it is the problem." This discourages new generations from considering agriculture, as expressed by the daughter of one participant.

17% of agricultural lands inside Debab are allocated for housing, a percentage that is rapidly increasing. This ratio was nearly zero in 1991, as mentioned by one of the participants, and it reached 5% in 2004 according to Google Earth (Appendix 2).

Thirdly: The issue of segregated residential lands for housing is one faced by the families of . These lands were not allocated for housing within Iskan Al-Debab; instead, they were designated on the Shfaghour hills. However, despite applying for the necessary permits over a decade ago, these lands have not been granted to them. This situation compelled them to rebuild on agricultural land. The impact of housing extends beyond social consequences to legal ramifications and weak infrastructure. The law prohibit building on agricultural lands, making these constructions illegal. Consequently, all owners of these residential units are exposed to legal accountability and imposed fines. Additionally, the electricity issue arises. Each agricultural unit has only one electricity meter, meaning that all residential units within the agricultural unit share the same meter, increasing the burden on them and multiplies the electricity bill several times over. Five participants complained about this issue, and another four complained about the lack of regulated residential plots on the surrounding hills, as they were informed since the mid-1990s.

Fourthly: Resorting to selling any portion of the land due to these problems predisposes other heirs to sell gradually, eventually leading to their complete withdrawal from the land. Some heirs return to work on the land as tenants or sharecroppers. Notably, in Debab's case, the gradual selling results in all shares being bought by a single purchaser. This buyer, in turn, turns the land into "Bour." When asked about this situation, a participant said:

"In families with a lot of backwardness, when land distribution happens, 100 pieces go, and they say, 'Gather them for me.' Who will farm it? Who will take it? They are dealing with these issues cunningly; there comes the land owning artist. He buys a share from one of them, and became a partner who takes the entire land! buying it with no money. He began landless, then becomes the owner of 1,000 dunums. Some of them leave it as Bour because their goal is not to invest in it; they just want to own and reserve it! Like (so-and-so), he bought the Ghor based on problematic plots among the heirs. + Well, why? - Why don't you ask him about it? Everyone here knows why." This signifies the rumors circulating among Deir Allah residents that outsiders buy land to freeze it and evacuate its inhabitants, to be used later by unknown individuals.

The Problem with the Jordan Valley Authority:

After 40 years of implementing the land reform program, high levels of fragmentation and disintegration resulted, either through inheritance or other methods like land distribution. Disappointing outcomes from past distribution programs and the desire to shift agricultural focus towards economic or market-oriented farming led policymakers to reconsider their approach. By 2003, the government adopted a new land reform program. This new reform allowed beneficiaries to sell or purchase lands without involving the Jordan Valley Authority, aiming to facilitate market-driven negotiations between willing buyers and sellers. The goal was to transition unproductive lands from inactive farmers to more efficient ones. Consequently, integrating land parcels to make them practical for cultivation became a primary method of land reform measures (Al-Qudah, 2010).

Article 22/A of the Jordan Valley Development Law explicitly states that agricultural property fragmentation or division is not permissible (Jordan Valley Authority, 2001). This rule aims to preserve agricultural unity, reflecting on the agricultural sector, farmers, and the national economy. The Jordan Valley Authority claims to have undertaken several projects to prevent encroachment on agricultural lands and curb urban expansion by providing residential lands for citizens and farmers, especially in Shfaghour and forest lands near valley areas (Al-Ghad, 2016). However, this has not materialized yet. Seven participants from the sample have pending applications for land allocation for over a decade. However, the Jordan Valley Authority has not completed the allocation process or found practical solutions for farmers who have encroached on agricultural lands with housing. For these participants, there seems to be no solution other than maintaining their presence next to their lands and the future presence of their children in the Ghor. Hundreds of legal cases and disputes among locals and relatives over allocation issues exist (Al-Ghad, 2016). Some farmers argue that problems have escalated due to the Jordan Valley Authority's decision to prohibit allocation, potentially leading to land neglect and rendering it useless according to some participants.

Despite the economic hardship faced by farmers and the fragmentation of their properties, making it difficult for them to cultivate their lands and decreasing the economic viability of the land, they are compelled to sell their

lands, utilizing the same law (22/A). This law allows Jordanian citizens to sell lands as long as the area registered in an individual's name does not exceed 25 dunums (Jordan Valley Authority, 2001). In reality, this leniency has led to the sale of significant portions of the participants' lands, and the ban on fragmentation has not affected them negatively. Strangely, the advanced law, designed to facilitate investments, limits an individual's ownership to 25 dunums, albeit with some flexibility allowing it to reach up to 35 dunums. However, how does this flexibility extend to thousands of dunums registered under a single person's name, termed by locals as the "specialist in buying lands with disputes among heirs"?

These legal developments align with Al-Qudah's (2010) observation that the 1990s witnessed extensive land privatization. In 2003, the government introduced a new land reform program called the Jordan Valley Reform (JVR) with support from the World Bank. The objective was to consolidate lands and release holdings from less efficient farmers in this critical region for Jordan's food production. The aim was to encourage more capable and efficient investors to engage in market-oriented farming by acquiring efficiently unused lands due to their current farmers' simplicity. Instead of developing the law to serve the prevention of encroachment on agricultural lands and allocating lands for housing in areas overlooking the Ghor and activating necessary and expedited procedures, the law's development facilitated the possibility of selling lands to investors from outside the region—investors more adept at market-oriented farming.

3.3 Irrigation Water and Land Productivity Decline:

Through 28 surveyed individuals, equivalent to 55% of the sample, discontent within the farming community regarding the water situation was evident. They unanimously agreed that the situation worsened after the transition from irrigation via the Eastern Ghor Canal to the King Talal Dam. This transition led to crop damage and soil pollution due to poor water quality resulting from the mixing of dam water with wastewater from the Kharbat Al-Samra treatment plant in the early 1990s. As a consequence, the land could not absorb irrigation water due to a thick layer of impurities and salts, destroying over 1000 dunums of "Bayyarat" _ citrus crops lands _ in Debab and its surrounding areas. This devastation turned the land into barren fields, and the affected farmers had to abandon their land, significantly impacting the region's landscape, transforming it into wasteland. Even after water purification and its integration into the Kharbat Al-Samra development project, the land did not regain its fertility, especially due to water scarcity and the prohibition of farmers from utilizing the Eastern Ghor Canal (King Abdullah Canal) or extending direct irrigation lines.

One of the participants, a farmer with extensive citrus cultivation, stated: "The water ruined "Al Bayyara". The canal, which used to be everywhere, was excellent. But in the early 90s, the water was destroyed. Everything is interconnected, and everyone knows why. First, the dam ruined it, and then in '94, the water scarcity..." This statement reflects the belief held by most locals that the Agreement of Wadi-Araba was the root cause of the water problem. The participants' repeated and explicit references to the Wdi-Araba Agreement indicate that it fundamentally exacerbated issues in the Jordanian agricultural sector by changing the irrigation source from the Eastern Ghor Canal fed by the Jordan River to the King Talal Dam supplied by the Zarqa River and the Kharbat Al-Samra station. This shift reduced land productivity and fertility, and these claims were not new but observations made by farmers at the beginning of this transformation (Tarawneh, 2013).

Eastern Ghor Canal: From Crop Irrigation to Municipal Water:

The Eastern Ghor Canal, established in 1963, stretches about 110 km east of the Jordan River, traversing areas of the Jordan Valley from the towns of Adassiyeh and Al-Makhiebeh in the far north of the Kingdom to Shuna Al-Janubiyya near the Dead Sea. It serves as a vital artery supplying water to agricultural areas in the northern and central parts of the Jordan Valley. Despite Zionist entity- Israel- disregard for the agreement's constraints, the Jordanian government had been seeking an alternative irrigation source even before the Wadi-Araba Agreement. Eventually, the canal was diverted for municipal water supply in Amman. The water policy was modified, prioritizing "irrigated agriculture as the lowest priority without reducing the share allocated to the Jordan Valley. Accordingly, the freshwater used in agriculture was reduced from 80% in the 1970s to around 60% in recent years. Most water resources were redirected for municipal uses... In light of this, the irrigation water source shifted from freshwater to treated sewage water... The sewage water management was called upon to treat sewage water according to the WHO and Food Organization standards" (Ministry of Water and Irrigation, 2016).

This change supports the participants' claims that water scarcity and its poor quality are significant reasons for reduced land productivity. Furthermore, it supports what some of them assert that this policy change led to the decline in wheat and barley cultivation. One of the participants, a seasoned farmer and a farmers delegate from the Hamme region in Debab before it was sold, explained his cessation of wheat cultivation: "When they shifted the water from the canal to King Talal Dam, the flow became 9 liters/second/8 hours per unit. In March and April, wheat needed 9 liters/second/20 hours. The Jordan Valley Authority prevented this increase. This happened in the early '90s, and we stopped planting wheat."

This is substantiated by a significant drop in the area cultivated with field crops, decreasing by 55% in 2017 compared to 1997 and 57% compared to 1983. The figure below illustrates the total area of field crops in the Kingdom during the years 2017-1983 (source: Department of Statistics Jordan Summary, 2017).

Figure (4): Total area of field crops in the Jordan during the years 2017-1983.

The study (Awwad, 1997) confirms the significant impact of this change in the quality of irrigation water on land productivity. According to the study, "chemical analysis of the springs in the study area has shown an increase in salinity over time, indicating water pollution affecting these springs." Laboratory analyses also indicated that treated wastewater at the Kharbat Al-Samra treatment plant "contains toxic elements such as cadmium, which have been detected in surface water flow in the basin at concentrations higher than those recommended by the World Health Organization."

However, what farmers fail to understand is why some prominent landowners in the study area and its adjacent regions have access to "sweet water" while it is denied to them. One of the participants suggests that this advantage is perceived by large landowners as a benefit that raises the value of their land leasing.

3.4 Expansion in Agriculture:

During the agricultural golden era from 2004 to 2010, extending up to 2012, a qualitative difference occurred. Despite the high revenues generated and the overall profitability of agriculture compared to its contribution to the general output, new problems emerged. Issues like accumulating substantial debts due to agricultural expansion and the terms of free trade, which were supposed to ensure fair competition, didn't play out that way. These policies equated small and medium-sized farmers with large-scale agriculturalists, investors, and corporations, intensifying existing problems instead of solving them. Additionally, the stock market wiped out most of the gains farmers had made in previous years.

The door to exports opened, encouraging modern agricultural production through "easy" loans and extensive marketing among farmers. This move also attracted investments and projects from external sources, including those from the Gulf, Turkey, and Germany. All of this encouraged small and medium-sized farmers to expand their agricultural practices beyond their financial capabilities and property (lands sheep, money) capacities, leading to a significant transformation in the agricultural sector. Modern farming methods, greenhouses, large-scale crops specifically for export, and factories dedicated to processing specific crops for export became prominent features of this new era. This transformation changed agriculture in the Jordan Valley and its surroundings from a way of life to a profession subject to rationalization and automatic market systems.

However, when export conditions worsened, Turkish investors closed about seven factories in the region, leaving both men and women unemployed. This closure had a noticeably negative impact on agricultural labor, with even Syrian workers in this study being affected, stated that Farmers in Mafraq began facing evident challenges after 2016. When borders were entirely sealed, farmers found themselves in an unpredictable venture, leading to significant losses, exceeding half a million Jordanian dinars for the participants in this study alone.

This reason stands out as one of the main causes for the deterioration of the agricultural sector, leading to its declared bankruptcy. However, the negligence of what lies behind this issue, which involves poor state planning and farmer greed, is often overlooked. The Minister of Agriculture pointed out in a special seminar on the challenges facing the agricultural sector that regional conditions in neighboring countries, such as Iraq, limited Jordan's exports. Even after the border crossing was reopened, exports to Iraq remained minimal (only 35 tons of tomato), indicating Jordan's real economic siege. Moreover, the borders with Syria have been closed for years, and the Palestinian Authority, despite having open markets, faces significant restrictions imposed by the Zionist entity. Mentioning the impact of regional crises, Qatar, for instance, used to receive 17% of Jordan's vegetable and fruit exports and 70% of its livestock exports until May 2016. However, exports to Qatar were halted since the crisis erupted in June 2016 (AlRai, 2017). What's noticeable is that this speech doesn't see any shortcomings on the part of the relevant authorities in finding real solutions and opening doors to new markets. Furthermore, it continues to emphasize high figures of support for farmers, figures that most of the farmers in this study don't see any real impact from.

What is not overlooked here is the specificity of the Jordanian situation, represented by the Jordan Valley. This area shares a border with an occupying enemy, and the deterioration of the agricultural situation has produced structural deformities in the relationship between Jordanian farmers and their enemy, turning them into mere traders. This trade relationship emerged due to the trade dealings with this enemy.

Trade with the Zionist Entity:

Officials in Jordan claim that the Zionist entity exports Jordanian agricultural products to Europe under its own name and brand, even though the official statement of agricultural exports specifies the type and quantity of the crops exported to the Zionist entity. However, this issue doesn't stop at legally exported crops. There are also those exported off the state's radar. Jordanian law does not permit the export of any crops without them entering the central market and the necessary procedures being taken, including stating the country of origin and paying the required taxes.

One of the participant, who owns a date palm assurance company in the central Jordan Valley, reveals that vast areas owned by prominent investors are cultivated with date palms, producing dates and tissue cultures designated for sale to the Zionist entity without a brand or country of origin specified. Among these traders is an investor who purchased large plots of land, issued a check, planted some of it with date palms. Although not all date palms in these plots are of sufficient size for production, the remaining lands of this investor in other parts of the Jordan Valley are designated for export to the other side. Thus, the fate of the date palms in these plots becomes clear to everyone eventually!

As for small-scale farmers, they face significant challenges. Crops like cucumbers and tomatoes are sold for 13 Jordanian dinars per box without fees for two to three days in the season, which means a lot to the farmers. In contrast, the local market offers two and a half dinars, minus taxes and fees, an amount not seen by Jordanian farmers in the local market since the mid-1990s!

Crops are sold illegally through brokers and intermediaries who establish gradual packaging companies. These companies, in reality, are export companies for the other side. These companies have reduced the farmers' profits because they compete with the legal market by offering free delivery to the other side, taking a percentage of the sale and putting pressure on the farmers' share. When visiting these companies, it becomes apparent through the precautions taken, such as prohibiting photography or any tours inside the factory, to the extent that the marketing manager and the workers' supervisor met the researcher at the door!

Moreover, the selected products' quality is exceptionally high and not available in the Jordanian market. Their packaging method, especially for land export without refrigeration, indicates their destination: the opposite bank, the occupied land! Historically, people from the eastern side of the Jordan River used to refer to the West Bank as "Gharba," a place with friends, brothers, and relatives. All of the above explains the phenomenon, but it does not explain the reason behind the queue of farmers standing in the early mornings of the cucumber season, fully aware that their goods will go to the enemy. They hope to gain good financial returns from this enemy, competing with their fellow farmers in the other bank for a market they cannot do without. The reason behind this shift in societal perceptions, from an enemy to a source of income.

Seven (7) participants added insights about the cause of this phenomenon. That this transformation is the deteriorating situation faced by Jordanian farmers. Heavy debts, agricultural loans, agricultural companies, and all farmers are indebted. They drowned due to poor planning by the state, represented by plastic houses and border closures, and the result of this natural deterioration is that the farmer sells his goods to whomever buys them, whoever pays more.

According to the General Manager of the Farmers Union, "One of the negative effects of the Wadi Araba agreement on the agricultural sector is the entry of Israeli products into local markets under the slogan of Palestinian products, negatively affecting our exports... There are attempts to export olive products to Israel through intermediaries, selling olive products as products from the Holy Land, which blurs the identity of Jordanian olive oil. The barter trade carried out by intermediaries, not by farmers, also includes animal production derivatives such as eggs" (Al-Ghad, 2019).

President of the Cooperative Association of Vegetable and Fruit Exporters emphasizes this by stating, "The Wadi Araba agreement with the Zionist entity had a significant impact on the agricultural sector, hindering Jordanian vegetable and fruit exports to many Arab countries because they believe that Israeli products are being exported through Jordan to their countries. This is a significant problem that we have made great efforts to overcome. However, there is still obstruction of Jordanian exports to Arab countries hindrances...There is a need for governmental measures aimed at preventing imports from Israel and Israeli products because the primary goal of the Zionist entity is its own interest, not the interest of the countries it exports these goods to." He also confirms that many Jordanian products, including vegetables and olive oil, are exported to European countries as Israeli products (Al-Ghad, 2019).

3.5 Economic Inefficiency of Farming, Weak Local Marketing, and Sales:

The feeling of economic inefficiency in farming is influenced by two main factors:

Firstly, the high prices of production inputs, attributed to the control of multinational companies in this sector, coupled with the rising cost of land leasing linked to labor contract sales.

Secondly, the inability to obtain suitable prices in the local market, coupled with numerous taxes and deductions on the farmer's net profit.

Beyond Sales Fees in the Market:

Greater Amman Municipality (Ammancity) fee (10 JD per ton), which is significantly higher and distinct from other municipalities. An official from the market explains that Ammancity is an independent body which has its own regulations. 10% of the total amounts go to the Risk Fund. This fund demands its contributions from the central market's revenues since 2012, totaling 6 million JD. Dr. Al-Awayda, the Risk Fund manager, stated in a phone call, "This amount is a legal right for the fund, which is responsible for compensating farmers in case of natural disasters, reflecting part of the tax the farmer pays to the Ammancity."

Ammancity manages the monitoring of "Hesba" the vegetables-fruits central market operations. Despite its efforts to maintain security and prevent any illegal activities, violations exist, acknowledged by everyone. These violations can be summed up in one phrase: "Hoarders and Middlemen."

When asked about these hoarders – first reported by a farmer in Deir Alla – he unequivocally states: "The hoarder is the cause; no one is accountable for it. He gains by striking deals with middlemen, deceiving farmers and retail traders through various illegal methods."

Middlemen act without the brokers' knowledge, reserving goods for the cause without auction, then resell them at a higher price, even though they haven't paid for them yet, violating the law that prohibits wholesale sales of the same goods more than once. Farmers also complain that middlemen handle their goods illegally by taking them outside the market, and the remainder (the unsold portion) is recorded on the farmer's bill, reducing the price of his remaining goods. Additionally, middlemen conduct formal auctions, gathering people they know to sell products to the hoarder who had reserved them overnight (preserving goods) to sell it with high prices to retail trades again, which is all illegal. Furthermore, middlemen are the ones determining crop prices!

When confronted about these violations in this study, one broker did not deny them but blamed the farmers for returning to deal with such middlemen. He does not attend sales personally, merely sending his goods. Most farmers do not work on a graded system, meaning their products are not categorized based on size and quality. Moreover, farmers send their entire produce to the market, naturally leading to a lower product price due to a lack of guidance or agricultural pattern planning by the Ministry of Agriculture. You could ask any farmer, "Has the Agricultural Guidance Office ever visited you? See what they tell you." In another part of the conversation, he said, "I can buy vegetables for my private restaurant order at a lower price, but the farmer will know from the receipt and question me about his rights."

When asked why some participants were absent, they explained they must be present daily on their land to oversee agricultural procedures. Ultimately, they are farmers, not traders. Responsible authorities must safeguard their rights.

Small-scale farmers suffer from agricultural loans from various angles. Farmers find themselves obligated to the entities from which they borrow, such as agricultural companies, transforming the nature of tenant's production into labor for hire. In essence, the farmer works on his land on behalf of the indebted party, not for his personal gain. A laborer earns more than a small-scale farmer. Many researchers have expressed this sentiment, with one saying, "I'm a farmer producing a hard currency for the country, and they demean me?!?" Another, when asked about labor conditions, responded, "We, the producers, don't profit, but the workers do."

Closure of Tomato Paste Factory:

Three (3) participants previously worked from different (3) centers in the tomato paste factory, which was under the Agricultural Marketing Corporation, a Jordanian government entity. Along with several other factories in Mafraq, Al-Karama, and Ghor Al-Safi, they received a grant from Italy. The participants unanimously agreed that the factory used to be a vital source of income for farmers. It used to receive 680 trucks loaded with tomato produce between 1984 and 1988. As some participant put it, "Tomatoes used to reach the farthest places in the years of prosperity." According to them, the factory provided salaries for its workers and a considerable number of Central Market employees. However, officials at the time claimed its profits were declining, a statement vehemently denied by the participants. They witnessed substantial gains for the factory before its direct sale to an investor of Iraqi nationality, who halted its operations in tomato paste production, transforming it into an iron factory!

The story didn't end there; all sister factories to this one were also sold, at a meager price compared to their estimated value by the appraisal committee before the sale. The factory now stands completely idle. When asked about the reason for its closure, the participants replied that this factory is the only remaining ticket in the investor's pocket to maintain his Jordanian citizenship. But... where are the governmental authorities in the face of this ongoing old-new corruption? Why isn't this factory being acquired, reopened, and operated for the benefit of the

farmers? Why the leniency in a matter that could potentially be a strong solution to the agricultural sector's problem, especially with border closures affecting external markets?

3.6 Beyond That: Neglecting the Rural Sector

In the past decades, the International Monetary Fund (IMF) shifted its focus towards enhancing "development," pushing Jordan through 15 years of intensive economic reforms (1989 to 2004) supported by World Bank loans. Both entities advocated these reforms, believing they would boost economic growth, curb inflation, reduce deficits, and lower public debt. Most of the IMF's structural agricultural adjustments were binding. The loans were kept as collateral until the conditions are met (Malkawi, 2006).

By 1989, Jordan was unable to repay its external debts, compelling it to seek assistance from the IMF and World Bank for loan rescheduling. Shortly after Jordan transformed into an IMF member, interest rates were liberalized, leading to a subsequent loan and currency crisis, escalating poverty levels. The IMF attributes this collapse to the Gulf War's effects, although it started a year later. In response, the Jordanian government froze wages and increased fuel prices. Just two years later, in 1991, the country lost IMF funding due to its refusal to join the coalition against Iraq. During this period, food and fuel subsidies were reinstated, reforms began in earnest (Harrigan, et al, 2006).

In 1992, upon Jordan's rejoining of the IMF, a sales tax was introduced. The World Bank called for agricultural subsidies to be scrapped and trade liberalized to enable the private sector to invest, aligning with Jordan's comparative advantage in agriculture, increasing exports to the Gulf and the European Union. The Bank also pushed for the restructuring of the public sector, preparing for privatization by liberalizing agricultural product prices and marketing agricultural credits institutions, which previously provided small farmers with access to cheap, subsidized loans. (Harrigan, et al, 2006).

Furthermore, the World Bank forced the government to dismantle the Agricultural Marketing Corporation established in the 1980s to assist farmers in finding outlets for their products and provide them directly with subsidized fertilizers and seeds. Claiming this represented an economic distortion. However, the Bank did not offer any alternative outlets for farmers' products. Worse, the dissolution occurred when traditional Gulf markets were closed due to the Gulf War in 1991 and subsequent UN sanctions against Iraq. Concurrently, water fees were increased, and fodder subsidies were withdrawn in the mid-1990s. These policies proved disastrous for Jordan's rural economy (Harrigan, et al, 2006).

This led to increased interest rates on loans farmers used to purchase seeds and fertilizers. Farmers had no choice but to turn to ruthless traders. The dismantled Marketing Board, previously a major supplier of seeds, fertilizers, and capital to farmers, was replaced by traders at a much higher cost. Those who failed to pay, especially during the prolonged droughts of the 1990s, had their entire crops seized. The less fortunate lost their lands. Market liberalization and reduced support measures diminished the viability of Jordan's rural production pattern, leading to a shift away from livelihood strategies based on agriculture. Farmers burdened by heavy debts and low returns on their investments due to rising capital, input, and transportation costs sold their lands and livestock and moved to urban areas. Currently, nearly two-thirds of Jordanians live in three major cities: Amman, Zarqa, and Irbid. Their lack of necessary skills to compete with returnees more qualified from the Gulf in the already limited available urban jobs pushed them into the ranks of the unemployed (Harrigan, et al, 2006).

The limited success achieved by the 1990s economy can be attributed to Western aid and debt rescheduling/write-offs, which significantly increased after the peace agreement in 1994. This aid was further multiplied after 2000, specifically after Jordan became a member of the World Trade Organization, completing the market-oriented economic reform phase.

In 2001, a free trade agreement was signed with the United States, followed the next year by one with the European Free Trade Association. The US free trade agreement boosted exports, primarily in the textile sector (now Jordan's largest export sector after chemicals). This, as described in a study (Harrigan, et al, 2006), indicates what can be termed "neglecting the rural sector."

By 2002, the agricultural sector's contribution to the Gross Domestic Product shrank to less than 4%.

Consumers and producers also feel the direct consequences of these policies. In 2014, Jordanians spent, on average, over 35% of their income on food, compared to less than 7% in the United States (Woertz, 2017).

3.7 Regarding the Future of the Land and the Community's Vision:

As for the future of agricultural land and the agricultural sector, the participants believe that the crisis facing agricultural land might find relief if certain solutions are implemented. Their suggestions for solutions are divided into those the state should undertake and those that lie in the hands of the farmers.

Solutions to be undertaken by the State:

Restoring Freshwater for Irrigation. Initiating the activation of residential zoning on the mountain, granting building permits to the locals. Securing External Markets and Supporting Shipping Costs. Regulating Hesba and internal markets and agricultural companies.

Solutions to be undertaken by Farmers:

Diversifying Crops and Opting for Cost-effective Agriculture. Cultivating a portion of the land proportionate to the farmers' capacity. Shifting to uncovered agriculture, leaving aside expensive modern agriculture methods. Distributing Agricultural Land for Seasonal Crops, Avoiding concentration on a single crop, especially if it exceeds ten dunums, ensuring farmers incur minimal losses against marginal gains. Adopting Sustainable Agricultural Patterns. Developing a cooperative agricultural approach.

Regarding the future of the land, the participants unanimously agree that its fate might involve selling, building, or abandonment. The current circumstances do not allow for prolonged waiting.

Regarding the future of the farming profession, they see vast, neglected spaces where a few migrant workers toil. The locals might leave, leaving behind investments benefiting the other side of the Jordan River.

Our conversation in the women's group concluded with their response to my question: "Is there any hope?"

- One of them said: "Look at our brothers, they're farming in the valleys, settling down, planting, and taking care of their farms. Some of them are even making it work, but they are all heavily indebted, even the ones seemingly successful."

- So, what's the solution then?

- Another one responded with a laugh: "The Mallow Festival!" And we all laughed together!

Summary of the Analysis:

The ability to sustain a livelihood and maintain farming as a fundamental occupation is contingent upon several criteria, as indicated by this study. These criteria include the ability to adapt and persist in family work, minimizing consumption expenses, incorporating modern technologies and paid labor, resorting to minimal debt, passing down farming to the children, and safeguarding the land against housing.

Table (2) illustrates the variation in this ability among the participants, those who engaged in farming on small holdings.

Notes on the Table:

- Participants (18) and (25) belong to the same family, as do participants (26) and (27).

- Participant (50) has been included despite discontinuing farming for himself and his family. However, he continues to raise livestock, which serves as his sole source of income, and he maintains it as a lifestyle choice.

Table (2): Participants' Ability to Sustain Farming as a Way of Life and Essential Occupation

Discussion of Results4. Discussion

Firstly: The analysis of the study's data revealed three distinct agricultural patterns among small landholders, as follows:

Pattern (1): Resilience Pattern. This pattern comprises 7 agricultural families, making up 13.7% of the study community. These families demonstrate limited expansion in farming, refraining from cultivating the entire land due to financial challenges. Common phrases among them included "I plant if I have something... if not, I don't plant" and "I plant as much as I have".

Pattern (2): Limited Sustainability Pattern. This pattern includes 5 agricultural families. While 4 of these families engage in both modern and partial family farming, they cannot sustain farming as their primary profession. They own less than 5 dunums of land, mainly cultivating citrus trees. Their farming ceases once these trees mature, and their land is threatened by housing. The fifth family, although inheriting the profession and managing their consumption expenses reasonably, does not adopt modern farming techniques and often relies on substantial debt. Their land is also at risk due to housing.

Pattern (3): Intensive Farming Pattern. This pattern consists of 5 participants engaging in intensive farming. They accumulate significant debts and face challenges. One participant managed to clear his debts but did not pass down the profession, nor did he adopt modern farming techniques or regulate his expenses. The study indicates that this pattern is prone to contraction and lacks sustainability.

The study anticipates that the ability to continue farming as a way of life and a fundamental profession is equal to the percentage of farmers in Pattern (1). These 7 agricultural families, constituting 13.7% of the sample, possess

the adaptability to continue through family collaboration, reducing consumption expenses and modern techniques, and paid labor.

Secondly: The study found a shift in land value dependency. Instead of relying on land and water productivity, land value now hinges on external factors such as the number of labor contracts granted or encompassed by the landowner and the count of plastic houses on the land. This transforms land into a "commodity for exchange (buying for selling)" (Marx, 1971). Consequently, this situation might lead to financial bubbles that threaten agriculture entirely.

Thirdly: The study discovered that the development of laws and agreements, meant to serve the public interest of the state, is either ineffective or disregards the interests of small landholders. For example, encroachment on essential freshwater sources for irrigation, economic reforms, market liberalization in the mid-1990s, and the Agricultural Reform Law after 2001 have negatively impacted farmers.

Regarding water, the study found that some large landowners in the area and its surroundings obtain freshwater from the King Abdullah Canal, which is against the law. Regarding Wadi-Araba Valley Agreement, the study revealed unanimous agreement among farmers that it severely negatively effected developments in the water situation.

Regarding social protection for farmers and agricultural labor, the absence of such protection coincided with the attraction for farmers' children to state jobs. Consequently, rural youth have abstained from agricultural work, leading to the complete disappearance of the herding profession. This situation has significantly increased the influx of migrant labor in this sector.

Regarding market liberalization, privatization of existing agricultural production institutions, including the closure of the Agricultural Marketing Corporation and subsequent shutdown of the tomato paste, privatization agricultural associations, opened the door to financial corruption. This led to an extremely deteriorating economic situation, exacerbated by development projects financed by easy loans. The results align with what (Al-Sqoor, 1989) indicating to that investments in the Jordan Valley region did not yield results in rural development.

This liberalization did not account for the specific Jordanian situation, especially the Jordan Valley, which is a border area with an occupied enemy. The study found that the deterioration in agricultural conditions resulted in structural deformities in the Jordanian farmer's relationship with his enemy. The enemy shifted from being an adversary to merely a trader and a necessary market for the farmer. Therefore, the study anticipates that this development from normalization of trade relations with the enemy might not stop at trade but may lead to the Palestinian side becoming a competitor in this market rather than a friend and ally.

Regarding land, the developments in the Jordan Valley Authority Law do not serve JV landowners. Instead of developing the law to prevent using agricultural land in housing and designate areas for construction in regions overlooking the Jordan Valley, necessary actions to do so have been overlooked and delayed. The development of this law has facilitated land sales to investors from outside the area, who are more efficient in market-oriented agriculture.

This study found a contraction in agricultural land. Lands that were entirely cultivated until the mid-1990s have shrunk, reaching 56.8% of lands owned by large landholders and 55.4% of lands owned by small landholders. This shrinkage diminishes the value of farming as a primary profession and erodes its role as a way of life. Thus, the traditional agriculture of self-sufficiency, ensuring local produce and related aspects, has been replaced by a consumption-oriented pattern.

This study found that 1012.5 dunums out of 1721 dunums of land in the study area owned by large and small landholders have been sold. This accounts for 58.8% of the study area's lands and has occurred since the development of the Jordan Valley Authority Law in 2001.

The result differs from the study conducted by Al-Qudah (2010), which suggests that agricultural reform policies with market orientation "led to a more efficient allocation of resources and increased income and output levels. Therefore, there are justifications for legislations to expedite resource movement based on enhancing the economic efficiency of resource use in the Jordan Valley region. This facilitative policy could, in turn, promote the issue of fairness by empowering poor farmers and other interesting groups to expand their properties or initiate farming in the area." The study found that the percentage of "Bour"-neglected land that sold to investors in the study area assumed to be more efficient, amount to 633 dunums, equivalent to 36.6% of lands owned by large and small landholders and 62.52% of the total sold land.

The articulation of mode of production become very clear when observing the changes that occurred in agriculture as a way of life. The shift from feudal to state-oriented agriculture, coinciding with the entry of capitalist tools and

their evolution into markets with a free trade system, fragmented some production patterns and distorted others. While large landowners were once united for their common interests, working based on large-scale production, this link is now broken with sales to foreign capitalists, distorting this production pattern.

Small landholders, once a close-knit community knowing each other not just in homes but in farms and lands, now find themselves scattered, voiceless. Some practice the profession with love but not as a way of life. Some will abandon it today or tomorrow if they feel they won't be legally pursued, and many have left and sold.

The economic reform of the agricultural sector without considering its social structure and interests, without taking its opinion into account regarding what it should be, without seriously addressing its problems and improving its situation, and venturing into global market adventures at its expense, led to a profound change in the socio-economic structure in the study area. It shifted from subsistence to consumption, from agriculture for local sustenance to significant profit-driven production, trapping the Jordan Valley in its snare.

List of Sources and References:

English references:

Al-Qudah, H. (2010), *Land Reform Impact on Socioeconomic Factors: The Jordan River Valley*, *Jordan Journal of Agricultural Sciences*, 6 (2), 248-261.

Awwad, M. (1997). Environmental study of the Amman-Zerqa Basin Jordan, *Environmental Geology*, 33(1), 57-80.

Banaji, J. (1980). Summary of selected parts of Kautsky's (The Agrarian Question). In *The articulation of modes of production* (46-92), London: Routledge & Kegan Paul.

Harrigan, J., El-Said, H., Wang, Ch. (2006), The IMF and the World Bank in Jordan: A Case of over Optimism and Elusive Growth, *The Review of International Organizations* 1(1), 263-292.

Fitzgerald, F. T. (1983). *Sociologies Of Development*. In *Neo-Marxist Theories of Development* (12- 28), New York.: ST. MARTIN'S PRESS.

Malkawi, B.(2006). Anatomy of the Case of Arab Countries and the WTO. *Arab Law Quarterly*, 20 (2), 110-151.

Meillassoux, C. (1980), From reproduction to production. In H. Wolpe, In *The articulation of modes of production*, (pp. 189- 201), London: Routledge & Kegan Paul.

Tarawneh, M. (2013). *Rural Capitalist Development in the Jordan Valley- The Case of Deir Alla*, Leiden, Holland: Sidestone Press.

Woertz, E. (2017), Agriculture and Development in the Wake of the Arab Spring, Combining Economic and Political Development: *The Experience of MENA*, 7(1), 144-69.

Arabic references:

Al-Sqoor, S. (1989), *Internal Migration and Rural Development in the Jordan Valley*. Unpublished master's thesis, University of Jordan, Jordan

APN, (2018). *Annual Report 2018*,

https://apnature.org/sites/default/files/2020-01/Annual%20Report_Arabic%20_Resize.pdf

Department of Statistics Jordan (Summary). (2017). *Agricultural Census of Jordan*. Jordan.

Department of Statistics Jordan. (2017). *Agricultural Census of Jordan*. Jordan.

Department of Statistics Jordan. (2020). *Agricultural Census of Jordan*. Jordan.

Jordan Valley Authority web site, (2001). *Jordan Valley Authority law*. <https://bit.ly/33m6a5J>

Marx, K. (1971). *Capital: Critique of Political Economy*. Translated by Anton Homsí. Damascus: Ministry of Culture Publications.

AlRai Center for studies, (2017). *Challenges of the Agricultural Sector*, Published Seminar. <https://bit.ly/2CKpsXT>

Al-Ghad Jordanian newspaper website (2019). *Agricultural Experts: Justifications for Signing "Wadi Araba" Have Not Been Met: Specialists Confirm Israel Harms the Jordanian Agricultural Sector*, 26-10-2019.

Al-Ghad Jordanian newspaper website (2016), *Refusal to Fragment Agricultural Units in the Jordan Valley*, 2-9-2016, <https://bit.ly/2D4V4ro>

International Labor Organization (2008). *Enhancing Rural Employment for Poverty Reduction*, Fourth Report, 97th Session, International Labour Office, Geneva.

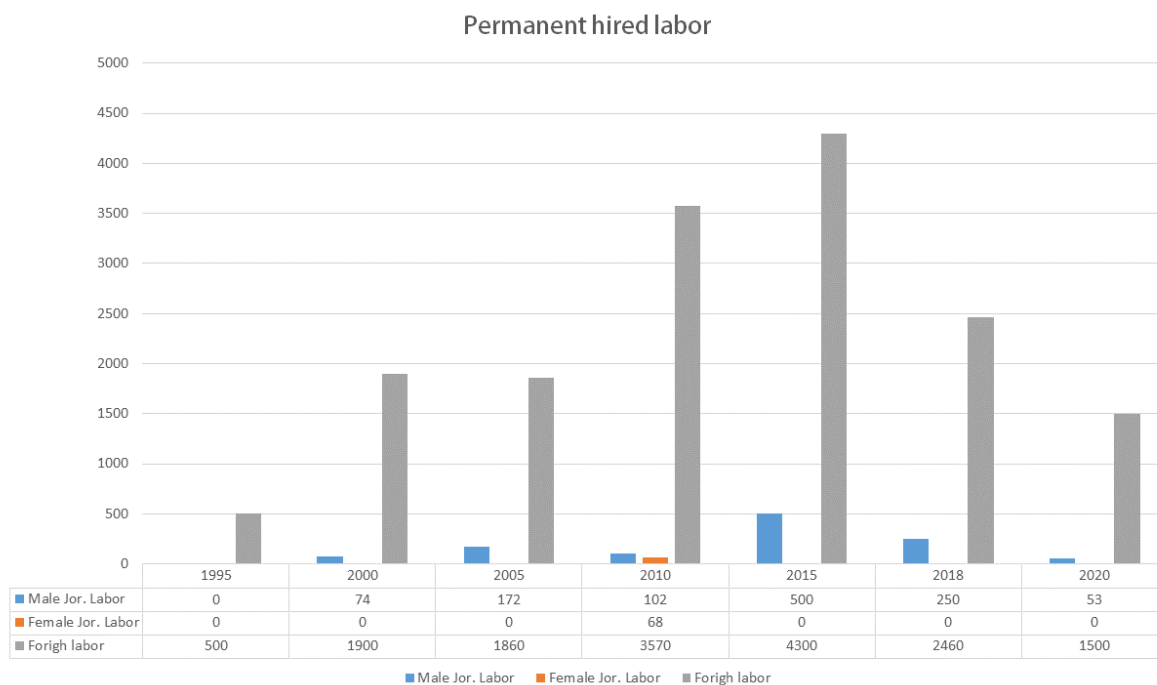
The reasons	Participants Count.	Rating
Irrigation water and land productivity decline	28	54.9%
Economic infeasibility of agriculture weak local marketing, and sales	22	43.1%
Land fragmentation	15	29.4%
Accumulation of debt	11	21.5%
Expansion in modern agriculture	10	19.6%
Sale of labor contracts	9	17.6%
Sale to investors from outside the Jordan Valley (change in agricultural character)	10	19.6%
Increase in consumeristic tendencies at the expense of self-sufficiency, leading children to abandon the profession	7	13.7%
Closure of the tomato factory	5	9.8%
The stock exchange	3	5.8%
Lack of available labor force	2	3.9%
Climate change	2	3.9%

Table (1) Distribution of Participants' Answers Regarding the Reasons for the Decline in the Agricultural situation

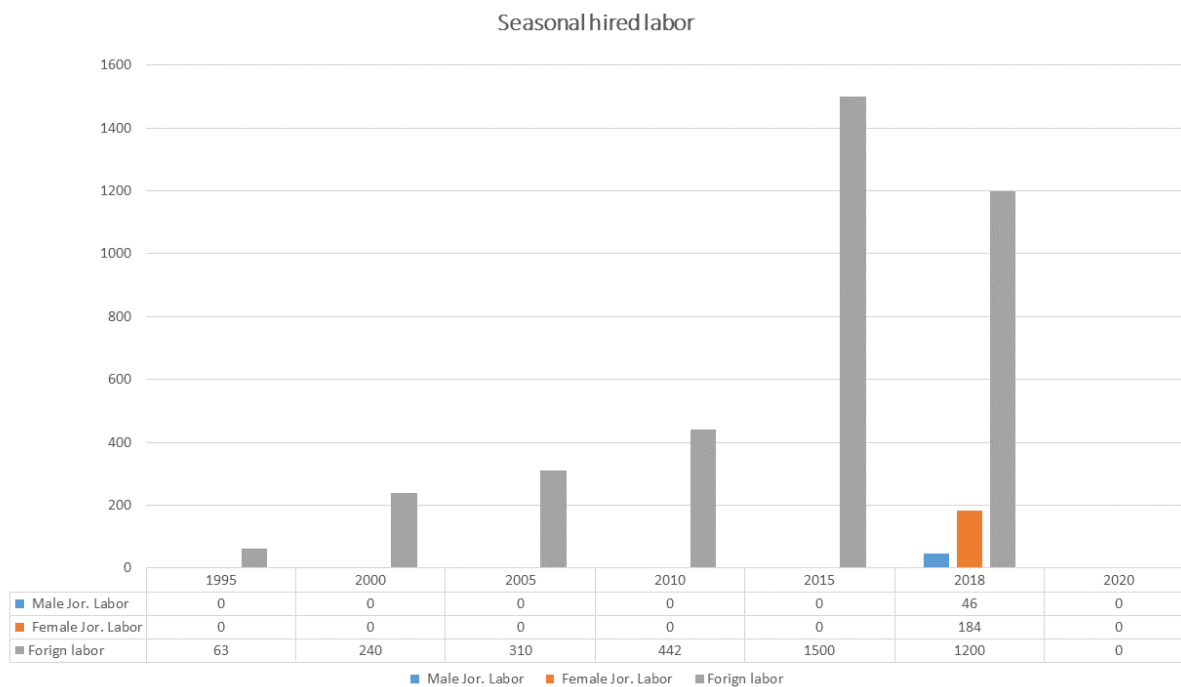
Table (2): Participants' Ability to Sustain Farming as a Way of Life and Essential Occupation

	Still engaged in farming	Entirely family-run farming	Family-run farming with paid labor	Transitioned from family-run farming to fully labor-based farming	Managing consumption expenses	Farming without resorting to significant debt	Avoiding substantial debt accumulation	Regulating modern farming expenses	Land not threatened by housing	Pattern
Participant (8)	1	1			1	1	1	1		1
Participant (10)	1		1		1		1		1	1
Participant (11)	1			1						3
Participant (18)	1		1		1		1	1	1	1
Participant (21)	1	1			1		1		1	1
Participant (22)	1			1						3
Participant (25)	1		1		1		1	1		1
Participant (26)	1	1					1	1		
Participant (27)	1	1					1	1	1	2
Participant (35)	1			1						3
Participant (39)	1			1		1	1	1	1	2
Participant (41)	1			1	1	1	1	1	1	1
Participant (42)	1			1			1			3
Participant (44)	1			1						3
Participant (46)	1		1		1					2
Participant (48)	1		1		1	1	1	1		1
Participant (49)	1		1			1	1	1		2
Participant (51)	1	1				1	1	1		2
Participant (50)	0	1			1	1		1	1	1

Figure(1) : Seasonal Labor in Deir-Alla since 1995 till 2020



Figure(2) : Seasonal Labor in Deir-Alla since 1995 till 2020





Figure(3) : Temporary Labor in Deir-Alla since 1995 till 2020

Appendix (1)

Aerial images on Google Earth reveal Neglected land in the area for multiple seasons

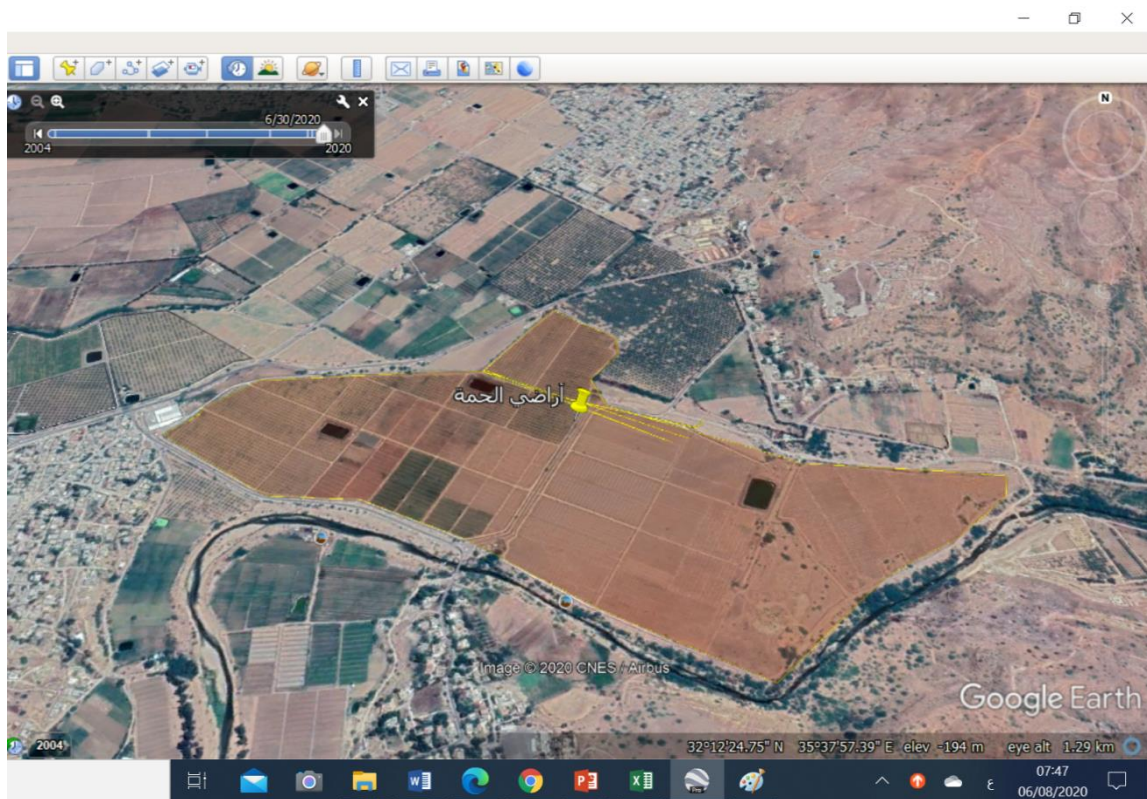


Image: Hemma land in Debab that have been neglected to be Bour - 2020

Appendix (2)

Aerial Google Earth images show agricultural lands inside Debab used in housing between 2004 and

2020



Image: Agriculture lands encroached by housin in 2004



Image: Agriculture lands encroached by housin in 2020