German Sparkassenstiftung
FOR INTERNATIONAL COOPERATION

Diasensus
research

Market Research on Agricultural Sector in Türkiye

Financial Inclusion for Refugees and Host Communities in Türkiye

Final Report

March 2024

German Sparkassenstiftung
FOR INTERNATIONAL COOPERATION

This study was conducted by Dissensus Research for Sparkassenstiftung for International Cooperation.

2023-2024

Türkiye

Dissensus
research

Abbreviations

AA	Anatolian Agency (Anadolu Ajansı)
AFAD	Disaster and Emergency Management Authority (Afet ve Acil Durum Yönetimi Başkanlığı)
AHS	Agricultural Holding Structure Survey (Tarımsal İşletme Yapı Anketi)
BDDK	Banking Regulation and Supervision Agency (Bankacılık Düzenleme ve Denetleme Kurumu)
CEB	Council of Europe Development Bank (Avrupa Konseyi Kalkınma Bankası)
CİMER	Presidential Communication Center (Cumhurbaşkanlığı İletişim Merkezi)
ÇKS	Farmer Registration System (Çiftçi Kayıt Sistemi)
CUCA	Central Union of the Chambers of Agriculture of Türkiye (Türkiye Ziraat Odaları Merkez Birliği)
DEGURBA	Degree of Urbanisation (Şehirleşme Derecesi)
DFİF	Support and Price Stability Fund (Destekleme ve Fiyat İstikrar Fonu)
DSİ	State Water Works (Devlet Su İşleri)
EBRD	European Bank for Reconstruction and Development (Avrupa İmar ve Kalkınma Bankası)
EU	European Union (Avrupa Birliği)
EYDB	Department of Training and Publication (Eğitim ve Yayın Daire Başkanlığı)
FAO	Food and Agricultural Organization (Gıda ve Tarım Organizasyonu)
FESAS	Formal Employment Support in Agriculture Sector (Tarım Sektöründe Resmi İstihdam Desteği
FFS	Farmer Field Schools (Çiftçi Tarla Okulları)
GAP	Southeastern Anatolia Project (Güneydoğu Anadolu Projesi)
GDP	Gross Domestic Product (Gayri Safi Yurtiçi Hasıla)
GIZ	German International Cooperation Agency (Alman Uluslararası İşbirliği Kurumu)
HAYGEM	General Directorate of Livestock (Hayvancılık Genel Müdürlüğü)
ILO	International Labour Organization (Uluslararası Çalışma Örgütü)
INGEV	Foundation for Human Development (İnsani Gelişme Vakfı)
IPARD	Instrument for Pre-Accession Assistance in Rural Development
IPASH	International Protection Applicants and Status Holders
ISIS	Islamic State of Iraq and Sham (Irak Şam İslam Devleti)
ISKUR	Employment and Labor Agency (İş ve İşçi Bulma Kurumu)
IZA	Institute of Labor Economics (Çalışma Ekonomisi Enstitüsü)
KDV	Value Added Tax (Katma Değer Vergisi)
KEDV	Foundation for the Evaluation of Women's Work (Kadın Emeğini Değerlendirme Vakfı)
KKB	Credit Registry Bureau (Kredi Kayıt Bürosu)
KOOP-BIS	Cooperative Information System (Kooperatif Bilgi Sistemi)
KOP	Konya Plain Project (Konya Ovası Projesi)
KOSGEB	Small and Medium Enterprises Development Organization
MoLSS	Ministry of Labour and Social Security (Çalışma ve Sosyal Güvenlik Bakanlığı)
MSME	Micro-, Small and Medium-sized Enterprises (Mikro, Küçük ve Orta Ölçekli İşletmeler)
MTSO	Mersin Chamber of Commerce and Industry (Mersin Ticaret ve Sanayi Odası)
NGO	Non-Governmental Organization (Sivil Toplum Kuruluşu)
PMM	The Presidency of Migration Management (Göç İdaresi Başkanlığı)
SGK	Social Insurance Institution (Sosyal Güvenlik Kurumu)
SMS	Short Message Service (Kısa Mesaj Hizmeti)
SSAW	Syrian seasonal agricultural workers (Suriyeli mevsimlik tarım işçileri)
STK	Non-Governmental Organization (Sivil Toplum Kuruluşu)
SuTP	Syrians under temporary protection (Geçici koruma altındaki Suriyeliler)
TAGEM	General Directorate of Agricultural Research and Policies
TARSİM	Agricultural Insurance Pool (Tarım Sigortaları Havuzu)
TAYEM	Agricultural Production Enterprise Directorate of Agricultural Extension and In-Service Training Center
TB	Ministry of Trade
TBB	Banks Association of Turkey (Türkiye Bankalar Birliği)
TC	Republic of Turkey (Türkiye Cumhuriyeti)
TCC	The Turkish Commercial Code (Türk Ticaret Kanunu)
TCL	The Turkish Cooperatives Law (Türk Kooperatifler Kanunu)
TEPAV	Türkiye Ekonomi Politikaları Araştırma Vakfı (Economic Policy Research Foundation of Turkey)
TGMP	Türkiye Grameen Mikrofinans Programı (Turkey Grameen Microfinance Program)
TİGEM	General Directorate of Agricultural Enterprises (Tarım İşletmeleri Genel Müdürlüğü)
TİSVA	Turkish Foundation for Waste Prevention (Türkiye İsrafı Önleme Vakfı)
TKDK	Agriculture and Rural Development Support Institution (Tarım ve Kırsal Kalkınmayı Destekleme Kurumu)
TOB	The Ministry of Agriculture and Forestry (Tarım ve Orman Bakanlığı)
TRY	Turkish Lira (Türk Lirası)
TSKB	Türkiye Sınai Kalkınma Bankası (Industrial Development Bank of Turkey)
TÜBİTAK	The Scientific and Technological Research Council of Turkey
TÜDKİYEB	Union of Sheep and Goat Breeders' Associations of Türkiye
TÜRİB	Turkish Commodity and Commodity Specialized Exchange Inc. (Türkiye Ürün ve İhtisas Borsası A.Ş.)
TurkStat	Turkish Statistical Institute (Türkiye İstatistik Kurumu)
TÜSİAD	Turkish Industrialists and Business People Association (Türk Sanayicileri ve İş İnsanları Derneği)
TYDD	Agricultural Extension and Advisory Support (Tarımsal Yayım ve Danışmanlık Desteği)
TZOB	Union of Chambers of Agriculture of Turkey (Türkiye Ziraat Odaları Birliği)
UN	United Nations (Birleşmiş Milletler)
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNDP	United Nations Development Programme (Birleşmiş Milletler Kalkınma Programı)
UNHCR	United Nations High Commissioner for Refugees (Birleşmiş Milletler Mülteciler Yüksek Komiserliği)
USA	United States of America (Amerika Birleşik Devletleri)
USD	United States dollar (Birleşik Devletler doları)
WB	World Bank (Dünya Bankası)

Figures, Tables, and Maps

Figure 1: Agricultural Support Payments (2006-2023). Source: The Ministry of Treasury and Finance, General Governments Financial Statistics 51
Figure 2: Market Shares of Banks Groups in Agricultural Loans. Source: BDDK 56
Figure 3: Market Shares of Banks Groups in Agricultural Loans. Source: BDDK 74
Figure 4: Agricultural Loans and Support Payments in Agricultural GDP (Source: TurkStat (GDP), Ministry of Treasury and Finance 75
Figure 5: Real Growth in Agricultural and Total Loans (Source: BDDK for loan statistics and TurkStat for PPI) 76
Figure 6: The Share of Short Term Loans in Agricultural and Total Loans (Source: BDDK) 77
Figure 7: Share of Agricultural Loans in Total and Share of Non-performing Loans in Agricultural and Total Loans (Source: BDDK) 78
Figure 8: Banks' Market Share in Specialized Agricultural Loans (Source: TBB) 79
Figure 9: Number of projects by key areas of investment 90
Figure 10: Total Budget in each key areas of investment / Millions EUR 91
Figure 11: Number of Projects by provinces 92
Figure 12: Share of WB projects in each themes 93
Figure 13: Project priority scores in environment and natural resource management theme 94
Figure 14: The number of Farmers / Agricultural Holdings and The Size of Cultivated Area, registered to National Registry of Farmers (Source: TOB) 102
Figure 15: Employment status, total, (Source: TurkStat) 112
Figure 16: Employment status by gender (Source: TurkStat) 112
Figure 17: Number of Insured People in Agriculture Sector. (Source: Social Security Institution Records) 114
Figure 18: Farmers Expectation from Banks (Source: Cebeci et al., 2017:17) 172
Table 1: The number of Agricultural Cooperatives and Partnerships in Agricultural Cooperatives, Source: TB and TOB 36
Table 2: Major financial Institutions in the agricultural sector and their services 59
Table 3: International Organizations in Türkiye that are supporting agricultural activities 84
Table 4: International Organizations in Türkiye that are supporting agricultural activities 86
Table 5: Population and Surface Area Ratio in Rural and Urban (TurkStat, 2022) 99
Table 6: Age Distribution of of Farmers (Source: TZOB 2023) 104
Table 7: The share of agricultural holdings and agricultural land by scale (Source: TUrkStat) 107
Table 8: Employed by status in employment, by gender (Source: TUrkStat) 111
Table 9: Refugees in Türkiye according to the UNHCR (by the end of 2022) 145
Map 1: Agricultural Loans by Province, 2022 (Source: TBB) 80
Map 2: Employment in Agriculture by NUTS-2 (People in thousands, ratio of employment in agriculture, Nuts; Source: TurkStat) 105
Map 3: Average size of cultivated land per agricultural holdings registered in Farmer Registration System (2021) 108

Contents

Abbreviations 3
Tables , Figures , and Maps 4
Contents 5
Introduction 6
General Key Findings 9
General Executive Summary 14
Section A – Stakeholder Mapping and Partner Identification 24
A1. Stakeholders in the Agricultural Sector in Türkiye 25
A2. Agricultural Cooperatives in Türkiye 27
Key Findings 27
Executive Summary 29
A. Detailed information on the cooperatives system in Türkiye in the agricultural sector 33
I. How do cooperatives operate in the agricultural sector – SWOT analysis 35
II. How many cooperatives are there in the agricultural sector? 42
Methodology and Limitations 42
Current Situation of Agricultural Cooperatives in Türkiye 43
Women in Agricultural Cooperatives 45
Geographical Distribution of Agricultural Cooperatives 46
III. What is the political approach towards cooperatives? 47
IV. Are there any agricultural cooperatives/ farmers unions with mainly Refugees being members? 51
A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye 53
Key Findings 53
Executive Summary 55
A. List of financial institutions that provide specialized financial services tailored for agricultural MSMEs 59
1. Eligibility criteria of these financial services/products 72
I. Type of services provided by these financial institutions 76
III. Financial opportunities in the form of credit and grants available for farmers 79
B. Financial statistics related to the services/products used by Farmers in Türkiye? 80
Company Accounts and Sectoral Balance Sheet Statistics 81
Agricultural Loans Statistics 83
A4. Donors of Agricultural Sector in Türkiye 91
Key Findings 91
Executive Summary 93
A. List of existing and potential donors in the field of agriculture in Türkiye 95
List of International Donors in the Agricultural Sector 95
List of National Donors in the Agricultural Sector 97
A5. Projects in the Agricultural Sector in Türkiye 99
A. List of internationally and nationally funded projects in the field of agriculture in Türkiye 99
EU IPARD II 101
World Bank 106
Section B – Training Needs Analysis for Farmers 108
B1. Farmers in Türkiye 109
Key Findings 109
Executive Summary 111
A. How many farmers and agricultural MSMEs are there in Türkiye? 114
I. Demographic Information (age, gender, nationality) 114
National Statistics on Agricultural Enterprises 114
Inconsistency Between the Numbers 116
II. Regional Distribution 119
III. Size of businesses 120
IV. Refugees active as agricultural entrepreneurs 123
V. Refugees – agricultural entrepreneurs, which are members of Unions or Cooperatives 123
B. Employment opportunities within the sector 124
B2. Capacity Development of Farmers in Türkiye 130
Key Findings 130
Executive Summary 132
A. What is the overall educational background of farmers in Türkiye? 135
B. What is the role of extension services providers in capacity building and what exactly do they offer? 136
C. What are the publicly available training services accredited by the Government? 139
D. What are the most demanded training topics that farmers would like to receive? 152
E. What specific applications/tools are useful for farmers? 152
B3. Refugees in Agriculture Sector in Türkiye 156
Key Findings 156
Executive Summary 157
A. General situation of refugees in the agricultural sector in Türkiye 160
I. How many refugees are working in the agricultural sector in Türkiye? 162
1. Their geographical distribution and demographic information (age, gender, nationality) 163
2. What percentage of refugees are working as employees a? 166
Informality 168
Intermediary position between employers and agricultural workers 169
3. If any refugees are active as self-employed agricultural entrepreneurs? 169
What are self-employed agricultural entrepreneurs' support and training needs? 170
What is the current political approach in Türkiye towards refugees working in the agricultural sector? 171
On work permits 172
B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye 175
Key Findings 175
Executive Summary 177
A. What are the specific needs of farmers towards financial services? (loans, insurances, etc.) 180
Measuring Financial Inclusion and Level of Financial Inclusion of Türkiye 180
Financial Inclusion in Agricultural Context 186

Contents

Part 2: Field Report 197
Key Findings 198
Executive Summary 202
Introduction 207
Research Site: Demography, and Economy 208
General View of Agriculture 212
Refugees 216
Methodology and Field 218
Financial Inclusion 221
Financial Literacy and Financial Relations 225
Host Community 225
Refugees 226
Production and Constraints 228
Agriculture Process: Planning and Accounting 228
Which crop to plant? 229
Field Story: Mersin-Adana: The Bittersweet Lemons 231
Resources 232
Field breaks: The Way Data Speaks 234
Field breaks: The Way Field Speaks 235
Land 236
Field Story - Sharing Knowledge: Refugee's Solution for Sustainable Coexistence 236
Marketing and Constraints 237
Price 239
Commissioners 240
Registered and Unregistered Products 241
Training and Consulting 242
Field Story - A Refugee's Quest for Recognition 246
247 224
Suggestions 250

This final report consists of two main parts.

Chapter 1 - Desk Review & Stakeholder Interviews Report

Desk Review & Stakeholder Interviews Report is organized in line with the outline provided in the Terms of Reference of the Market Research on Agricultural Sector in Türkiye, Project 10062/5. A thorough literature review is combined with 27 key informant interviews in this part. Although analytically challenging, our research team aimed to provide appropriate answers and datasets to each chapter of the outline that was provided in the Terms of Reference. Some of the chapters are discussed in more empirical detail in the Field Report. Some relevant large data sets are provided in the appendices. Hence, the readers will be referred to the Field Report or the relevant Appendix when necessary.

Chapter 2 - Field Report

Field Report covers our findings from the fieldwork conducted in Adana and Mersin provinces. In addition to the 12 semi-structured and in-depth interviews and 1 focus group interview, our research team visited villages, fields, greenhouses, cooperatives, public institutions, and civil society organizations. The Field Report provides the experiences of different stakeholders through three main themes: Financial Inclusion, Training and Consulting, and Cooperatives.

These two parts are accompanied by 6 appendices.

Appendix A consists of the spreadsheet entitled "Stakeholders in the Agricultural Sector in Türkiye" corresponding to the list of the stakeholders requested in Chapter A1.

Appendix B consists of the spreadsheet entitled "Donors&Projects" corresponding to the lists requested in Chapters A4 and A5.

Appendix C consists of the spreadsheet entitled "Agricultural Organization Table" corresponding to the agricultural organizational structure which provides the background for the operation of the agricultural cooperatives that are investigated closely in Chapter A2.

Appendix D consists of the spreadsheet entitled "Financial Institutions and Services" corresponding to the list of main financial institutions and their services in the agricultural sector, as requested in the Chapter A3.a. This list, which includes banks, insurance institutions, NGOs in the Agriculture Finance Ecosystem, provides information about the institutions, their activities related to agriculture finance and the products and services they offer through their websites and annual activity reports.

Appendix E consists of the spreadsheet entitled "List of All Interviewees" indicating the details of all the key informant interviews we conducted throughout this research.

Appendix F consists of the spreadsheet entitled "Interview Questions" providing the question sets we designed and used in our interviews with different stakeholders.

General Key Findings

Challenges and adaptations

- **Labor Shortage:** Rural depopulation and aging, coupled with reliance on underpaid refugee workers, are causing significant labor shortages in agriculture.
- **Scaling Challenges:** Small, scattered farm plots hinder scaling and financial management, obstructing sustainable agricultural development.
- **Land Ownership and Leasing:** Informal leasing and legal restrictions on land ownership for refugees and host farmers impede access to formal agricultural supports and systems.
- **Innovative Practices:** Farmers, including hosts and refugees, are adopting new agricultural techniques like soil analysis and drip irrigation, showing continuous improvement in their practices.
- **Tradition and Innovation:** Farmers blend traditional knowledge with new methods they have personally validated, showing openness to innovation while respecting their heritage.
- **Market Influences:** Crop selection is heavily influenced by previous market trends, often leading to saturation and reduced profitability of previously successful crops.
- **Risk Management Deficiencies:** Farmers often overlook risks associated with production and marketing, lacking strategies to align with consumption demands and environmental considerations.
- **Financial Management Gaps:** Most farmers do not use modern accounting, focusing instead on immediate needs rather than profit, indicating a gap in financial planning and resistance to adopting agricultural insurance.

Cooperatives

- **Overview and Scale:** Turkey has 12,588 agricultural cooperatives, with 3.6 million members, accounting for 57.5% of all cooperative memberships in the country.
- **Role and Support:** Cooperatives offer small farmers improved access to consulting, training, technology, and financial support, helping them gain support from various entities and enhancing their growth and service capabilities.
- **Social and Economic Impact:** Agricultural cooperatives play a significant role in creating sustainable economic and social environments, particularly for disadvantaged groups, by promoting economic equity and social cohesion.

General Key Findings

- **Strategic Development:** The UN's declaration of 2025 as the International Year of Cooperatives has spurred political and strategic momentum in Turkey, with plans for a new cooperative strategy and action plan covering 2025-2029.
- **Legislation and Participation:** Turkish laws allow non-Turkish people to join but not lead cooperatives, restricting refugees from holding executive positions or establishing their own cooperatives.
- **Financing Role:** Agricultural Credit Cooperatives are pivotal in Turkey's agricultural finance system but are seen by many as government tools rather than independent farmer groups, functioning mainly as intermediaries in loan distribution.

Financial inclusion and Financing Agriculture

- **Complex Financing System:** Agricultural financing in Turkey is shaped by diverse sources like personal investments, informal loans, governmental aids, and formal loans, but small-scale and refugee farmers primarily rely on personal funds and informal loans.
- **Financial Literacy Gaps:** Financial literacy is generally low among small farmers, limiting their engagement with formal financial networks and strategic use of available supports for long-term sustainability.
- **Loan Trends:** Over the past 20 years, bank loans to agricultural GDP have increased, though there has been a recent decline in the volume of agricultural loans, indicating a financialization trend that fluctuated through 2018 and decreased afterward.
- **Informal Financing Dominance:** Most small farmers, both hosts and refugees, rely on high-interest loans from input suppliers and traders due to limited access to bank loans, although agricultural credit cards have been introduced to encourage formal borrowing.
- **Collateral Challenges:** Access to bank loans for farmers often requires collateral, such as real estate, which is challenging for many, particularly refugees who may have to sell assets due to difficulty in accessing loans.
- **Informal Transactions:** Agricultural transactions frequently occur informally, with cash as the main medium and delayed payments, leading to financial unpredictability and planning challenges.
- Collateral Issues with Co-owned Properties: Farmers face difficulties in using co-owned or rural properties as bank collateral, affecting their ability to secure loans.
- Cost Inflation Impact: Rising costs in inputs, packaging, and logistics are squeezing farmers financially, with stagnant commodity prices exacerbating the situation.

- **Market Control by Intermediaries:** Intermediaries hold significant control over the agricultural product market, often dictating terms and pricing, restricting farmers' financial and operational independence.

Agricultural Fund and Projects

- **IPARD Initiative:** The EU's IPARD program supports rural development in candidate countries, focusing on diversifying agriculture and implementing local strategies in its second phase, with IPARD III set to enhance small and medium-sized agricultural enterprises starting in 2024.
- **Exclusion of Small-scale Farmers:** Many agricultural development projects tend to overlook small-scale farmers, particularly those operating within the informal sector.
- **Access to Opportunities:** Opportunities provided by these projects are more accessible to well-established cooperatives and large-scale agribusinesses.
- **Impact of Exclusion:** This exclusion not only deprives small-scale farmers of development opportunities but also widens the developmental gap between them and larger agribusinesses.

Training

- **Leadership in Training:** The Ministry is the leading entity providing comprehensive agricultural training nationwide.
- **Provincial and Local Training:** Each provincial directorate, along with local branches, conducts numerous training programs throughout the year.
- **Documentation and Access:** A central database compiles and documents all training events from various directorates, enhancing the structure and accessibility of records for agricultural sector development.
- **Extension Activities:** Extension activities involve a variety of organizations, including research institutes, universities, chambers of agriculture, and NGOs.
- **Operationalization Extension Activities:** Extension services are implemented in cooperation with local administrations, regional development directorates, and other governmental bodies.
- **Low Participation Rates:** Training programs often fail to effectively engage farmers, resulting in low turnout.

General Key Findings

- **Gap in Relevance:** There exists a noticeable gap between the availability of educational opportunities and farmers' interest or perceived relevance of these programs.
- **Certification Motivation:** Farmers often seek training primarily to obtain necessary certifications demanded by markets and financial institutions.
- **Hands-on Learning:** The most effective training methods involve direct experience or observation, moving away from conventional lecture-based approaches.
- **Active Participation:** Using demonstrative practices in real farm settings fosters active participation and better learning outcomes for farmers.
- **Strategy for Resilience:** Emphasizing crop diversification is identified as a crucial strategy to make farmers more resilient to market shocks.
- **Farmer Interests:** Many cooperative members express a keen interest in training programs that teach about cultivating various types of crops, underscoring a desire to expand their agricultural knowledge and capabilities.

Refugees

- **Establishment of Rights:** The legal basis for the rights and protections of refugees in Turkey is defined by the Law on Foreigners and International Protection, and the 2014 Temporary Protection Regulation.
- **Impact on Daily Life:** This legal framework significantly affects the living and working conditions of refugees.
- **Challenges in Formal Employment:** The complexity of obtaining work permits in the formal labor market makes the informal agricultural sector more accessible for refugees.
- **Adaptation to Informal Work:** The informal nature and uncertain conditions of agricultural work align with the regulatory challenges faced by refugees, making it a suitable employment area.
- **Resettlement and Movement Limitations:** Refugees under Temporary Protection face restrictions that limit their movement to areas outside their designated residency without special permits.
- **Impact on Agricultural Activities:** These restrictions severely limit refugees' ability to engage fully in agricultural production and access broader markets, with the constant threat of relocation adding to their instability.

General Key Findings

- **Eligibility for Exemptions:** Refugees can receive exemptions from work permits for seasonal agricultural and animal rearing work under specific regulations.
- **Preference for Informal Work:** Despite the possibility of exemptions, many refugees prefer informal work to maintain other forms of financial assistance, which might be discontinued if formally employed.
- **Challenges in Financial Services:** Refugees face significant barriers in accessing basic financial services and obtaining significant financial resources, largely due to lenders' reluctance to provide loans to individuals with refugee status.
- **Dependency on Small Loans:** The difficulty in accessing larger loans forces refugees to rely on smaller, combined loans from various sources, hindering their ability to make substantial investments in agriculture.

Data Deficiency in agriculture

- In 2001, a detailed census aimed at identifying individuals working within the agricultural sector. This inclusive census, surveyed on a household level, extended beyond merely accounting for officially recognized farmers, encompassing anyone involved in agricultural production and labor. Despite the comprehensive nature of this initial census, there has been a notable absence of subsequent updates to these findings. The current descriptive statistics available on those active in agricultural production and labor are confined to individuals who are formally documented in the Farmer Registration System (ÇKS). However, the data sourced from ÇKS fall significantly short of depicting the full scope of reality.

- A considerable number of small-scale agricultural producers, family farmers, and refugees engaged in farming operate within an informal framework, rendering them virtually invisible in the sector's official records. This lack of formal recognition and documentation significantly hinders the ability to accurately evaluate the scope of agricultural production, needs, expenses, and outputs attributed to these key contributors. Furthermore, the exclusion of these actors from the formal economy complicates any analysis of their economic or financial inclusion, as there exists no straightforward method to quantify their value of participation. This scenario underscores the challenges in gaining a full understanding of their roles and the extent of their contributions to agriculture.

- The agricultural community is often mistakenly viewed as homogenous. In reality, it encompasses a wide array of diversity in several key aspects. This diversity includes differences in agricultural practices, production capabilities, land ownership structure, crop varieties, environmental conditions, techniques and technologies, educational backgrounds, and cultural and political distinctions. Recognizing this wide spectrum is crucial for understanding the unique challenges and needs of various actors in the agricultural sector and for developing tailored and effective support and policies.

- The process of data collection and compilation of cooperative statistics in Türkiye is characterized by diversity and contradiction, reflecting discrepancies in available data. Efforts to harmonize cooperative statistics with international standards have been undertaken by the Ministry of Trade and the Turkish Statistical Institute (TurkStat), in collaboration with the cooperative movement itself. Yet, there is still not a publicly available database of the existing cooperatives, which institutionally operate under the supervision of different ministries.

- There is not any publicly available statistics concerning refugees working in the agricultural sector in Türkiye. According to some estimates, by ILO, UNHCR and FAO, between 7.8% and 12% of the Syrian refugees work in the agricultural sector. Given the informality and the mobility the seasonal agricultural work implies, it is likely that the studies underestimate the number of Syrians in the agricultural sector.

Capacity shortfalls

- The agricultural sector is facing a significant labor shortage. The decline in the population of rural settlements and the aging of the rural population are among the long-term causes of this situation. In Turkey, agricultural production has historically relied on migrant and seasonal labor. In recent years, the share of the refugee population in the seasonal and migrant workforce in agriculture has increased significantly. Labor wages are notably low, influenced by the inflationary pressures and the disadvantaged working and living conditions of refugee workers. Consequently, the minimal wages make agriculture an increasingly unattractive sector for refugees seeking labor opportunities.

- Farmers often work on small, scattered plots, limiting their ability to scale up and achieve economies of scale. This limitation constrains their ability to manage external financial aids like loans or grants, and to make further investments in their operations. The combined challenges of limited production capacity, inadequate social and economic capital, and weak organizational structures hinder the transition towards financially viable and sustainable agricultural practices.

- A significant number of farmers, encompassing both refugees and host communities, lease rather than own the land they farm. Host farmers typically don't secure leases through formal, notarized contracts. They mostly choose to rely on informal agreements, which prevent them from being part of the ÇKS. On the other hand, legislative restrictions prevent refugee farmers from owning land as individuals. Only a rare few, like the example of the refugee who purchased land through establishing a company, can navigate these constraints. Most refugee farmers also rely on informal leasing arrangements to access agricultural land.

Challenges and adaptations

- Farmers, including both host and refugee groups, actively enhance their agricultural methods and embrace new practices by engaging with their peers, showcasing a dynamic cycle of improvement within their community. They commonly employ techniques such as soil and plant analysis, precise fertilization, pesticide application, and the implementation of advanced drip irrigation systems, often under professional guidance.

- While deeply rooted in traditional agricultural knowledge, farmers are receptive to incorporating new knowledge and techniques into their practices, especially those they have personally experienced and validated. This direct experience serves as a crucial determinant in their readiness to adopt and implement innovative methodologies, underscoring a blend of respect for tradition and a pragmatic approach to innovation.

- In the agricultural sector, market trends heavily influence crop selection for the upcoming planting season. Farmers often choose crops that were profitable in the previous season, hoping for similar returns. However, this strategy frequently leads to market saturation, causing prices of these once-profitable crops to drop below the production costs, while crops that fetch better market prices are overlooked.

- Main challenges that farmers face are not rooted in their agricultural production capabilities but in overlooking the risks tied to production and marketing. There is a notable deficiency in incorporating plans and programs that address consumption demand and needs and in developing strategies that account for all environmental and natural factors during production. The disconnect between farmers' market information and production decisions presents the most significant disadvantage for farmers. This gap hinders their ability to adapt to changing conditions of market demand and to consider the broader impacts on their agricultural practices.

- The organization, labor, application of knowledge, decision-making, and resource strategies in the agricultural production process reflect the financial inclusion levels of both host and refugee producers. Almost none of the farmers use modern accounting techniques to manage their production, failing to systematically record financial details like costs and income. Their financial management is primarily aimed at meeting immediate family subsistence needs and preparing for the next production cycle, rather than calculating profit and loss. This lack of formal financial planning and accounting assistance points to a broader disconnection of farmers from proactive financial management and future-oriented planning, including resistance to agricultural insurance.

Cooperatives

- In Turkey, there are 12,588 agricultural cooperatives, comprising 21% of all cooperative businesses. In terms of memberships, 3,6 million people are enrolled in agricultural cooperatives, which makes up 57.5% of all cooperative memberships in Turkey. Agricultural development cooperatives (6,641) make up the majority of agricultural cooperatives. Agricultural credit cooperatives (1,618) and irrigation cooperatives (2,488) come next. In terms of the number of people enrolled, beet farmers' cooperatives have highest number of membership (1,399,339), followed by agricultural credit cooperatives (853,869) and agricultural development cooperatives (735,606).

- Cooperatives can create new opportunities to small farmers thanks to their improved access to consulting, training, technology, and financial support. Established cooperatives, in particular, can more easily obtain support from national, international, and government entities, providing for managerial and organizational assistance. This comprehensive support network enhances cooperatives' growth and their ability to serve members, bolstering a stronger agricultural sector.

- Agricultural cooperatives significantly contribute to sustainable economic and social environments for disadvantaged groups by incorporating them into their networks. This goes beyond economic participation, tackling broader societal challenges faced by these groups. Cooperatives' inclusive approach helps marginalized communities overcome social barriers, promoting economic equity and social cohesion.

- 2025 is declared as the International Year of Cooperatives by UN, highlighting the vital role that cooperative businesses play in promoting sustainable development. The international appeal has given cooperatives in Turkey a newfound political traction. The Ministry of Trade has made the decision to create a new cooperative strategy and action plan by keeping up with the advancements in the industry and considering the suggestions and opinions of the cooperative movement. By the end of 2023, plans were underway for a new strategy and action plan that would span the years 2025–2029.

- According to the Turkish laws on cooperatives, non-Turkish people are allowed to join cooperatives as members, but cannot become part of the executive board of a cooperative. Therefore, refugees are only allowed to join cooperatives that must be led by Turkish citizens; they are not allowed to establish and manage their own cooperatives.

- Agricultural Credit Cooperatives are crucial to Türkiye's agricultural financing system. But in recent times, they have primarily served as the middlemen in the distribution of publicly subsidized loans to their producer partners. Several of our key informants expressed disapproval, claiming that Agricultural Credit Cooperatives lack the independence of a legitimate farmer group and are used by the government to interfere in issues pertaining to the agriculture and food industries. Farmers largely view Agricultural Credit Cooperatives as little more than banks and retailers, despite the fact that they are widely institutionalized throughout the nation and provide enormous potential.

Financial inclusion and financing agriculture

- Agricultural financing system is intricate, shaped by governmental policies, social hierarchies, market forces, and global agricultural norms. It supports agricultural activities through a variety of means: personal investments by farmers, informal loans from acquaintances or local merchants, governmental aids, formal loans from banks or cooperatives, and grants from both domestic and international bodies. This rich tapestry of financial support mechanisms facilitates ongoing agricultural operations and the acquisition of critical resources. Yet, for small-scale and refugee farmers, the financial landscape is predominantly navigated through personal funds and informal loans, highlighting a reliance on immediate social networks and individual assets for agricultural financing.

- The findings suggest that financial literacy among small farmers is broadly lacking, with their engagement in formal financial networks not being widespread except receiving state support payments and benefiting from the state-backed loan opportunity provided by the public Ziraat Bank. While only a fraction of farmers manage to secure support, such assistance is predominantly utilized for immediate subsistence and daily necessities, rather than for the advancement and sustainable development of their businesses and production practices. This situation highlights a significant disconnect between the provision of support and the strategic needs of farmers for long-term growth and sustainability.

- Despite the limited financial literacy observed among refugee agricultural producers, it is noted that their integration into the financial system in Türkiye is significantly higher compared to their home countries. While a majority of these refugees lacked bank accounts in their countries of origin, nearly all the refugees contacted in Türkiye possess bank accounts and engage with basic mobile banking services. This indicates a notable shift towards financial inclusion of refugees within Türkiye, suggesting that the environment in Türkiye provides better access to financial services and opportunities for this group.

- Over the past 20 years, the proportion of bank loans to agricultural GDP has risen significantly, whereas the part of government agricultural support payments has fallen. Between 2005 and 2019, the average annual real increase in agricultural loan was above 20%. During the same time frame, there was a 4.7% drop in all sectoral loans. While this trend may be interpreted as a sign of the financialization of agriculture, it continued until the end of 2018. The average annual real reduction in the volume of agricultural loans between 2019 and 2023 is 4%.This percentage is projected to be 3.9% in 2023.

- Both refugee and host small farmers seek financial support from commercial contacts, such as commissioners in fruit and vegetable markets, to whom they sell their produce.In Türkiye, financing agriculture has long relied on input suppliers and traders who directly support farmers, often providing cash loans at high interest rates due to limited access to traditional banking. Recently, banks have introduced "agricultural credit cards," offering interest-free periods for purchases made through input dealers, encouraging farmers to shift away from informal borrowing. These cards can also function as small, short-term, and unconditional loans. Yet most small farmers still rely on input suppliers and merchants for their needs of financing.

- Only a small fraction of financial support for agricultural activities comes from bank loans. These loans require collateral like houses, cars, and land. This financing option, however, is predominantly accessible to host agricultural producers. Refugee agricultural producers, on the other hand, frequently find themselves in a position where they must sell their assets to raise the necessary funds, as opposed to taking on debt, due to the challenges they face in accessing the bank loans. This contrast highlights the disparity in financial strategies and options available between host and refugee agricultural producers.

- Transactions for agricultural commodities largely occur within an informal context, with cash being the primary medium of exchange, bypassing traditional banking systems. Payments for these transactions are not made immediately but are delayed, often without a set schedule, leading to a lack of strategic financial planning. The absence of a formal institution to oversee these transactions introduces risks such as payment inconsistencies or defaults. This uncertainty introduces complications into farmers' financial planning and ability to predict future cash flows.

- The rise of agri-fintech companies over the past five years has the potential to generate a sizable market that would greatly facilitate farmers' and agricultural workers' financial inclusion. These businesses, which cater to farmers' financing needs for purchasing agricultural inputs, set themselves apart from conventional financial institutions by making extensive use of mobile applications, open banking services, cloud-based resource management technologies, digital banking technologies, and blockchain-based smart contracts.

- Access to agricultural loans for farmers primarily hinges on their capacity to pledge assets as collateral. However, a significant challenge arises from the fact that many farmers' properties are co-owned by multiple inheritors, making these assets less likely to be accepted by banks as valid collateral. Banks are particularly reluctant to accept village-based assets like houses or fields as collateral, favoring instead urban properties such as apartments or houses. Although presenting ÇKS records, village properties, agricultural assets, or insurance can establish a degree of trustworthiness, these are not deemed sufficient for collateral purposes.

- Rising production costs and inflation are causing growing discontent in the agricultural sector, as input costs surge without a corresponding increase in commodity prices. This financial squeeze between escalating costs and stagnant prices has led to frustration among producers, making the commercialization of agricultural products increasingly unsatisfactory and perceived as worsening over time.

- Rising costs in packaging, storage, logistics, and supply chain management adversely affect farmers’ income. Food safety regulations bring additional costs and labor, which are not compensated in the prices paid to direct producers. This situation highlights the financial pressures from regulations on producers without adequate support from suppliers or merchants.

- In the agricultural product market, intermediaries wield significant influence over product distribution and pricing, effectively dictating terms to the producers. This centralized control over pricing and transactions establishes a monopoly, constraining producers' autonomy. Despite the disadvantages, including high commission fees, producers depend on these commissioners for financial support and access to markets.

Agricultural projects

- The Instrument for Pre-Accession Assistance for Rural Development (IPARD) is a European Union Commission initiative designed to help candidate and potential candidate countries prepare for EU membership. During its second phase, IPARD II, spanning from 2014 to 2020, the emphasis was placed on diversifying the agricultural sector, with a particular focus on implementing Local Development Strategies. Looking ahead, IPARD III, set to commence in 2024, aims to shift its priority towards enhancing the capacities of small and medium-sized agricultural enterprises.

- Agricultural development projects often overlook small-scale farmers who are part of the informal agricultural sector and exclude them from accessing the opportunities that these projects offer. Such opportunities tend to be more accessible to established cooperatives and large-scale agribusinesses, which not only benefit from existing relationships with local government authorities, but also have the organizational and infrastructural capacity to participate more effectively in these development initiatives. This disparity widens the gap between large, formal agribusinesses and small-scale farmers who play a critical role in the sector but lack the formal support mechanisms to benefit from these collaborative development efforts.

Training

- The Ministry of Agriculture and Forestry (TOB) stands out as the leading institution offering comprehensive training services across the nation. Each provincial directorate under the Ministry, along with their local branches, conducts hundreds of training programs annually. All these training events are documented in a central database, which compiles data from all the directorates, ensuring a structured and accessible record of the training services provided to enhance the agricultural sector's development and efficiency.

- Extension activities are carried out by research institutes, universities, chambers of agriculture, producer and breeder associations, agricultural fairs, and non-governmental organizations, in coordination with and in addition to the activities of the Department of Extension and Training in the Ministry of Agriculture and Forestry. Agricultural research institutes and universities carry out agricultural extension initiatives to ensure the coordination among the researchers, farmers and university infrastructures. Extension services are operationalized in cooperation with local administrations, regional development directorates, development organizations, and other ministries.

- Agricultural education specialists have observed that training programs often fail to engage farmers effectively, resulting in low participation rates. These programs, though potentially beneficial, struggle to attract enough applicants to commence a course, indicating a gap between the availability of educational opportunities and the interest in or perceived relevance of the programs among the farming community. Farmers usually request training in order to obtain the certificates that the market and financial institutions require of them.

- Farmers and agricultural education professionals agree that the most impactful training methods are those involving direct experience or observation. Transitioning from conventional lecture-based approaches to hands-on, demonstrative practices in farming enables active participation and observation by farmers in their own settings, leading to more effective learning outcomes.

- A key strategy for helping farmers become more resilient to shocks in value chains is crop diversification. When we asked cooperative members what kind of training topics they would be interested in, many expressed interest in learning about different crops they could cultivate.

Refugees and multifaceted barriers

- The legal basis for temporary and international protection in Turkey is established by the Law on Foreigners and International Protection, and the 2014 Temporary Protection Regulation. This framework significantly influences the day-to-day experiences and the living and working conditions of refugees.

- The complexity of acquiring work permits in the formal labor market renders refugees well-suited for employment in the agricultural sector. This sector is often characterized by its informal and uncertain working conditions, making refugees a fitting workforce within this context due to the regulatory and practical challenges they face.

- Refugees under Temporary Protection face administrative resettlement with movement restrictions to other areas. This policy prohibits refugees from traveling beyond their designated residency without a travel permit. Such restrictions significantly curtail their ability to engage in agricultural production and to access a broad range of markets.

- Furthermore, the ever-present possibility of relocation due to new regulations adds to their precarity. This ongoing uncertainty inhibits refugees from expanding their agricultural production and market engagement, keeping their operations confined and limited.

- Refugees are eligible for work permit exemptions in seasonal agriculture and animal rearing under the "Regulation on Work Permits for Foreigners under Temporary Protection" and International Labor Law No. 6375. To receive this exemption, refugees must provide a document of legitimate employment and apply to the Turkish Employment Agency provincial offices where they are registered. Very few exemption certificates are issued since most refugees would rather labor informally in the agricultural sector in order to keep their other sources of financial assistance that would not continue when formally employed.

- Refugee agricultural producers encounter difficulties in accessing basic financial services like opening a bank account, and in obtaining significant financial resources, primarily due to lenders' hesitancy to offer loans to individuals with refugee status. This challenge compels the refugees to seek and combine smaller loans from multiple sources to fulfill their financial requirements. Consequently, when faced with the need to acquire major agricultural assets that demand considerable investment, they struggle to provide the necessary funds. Their limited access to substantial loans highlights how their refugee status adversely affects their capacity to invest in and develop their agricultural endeavors.

Section A

Stakeholder Mapping and Partner Identification

Section A1. Stakeholders in the Agricultural Sector in Türkiye

In order to provide detailed lists of the stakeholders in the agricultural sector in Türkiye, our research team has undertaken a thorough desk review. While some of the data could be quantified with exact figures or listed as a bounded set of entries, others were imprecise and open-ended. The data which has exact figures could typically be extracted entirely from the relevant platforms and sources. In contrast, we encountered data with undefined boundaries that required collection from various sources. The absence of clear limits for this data increased concerns about accumulating data to an unmanageable extent. Considering such a large dataset lacks relational and inferential connections within itself, an overall assessment and results-driven analysis becomes impractical.

Moreover, acknowledging the repetitiveness of some of the data you will encounter in this report is important. For instance, there is a Provincial Directorate of the Ministry of Agriculture and Forestry in each province, or there are several faculties and departments related to agriculture in almost every university. This kind of repetition resulted in datasets sometimes too uniform for differentiation, and thus challenging for drawing conclusions, making generalizations, or identifying similarities and differences.

A notable challenge arises from the outdated nature of websites belonging to civil society organizations, universities, and even official institutions, which hinders access to current data. Consequently, the timeliness of some data may be questionable.

Furthermore, it is crucial to consider specific nuances concerning data on associations. In Türkiye, associations are formed through a self-declaration process that also defines their field of activity. However, beyond this initial declaration, there is a lack of ongoing supervision and control over the activities of the associations. This discrepancy has led to instances where associations officially registered under a particular field of activity diverge significantly in their practical operations. In compiling the dataset of associations, we categorized their activity field as Food and Agriculture, but it is worth noting that some associations listed under this category may engage in different activities. Another point of concern is the discrepancy between the official status and actual activity levels of the associations; while they may appear active in official records, they could be inactive in practice.

Section A1. Stakeholders in the Agricultural Sector in Türkiye

Please refer to the **Appendix A** which consists of the excel file entitled "Stakeholders in the Agricultural Sector in Türkiye". Each subject of data is included in different tabs of the Excel file. This dataset will undergo further refinement in the final report, with an emphasis on filling any existing gaps.

a. Governmental Organizations

b. International Organizations

c. Non-Governmental Organizations (NGOs-Agricultural CSOs)

d. Academia (Universities)

e. Municipalities

f. Chambers/Unions/ Farmer Cooperatives

g. Financial Institutions

h. Development Agencies

A2. Agricultural Cooperatives in Türkiye

Key Findings

- **Historical Evolution:** The cooperative movement in Türkiye began in the late 19th century, influenced by European models and early cooperative structures like the Hometown Funds.
- **Grassroots Development:** Early 20th-century cooperatives emerged in provinces like İzmir and Aydın, focusing on increasing bargaining power for producers of export crops.
- **State Support:** Since the foundation of Republic, agricultural cooperatives have been supported by state policies, with key laws established in 1924, 1929, and 1935.
- **Regulatory Framework:** Turkish cooperative legislation is distinct and based on international cooperative principles, involving multiple legal frameworks.
- **Organizational Fragmentation:** Agricultural organizations are fragmented and categorized into professional, social, and economic organizations.
- **Ecosystem Diversity:** The cooperative ecosystem in Türkiye is diverse, with cooperatives categorized by services and objectives.
- **Membership Variance:** Cooperative membership varies widely, with one in two farmers typically being a member of a producer organization.
- **SWOT Analysis:** Conducting a broad SWOT analysis is challenging due to diverse operational contexts, but strengths include institutional support and market presence, while weaknesses involve unclear legislation and lack of strategy.
- **Governmental Role:** Agricultural cooperatives are central to state agricultural policies, supported through various legislative and financial measures.
- **Political Support:** Cooperatives are supported by development plans aiming to reduce intermediaries, enhance infrastructure, and support specific sectors like agricultural sales and women's cooperatives.
- **Strategic Plans:** Recent plans include grading producer organizations to increase efficiency and support active cooperatives, along with promoting financial literacy and entrepreneurship among women.
- **Financial Support:** The state provides subsidized loans, premium support for agricultural insurance, and grants through programs like IPARD.
- **Inactive Cooperatives:** A significant number of cooperatives are inactive, with about 25% in the process of liquidation, although the rate is lower for agricultural cooperatives

A2. Agricultural Cooperatives in Türkiye

- **Cooperative Size:** Agricultural cooperatives are generally small in enterprise size, economic size, and employment capacity compared to European counterparts.
- **Women's Cooperatives:** The number of women-operated cooperatives is increasing, supported by government initiatives and the cooperative movement.
- **Geographical Distribution:** Agricultural cooperatives are more prevalent in regions with intensive agricultural production, like the Aegean region.
- **Refugee Participation:** Legal restrictions prevent refugees from holding executive positions in cooperatives, with limited examples of cooperatives having refugee members.
- **Types of Cooperatives:** Türkiye categorizes its cooperatives by function, including agricultural development, credit, irrigation, and marketing cooperatives, managed under different governmental ministries.
- **Regional Variance in Membership:** The membership in agricultural cooperatives varies significantly by region, with the Aegean region showing higher cooperative activity compared to southeastern Anatolia.
- **Financial Challenges:** Many cooperatives operate with financial constraints, limiting their ability to innovate or expand, often relying heavily on state support and subsidies.
- **Gender Disparities:** While there is a growing presence of women in cooperatives, particularly in leadership roles within new women's cooperatives, gender disparities still exist in traditional agricultural cooperatives.
- **Intermediary Role:** Agricultural Credit Cooperatives in Türkiye often serve as intermediaries in the distribution of government aid and implementation of agricultural policies, highlighting their pivotal role in the agricultural economy.
- **Sustainability and Growth Challenges:** Cooperatives face sustainability challenges, requiring ongoing strategic interventions to enhance competitiveness and growth within the sector.

A2. Agricultural Cooperatives in Türkiye

Executive Summary

- This chapter provides detailed information on the cooperatives system in Türkiye, with a particular emphasis on the agricultural cooperatives. After presenting a SWOT analysis of the cooperatives in the agricultural sector, it discusses the detailed statistics available on the cooperatives and situates the cooperatives within the larger world of agricultural organizations in Turkey - which is provided in Appendix C. Then it gives an overview of the current political approach towards cooperatives. The last section of the chapter offers information on the agricultural cooperatives with refugee members based on our key informant interviews and fieldwork.

- The cooperative movement in Türkiye emerged in the second half of the 19th century during the late Ottoman Empire. Since the foundation of the Turkish Republic, agricultural cooperatives have been supported by the state and have developed as a policy instrument through which the state directs agricultural production and contacts the rural population in the context of agricultural and rural development policies.

- Cooperatives can create new opportunities for small farmers thanks to their improved access to consulting, training, technology, and financial support. Established cooperatives, in particular, can more easily obtain support from national, international, and government entities, providing for managerial and organizational assistance. This comprehensive support network enhances cooperatives' growth and their ability to serve members, bolstering a stronger agricultural sector.

- Agricultural cooperatives significantly contribute to sustainable economic and social environments for disadvantaged groups by incorporating them into their networks. This goes beyond economic participation, tackling broader societal challenges faced by these groups. Cooperatives' inclusive approach helps marginalized communities overcome social barriers, promoting economic equity and social cohesion.

A2. Agricultural Cooperatives in Türkiye

- In Türkiye, agricultural cooperatives are classified into different types based on the services they provide to their members and their primary objectives. According to the legislation on cooperatives, agricultural cooperatives fall under the responsibility of two different ministries. The Ministry of Agriculture and Forestry is responsible for agricultural cooperatives (beet planters' cooperatives, agricultural credit cooperatives, agricultural development cooperatives, irrigation cooperatives, and aquaculture cooperatives), and the Ministry of Trade is responsible for agricultural and commercial “agricultural sales cooperatives”, “fresh fruit and vegetable marketing cooperatives”, “tobacco production and marketing cooperatives” and “production and marketing cooperatives”.

- The total number of agricultural cooperatives in Türkiye is 12,588, corresponding to 21% of all cooperative enterprises. Regarding memberships, the total number of memberships in agricultural cooperatives is 3,6 million, and this accounts for 57.5% of all cooperative memberships in Türkiye.

- It is currently impossible to access microdata on cooperatives from any statistical study in any field, including the TurkStat. The statistics on agricultural cooperatives compiled in this report are drawn from the most recent reports published by the Ministry of Trade (TB) and the Ministry of Agriculture and Forestry (TOB). Unfortunately, these reports only include data on total cooperatives and cooperative members by type. Data on the distribution of agricultural cooperatives by province, cooperative size and demographic information on cooperative members are unavailable.

- It is estimated that one out of every two farmers in Türkiye is a member or partner of a producer organization (cooperative or union). There are a significant number of inactive cooperatives that have not conducted any economic activity for some time or have not held their legally required annual general assembly meetings for many years. The proportion of inactive cooperatives among agricultural cooperatives is estimated to be around 10%.

- The number of women's cooperatives operating in agriculture and the number of women members in agricultural cooperatives has increased in recent years. Since 2013, women's cooperatives established under the Ministry of Trade are named "Women's Entrepreneurship Production and Operation Cooperatives" (Kadın Girişimi Üretim ve İşletme Kooperatifi). According to the TB's 2023 data, the number of women's cooperatives established and actively operating under the Ministry has exceeded 900, with a total of nearly 10,000 members.

- There is no formal definition of women's cooperatives or examples of articles of association and regulations for agricultural cooperatives established under the TOB. If the number of female partners exceeds 50% in an agricultural development cooperative, The TOB recognizes these cooperatives as women's cooperatives. According to the data from the TOB as of July 2020, there are a total of 74 cooperatives established by women in 37 different provinces under the ministry. In December 2021, the Minister of Family and Social Services mentioned that the number of these cooperatives had risen to 137.

- After the Turkish Cooperatives Strategy and Action Plan (2012-2016), the public authority has decided to develop a new cooperative strategy and action plan by following developments in the cooperative sector and taking into account the views and recommendations of the cooperative movement. Preparations for a new strategy and action plan covering the years 2025-2029 have started by the end of 2023.

- According to the legal regulations on cooperatives in Türkiye, people who are not citizens of Türkiye can be cooperative members but they cannot be members of the executive board of a cooperative. Hence, refugees cannot establish their own cooperatives, and they can only be members of a cooperative that has to be directed by Turkish citizens.

- During our research, we encountered a handful of cooperatives that have refugee members. The types of these cooperatives are either "women" or "production and marketing" cooperatives, which are all attached to the Ministry of Trade. We did not encounter any publicly available data on the cooperative with refugee members or any particular network among such cooperatives.

- With over 800,000 farmer members, Agricultural Credit Cooperatives are among the foremost entities in financing agriculture in Turkey. Through Ziraat Bank, they facilitate access to agricultural loans at favorable interest rates for their members, as well as providing access to agricultural inputs on favorable terms.

- Agricultural Credit Cooperatives are crucial to Türkiye's agricultural financing system. But in recent times, they have primarily served as the middlemen in the distribution of publicly subsidized loans to their producer partners. Several of our key informants expressed disapproval, claiming that Agricultural Credit Cooperatives lack the independence of a legitimate farmer group and are used by the government to interfere in issues pertaining to the agriculture and food industries.

- Farmers largely view Agricultural Credit Cooperatives as little more than banks and retailers, despite the fact that they are widely institutionalized throughout the nation and provide enormous potential.

- The Central Union of Agricultural Credit Cooperatives (CUoACC) is currently spearheading the Agricultural Employment Support Project for Refugees and Turkish Citizens through Enhanced Market Linkages (FESAS). This initiative aims to bolster the formal labor market participation of Turkish citizen farmers and workers, as well as Syrians under Temporary Protection (SuTP) and other migrants in the agricultural sector, by enhancing their labor skills. Additionally, in collaboration with the Financial Literacy and Inclusion Association (FODER), CUoCC are implementing the “Bütçesini Bilen Çiftçiler” project, which seeks to enhance the financial literacy of farmers.

- While agricultural cooperatives in Turkey are numerous and boast a substantial membership base, regrettably, there is a shortage of cooperatives with robust organizational and financial capacities. Nonetheless, initiatives and educational programs developed in coordination and collaboration with agricultural sales cooperative unions such as Agricultural Credit Cooperatives, PANKOBİRLİK, FİSKOBİRLİK, TRAKYABİRLİK, MARMARABİRLİK, TARİŞ, and other regionally influential cooperatives and producer unions hold promise for more effectively facilitating producers' access to agricultural finance and improving their financial literacy

a. Detailed information on the cooperatives system in Türkiye in the agricultural sector

The cooperative movement in Türkiye emerged in the second half of the 19th century during the late Ottoman Empire, influenced by the cooperative movement in Europe. The Hometown Funds (Memleket Sandıkları), which are considered to be the first cooperative models in Türkiye and similar to today's agricultural credit cooperatives, were established to provide farmers with the financing they needed for agricultural production.

These structures were formulated by public bureaucrats and directed by the state, rather than a grassroots organised model. They failed as cooperative enterprises, but they were the predecessors of the Ziraat Bank, the state bank established in Türkiye to expand agricultural production and support farmers.

The first cooperative enterprises organised at the grassroots level adopting cooperative principles emerged in the early 20th century before the republic, as a reflection of the national economic and cooperative policies of the second Constitutional Monarchy period. In provinces such as İzmir and Aydın, where agricultural production was intensive and integrated with the international market, producers of exported products such as figs and grapes established cooperatives, the predecessors of today's agricultural sales cooperatives, in order to increase their bargaining power against traders.

It can be said that the cooperative movement in Türkiye first emerged around agricultural cooperatives, and over the years cooperative enterprises have emerged in other sectors as well.

A2. Agricultural Cooperatives in Türkiye

Since the foundation of the Turkish Republic, agricultural cooperatives have been supported by the state and have developed as a policy instrument through which the state directs agricultural production and contacts the rural population in the context of agricultural and rural development policies. In 1924, the Law on Nominal Agricultural Unions; in 1929, the Law on Agricultural Credit Cooperatives; in 1935, the Law on Agricultural Sales Cooperatives and Unions No. 2834 and the Law on Agricultural Credit Cooperative and Unions No. 2836 came into force. These laws were also the first legal regulations of the Republic regarding cooperatives.

Turkish cooperatives are regulated by laws and regulations based upon internationally agreed cooperative values and principles. Turkish cooperative legislation is distinct from legislation governing other private and public economic institutions and is based on four fundamental pillars:

a. The Constitution of the Turkish Republic

b. The Turkish Commercial Code (TCC)

c. The Turkish Cooperatives Law (TCL)

d. Laws specifically regulating (agricultural) cooperatives.

A2. Agricultural Cooperatives in Türkiye

Agricultural organizations, relevant legislation and public administrative structures are very fragmented and scattered in Türkiye. The definitions of these structures, their objectives, and the duties and authorities of public institutions responsible for the activities of these organizations are defined by different laws. Agricultural organizations in Türkiye can be categorized based on their participatory structure or organizational goal. Based on the participatory structure, agricultural organizations are categorized into two basic groupings, depending on whether producers are organized among themselves or in collaboration with sector stakeholders.

These are agricultural service providers known as "Non-Governmental Organizations with Professional Purposes Providing Services to Agriculture," created by producers and other stakeholders in the sector. Additionally, there are "Producer Organizations" that are exclusively established by producers themselves. Agricultural organizations can be classified into three classes based on their goal of establishment: professional organizations (such as chambers of agriculture and chambers of agricultural engineers), social organizations (including producer unions, agricultural worker unions, and product councils), and economic organizations (such as cooperatives and cooperative unions).

i. How do cooperatives operate in the agricultural sector – SWOT analysis of cooperatives in the agricultural sector. Why would a person become or not become a member of an agricultural cooperative under current circumstances?

In Türkiye, agricultural cooperatives are classified into different types based on the services they provide to their members and their primary objectives. According to the legislation on cooperatives, agricultural cooperatives fall under the responsibility of two different ministries. Under Law No. 1163, the Ministry of Agriculture and Forestry is responsible for agricultural cooperatives (beet planters' cooperatives, agricultural credit cooperatives, agricultural development cooperatives, irrigation cooperatives, and aquaculture cooperatives), and the Ministry of Trade is responsible for agricultural and commercial “agricultural sales cooperatives”, “fresh fruit and vegetable marketing cooperatives”, “tobacco production and marketing cooperatives” and “production and marketing cooperatives”.

It is estimated that one out of every two farmers in Türkiye is a member or partner of a producer organization (cooperative or union). The rate of membership in a producer organization varies widely by crop and region. For example, since sugar beet producers usually market their products through beet producer cooperatives, almost all of these producers are members of cooperatives.

Moreover, while the Aegean region has historically been a region where agricultural cooperatives have been widespread, the presence and membership of agricultural cooperatives are much lower in southeastern Anatolia. Agricultural credit cooperatives have a widespread organizational structure throughout Türkiye.

The ecosystem of agricultural cooperatives is as rich and diverse as the agroecosystem in Türkiye. As described earlier in this report, agricultural cooperatives are divided into different types with different objectives and areas of activity. The region in which a cooperative operates, the products and product groups it is organized around, the parts of the agri-food value chain it focuses on, the administrative structure and membership relations it has, and whether it is part of a supra-organization or economic network are all factors in a cooperative's success or failure story. Given these differences, a broad-scale SWOT analysis of agricultural cooperatives is challenging.

To provide as comprehensive an answer as possible to why a farmer should or should not be a member of an agricultural cooperative under the current circumstances, a literature review was conducted as part of a desk study.

By reviewing SWOT analysis studies on agricultural organizations in Türkiye at different scales, in various regions, and for multiple purposes, a meta-analysis of SWOT studies on agricultural cooperatives was conducted. The strengths, weaknesses, opportunities, and threats facing agricultural cooperatives under current conditions were listed.

In conducting a SWOT analysis of agricultural cooperatives, we face the challenge of moving beyond the abstract and generalized findings common in the existing literature. This challenge is compounded by the scarcity of detailed case studies and an analytical framework appropriate to cooperative organizations' nuanced realities. Acknowledging the tendency of prior studies to generalize, it is evident that there has been an idealized conceptualization of the cooperative as an organization. This idealization has led to an emphasis on constructing strengths and opportunities. Simultaneously, identifying weaknesses and threats has remained more abstract. This approach risks overlooking cooperatives' unique challenges and vulnerabilities, especially those involving disadvantaged groups such as refugees, women, etc., might face.

Therefore, our approach is not to undertake a SWOT analysis directly but to build a framework that draws on a wide range of studies on cooperatives and benefits from our own detailed fieldwork. This dual foundation allows us to acknowledge the diversity of contexts of cooperatives, including the different backgrounds of their members, the operational conditions in which they operate, their capacities, and the support mechanisms available to them in the agricultural sector. Such an approach recognizes that the identified strengths, weaknesses, opportunities, and threats cannot be universally applied to all cooperatives.

However, while our analysis is specific, it attempts to provide insights into the broader ecosystem of agricultural cooperatives. Focusing on the nuances of cooperatives involving refugee women, we aim to uncover the unique dynamics. These cooperatives tackle the usual challenges of agricultural production and market participation and the complexities of social cohesion, empowerment, and capacity building among their members. This nuanced understanding highlights the importance of differentiating our SWOT analysis to capture these cooperatives' realities effectively.

Our analysis will emphasize the strengths inherent in the cooperative model, such as community engagement and mutual support, while also identifying and addressing the specific challenges they face. By doing so, we aim to provide a comprehensive overview that respects the diversity of agricultural cooperatives and contributes to a more nuanced understanding of their role in the agricultural sector, particularly about the inclusion and empowerment of refugees and disadvantaged groups.

A2. Agricultural Cooperatives in Türkiye

SWOT Analysis Cooperatives

Strengths

The **institutionalization** of cooperatives within the framework of cooperation and collaboration establishes an official basis for their operation. This formal foundation necessitates that business activities and regulatory compliance adhere to specific legislation, even at a basic level. Within this structured relationship, members and cooperatives must follow particular regulations and guidelines, ensuring a degree of **conformity and standardization.**

Another significant advantage of agricultural cooperatives is their ability to augment the individual capacities of farmers, particularly in areas where they face disadvantages in production and marketing. By pooling resources and efforts, cooperatives enable efficiency in acquiring production inputs and bolster a stronger bargaining position in the market. This collective approach **transforms the limited capacity of individual farmers into a scaled**, collective capacity, enhancing overall productivity and market presence.

Agricultural cooperatives can establish and maintain predictable market networks, often engaging with institutional markets through contractual relationships. These contractual market relations help ensure a steady and foreseeable flow of market opportunities, providing cooperatives and their members with security and predictability in their operations. This structure not only supports the stability of agricultural cooperatives but also contributes to strengthening their market position by securing consistent demand and sales channels for their produce.

Agricultural cooperatives **facilitate easier and more structured access to vital agricultural production and marketing information.** Leveraging their organizational framework, cooperatives can efficiently gather and disseminate the production and marketing insights necessary for their members. This is further enhanced by the cooperative's management team, which often includes a cadre of managers and experts. These professionals can provide critical information directly to members or through established extensive networks, ensuring that cooperative members have the knowledge needed to make informed decisions and remain competitive in the agricultural sector.

Cooperatives benefit from enhanced **access to consulting services, training programs, technological production resources, and financial support.** Specifically, well-established cooperatives are in a stronger position to secure support from national and international institutions and governmental bodies. This wide range of support encompasses managerial, administrative, and organizational assistance. This multifaceted support network not only facilitates the growth and development of cooperatives but also strengthens their capacity to serve their members effectively, fostering a more resilient and productive agricultural sector.

Agricultural cooperatives play a pivotal role in **creating sustainable economic and social environments for disadvantaged groups**. By integrating these groups into their production and marketing networks, cooperatives do more than just include them in financial activities; they also address broader societal challenges these groups face daily. This holistic approach ensures that disadvantaged groups participate in the economy and are supported in overcoming social barriers. Through this inclusive model, agricultural cooperatives contribute significantly to empowering marginalized communities, fostering more significant economic equity and social cohesion.

SWOT Analysis Cooperatives

Weakness

Legislation on agricultural cooperatives needs to be more cohesive. This legislation needs to meet the current needs of agricultural cooperatives. Therefore, it needs to be updated.

There needs to be a clear definition of agricultural cooperatives in the legislation. For this reason, the organizational structure and relations between cooperatives and members vary widely between cooperatives. The number of cooperatives that have internalized cooperative values and act per international cooperative principles is marginal among agricultural cooperatives. This loose configuration often results in a l**ack of close ties between members outside of specific operations or activities.** In some instances, individual interests may take precedence over collective goals, leading to a situation where the common interest among members is not clearly defined or strongly felt. This characteristic of agricultural cooperatives can influence their effectiveness, potentially limiting their ability to mobilize members and advocate for their interests with the same impact as more tightly-knit organizations like trade unions. The challenge lies in balancing the need for individual autonomy with the pursuit of shared objectives to enhance the cooperative's cohesiveness and operational efficiency.

In the structure of cooperatives, there is a clear delineation between the roles of managers and members, with the cooperative's leadership playing a particularly crucial role. The leadership, especially the individual at the top, often wields significant influence and power within the cooperative. However, this **leadership structure tends to be more deterministic than professional,** which can impede the formulation and execution of effective management strategies. The emphasis on deterministic leadership over professional management may limit the cooperative's ability to adopt innovative practices, respond to market changes efficiently, and ultimately hinder its overall development and success.

Members of agricultural cooperatives often find themselves in economically vulnerable positions, primarily focusing on subsistence farming. This emphasis on **meeting immediate and personal household needs rather than pursuing more immense market opportunities** tends to limit the cooperative's financial growth. Such a focus can hinder the cooperative's ability to invest in and develop more advanced production techniques and expand into new markets. Without transitioning towards more commercially viable practices, these cooperatives may struggle to strengthen financially, limiting their potential to enhance their overall production capabilities and market presence. This dynamic underscores the need for strategies that balance the immediate subsistence needs of members with the longer-term financial and developmental goals of the cooperative, aiming for sustainable growth and improved resilience against economic challenges.

Agricultural cooperatives in regions often form strategic alliances with local governments to secure support and resources. This support primarily comes from local authorities, including financial assistance, regulatory facilitation, and involvement in the cooperative's administrative and specialized tasks. However, given that local governments in Türkiye are political bodies, there is a **risk that such close relationships might politicize the cooperatives** themselves. This intertwining of cooperative operations with political entities could shift cooperatives' focus from their core economic and social missions to serving political interests, thereby impacting their neutrality and effectiveness. The challenge lies in maintaining a balance where cooperatives can benefit from government support without compromising their independence or being perceived as extensions of political agendas.

Many agricultural cooperatives operate on a small scale, which often translates into a need **for a comprehensive strategy, effective governance, and a focused membership** base. This situation can render such cooperatives seemingly disorganized entities, needing a clear and structured agenda. Their operations may need to be more consistent with their foundational objectives, leading to activities that extend beyond their original purpose. This absence of detailed planning and governance structure can hinder their ability to achieve their goals efficiently, impacting their overall effectiveness and the value they deliver to their members.

SWOT Analysis Cooperatives

Opportunities

Agricultural cooperatives are notably **agile in responding to uncertain situations or economic downturns**, primarily due to their ability to adjust production and marketing strategies swiftly. This adaptability enables them to not only navigate challenges but also to identify and capitalize on new opportunities for their members. By leveraging collective decision-making and resource pooling, cooperatives can quickly pivot their operations to meet changing market demands or overcome adverse conditions, thus ensuring continued support and potentially improved outcomes for their members.

In cooperatives, the collaboration extends beyond the pooling of resources and efforts; it encompasses the sharing and leveraging of knowledge as well. Members benefit from the collective wisdom and experiences shared among themselves and gain access to specialized expertise from the cooperative's management. This **dual channel of knowledge dissemination** ensures that members are contributors and recipients of valuable insights, ranging from best practices in agriculture to innovative marketing strategies and beyond.

Cooperatives offer their members the potential to **enhance the value of their agricultural produce** through various degrees and methods of processing. This capability extends members' opportunities beyond mere production, allowing them to valorize their products. Members can capture additional value from their labor and resources by processing raw agricultural goods into more refined or market-ready products. This increases the potential income for members and diversifies their involvement in the agricultural value chain, from cultivation to processing and marketing, thereby strengthening their economic position and resilience.

Agricultural cooperatives are pivotal in **pioneering and demonstrating effective production techniques, organizational models, and marketing strategies within their regions.** Their success and methodologies can serve as a blueprint for other farmers, who can adapt and integrate these approaches into their own agricultural practices. By showcasing best practices in sustainable farming, efficient management, and innovative market engagement, cooperatives not only contribute to their own members' prosperity but also to the broader agricultural community. They act as markers of innovation and efficiency, inspiring other farmers to explore new ways of operating that can lead to improved productivity and profitability. This influence underscores the significance of cooperatives in fostering a culture of continuous improvement and collaboration among farmers, enhancing the overall agricultural ecosystem.

SWOT Analysis Cooperatives

Threats

Agricultural cooperatives sometimes need help to coalesce around shared interests, leading to a scenario where the **priorities of a few influential members or managers are misconstrued as the collective interest.** This misalignment can inadvertently result in the cooperative operating in a manner that contradicts the broader interests of its general membership. Such a discrepancy between the cooperative's actions and the collective welfare of its members undermines the fundamental principle of cooperativism, which is to serve the common good of all members.

Cooperatives that support refugees or disadvantaged groups sometimes need to provide adequate information about their operations and governance structures. This lack of transparency can create an environment where those less informed about the cooperative's workings or those who perceive they have no better alternatives may be disadvantaged. Such scenarios can lead to exploitative conditions, where these members may end up contributing more labor than they are compensated for or have restricted access to the benefits and resources of the cooperative.

The cooperatives' governance structures and operational dynamics may deviate from their democratic ideals, especially when influential individuals monopolize management roles over extended periods. This concentration of power can lead to the cooperative's mechanisms being exploited for personal gain rather than for the collective benefit of all members. Such a situation undermines the foundational principles of cooperatives, potentially causing dissatisfaction and disengagement among the broader membership base. Discontent arises when members perceive that their voices and interests are sidelined in favor of those holding power, leading to a disconnect between the cooperative's actions and its members' expectations.

There are instances where some cooperatives, particularly those targeting refugees and disadvantaged groups, might leverage the status of these individuals primarily as a means to secure funding and financial support. In such cases, the benefits generated by the cooperative activities might not be equitably shared with these groups. Instead, t**heir presence within the cooperative is primarily utilized to justify obtaining grants, donations, or other financial aid forms**. This practice can lead to a situation where the intended beneficiaries of the cooperative's efforts—namely, the migrant and disadvantaged members—do not receive the full range of advantages and support they are due.

ii. How many cooperatives are there in the agricultural sector, what is their average size, geographical distribution, demographic information (age, gender, nationality) of members in cooperatives?

Methodology and Limitations

In Türkiye, statistics on cooperatives are produced and published by the Department of Cooperatives under the General Directorate of Tradesmen, Craftsmen and Cooperatives of the Ministry of Trade. In 2021, with the amendment made to the Cooperatives Law No. 1163, the Cooperative Information System (KOOP-BIS) was established to facilitate the execution of cooperative-related transactions under the responsibility of the Ministry of Trade and to compile data on cooperatives. The registration systems and databases of 3 ministries, which previously had authority and responsibilities related to cooperatives, were merged into KOOP-BIS.

However, as the process of transferring data from other cooperative information systems to KOOP-BIS is ongoing and cooperatives are still entering data on cooperatives and their members into KOOP-BIS, it is not possible to obtain up-to-date, accurate and consistent data on cooperatives. Our requests to the Ministry of Trade and the Ministry of Agriculture for data on types of cooperatives, provincial distribution and member information were rejected.

In Türkiye, it is currently impossible to access microdata on cooperatives from any statistical study in any field, including the TurkStat. The statistics on agricultural cooperatives compiled below in this report are drawn from the most recent reports published by the Ministry of Trade (TB) and the Ministry of Agriculture and Forestry (TOB). Unfortunately, these reports only include data on total cooperatives and cooperative members by type. Data on the distribution of agricultural cooperatives by province, cooperative size and demographic information on cooperative members are unavailable.

For the data compiled for this report on agricultural organizations in Türkiye, official requests for information were made to the relevant public institutions. No response has yet been received from these institutions regarding these requests for information. The data on agricultural organizations presented in the report was compiled to reflect the most up-to-date data by comparing annual activity reports and reports published at different times by the relevant departments of the TB and theTOB. In addition, for inconsistent data, secondary sources were reviewed where possible, comparisons were made with information on the websites of cooperatives and producer unions, and some organization representatives were contacted and corrections were made according to current and accurate information. Relevant sources are presented in the table on agricultural organizations.

Current Situation of Agricultural Cooperatives in Türkiye

A review of reports and studies on cooperatives in Türkiye reveals different and conflicting data on cooperative statistics. In recent years, the Ministry of Trade and the TurkStat have been working with the cooperative movement to harmonize and improve cooperative statistics in line with international standards. According to the most recent annual report on cooperatives prepared by the Ministry of Trade, as of the end of 2021, Türkiye has 59,482 cooperatives with 6,336,148 members (TB, Türkiye Cooperatives Report, 2021).

According to Coops Europe (2016), Türkiye is second only to Italy in having the highest number of cooperative enterprises in Europe. However, it lags far behind in terms of the cooperative member density, cooperative employee density and the economic size of cooperatives(1). While there is a long-standing cooperative movement in Türkiye and a tradition of agricultural cooperatives in the agricultural sector, these data show that cooperatives are generally small and micro-enterprises, both in terms of turnover and employment capacity.

As many researchers and public servants working in the field of cooperatives have pointed out, there are a significant number of inactive cooperatives that have not conducted any economic activity for some time or have not held their legally required annual general assembly meetings for many years. This means there are also economically and/or administratively inactive cooperatives in the registers and hence in the statistics on cooperatives. As a result of a recent revision of administrative records by the Ministry of Trade, it is estimated that about 25% of these cooperatives are inactive and in the process of liquidation. Contrary to popular belief, the proportion of inactive cooperatives among agricultural cooperatives is lower than in other sectors. It is estimated to be around 10%.

The 5 types of cooperatives under the responsibility of the TOB and the 4 types under the responsibility of the TB can be considered as cooperatives with agricultural purposes and predominantly operating in the agricultural sector. Accordingly, the number of agricultural cooperatives in Türkiye is 12,588, corresponding to 21% of all cooperative enterprises. Regarding memberships, the total number of memberships in agricultural cooperatives is 3,6 million, and this accounts for 57.5% of all cooperative memberships in Türkiye.

(1) Cooperative member density is calculated as the proportion of the country's population that are cooperative members, and cooperative employee density is calculated as the proportion of the country's population that are cooperative employees. The size of the cooperative economy is calculated based on the total annual turnover of cooperative enterprises in the country. It should be noted that international standards on how cooperative statistics should be produced are still being developed. Therefore, Coop Europe's 2015 study should be considered as a preliminary study to examine the state of the cooperative economy in European countries.

A2. Agricultural Cooperatives in Türkiye

The largest number of agricultural cooperatives are agricultural development cooperatives (6,641). These are followed by irrigation cooperatives (2,488) and agricultural credit cooperatives (1,618). Beet cultivators' cooperatives have the largest number of members (1,399,339), followed by agricultural credit cooperatives (853,869) and agricultural development cooperatives (735,606).

The figures on the number of members should be considered as cooperative memberships. A producer can be a member of multiple cooperatives in different areas. In this case, the number of memberships should not be considered as the number of producers who are cooperative members. For example, an olive farmer in the Aegean region is registered with the agricultural chamber in his district in order to benefit from agricultural subsidies. At the same time, he/she can be a partner of the agricultural sales cooperative organized in his region in order to have his/her olives pressed under suitable conditions and to have the opportunity to sell his/her olive oil at better prices compared to market conditions. This farmer is also a member of the irrigation cooperative and/or irrigation union in his village in order to benefit from irrigation facilities. He/she may also be a member of the agricultural credit cooperative in his town in order to benefit from the subsidized agricultural loans offered by the government to farmers.

TABLE 1: THE NUMBER OF AGRICULTURAL COOPERATIVES AND PARTNERSHIPS IN AGRICULTURAL COOPERATIVES, SOURCE: TB AND TOB

Type	Number	Number of Membership / Partnership
Agricultural Development Cooperatives	6,641	735,606
Irrigation Cooperatives	2,488	320,948
Fisheries and Aquaculture Cooperatives	591	31,628
Beet Planters Cooperatives	31	1,399.339
Agricultural Credit Cooperatives	1,618	853,869
Agricultural Sales Cooperatives	338	332,925
Tobacco Production and Marketing Cooperatives	18	939
Fresh Fruit and Vegetables Cooperatives	29	2,953
Production and Marketing Cooperatives	348	20,845

A2. Agricultural Cooperatives in Türkiye

This section presents the number of unit cooperatives and number of memberships for agricultural cooperatives. However, it should be noted that the agricultural organizational structure in Turkey is multi-headed and complex, including different organizational models such as unions, professional chambers, associations and trade unions.

The most recent data on the types of organizations and umbrella organizations active in the agricultural sector in Turkey are presented in the different tabs of **the Agricultural Organization Table in Appendix C.**

Women in Agricultural Cooperatives

As a reflection of the general farmer profile, the average age of members of agricultural cooperatives is relatively high and male-dominated. It can be argued that there is a gender imbalance in the division of labor in agriculture and cooperative membership as a reflection of the labor and property regime. Women's presence in agricultural production and reproduction can be as invisible in cooperative membership as in formal employment, insurance, and land ownership, and as an indicator of presence in the economic sphere.

Due to the impact of the cooperative movement at both international and national levels, the number of women-operated cooperatives in Türkiye is rapidly increasing. As a result of the work of the women's movement in the field of cooperatives and the state's support for women's cooperatives, the number of women's cooperatives operating in agriculture and the number of women members in agricultural cooperatives has increased in recent years. Women's cooperatives in Türkiye are generally established under the auspices of the TB or the TOB.

Women's cooperatives established under the Ministry of Trade are typically formed as "Women's Entrepreneurship Production and Operation Cooperatives" (Kadın Girişimi Üretim ve İşletme Kooperatifi).

Aimed at evaluating women's labor under the cooperative framework and providing employment opportunities for women, this type of cooperative is established through sample articles of association prepared in 2013 in accordance with Article 88 of the Cooperatives Law No. 1163. The number of women's cooperatives established under this agreement was 3 in the year of its preparation and reached 56 in 2016 (Former Ministry of Customs and Trade, Türkiye Cooperative Report, 2017). According to the Ministry of Trade's 2023 data, the number of women's cooperatives established and actively operating under the Ministry has exceeded 900, with a total of nearly 10,000 members.

There is no formal definition of women's cooperatives or examples of articles of association and regulations for agricultural cooperatives established under the TOB. If the number of female partners exceeds 50% in an agricultural development cooperative, TOB recognizes these cooperatives as women's cooperatives. The number of these women's cooperatives has been steadily increasing since the 2010s, influenced by support programs for female farmers and specialized training for women participating in agricultural development cooperatives. According to the data from the TOB as of July 2020, there are a total of 74 cooperatives established by women in 37 different provinces under the ministry.

Among the total of 243 members on the boards of these cooperatives, 191 are women, and out of the total of 2,916 partners, 2,343 are female partners. In December 2021, during the opening ceremony of the "Empowerment of Women through Cooperatives Project," Minister of Family and Social Services, Derya Yanık, mentioned that the number of these Agricultural Development Cooperatives had risen to 137 (ILO Türkiye, 2022).

Geographical Distribution of Agricultural Cooperatives

As the statistics indicate, cooperatives in Türkiye are generally micro and small enterprises. Agricultural cooperatives are relatively larger in terms of membership size than cooperatives in other sectors. Nevertheless, they are relatively smaller in terms of enterprise size, economic size and employment capacity compared to European cooperatives in agriculture.

With the exception of agricultural sales cooperatives organized in specific crops such as sugar beets, hazelnuts and olive oil, the market share of agricultural cooperatives in agricultural products is generally small.

In Türkiye, there is a limited number of resources available regarding the geographical distribution of cooperatives. The primary source among these is a table published by the Ministry of Trade in 2019, illustrating the distribution of cooperatives and unions based on provinces within its jurisdiction (TB, 2019). Unfortunately, this table does not include data related to agricultural cooperatives. By utilizing a list on the official website of the Agricultural Credit Cooperatives Central Union that contains contact information for unit cooperatives, we can gather information about the geographical distribution of agricultural credit cooperatives. This may assist in making general estimations about the geographical distribution of agricultural cooperatives.

When evaluating the information provided here, it is observed that agricultural cooperatives are predominantly found in regions where agricultural production is intensive. Historically, the Aegean region has been active in the cooperative movement in Türkiye, with a higher prevalence of agricultural cooperatives and unions compared to other regions. Additionally, it is known that in regions where the production of certain agricultural products such as sugar beets, hazelnuts, and olive oil is carried out, there is organized cooperation among producers through agricultural sales cooperatives supported and encouraged by the government in terms of subsidies and market regulations. These cooperatives are concentrated in areas where the production of these specific crops is prominent.

iii. What is the political approach towards cooperatives?

Agricultural cooperatives have been pivotal throughout Türkiye's history, garnering government support as intermediaries between the state and producers, and driving rural development and agricultural policies. Despite efforts to position cooperatives as independent commercial entities beyond state influence, they have continued to receive backing within economic and social development frameworks. The state plays an active role in financing the agricultural sector in Türkiye. Cooperatives have been assigned an intermediary role in the implementation and dissemination of the state's agricultural and rural development policies both to the producers and the country as a whole. The state also actively supports cooperatives as direct beneficiaries of social and economic development policies.

The 1982 Constitution of the Republic of Türkiye mandates state measures to boost cooperative development, elevating cooperative advancement, production, and consumer interests.

The political role and supportive approach of the public sector concerning the cooperatives have been reflected in 5-year development plans.

A2. Agricultural Cooperatives in Türkiye

The 11th Development Plan (2019-2023) aims to reduce the number of intermediaries in the distribution chain of agricultural products, to provide consumers with access to products at reasonable prices, to establish a direct link between producers and consumers, and to ensure the active role of cooperatives and producer unions in the system.

The 12th Development Plan (2024-2028), published in 2023, indicates regulatory adjustments to activate agricultural cooperatives. It targets improvements in the physical infrastructure and financial support tools for cooperatives, aiming to facilitate the acquisition of machinery and equipment and the employment of qualified personnel. It also emphasizes supporting cooperatives operating in priority sectors, such as agricultural sales cooperatives, women's cooperatives, and social cooperatives, as in previous plans.

Recognizing and positively acknowledging the increasing societal interest in cooperatives, it plans to raise awareness and promote more effective implementation of cooperative principles in public opinion and universities. Additionally, the Medium-Term Program adopted in 2023 aims to disseminate programs in entrepreneurship, financial literacy, and cooperatives to increase women's participation in the workforce.

Cooperatives play a crucial role in Türkiye's economy and society, but they face significant challenges in terms of their sustainability. To tackle these issues and promote sectoral growth, the Turkish cooperative movement has identified key policy concerns and initiatives. The Turkish Cooperatives Strategy and Action Plan (2012-2016) was developed through consultations led by the Ministry of Trade. The Strategy supports cooperatives by implementing seven strategic interventions:

- Restructuring public organization and service delivery.
- Developing training, consultancy, and research activities.
- Enhancing organizational capacity and cooperation among cooperatives.
- Strengthening the capital structure and access to financing.
- Revising internal and external audit systems.
- Increasing institutional and professional management capacity.
- Aligning legislation with international standards.

These interventions encompass 36 specific actions with designated roles for monitoring and evaluation. Priorities include legal reform and technical capacity enhancement. Ongoing projects like KOOP-DES focus on cooperative development, especially empowering women entrepreneurs. The KOOP-DES Program supports investment projects for cooperatives and their parent organizations, contributing to production, employment, efficiency, productivity, technology adoption, competitiveness, and the economy through suitable entrepreneurial models.

During the implementation period of the Strategy and Action Plan, significant steps were taken to achieve the set objectives, but further crucial steps are still needed to enhance competitiveness, foster cooperative economy growth, and fulfill these objectives. Despite meetings with relevant stakeholders and discussions about preparing a new strategy for the period 2019-2023 at the end of the Action Plan's implementation period, no strategy or action plan has been put into effect.

The United Nations' declaration of 2025 as the International Year of Cooperatives underscores the critical role of cooperative enterprises in supporting sustainable development. This international call has provided renewed political momentum for cooperatives in Türkiye.

The public authority has decided to develop a new cooperative strategy and action plan by following developments in the cooperative sector and taking into account the views and recommendations of the cooperative movement. Preparations for a new strategy and action plan covering the years 2025-2029 have started by the end of 2023.

Agricultural cooperatives fall under the mandate and responsibility of the TOB. The General Directorate of Agrarian Reform under the TOB is responsible for developing policies and carrying out procedures for cooperatives. The duties and responsibilities of the Directorate General include: permitting the establishment of cooperatives, unions and other producer organizations; supervising and supporting cooperatives, unions, chambers, producer organizations and their affiliates; and taking necessary measures to ensure that their actions and transactions are in accordance with the law.

The TOB, Agriculture and Rural Development Support Institution provides financial support through grant programs to enterprises, producer individuals, cooperatives and producer associations operating in the fields of agriculture, animal husbandry, food, fisheries and alternative agriculture within the framework of the IPARD program. In addition, through different support programs, capital transfers are made from the central budget and the ministry budget as agricultural support payments to agricultural credit cooperatives and other producer unions.

One of the strategic objectives of the Ministry of Agriculture's 2024-2028 Strategic Plan is to increase the institutional capacity and efficiency of agricultural organizations and to develop new strategies in agricultural marketing. To this end, it is planned to regulate the legislation for the marketing activities of producer organizations in this period. In addition, since many agricultural cooperatives are not legally and economically active, it has been decided to grade producer organizations. This aims to bring together inactive organizations with active ones to increase their efficiency and cooperation, and to ensure competitiveness by directing support to active cooperatives. Accordingly, the Regulation on the Grading of Agricultural Organizations was published in the Official Gazette in November 2023 and entered into force.

Subsidized agricultural loans and premium support for agricultural insurance are other forms of financial support provided by the state to agricultural production and agricultural cooperatives. Producers and producer organizations receive treasury-backed low-interest investment and operating loans through Ziraat Bank and Agricultural Credit Cooperatives. Real and legal persons engaged in agricultural activities can benefit from low-interest loans within the scope of subsidized loan practices, if they meet the criteria set out in the Presidential Decree published in the relevant year and if the conditions for loan disbursement and the field of production are appropriate.

In any country, both the government and the prevailing social, political, and economic landscape play crucial roles in shaping the environment for cooperative development. This environment can either facilitate or hinder the growth of genuine cooperatives.

In Türkiye, the government took a leading role in driving economic and social progress. Agricultural cooperatives, heavily backed by the state, were instrumental in implementing government policies, often receiving financial and technical assistance from public entities. Similar to the experiences of many developing nations, cooperatives were actively promoted as essential components for rural development and agriculture-based industrialization.

Initially, these cooperatives struggled to engender meaningful member participation, mutual assistance, and a sense of ownership. Over time, the relationship between the government and cooperatives fluctuated, swinging between autonomy and control.

By the 2000s, economic shifts towards neoliberalism prompted changes in how the government interacted with cooperatives. Legislative reforms granted cooperatives greater independence, with the government assuming a more regulatory role while still providing support. Today, the state continues to endorse, assist, and advocate for cooperatives primarily as components of social policy rather than economic strategy.

iv. Are there any agricultural cooperatives/ farmers unions with mainly refugees being members or cooperatives with a share of Refugees being members?

According to the legal regulations on cooperatives in Türkiye, people who are not citizens of Türkiye can be cooperative members but they cannot be members of the executive board (yönetim kurulu üyesi) of a cooperative. Hence, refugees cannot establish their own cooperatives, and they can only be members of a cooperative that has to be directed by Turkish citizens.

Among the limited number of cooperatives that have refugee members, we were not able to identify any "agricultural development" cooperative. As indicated above, different types of cooperatives exist in Türkiye and according to these types, cooperatives are attached to different ministries, which provide guidance during the establishment and audit services throughout the functioning of the cooperatives. As part of the guidance during the establishment of cooperatives, the relevant ministry usually suggests a template for the Main Contract (Ana Sözleşme) that can be used by the new cooperative.

During our research, we encountered a handful of cooperatives that have refugee members. The types of these cooperatives are either "women" or "production and marketing" cooperatives, which are all attached to the Ministry of Trade.

Although these cooperatives are more involved in processing agricultural products and can be considered more of a food cooperative rather than an agricultural cooperative, we focused on the ones that are also involved in agricultural production, or buying their agricultural raw materials from their members. The most well-known agrifood cooperatives with refugee members are Meryem Women's Cooperative (Adana) and Şahinbey Women's Cooperative (Gaziantep).

For more details on the Meryem Cooperative in see the **Field Report**.

Although most of the cooperatives we contacted indicated that they work with refugees in the production process, the ones with refugee members were rare. For instance, S.S. Bir Dünya Üreten Kadin Girişimi Üretim Ve İşletme Kooperatifi that is involved in cultivating lavender in Mardin has only one refugee member. Another women's cooperative in Hatay, S.S. Hatay Altınözü Zeytin Emeği Kadın Girişimi Üretim ve İşletme Kooperatifi (HAZEK) has 5 refugee members among a total of 23 members. The cooperative we encountered with the most refugee members is S. S. Yayladağı Mantar Üretim Ve İşletme Kooperatifi which has 13 refugee members out of a total of 47 members. Yet 25 of the members who are citizens are originally Syrians who acquired Turkish citizenship in the last ten years.

A2. Agricultural Cooperatives in Türkiye

Overall it can be said that the number of agricultural cooperatives with refugee members is very low. During our fieldwork and key informant interviews, we did not encounter any cooperative that is attached to the Ministry of Agriculture and Forestry and that has refugee members. We did not encounter any publicly available data on the cooperative with refugee members or any particular network among such cooperatives.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Key Findings

- **Extensive State Role:** The state significantly influences agricultural financing through direct support and regulation, shaping the sector's financial landscape.
- **Shift in Support Strategy:** Over time, Türkiye has shifted its agricultural support from direct market interventions to more directive and flexible support mechanisms to enhance productivity without distorting market mechanisms.
- **Decrease in State Support's Role:** The proportion of state support payments in agricultural GDP has declined, indicating a shift towards more market-oriented policies.
- **High Use of Market Price Support:** Türkiye utilizes market price support extensively compared to other OECD countries, primarily through tariffs and state interventions.
- **Predominance of Informal Lending:** Despite formal financial services, many farmers rely heavily on informal credit from input dealers due to easier access and less stringent requirements.
- **Innovative Credit Solutions:** Banks are innovating with products like agricultural credit cards, offering farmers interest-free periods and integrating modern financial tools into traditional farming sectors.
- **Mandatory Farmer Registration:** Access to financial services and state support requires registration in the ÇKS, ensuring farmers are officially recognized and documented.
- **Comprehensive Insurance Coverage:** Agricultural insurance has expanded, supported by state incentives and covering a wide range of agricultural activities to mitigate the risks from natural disasters.
- **Emergence of Agri-fintech:** New fintech solutions are revolutionizing how farmers access financial services, offering digital and flexible financing options tailored to agricultural needs.
- **Eligibility Criteria for Financial Services:** Farmers must prove their active status in agriculture via the Farmer Registration System (ÇKS) to access state support and financial services.
- **Complex Financial Ecosystem:** The agricultural financing landscape in Türkiye is characterized by a mix of traditional and modern financial instruments, including loans, credit mechanisms, and agri-fintech solutions.
- **Insurance as a Financial Staple:** Government-supported agricultural insurance schemes like TARSİM are critical in mitigating risks associated with climate and market fluctuations.

- **Strategic Use of Subsidies:** The government strategically uses subsidies to influence agricultural production without disrupting market dynamics, aligning with global trade norms.
- **Transition to Market-Oriented Support:** There has been a gradual shift from direct state intervention in agricultural markets to more market-oriented support systems that encourage efficiency and productivity.
- **Impact of Financial Training:** Financial literacy and management training programs are pivotal in enhancing farmers' abilities to manage finances and access new markets effectively.
- **Challenges in Financial Access:** Despite available financial services, many farmers, especially in rural areas, still face significant barriers to accessing.
- **Sector-Specific Financial Products:** Banks and financial institutions have developed specific products tailored to the agricultural sector's unique needs, such as seasonal loans and specialized agricultural credit cards.
- **Documentation and Formalities:** The requirement for detailed documentation and formal registration underscores the government's approach to formalize the agricultural sector and streamline financial support mechanisms.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Executive Summary

- This chapter starts with an overview of the financial system in the agricultural sector in Türkiye. After providing the background on the financial support provided by the state, it focuses on the particular financial services provided by the financial institutions, and discusses the eligibility criteria of these services. Next, it provides a selection of the ongoing partnerships of these institutions in the field of agriculture, and an overview of the financial opportunities available for refugees in the agricultural sector. The last section investigates closely the financial statistics related to the services used by farmers in Türkiye.

- Financing agriculture in Türkiye operates in a multi-actor, multi-dimensional dynamic structure. How agricultural production and investments are financed is determined by state-producer relations, intra- and inter-class relations, market relations and the institutional order of the global food regime. Producers can sustain agricultural production with the following resources: Farmers' own resources, equity investments; Public funds, and direct or indirect support from the public sector; Informal lenders; Agricultural loans from financial institutions or agricultural credit cooperatives; Loans and credit cards; Grants and loans from national and international funds.

- Although the state's active support to the agricultural sector has declined over the last 20 years, government support payments still constitute one of the most important pillars of financing agriculture. Türkiye’s transfers to agricultural producers as a share of gross farm receipts are slightly above the OECD average.

- The credit mechanism provided by dealers and suppliers to farmers has always been fundamental in financing agriculture in Türkiye. As a result of the relationships established between dealers and farmers on a local scale, Input providers function as lenders and they sell the inputs needed by farmers on credit, with interest, on terms to be paid at harvest.

- Agricultural credit system operates through various financial institutions, including public and private banks, credit cooperatives, agricultural insurance institutions, and other institutional actors that generate alternative credit mechanisms for farmers and agribusinesses.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

- Three different data sources can be used to analyze financial statistics of the agricultural sector in Türkiye. Firstly, Company Accounts Statistics compiled by the TurkStat and the Central Bank offer insights into turnover rates, income statements, balance sheets, and employment data of nearly 983,182 enterprises, representing a significant portion of Türkiye's financial landscape. Secondly, the Banking Regulation and Supervision Agency (BDDK) provides monthly bulletins detailing sectoral loans extended by financial institutions since 2005, including agricultural sector loans and their geographical distribution in Türkiye. Lastly, the Data System of the Banks Association of Türkiye (TBB) offers specialized agricultural loan data by province since 2014, providing insights into cash loans, non-performing loan balances, and annual loan amounts reported by TBB member banks, thereby enabling a comprehensive understanding of rural finance dynamics in Türkiye.

- The Company Accounts statistics reassert that enterprises in the agricultural sector are micro and small-scale firms. They show that external financing, especially agricultural loans, has increased over the years in the agricultural sector. Still, the level of financialisation is lower compared to other sectors, while equity financing and the ratio of current accounts payable are higher.

- Turkish agricultural gross domestic product at current prices increased steadily, reaching 1.6 trillion TRY in 2023.According to the data available in the bulletins of the BDDK, total loans extended to firms in the agriculture and fisheries sector corresponded to 605.731 billion TRY in December 2023.While the share of agricultural support payments in total output has remained at the same level as 4%. The share of agricultural loans in agricultural GDP increased steadily until 2018 and reached around 51.7%. After 2018, as a result of the increase in interest rates, the share of agricultural loans in agricultural GDP decreased and fell to 32.8%.

- In 2022, the share of agricultural loans in total loan volume was 4% on average. The share of agriculture in GDP, which has been steadily declining, reached 6.2% in 2022. Hence, the share of agricultural loans in total loans is lower than the share of agriculture in the economy. Yet the rate of increase in agricultural loans has been higher than the rate of increase in total loans in recent years. According to the regional breakdown of agricultural loans, the provinces where banks have most extensively granted agricultural loans are Konya, Ankara, İzmir, Antalya, and Adana.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

- The share of government agricultural support payments in agricultural GDP has been declining over the last two decades, while the share of bank loans increased steadily until 2018. As a result of the macroeconomic instability that started at the end of 2018, the real growth in credit utilization that had been visible since the early 2000s slowed down and even declined in real terms. The average annual real decline in agricultural loan volume between 2019 and 2023 was 4%. The decline in all sectoral loans was 4.7% in the same period.

- Non-performing rates in agriculture in Türkiye are generally low. Experts state that farmers have the capacity to repay their loans and are loyal to their debts. As of early 2020, the ratio of non-performing loans increased to around 5% in all sectoral loans, including agriculture. By the end of 2023, the non-performing loan ratio in the agriculture sector declined to 0.36%.

- The market share of the Ziraat Bank, the public bank providing subsidized loans, declined to 65% by 2015. After 2000, private banks made substantial efforts to enhance their internal capabilities for distributing agricultural loans with less risk and creating a client profile with technical expertise. Technical support from international financial institutions like EBRD and IFC resulted in the growth of the agricultural banking sector through the introduction of new banking products, procedures, and targeted campaigns for farmers. After the economic crisis of 2018, private banks became more cautious in extending agricultural loans as the ratio of non-performing loans to the agricultural sector increased rapidly. As a result, subsidized agricultural loans backed by Ziraat Bank became more attractive to producers, and Ziraat Bank's market share rose again, approaching 85% by the end of 2023.

- As of 2022, the total amount of loans extended by Agricultural Credit Cooperatives to approximately 400 thousand members in different fields amounted to TRY 26 billion. Of this total amount, 88% were discounted loans.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

- Developed in 2006 through a public-private partnership, the Agricultural Insurance Pool (TARSİM) provides insurance coverage for various agricultural sectors, and as of 2022, the total number of policies across all agricultural insurance branches nationwide amounted to 3 million, with 767 thousand insured producers and business organizations. Recently emerging companies, referred to as "Agri-Fintech" firms such as Tarfin or Agrofin, differentiate themselves from traditional financial institutions by utilizing digital banking technologies, mobile applications, open banking services, cloud-based resource management technologies, and blockchain-based smart contracts.

- The main eligibility criterion for the farmers to access agricultural loans is the ability to use one's assets as collateral for loans. Some principal problems for farmers include: farmers' properties have more than one owner, banks do not accept farmers' animals or properties in the village or their insured crops as collateral.

- Ziraat Bank as the mandatory intermediary for farmers to receive government subsidies and the only bank providing loans with a low-interest rate subsidized by the state, is the major player in the sector impairing the competition.

- Banks sometimes require certificates that farmers can obtain from training programs approved by the Ministry of Education. Local/provincial branches of Public Education Centers (Halk Eğitim Merkezi) provide these training programs with experts assigned by the Ministry of Agriculture and Forestry.

- Despite the limited financial literacy observed among refugee agricultural producers, it is noted that their integration into the financial system in Türkiye is significantly higher compared to their home countries. While a majority of these refugees lacked bank accounts in their countries of origin, nearly all the refugees contacted in Türkiye possess bank accounts and engage with basic mobile banking services. This indicates a notable shift towards financial inclusion of refugees within Türkiye, suggesting that the environment in Türkiye provides better access to financial services and opportunities for this group.

- Despite advancements in financial inclusion, there is a need in Turkey, especially for small-scale farmers, women, and young producers, as well as for refugee workers engaged in agricultural production, to improve access to financial instruments and enhance financial literacy through targeted efforts.

a. List of financial institutions that provide specialized financial services tailored for agricultural MSMEs

Financing agriculture in Türkiye operates in a multi-actor, multi-dimensional dynamic structure. How agricultural production and investments are financed is determined by state-producer relations, intra- and inter-class relations, market relations and the institutional order of the global food regime. Producers can sustain agricultural production with the following resources:

- Farmers' own resources, equity investments
- Informal lenders who usually operate as individuals (e.g., friends and relatives, rural moneylenders, agricultural input dealers and merchants)
- Public funds; direct or indirect support from the public sector
- Agricultural credit mechanism of financial institution or agricultural credit cooperatives; loans or credit cards to fund the production or to fund the purchase or refinance of capital assets such as farmland, machinery and equipment, breeder livestock, and farm real estate improvements
- Grants and loans from national and international funds

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

The Turkish state has actively financed agriculture through fixed capital and infrastructural investments, agricultural support payments from the central budget, support purchases or price regulations, and subsidized loans provided through public banks and agricultural credit cooperatives.

One of the important pillars of financing agriculture is government support payments. Although the state's active support of the agricultural sector has declined over the last 20 years, it is still remarkable. The government's support policy has been reformed within the framework of the agricultural reform implementation project implemented in the early 2000s with World Bank supervision and the basin-based support model introduced in 2017. The issuance of the "Agriculture Strategy Paper" for the 2006-2010 period in 2004 aimed to align with the European Union Common Agricultural and Fisheries Policies and the World Trade Organization Agriculture Agreement. The implementation of the Agriculture Act No. 5488 in 2006 further shaped these policies.

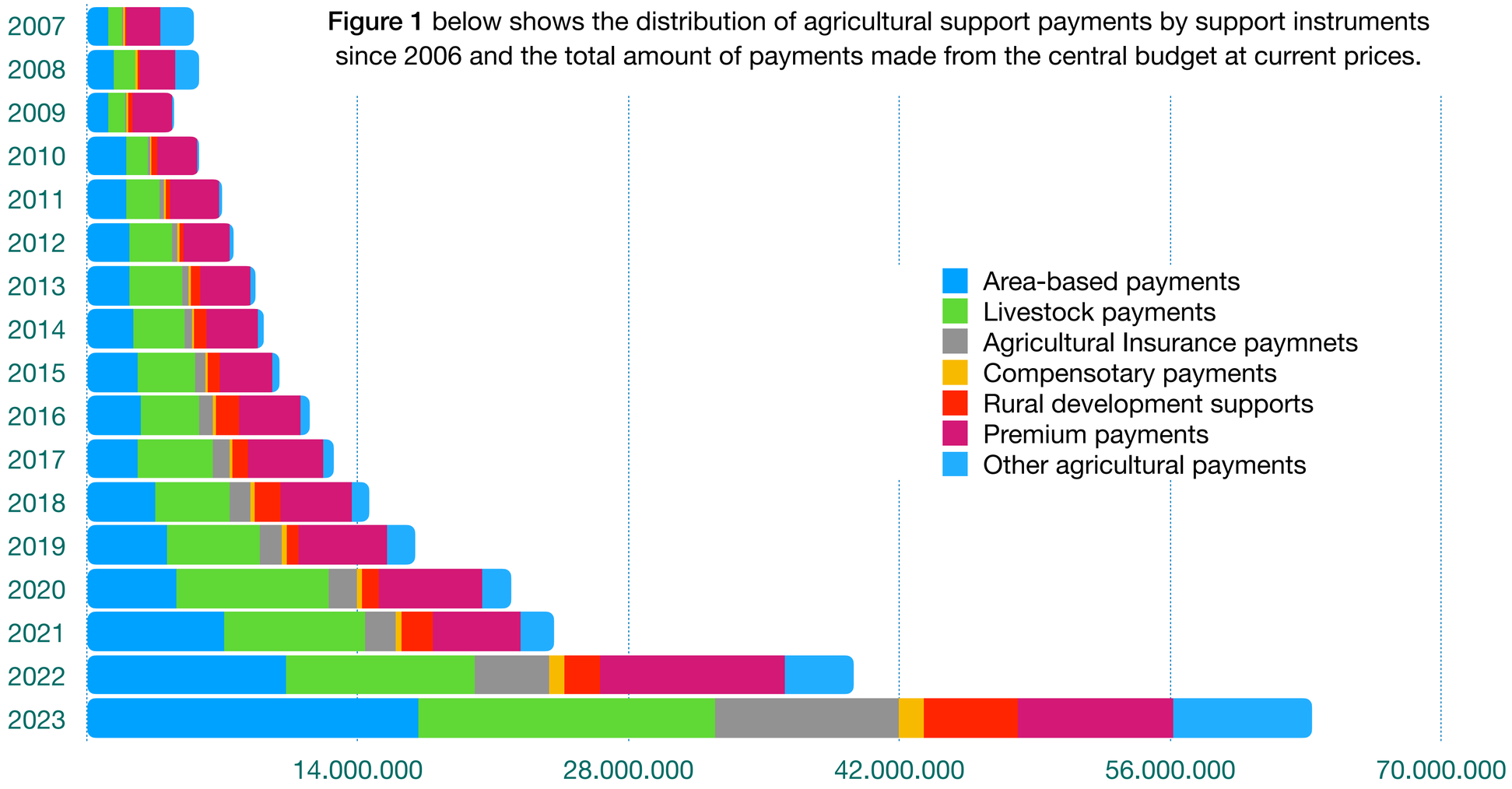
The Agriculture Strategy Paper also involved a re-evaluation of supporting instruments to ensure they did not interfere with market mechanisms. A more flexible and directive support system for agricultural producers and agro-industries was implemented, with incentives to increase productivity responsive to real comparative advantages. With this approach, the public sector was positioned in the agri-food system not as a direct purchaser and price-setting market actor but as a rule-making, supervising, directing and incentivising actor.

Although there are still public purchases and price regulations for strategic agricultural products that pose a risk to food security and have a low degree of sufficiency, the role of the public sector in supporting agriculture has been restructured in line with neoliberal market rules and compliance with the international trade agreements of the World Trade Organization. While there are significant criticisms on the amount, timing and impact of support payments, their contribution to financing agriculture is undeniable (WB, 2001).

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

FIGURE 1: AGRICULTURAL SUPPORT PAYMENTS (2006-2023). SOURCE: THE MINISTRY OF TREASURY AND FINANCE, GENERAL GOVERNMENTS FINANCIAL STATISTICS

Figure 1 below shows the distribution of agricultural support payments by support instruments since 2006 and the total amount of payments made from the central budget at current prices.



A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

In 2023, a total of 63.3 billion TRY was paid from the central budget to the agricultural support payments account for the agricultural sector under 66 different support instruments:

Area-based payments (Support payments in 16 different sub-fields such as fertilizer and diesel support per acre according to the crop planted) **17.1 Billion TRY.**

Livestock payments (Support payments in 32 different sub-fields such as cattle, ovine, beekeeping, silkworm farming, fodder crops production) **15.3 Billion TRY.**

Agricultural insurance payments (Insurance premium support payments in 8 different categories such as Crop Insurance, Greenhouse Insurance, Poultry Insurance, Aquaculture Insurance, etc.) **9.4 Billion TRY.**

Compensatory payments (Compensatory support payments support in 4 categories such as Plant Quarantine Compensation Support, Tea Pruning Compensation Support, Tea Pruning Expenses Coverage Support) **1.3 Billion TRY.**

Rural development supports (Support payments in 3 sub-areas such as Rural Development Supports, IPARD National Co-financing Contribution Payments) **4.8 Billion TRY.**

Premium payments (Differential payment support for 14 different crops and product groups such as wheat, cotton, oilseed sunflower, soybean, canola and olive oil etc.) **8 Billion TRY.**

Other agricultural payments (Support payments in 18 sub-categories such as Agricultural Consultancy Support, Protection of Agricultural Areas for Environmental Purposes (ÇATAK) Support, Certified Seed Use Support, Certified Seed Production Support, Agricultural Irrigation Electricity Support) **7.1 Billion TRY.**

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

According to OECD's Producer and Consumer Support Estimates, total support to the sector was 1.6% of GDP in 2019-21, down from 3.8% in 2000-02, reflecting its shrinking role in the economy. Still, Türkiye's transfers to agricultural producers as a share of gross farm receipts are slightly above the OECD average. Most support (64% in 2019-21) takes the form of market price support (MPS) enabled by tariffs, combined with reductions of exporters' debts and equity injections to state enterprises. This is well above the OECD average. The remaining support mainly comprises premium payments to producers of specific commodities, area-based payments provided in crop insurance, and payments to defray the cost of diesel and fertilizer. Concessional loans featured prominently in the policy response to the COVID-19 pandemic in 2020, raising the PSE above the trend that year (OECD 2022).

The credit mechanism provided by dealers and suppliers to farmers has always been fundamental in financing agriculture in Türkiye. Input suppliers and traders who work with farmers, many of whom continue to farm and whose income models are directly linked to agricultural production, have historically been the most prominent actors in financing agriculture. In rural areas, it is usual to lend cash directly to small-scale farmers at high-interest rates when they are unable to borrow via banks or agricultural credit cooperatives. Put simply, input providers function as lenders with exorbitant costs because farmers have limited access to money.

Financing received from input providers/dealers by farmers is typically preferred over receiving financing from merchants/buyers. The connection between the producer and the buyer in the agricultural value chain is less compared to the connection between the producer and the input provider. One significant factor contributing to this predicament is the farmers' limited savings, leading to widespread reliance on credit from input dealers to maintain agricultural productivity.

Input dealers, who must be or employ agricultural technicians or engineers, are familiar with the seasonal cycles of different crops in agricultural production. They know farmers directly and advise them according to their needs. As a result of the relationships established between dealers and farmers on a local scale, they sell the inputs needed by farmers on credit, with interest, on terms to be paid at harvest.This financing mechanism is still important for Turkish agriculture.

"Agricultural credit cards", which have been widely marketed by banks in recent years, are a product that takes this financing burden off the dealers. In fact, in order to market agricultural credit cards, banks apply an "interest-free period" for a certain period of time (usually 3-5 months) for the products that farmers purchase with the card from input dealers, motivating farmers to move out of informal borrowing and use bank loans.

As a matter of fact, the limit defined on such cards is essentially an agricultural credit line. One of our key informants from the financial sector characterizes these small, short-term and unconditional loans provided through credit cards as an individual microcredit model.

Agricultural credit system, which is all kinds of financial services and loans provided to farmers and individuals involved in agriculture-related activities, plays a crucial role in supporting farmers and agricultural businesses. The system operates through various financial institutions, including public and private banks, credit cooperatives, agricultural insurance institutions, and other institutional actors that generate alternative credit mechanisms for farmers and agribusinesses.

Agricultural banking entails providing loans to cover the financing requirements of agricultural production, from farmers to the end consumer. It also involves designing banking products accordingly and establishing suitable distribution channels.

Ziraat Bank, founded in 1863, and the Agricultural Credit Cooperatives have long been the main sources of funding to the agriculture sector. Şekerbank and Milli Aydin Bank have also made financial contributions to the production of partners of the agricultural sales cooperatives of sugar beet producers, PANKOBIRLIK and the agricultural sales cooperatives of grape, olive and fig producers, TARİŞ respectively.

In addition, the union of agricultural sales cooperatives of hazelnut producers (Fiskobirlik) in the Blacksea Region and the union of agricultural sales cooperatives of cotton, peanut and oil seeds producers in Çukurova Region (Çukobirlik) were granted large loans for the purchase of inputs.

These loans served as the main instruments of agricultural banking. Ziraat Bank's managed agricultural credit policy, implemented from the 1960s to the 1990s, was instrumental in establishing the project-oriented agricultural investment credit mechanism and incorporating agricultural engineers into the agricultural finance process.

These processes led to an increase in the variety of agricultural finance products offered to the agricultural sector and showcased the bank's competence and expertise in the field. After the 2001 crisis, reforms in the banking sector and the acquisition of Tarişbank by Denizbank in 2002, new actors emerged in the financing of agriculture in Türkiye. The face of agricultural banking began to change in these years as private banks started to include agricultural loans in their service portfolios.

Faced with an entirely new set of customers after the acquisition of Tarişbank, Denizbank used this as an advantage and led the way for agricultural loans to be partially underwritten by private banks, making agricultural loans more accessible and competitive for farmers and agribusinesses. Other private banks have quickly recognised the agriculture sector's potential, significantly decreasing the public banks' share of total agri-loans.

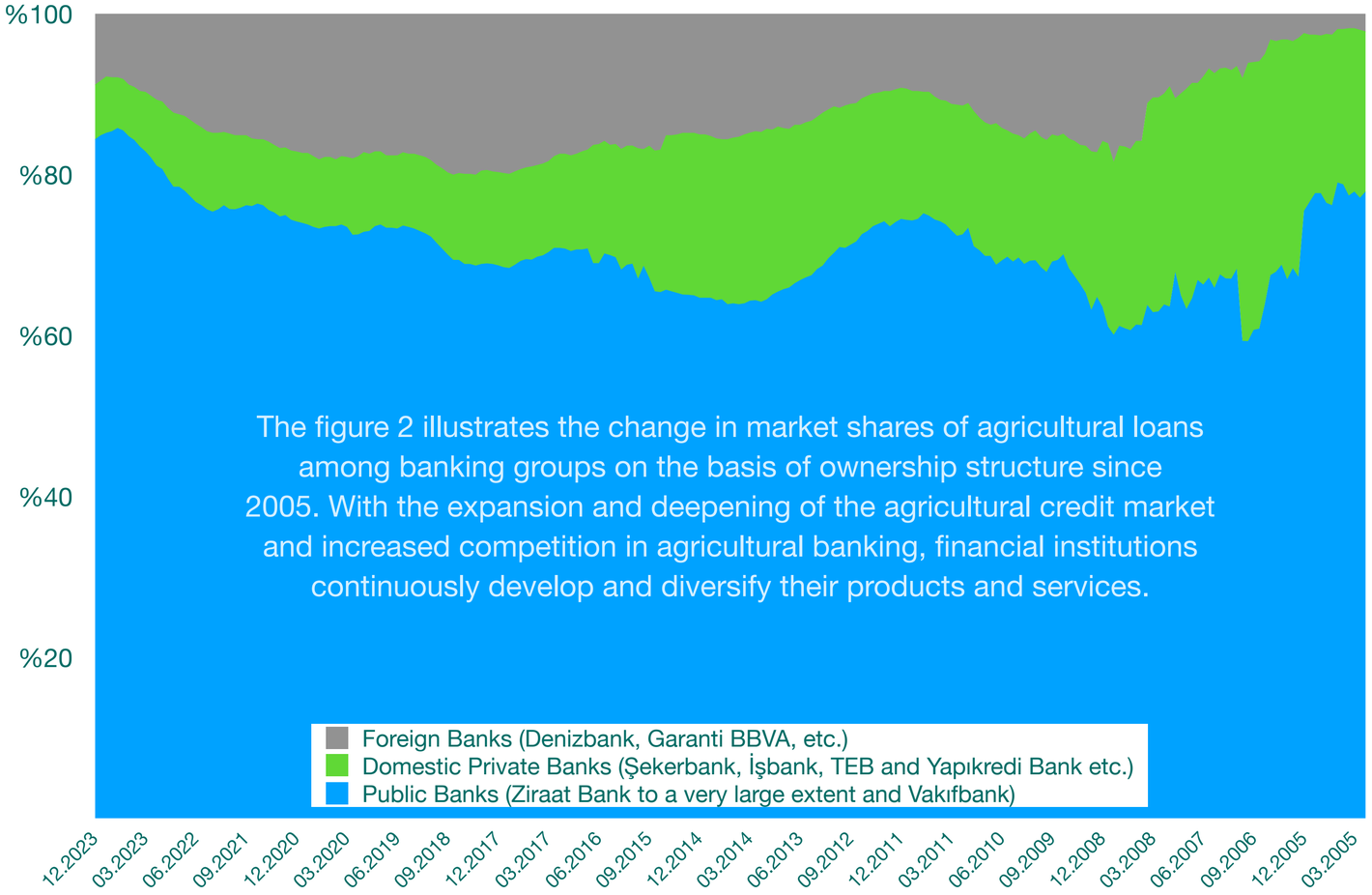
Despite Ziraat Bank's monopoly on disbursing subsidized loans and agricultural subsidies, its share in the agricultural lending market has decreased to around 60%.

Although Ziraat Bank continues to provide subsidized loans, its market share has declined. While in the early 2000s, it was almost the sole actor in this field, its market share in the agricultural loans market started to decline, and by 2015, it had fallen to 65%.

During this time, private banks made substantial efforts to enhance their internal capabilities for distributing agricultural loans with less risk and creating a client profile with technical expertise. Technical support from international financial institutions like EBRD and IFC resulted in the growth of the agricultural banking sector through the introduction of new banking products, procedures, and targeted campaigns for farmers.

In the following years, especially after the economic crisis of 2018, private banks became more cautious in extending agricultural loans as the ratio of non-performing loans to the agricultural sector increased rapidly. As a result, subsidized agricultural loans backed by Ziraat Bank became more attractive to producers and even the only way for some farmers to finance production. Hence, Ziraat Bank's market share, which had fallen to around 65%, rose again after 2018, approaching 85% by the end of 2023.

FIGURE 2: MARKET SHARES OF BANKS GROUPS IN AGRICULTURAL LOANS. SOURCE: BDDK



A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

One of the historically important organizations in financing agriculture is the Agricultural Credit Cooperatives. The Central Union of Agricultural Credit Cooperatives, the supreme organization of agricultural credit cooperatives, is a cooperative organization operating in every region of Turkey with 1615 unit cooperative partners and approximately 800 thousand farmer partners. The cooperatives meet the short and medium-term credit needs of the members in accordance with Article 3 of Law No. 1581 and Article 5 of the Articles of Association.

Since 2004, Agricultural Credit Cooperatives have started to provide loans at discounted interest rates in line with the decisions of the Council of Ministers. The Central Union of Agricultural Credit Cooperatives provides subsidized loans to its members through Ziraat Bank at below market interest rates. As of 2022, the total amount of loans extended by Agricultural Credit Cooperatives to approximately 400 thousand members in different fields amounted to TRY 26 billion. Of this total amount, 88% were discounted loans.

Agriculture is intricately connected to weather and climatic conditions, making it susceptible to the effects of natural calamities. The increased occurrence and intensity of agricultural disasters in recent years can be linked to the interaction of climate change, global warming, and ecological degradation despite the inherent hazards in agricultural activity.

In this context, agricultural insurance is a crucial financial service for a sustainable and resilient agri-food system. Developed in 2006 through a public-private partnership, the Agricultural Insurance Pool (TARSİM) has become more widespread among producers, with the government providing premium incentives and developing different insurance products.

TARSİM is managed by a Board of Directors composed of representatives appointed by the Ministry of Agriculture and Forestry, the Insurance and Private Pension Regulatory and Supervisory Authority (SEDDK), the Union of Chambers of Agriculture of Türkiye (TZOB), the Association of Insurance, Reinsurance and Pension Companies of Türkiye, and the Operator Company (Tarım Sigortaları Havuz İşletmesi A.Ş.).

This ensures that all relevant parties are represented at the highest level. TARSİM provides insurance coverage for various agricultural sectors, including crops, livestock, poultry, and more. It operates on a participatory insurance model, where insurance companies issue policies but transfer 100% of the risk and premium to the Agricultural Insurance Pool. As of 2022, the total number of policies across all agricultural insurance branches nationwide amounted to 3 million, with 767 thousand insured producers and business organizations (TARSİM, 2022).

Additionally, financial technology institutions are emerging to meet farmers' financing needs for acquiring agricultural inputs through means other than traditional bank loans. These companies, referred to as "Agri-Fintech" firms, differentiate themselves from traditional financial institutions by utilizing digital banking technologies, mobile applications, open banking services, cloud-based resource management technologies, and blockchain-based smart contracts. Tarfin, established in Türkiye in 2017, is one of these agri-fintech organizations operating in agricultural finance. Tarfin has quickly brought together around 60,000 farmers with approximately 1400 agricultural dealers nationwide, successfully implementing the "purchase now, pay at harvest" financing method.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Table 2: Major financial Institutions in the agricultural sector and their services (For more details please see Appendix D: Financial Institutions and Services)

Institution	Agricultural Loans		
Ziraat Bankası	Additional to conventional (short term working capital and medium and long term investment capital) agricultural loans, the bank has introduced specialized agricultural loans: • Young Farmer Loans • Women Farmer Loans	• Solar Powered Agricultural Irrigation Loan • Golden Hive Loan • Producer Cooperative Credit • Agriculture Transfer Credit	• Grain Support Purchase Credit • Fisherman Support Credit • "I Have Many Reasons to Live in My Village" project Credit
Denizbank	• Installment Agricultural Credit: It is a type of credit designed to help farmers finance their agricultural activities. This credit offers a payment plan that is prepared by considering the farmer's income and expense balance. • Spot Credit: Spot Credit is a short-term agricultural business loan that offers fixed terms and interest rates. • My Garden My Field Credit: It is a specialized loan designed to support family members who wish to purchase land on inherited property, ensuring land consolidation. he credit offers a term of up to 15 years, providing families with a long-term financing option that suits their needs. The repayment plan is uniquely tailored to the harvest period, ensuring that families can make payments when they have income from their crops. Only family members on inherited land can benefit from this credit.	• Rotary Credit: This credit is designed to meet the short-term financing needs of agricultural businesses. It offers flexible payment options, with interest payments collected monthly, quarterly, semi-annually, or annually. • Geographic Indication Product Credit: This is a specialized loan designed to support the cultivation of products recognized by the Turkish Patent and Trademark Office as geographical indication. This credit provides financial assistance to farmers who are dedicated to cultivation of geographic indication product. The credit offers a 3-year term, providing farmers with a medium-term financing solution that aligns with the production cycle. • Efficient Irrigation Credit: It is a credit facility designed to support the implementation of efficient irrigation systems. It offers a 3-year term and is allocated based on the project cost of the irrigation system. Credit is offered in accordance with a Project-based financing. Costs for implementing the irrigation system has to operate within a Project design.	• Eco-Friendly Tractor Credit: This credit is designed to support the financing of eco-friendly tractors that emits low carbondioxide and fuel efficiency. The credit enables 3 year term with instalment payments. • Technological Equipment Credit: Technological Equipment Credit is a credit intended to support the financing of technological equipment such as drones, sensors, soil analysis equipment, milking machines, satellite tracking systems and steering systems. This credit offers a 3-year term with instalment payments. • Project Investment Loans: They are designed to provide financing for agricultural investments based on a well-defined project plan. The loan amount and term are determined based on the project's feasibility and its income-expenditure balance, offering a tailored solution for each investment. Individual applicants and legal entities are eligible to get this credit. Eligible investments that are supported within the frame of this credit is listed: To Modernize agricultrual capacity, To increase efficiency in agricultural production processes, To boost and expand the small-scale agricultural facilities, To enchance the product quality to reach EU standarts by investments.
Şekerbank	• Family Farm Banking: Family farm banking aims to prevent farmers from leaving agricultural production and their land. • Farm Expansion Loan: This loan seek to preserve unity of the land which can be divided by inheritence. • Agricultural Equipment Credit: It enables to finance required equipment for agricultural production.	• Family Farm Banking also supports producer cooperatives with loans. • Within the framework of Family Farm Banking,10,692 farmers were reached and 2.6 million TRY of financial support was provided in 2022. • Agricultural inputs, such as fertilizer, agricultural pesticides, seeds, fuel, and expenses related to lighting and warming, can be financed through installment agricultural loan.	• Agricultural Eco Credit: The purpose of this credit is to provide financial support for ecologically friendly transition of agricultural production. • EWR Credit: It aims to provide short-term advance payments to producers who prefer to store their products in licensed warehouses in exchange for electronic product notes. Through this credit, up to 70% of the value of Electronic Warehouse Receipts can be financed. Furthermore, licensed warehouse support was provided to producers who choose to store their products within licensed warehouses.
Garanti BBVA	Agricultural Production Credits: • Pre-finance Credit: This loan is designed to finance the purchase of agricultural inputs. • Agricultural Support Credit: This Loan is designed to finance support individual farmers. • Organic Agriculture and Good Agricultural Practices Credit: This loan is designed to fund organic agriculture. • Combine harvester and Tractor Credits: This loan is designed to support purchase of either 1st hand or 2nd hand tractor and combine harvesters./guarantee/guarantee suppliers involved in the distribution and trade of agricultural products.	• Automobile Credit: This loan program allows farmers to finance the purchase of passenger cars. • Greenhouse Loan: Provides financial support for the modernization, repair and maintenance of greenhouse systems and the construction of new greenhouses. It is also valid for greenhouses where soilless agriculture is practiced. Up to 75% of the cost of the invoice can be financed within the scope of the loan Livestock Farming Credits: • Pre-finance Credit: This credit is offered for the compensate the needs of Livestock farming enterprises such as seeds, maintenance, vaccinations, water, electricity and veterinary medicine.	• Cattle Purchase Loan: This loan funds the Cattle purchase for livestock farmers. • Dairy Farming Loan: This loan funds the purchase of cattle that are especially used in dairy farming. • Agricultural Equipment Loan: This loan funds the purchase of required agricultural equipment Loan Support for Grant Programs: • IPARD Loan: IPARD program which is carried out by the Agriculture and Rural Development Support Institution (TKDK) within the framework of the European Union Pre-Accession Financial Assistance Programme, provides credit support to agricultural enterprises with maturities up to 5 years without principal payment during the investment period. • KKYDP Loan: The Rural Development Investments Support Program (KKYDP) provides loans with varying maturities for financing investments and equipment.
Türkiye Ekonomi Bankası (TEB)	• Working Capital Loans • Harvest Credit: This credit allows postponement of agricultural input payments such as fertilizer, agricultural pesticides, fuel, seeds etc. up to 12 months. • Good Agricultural Implementation Credits: This credit offers flexible payment options for businesses practicing good agricultural and organic farming practices. It offers payment terms of up to 12 months. • Agricultural Yield Credit: This is a credit that is used by providing collateral in the form of documentary evidence of sold but uncollected products, either through producer receipts or checks.	• Stock Farming Credit: This credit supports the financial costs of raising cattle until they are slaughtered. • Agricultural Overdraft Account: This account allows farmers to access a cash advance based on their cash flow. Interest is only charged for the days the funds are used. • Organic Farming Credit • Contractual Production Credit: It is a loan provided for farmers who produce on behalf of a corporation to cover agricultural inputs. It offers maturity up to 12 months. • Dairy Farming Credit : This credit subsidizes the forage, medicine and maintenance expenditures	• Poultry Farming Credit: This credit covers forage, chick breeding, and labor costs. • Electronic Product Document (ELÜS) Loan: It is a loan offered by collateralising the products deposited in licensed warehouses. Possible for Barley, Wheat, Rye, Paddy, Hazelnut, Lentil, Corn, Chickpea, Cotton, Soya Bean and Olive. • Investment Loan • Modern Irrigation Systems Credit: This is a credit that provides financing for pressurized irrigation systems. • Equipment Credit: It is a loan used for financing agricultural machinery and equipment.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Table 2: Major financial Institutions in the agricultural sector and their services

Institution	Agricultural Loans		
Türkiye İş Bankası	• Prefinance Credit: This loan is designed to finance the purchase of agricultural inputs. • Conventional Agriculture and Livestock Credits	• Instant Agricultural Loan: It is a loan product with installment payments up to TRY 500,000 and a maturity of 36 months. It is easy to apply and the evaluation process is very fast. If approved, the farmer can use the loan quickly.	• Tractor and Machinery Credits • Investment Credits for greenhouse, land, farm purchase • ELÜS (Electronic Product Bill Certificate) Loans
Akbank	• Product Pre-Financing Loan • Greenhouse Loan • Land/Farm/Garden Purchase Loan • Tractor Loan	• Drip Irrigation Loan • Short Term Dairy Farming Loan • Long Term Dairy Farming Loan	• Commercial Vehicle Loan • Agricultural Equipment Loan • Long Term Investment Loan
Al Baraka Turk	• Albaraka Türk offers loans to support the purchase of machinery ("combine harvester", " tractor", etc.) to be used in agriculture, the purchase of land, greenhouse farming activities and crop production. The Bank provides services such as the purchase and sale of EWRs (Electronic Warehouse Receipts), which certify the collateral of the products in licensed warehouses by the Ministry of Agriculture and Forestry, transfer to other banks, cancellation or EWR collateralized loans. In the field of animal husbandry, the Bank also supports production activities such as ovine breeding, bovine fattening, poultry breeding, goat breeding and beekeeping. The Bank also provides financing against receipt notes allocated by the Turkish Grain Board (TMO). Within the scope of the IPARD programme established by the European Union to support rural development, the Bank offers 50% non-refundable grants to agricultural projects.		
Kuveyt Turk	• Crop Production Financing: It is a type of credit for the requirements of corporate producers operating in agricultural production such as seeds, pesticides, fuel oil, etc., and provides flexible maturity opportunities. • Dairy Farming Financing: It is a type of credit for financing the expenses of dairy farming facilities such as vaccination, medicine, maintenance, feed, purchase of dairy cattle. There is the possibility of flexible repayment once a month, once every 2 months or once every 3 months in compliance with the revenue stream. Maturity up to 4 years is offered. • Cattle Farming Financing: This is a type of credit designed to cover	• operating expenses such as vaccination, medicine, maintenance, feed, and animal purchases for facilities involved in raising cattle and sheep for slaughter. Repayment is flexible, allowing for installments up to once a year, tailored to the revenue stream. • Beekeeping Financing: Type of Credit to meet their needs such as hives, equipment and shipping. • Poultry farming Financing • Tractor Financing: It is a credit for financing the purchase of new or second-hand tractors. • Agricultural Equipment Financing: This credit finance the purchase of machinery for agricultural production.	• Leasing Equipment Financing: It is a credit used for the procurement of machinery required for agricultural production through leasing. • Field Purchase Financing: It is a loan used for the purchase of fields. • Workplace Finance: It is a loan used for the purchase of warehouses, offices and workplaces to be used by agricultural entities in their operations. • Housing Finance: It is a loan for the purchase of residences by producers. • Vehicle Finance: It is used for financing the vehicles to be purchased by agricultural entities other than tractors
Finansbank	• Agricultural Production Credit: This credit is designed to support the continuity of agricultural activities. It compensates for three out of four of the production costs. The maturity period is up to 24 months. • Stock Farming Credit: This credit is designed to satisfy monetary needs of the producers and cooperations till the slaughtering process. Up to %85 of the total costs are compensated. The maturity period is up to 24 months. • Poultry Credit: This credit enables compensation for the costs of poultry production inputs, such as feed, medication, poultry purchases, labor, and packaging. It covers up to 75% of the total expenses. This coverage ratio may be increased to up to 85%. • Dairy Cattle Farming Credit: This credit is designed to support producers who need financing to improve milk quality and cover the production expenses such as forage, maintenance and medicine. It bears the %75 of the costs. This coverage ratio may be increased up to %85 • Fruit/Vineyard Credit: This credit makes it possible to bear production expenses such as seedling,fertilizer,irrigation equipment,maintenance of agricultural equipment etc. It compensates the %75 of the production expenses. Coverage ratio of credit may be increased up to %85 of production costs.	• Organic Agriculture Credit: This credit covers the expenses such as maintenance, labor, certification, packaging etc. %75 of the production costs are covered by credit. This coverage ratio may be increased up to %85 of the total cost. • Apiculture Credit: This credit enables compensation of the expenses of apiculture such as purchase of hive, beeswax and protection equipment etc. %75 of the expenses are compensated. This coverage may be increased up to %85 of the total cost. • Greenhouse Credit: This credit is designed for covering the costs of greenhouse production such as seedling, fertilizer, irrigation, equipment and heating. %75 of the expenses are compensated. This coverage may be increased up to %85 of the total cost. • Aquaculture Credit: This credit covers the needs of aquaculture cultivation. It offers installment opportunities up to 2 years.%75 of the expenses are compensated. This coverage may be increased up to %85 of the total cost. • Fishery Credit: This credit is designed to provide financial support to the fishery industry and independent fishers. It helps them cover the costs of vessel maintenance and repair, labor, and fuel. The loan is available for repayment in installments over two years.	• Yield Index Agriculture Credit: This credit is designed for the who have harvested their product but have not yet received payment. It helps to make new investments without considering capital. • Contracted Production Credit: This credit is designed for the subsidiary producers that produce for the third parties. It enables finance agricultural inputs such as medicine, fertilizer, seedling and forage. It compensates three out of four of the production costs. • Agricultural Debtor Current Account Credit provides the opportunity to use credit within different maturities and limits throughout the year. • The Agricultural Overdraft Account enables credit utilization within the overdraft limit and payments to be made in quarterly installments • ÇiftçiNakit ensures that urgent cash needs are fulfilled. It is possible to withdraw cash advances even if there is no money in the demand deposit account. It is possible to postpone payments until after harvest. Interest is charged only for the number of days the loan is used. • Cheque credit provides the opportunity to make payments by writing cheques
Vakıfbank	• Vakıfbank states that as of the end of 2022, it has contributed to the agricultural sector worth 2.5 billion TRY and has so far provided services to 292 thousand farmers. (Vakıfbank, 2022) The Bank provides 5-year investment loans such as tractor loans, agricultural land purchase loans, agricultural equipment loans and dairy animal purchase loans to cover agricultural inputs. Vakıfbank aims to conduct agricultural card application and loan disbursement transactions through digital applications through the SKY Agriculture loan. The Bank organises collaborations with chambers of agriculture and cooperatives in order to protect micro-scale agriculture and ensure better production. An example of these collaborations can be seen in an information note published in the Vakıfbank Press Release dated 28.11.2023. According to the press release dated 28.11.2023, within the scope of the cooperation with Trakya Birlik, Vakıfbank offered special opportunities for agricultural loans and agricultural cards to cooperatives in 13 provinces, mainly in Thrace (Edirne, Tekirdağ and Kırklareli). The Bank also provides mediation services to ensure the payments of farmers engaged in contract farming.		

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Table 2: Major financial Institutions in the agricultural sector and their services

Institution	Agricultural Loans / Services		
Yapı Kredi Bankası	• Yapıkredi offers agricultural loans with flexible maturities and customised payments according to the harvest:Agricultural production loans are provided to farmers to meet their financial needs, including planting, fertilizing, irrigation, and harvesting. Livestock loans provide financing for the needs of dairy farming enterprises, such as feed, care, medicine, vaccination, and water. Dairy farming business loans are applied in installments for similar purposes. The bank offers various types of agricultural loans, including livestock purchase loans, greenhouse loans, greenhouse construction loans, tractor loans, contracted agricultural loans, TMO receipt loans, agricultural machinery loans, commercial vehicle loans, and IPARD project loans. These loans are intended to increase the capacity of producers operating in the agricultural sector and to renew and modernize their businesses.		
Anadolu Bank	• 2B Land Purchase Loan • Ofers financing support to agricultural producers who wish to expand their activity volume by purchasing new land.	• Covers the purchase of lands within the scope of the 2/B law, which was adopted on 19.04.2012 with the 6292 law and published in the official gazette on 26.04.2012. • Risk Transfer Credits	• Consolidating their short, medium, and long-term debts from other banks and cooperatives into a single account with Anadolubank.
Tarım Kredi Kooperatifleri Merkez Birliği	Short-term Business Loan: • Cash/Non-Cash Loans/Insurance Premium Loans • Soil analysis loans • Remuneration loans (These are credits extended by making the vehicles, machinery and tools owned by the cooperative available for the use of the members in line with their agricultural needs.)	• Credit against document (for the supply of inputs that cannot be provided in kind by the cooperative) Medium/long term Investment Loans: • Agricultural Equipment Investment Loans	• Livestock Investment Loans • General Purpose/Consumption Loans • "Fertile" Loans: Subsidized, no-cost loans provided to cooperative members to encourage debt repayment habits and to reward members who regularly pay their debts on time
Tarsim	• All business and operations related to this Pool are carried out by Agricultural Insurance Pool Management Company in which insurance companies participating in this Pool are equal shareholders. Insurance companies conduct agricultural insurance contracts on behalf of the Pool and on the basis of standard policies determined by the Pool and transfer the entire premium and risk to the Pool. The state provides support for insurance premiums on behalf of the farmer exclusively for insurance contracts.		
Tarfin	• Greenhouse Loan: Provides financial support for the modernisation, repair and maintenance of greenhouse systems and the construction of new greenhouses. It is also valid for greenhouses where soilless agriculture is practised. Up to 75% of the cost of the invoice can be financed within the scope of the loan. • The Income Protection Package: It is designed to prevent farmers from incurring losses due to rising input prices. It ensures that the product tonnage written in the contract prepared during the input order is paid for the TURIB value when the farmers come to harvest time, even if the market value of the product has remained the same. Additionally, the ceiling price applied within the scope of the Income Protection Package provides an advantage in favour of the farmer.		
Türkiye Ürün İhtisas Borsaları TÜRİB - Türkiye Ürün ve İhtisas Borsası A.Ş.	• ELS is a document system that enables the representation of agricultural products stored in licensed warehouses in an electronic environment. This document system TÜRİB is an exchange or platform that enables export processes to be carried out through this electronic document system		
KEDV - Maya Mikrokredi Programı	• KEDV (Foundation for the Support of Women's Work) established Maya Micro Economic Support Enterprise in 2002. It has also been organizing the Micro Entrepreneur of the Year Award Program with Citibank for 10 years. • Livestock Farming Credits		
TİSVA - Grameen Foundation	• The Turkish Grameen Microfinance Programme (TGMP) was established by the Turkish Foundation for Waste Prevention (TİSVA) in cooperation with Grameen Trust. TGMP is a non-profit microfinance institution. It is dedicated to empowering women living in poverty. Currently, the programme supports over 40,000 micro-entrepreneurs in 68 provinces of Turkey through its extensive network of 95 branches.		
The Financial Literacy and Inclusion Association (FODER)	• The Financial Literacy and Inclusion Association (FODER) was established in 2012 to contribute to the creation of an ecosystem that can improve financial awareness. FODER carries out joint activities with the government, private sector and non-governmental organizations in areas such as education, research, awareness raising and support for practices, and aims to raise financial literacy and awareness among individuals in Turkey. In cooperation with different institutions, they have developed projects where they provide financial literacy trainings for farmers.		

1. Eligibility criteria of these financial services / products

The primary eligibility criterion for state support payments to the agricultural sector and agricultural loans provided by financial institutions is to be a farmer. Farmers and agricultural enterprises need to be registered with the Farmers Registration System to be able to officially prove that they are active in the agricultural sector.

The Farmers Registration System (ÇKS) in Türkiye is a mandatory registration system that records farmer information in a central database to facilitate agricultural support and inquiries. To register to the ÇKS, a farmer or agricultural enterprise must first become a member of the agricultural chamber. Farmers must obtain a farmer's certificate from the agricultural chamber to which they are legally affiliated every year, containing information on their personal and agricultural activities.

The entrance and dues fees of the Chambers of Agriculture are collected at the rates determined by the Union of Chambers of Agriculture of Türkiye every year according to the degree and grade system determined for farmers, separately for irrigated and dry lands. Thus, the amount of agricultural chamber dues varies according to regions and districts.

However, according to the provisions of the Regulation on the Entrance and Dues Fees of the Chambers of Agriculture prepared in accordance with Articles 20 and 36 of the Law on the Union of Chambers of Agriculture and Chambers of Agriculture dated 15/5/1957 and numbered 6964, the entrance and dues fee of the agricultural chamber cannot be less than 2% of the gross minimum wage amount.

The entrance and dues fees to be applied in the chambers of agriculture are determined according to the agricultural assets declared by the farmers. According to the provisions of the Regulation on the Entrance and Dues Fees of the Chambers of Agriculture, farmers declare the following agricultural assets to the agricultural chamber within the first five months of each year and ensure that their dues are calculated:

1. Land asset and land quality	
2. Farming activity branches	• Field agriculture (including meadow-pasture)
	• Horticulture (fruit growing, viticulture, vegetable growing, tea growing, rose growing, floriculture)
	• Sapling and tree cultivation
	• Seed Production
	• Livestock
	• Aquaculture
	• If he/she utilizes the products he/she grows, the products he/she utilizes.
3. Availability of equipment	
4. Building asset	

After the farmer's certificate is received from the chamber of agriculture, farmers or agricultural enterprises that will register to the ÇKS for the first time must apply to the provincial/district directorate of the Ministry of Agriculture and Forestry. Those who have previously registered can renew their ÇKS registrations through the e-Government system. Registration requires declaring agricultural production lands and providing necessary documentation. The ÇKS database includes information such as the cooperative, union, and chamber membership status of farmers. When registering to the ÇKS, it is mandatory to submit the title deed of the land where production is carried out, or the lease agreement if the land is rented.

According to 2023 data, there are 2,245,526 farmers and agricultural enterprises registered to the ÇKS in Türkiye. Since its introduction in 2001, it has been reported that there are many farmers who do not register with the ÇKS, even if it is a condition for accessing government support payments and subsidized loans.

The fact that the rate of registration to the ÇKS is not complete despite all the incentives provided by the state, points primarily to the existence of small-scale producers engaged only in subsistence production. In addition, many producers may not have the title deed of the land they cultivate for different reasons. This person may be cultivating the land of a family member living in a big city without any formal lease agreement, cultivating the land of an aging farmer in the village as an informal sharecropping/partnership, or producing on public land without permission.

As in the case of every individual and business requesting a loan, banks make a risk assessment for farmers who want to use agricultural loans. In our interviews, farmers and bank experts stated that banks use different risk assessments for agricultural loans. One producer stated that when he requested a loan, banks offered different credit limits. Ziraat Bank and Denizbank, as banks that have been operating in agricultural banking for many years, use their own risk assessment and credit scoring systems, while many other banks that conduct agricultural banking operations use the Agricultural Loans Assessment System (TARDES), which was developed by the Kredi Kayıt Bürosu (KKB) (2) to provide fast, practical and accurate credit analysis for farmers who want to obtain loans from KKB member banks.

(2) *Kredi Kayıt Bürosu* Established in 1995 as a partnership of nine banks, it serves in the areas of cost reduction solutions and digital security through products geared toward effective management of credit risk.

The TARDES system, which also utilizes the agricultural income estimation algorithm developed by the Frankfurt School of Finance and Management (Frankfurt School) that takes into account the region, crop and climatic conditions, quickly evaluates the loan request of a farmer registered in the ÇKS and determines an appropriate loan limit for the farmer. Except for Ziraat Bank's subsidized agricultural loans, loan interest rates are determined in the free market as a function of the general policy interest rate. Banks, on the other hand, make a loan offer to the farmer based on their own financial ratios and agricultural banking objectives and strategies by considering how much of this credit limit they can make available with what kind of maturity scheme.

The main eligibility criterion for the farmers to access agricultural loans is the ability to use one’s assets as collateral for loans. The crucial eligibility criteria for the loan services consist of collaterals provided by the farmers. A principal problem is that farmer properties have more than one owner - they are usually shared among the inheritors and, hence not always accepted by the banks as collateral. Our key informant from Kars, Türkiye indicated that the banks do not accept the properties such as houses or fields that are situated in the village. He explained to us that only an apartment or a house in the urban environment can be used as collateral when applying for a loan from the bank.

The eligibility criteria depend on the amount of the loan. According to our informant, small amounts of loans, usually below TRY 100,000 can be obtained by a farmer through providing three other farmers as guarantees (kefil). Although it is definitely important for a farmer to show their ÇKS records, properties in the village, agricultural holdings such as animals, fields with crops, or agricultural insurance, these only ensure a certain level of trust. Far from being calculated as a guarantee or collateral for the farmer, these records enable them to be eligible for small loans.

Our informant also stressed that these loans are not usually categorized as "agricultural loans" since the latter tend to be larger amounts which require the customer to provide collaterals. As our informant also emphasized, these collateral requirements can be different not only from one bank to another but also from region to region. Later, during another key informant interview with a farmer from the Western part of the country, we learned that agricultural fields can be accepted as collateral in some banks in his province.

Farmers, in order to use the financial service of loans above TRY 100,000 or TRY 200,000, have to provide either proof of a property in the urban center or a guarantor who is a public official. Our key informant who worked in the agricultural banking office of one of the major private banks in Türkiye and who currently works in the World Bank, indicated that the limited collateral options provided by the banks to the farmers is a major problem in the sector.

He stated that the fact that farmers cannot show their animals or properties in the village or their insured crops as collateral limits the scale and scope of the agricultural financial services. Moreover, Ziraat Bank is the pioneer public bank in the sector and has a privileged position as the only bank that provides the government-supported loan option. This enables Ziraat Bank not only to enjoy a privileged position as the mandatory intermediary for farmers to receive government subsidies but also to become the major bank providing loans with a low-interest rate subsidized by the state. This also means that the farmers use their primary property (usually the only house they have in the city) as collateral for a loan with advantageous conditions from the Ziraat Bank. As most small farmers do not have a second house that can be used as collateral, it becomes difficult to be eligible for a second loan. Hence, this causes many farmers not to be able to apply for more loans from other banks due to the limited options of the accepted collateral.

Another eligibility criterion is the certificates that farmers can obtain from training programs approved by the Ministry of Education. These include the trainings organized thanks to the protocol between the TOB and the Ministry of Education. Local/provincial branches of Public Education Centers (Halk Eğitim Merkezi) provide training programs with certificates approved by the Ministry of Education. The trainers consist of experts assigned by the TOB.

Our key informant from a provincial office of TOB indicated that the farmers usually ask for training with certificates when a particular call for a grant or a loan application requires a certain training certificate. Ziraat Bank in particular requires farmers to provide an Agricultural Credit Training Certificate for their loan applications. The bank made protocols with many universities, such as Sakarya, Kırklareli, Selçuk, Kayseri, and Atatürk, which provide training in designated fields of activity concerning animal production and crop production.

For more details on these training programs see the next section **A3.ii, and in B2.c.**

The small farmers we encountered during our fieldwork in Mersin abstain from obtaining loans from the institutions listed above. Instead, they prefer to obtain inputs in kind to be repaid at harvest.

For more details on small farmers' financial needs see **Chapter B4 and the Field Report.**

i. Type of services provided by these financial institutions

In recent years, increasing financial inclusion and promoting financial literacy in Türkiye has been one of the most important agendas of public authorities, international organizations, civil society organizations, financial institutions, and even farmer organizations.

Legislative arrangements and national policy and strategy documents are being prepared on the public side, and ministries are implementing projects to increase financial literacy.

Moreover, civil society organizations, universities and private institutions working in the field of financial inclusion collaborate to develop training programs and projects for different social segments.

Below, you can find a selection of ongoing projects and partnerships, which involves financial institutions.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

1000 Çiftçi 1000 Bereket (1000 Farmers 1000 Blessings)

The “1000 Çiftçi 1000 Bereket” corporate responsibility programme launched by Cargill in 2019 aims to expand restorative and digital agriculture practices in Türkiye, increase the welfare of farmers and the yield of their products, support social and digital transformation in agriculture, and contribute to meeting regional and global food needs with maximum efficiency. Within the scope of the programme, financial literacy trainings are provided to farmers in cooperation with FODER (Financial Literacy and Access Association). Thanks to these trainings, it is aimed that farmers can handle their land with a business logic and plan their periodic budget in a more considered way.

Bütçesini Bilen Çiftçiler (Farmers Who Know Their Budget)

The project was launched in 2018 by Agricultural Credit Cooperatives in cooperation with FODER in order to inform farmers about financial products and concepts and to increase the financial welfare of farmers by ensuring that they have the awareness to make choices between financial risks and alternatives. The project aimed to provide training to 1 million farmers. In 2018, 85 expert trainer candidates from 17 different regions in Türkiye who work for Agricultural Credit and who wanted to take part in the project were given “Bütçesini Bilen Çiftçi Eğitmen Eğitimi” ("Farmer Trainer Training on Knowing His Budget") in Ankara. In addition, 10 thousand farmers received financial literacy training. After COVID-19 Pandemics, it is understood that the trainings were not continued.

Paramı Yönetebiliyorum (I Can Manage My Money)

The 'I Can Manage My Money' project, the first project in Türkiye to bring together public and private sector institutions and non-governmental organisations, was prepared in 2009 to increase the financial literacy of young people and improve their budget management skills. The project, carried out by Habitat Association, United Nations Development Programme, Visa Europe and member banks, aims to contribute to sustainable development by improving the financial awareness of young people. In the following years, the target group of the project was expanded to include entrepreneurs, blue-collar workers, farmers, pensioners and women's cooperatives. Within the scope of the project, the main objectives of the training are to give information about the benefits of budget planning, personal and family budget concepts, to define basic financial concepts such as income, expenditure, savings, debt, to inform about preparing a payment plan considering income, to explain the benefits of saving money and savings planning.

Hasattan Hayata: Çiftçiler İçin Bütçe Planlaması Eğitimleri (From Harvest to Life: Budget Planning for Farmers Trainings)

In the programme carried out jointly with Tarfin Agriculture, European Bank for Reconstruction and Development (EBRD) and Habitat Association, 28 events were organized in Edirne, Tekirdağ, Kırklareli region and 2328 farmers were reached in 28 different villages. Financial literacy trainings were provided to the farmers by Habitat Association's Financial Literacy Experts who had previously taken part in the trainings.

Tarımsal Okuryazarlık Sosyal Sorumluluk Projesi (Agricultural Literacy Social Responsibility Project)

In 2016, QNB Finansbank launched the Agricultural Literacy Social Responsibility Project in cooperation with the European Fund for Southeast Europe (EFSE) and Frankfurt School. Within the scope of this programme, topics on financial literacy were conveyed to farmers in trainings held for farmers in different provinces. In the trainings prepared and delivered by Frankfurt School trainers, the criteria by which farmers can determine their financing needs, how they can access financial resources, what they should pay attention to when using resources or cooperating with banks, how they can save money and how they should act financially in times of possible crisis were explained. It is known that the trainings did not continue after 2019.

Hesabını Bilen Çiftçi Projesi (Farmer Knowing His Account Project)

With the "Farmer Who Knows His Account" project carried out by Kırklareli Provincial Directorate of Agriculture and Forestry in 2019, financial literacy trainings were provided to farmers in all villages in Kırklareli by the provincial directorate staff who received trainer training. In the meetings held in the villages, farmers were trained on issues such as access to finance, government support for finance and production, saving and investing. In the continuation of the project, advanced Financial Literacy trainings were planned for sample farmers. In this context, it is planned to develop a joint project with Habitat Association.

Apart from these projects, financial literacy trainings for farmers are organized periodically in different provinces through the projects and initiatives of provincial directorates of agriculture, some private banks or companies:

- An example of the trainings organized by **Antalya Provincial Directorate of Agriculture.**
- **Türkiye Ekonomi Bankası** (Turkish Economy Bank) organized trainings for farmers in 2017 within the scope of financial literacy trainings.
- In order to support rural women entrepreneurship, Şekerbank provided financial literacy training to women's cooperatives in 2023 within the scope of the cooperative support programme of the **Food and Agriculture Organization of the United Nations (FAO).**
- Within the scope of the “Kazanmayı Bilen Çiftçi” (“Farmer Who Knows How to Win") project carried out by **MAY Tohum Company**, financial literacy lessons were given to farmers in Çanakkale in 202

Ziraat Bank has been making important protocols with many universities in the country in order to organize trainings that would provide the necessary certificates to the farmers who would like to apply for "Women Farmer" and "Young Farmer" loans. Applicants can participate in these training programs online or face to face through "continuing" or "farmer" education centers of these universities in order to acquire the required certificate upon the successful completion of the relevant training. Some of the universities can be listed as Sakarya Uygulamalı Bilimler Üniversitesi, Kırklareli Üniversitesi Sürekli Eğitim Merkezi, Selçuk üniversitesi Sürekli Eğitim Merkezi, Kayseri Üniversitesi Sürekli Eğitim Uygulama ve Araştırma Merkezi, and Atatürk Üniversitesi Ziraat Fakültesi Çiftçi Eğitim Merkezi.

For more details on these on this protocol see the section **B2.c.**

iii. Financial opportunities in the form of credit and grants available for farmers (Refugees and host communities employing Refugees)

As the first section of this chapter summarized, the state subsidizes many agricultural activities of the farmers, albeit in small amounts. Being part of the national Farmer Registration System (ÇKS) number is crucial to obtain these state subsidies. However there is a confusion about the rights of refugees on this matter. Even if they are not Turkish citizens, they are assigned an ID number by the state, which allows them to be part of the ÇKS. Throughout our research we have not encountered any refugees who had an ÇKS number. However after we interviewed a refugee entrepreneur who established a company in Mersin, we learned that his company was able to get a number from the ÇKS.

See the **Field Report - "A Refugee's Quest for Recognition"**

As indicated in more detail in the chapters A4 and A5, various donors and projects provide important financial opportunities for farmers in Türkiye. The Agriculture and Rural Development Support Institution (Tarım ve Kırsal Kalkınmayı Destekleme Kurumu, TKDK) of the Ministry of Agriculture and Forestry is the main institution founded by the Turkish State in 2007, and it is co-funded by the European Union, the Instrument for Pre-Accession Assistance Rural Development Programmes (IPARD).

See **Chapter A5**.

During our fieldwork and key informant interviews, cooperative members expressed that they prefer grants and projects rather than loans and other financial services from banks. In addition to the EU and UN agencies, several national and international public and civil society organizations such as regional development agencies, different programs supported by the ministries (like Small and Medium Enterprises Development Organization of Türkiye/T.C. Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı - KOSGEP or Social Development Support Programme/ Sosyal Gelişmeyi Destekleme Programı - SOGEP), KEDV, GIZ, and WHH provide important grant opportunities to the cooperatives and small and medium enterprises in the agricultural sector. Although we have not encountered any call that target the refugees explicitly, many calls target the cooperation of refugees and local community members.

For more details sections **A2.a.iv, B1.a.iv, B1.a.v, Chapter B3**

An important project, entitled **Formal Agricultural Employment Support for Refugees and Turkish Citizens through Enhanced Market Linkages, Formal Employment Support in Agriculture Sector (FESAS)**, provides grants for farmers who employ local and refugee agricultural workers.

FESAS project is implemented in six provinces (Adana, Adıyaman, Bursa, Gaziantep, İzmir, Mersin) by the Agricultural Credit Cooperatives of Türkiye, administered by the World Bank, and financed by the European Union's Facility for Refugees in Türkiye. The project, started in 2020, covers 65% of the salaries of the agricultural workers and all the costs that arise from formal employment conditions (social security expenses).

Upon the satisfaction of the criteria, the payments are made to the farmers who are employers of the agricultural workers. The project has supported the formal employment of almost 8.000 workers by February 2024.

b. Financial statistics related to the services/products used by Farmers in Türkiye? Which services/products are used most frequently, what is the loan repayment rate?

Within the scope of this report, we analyzed three primary data sources and official statistical studies to reveal the level of financialisation and the development of agricultural credit in Türkiye's agricultural sector.

First, to assess the financialisation level of the agricultural sector, we utilized **the Company Accounts Statistics** compiled jointly by the TurkStat and the Central Bank of the Republic of Türkiye. These statistics are drawn from administrative records, including income statements, balance sheets, and employment data. The most recent statistics released in 2022, encompassing 983,182 enterprises, represents approximately 85% of the turnover in the Annual Industry and Services Statistics published by TurkStat.

The second data source is the Banking Regulation and Supervision Agency (BDDK) **monthly bulletins**, granting access to sectoral loans extended by financial institutions. This access enables us to monitor the development of agricultural sector loans, including details such as short and medium-term loans, non-performing loans, and cash and non-cash loans since 2005. Additionally, consultation with the BDDK's **Fintürk database** facilitated the visualization of loan distribution by provinces on a map of Türkiye for 2023.

The third data source is the **Data System of the Banks Association of Türkiye** (TBB), which provides specialized agricultural loan amounts by province. Monthly accessible data since 2014 includes cash loans and non-performing loan balances for agriculture and other sectors, sourced from **Risk Center data** through the TBB website. Furthermore, the "**Our Banks**" report, published annually by the TBB, offers insights into annual loan amounts reported by TBB member banks as agricultural specialized loans.

Company Accounts and Sectoral Balance Sheet Statistics

Based on the latest published data for 2022, the number of enterprises in the Agriculture, Forestry and Fishing sector (Nace, Rev. 2 classification, sector A) that keep their accounts on a balance sheet basis is 13,685, accounting for 1.4% of all covered enterprises (3). Considering there are approximately 2.5 million agricultural enterprises in Türkiye, the share of enterprises above a "certain size" in the agricultural sector that keep accounts on a balance sheet basis is very low. Of these enterprises, 74% are limited liability companies, 17% are joint stock companies and 8% are cooperatives.

Considering that the total number of all types of agricultural cooperatives is 12,100, as reported in this report, it is estimated that the share of cooperatives above a specific size among all cooperative enterprises is approximately 10% (4).

Of the enterprises covered in the agricultural sector, 82.3% are micro-enterprises, 14.3% are small enterprises, 3% are medium enterprises and 0.5% are large enterprises. When other agricultural enterprises not covered in the Company Accounts are considered, it is seen that the agricultural enterprises in Türkiye are mostly micro and small. Regarding the number of employees, enterprises in the agricultural sector employ 80,193 people. The total number of employees in 68 large enterprises is close to the number of employees in 11,261 micro-enterprises. Enterprises in all sectors employ 12.7 employees per enterprise on average, while this number is 5.9 for agriculture.

(3) *In Türkiye, agricultural earnings are taxed per the provisions of the Income Tax Law (GVK). According to the GVK, withholding tax is the main taxation method for agricultural income taxation in Türkiye, while enterprises above the sizes specified in the Law can also be taxed according to the real taxation system. The real taxable income can be determined on a business account basis or on a balance sheet basis if the taxpayers so wish.*

(4) *This estimate suggests that a significant proportion of agricultural cooperatives exist legally through administrative records, but do not engage in economically significant activities.*

By comparing enterprises in the agricultural sector with all firms through balance sheet accounts, it is possible to make some determinations about the comparative profitability, financial structure and sectoral risk of the agricultural sector and, implicitly, the sector's financial inclusion level.

The ratio of equity to liabilities in the balance sheet has declined in all sectors, including agriculture, over the period 2009-2022. This is an indication that financial deepening has increased in all industries. In the agriculture sector, equity financing is higher than all-sector average. In 2022, the ratio of equity to liabilities in all sectors is 28.7%, while this ratio is 31.3% in the agricultural sector.

The leverage ratio, in terms of the ratio of total debts to total assets, shows what percentage of the assets owned by firms is financed by debts. Sectoral leverage ratios can give an idea about the sector's degree of financialisation. In the agricultural sector, this ratio increased from 51.5% in 2009 to 68.7% in 2022. For all firms, this ratio rises from 56.2% in 2009 to 71.3% in 2022. Although the leverage ratio of firms in the agricultural sector is lower, the average annual growth between these years has been higher than the average growth of all firms.

At the sector level, the ratio of short-term and long-term liabilities within overall liabilities allows us to assess the financing structure of the sector. A low ratio of short-term foreign resources in a sector indicates that long-term bank loans are more accessible and preferable to finance investment. While the all-sector average ratio of short-term liabilities is 70%, this ratio is 78.5% for the agricultural sector. This indicates that the financing structure of the agricultural sector is relatively dominated by short-term external resources, working capital loans and short-term commercial debts.

The distribution of foreign liabilities in balance sheets can also allow inferences about the sector's financial structure of the sector. For an agricultural firm, within liabilities, trade payables are mostly debts owed to sellers, such as fertiliser dealers and traders, while financial liabilities are mainly bank loans. The proportion of trade payables in liabilities can reveal the distribution of the debts owed to financial institutions or market actors. This ratio is 21% for all firms and 24% for firms in the agricultural sector. The ratio of financial debts to liabilities is 25.4% for all firms and 24.2% for firms in the agricultural sector. While these ratios indicate that the share of bank loans in financing agriculture has increased over the years, they also indicate that agricultural enterprises borrow more from market actors than firms in other sectors.

Finally, the share of loss-making firms in the agriculture sector at the end of the 2022 balance sheet period is 51.4%, compared to 40% for all sectors. While this indicates that the riskiness of the agricultural sector is higher, the significant sectoral difference in non-performing loan ratios within balance sheet accounts suggests that financial risk is lower in the agricultural sector. While the non-performing loan ratio is 2.2% for all sectors, this ratio is 1% for firms in the agricultural sector.

In summary, the Company Accounts reassert from a different perspective that enterprises in the agricultural sector are micro and small-scale firms. In addition, financial ratios calculated from balance sheet data and comparative analysis show that external financing, especially agricultural loans, has increased over the years in the agricultural sector. Still, the level of financialisation is lower compared to other sectors, while equity financing and the ratio of current accounts payable are higher. Considering that the enterprises not covered in these statistics are primarily smaller-scale firms/farmers/real persons earning agricultural income, these ratios will likely change to indicate a lower level of financial access and inclusion.

Agricultural Loans Statistics

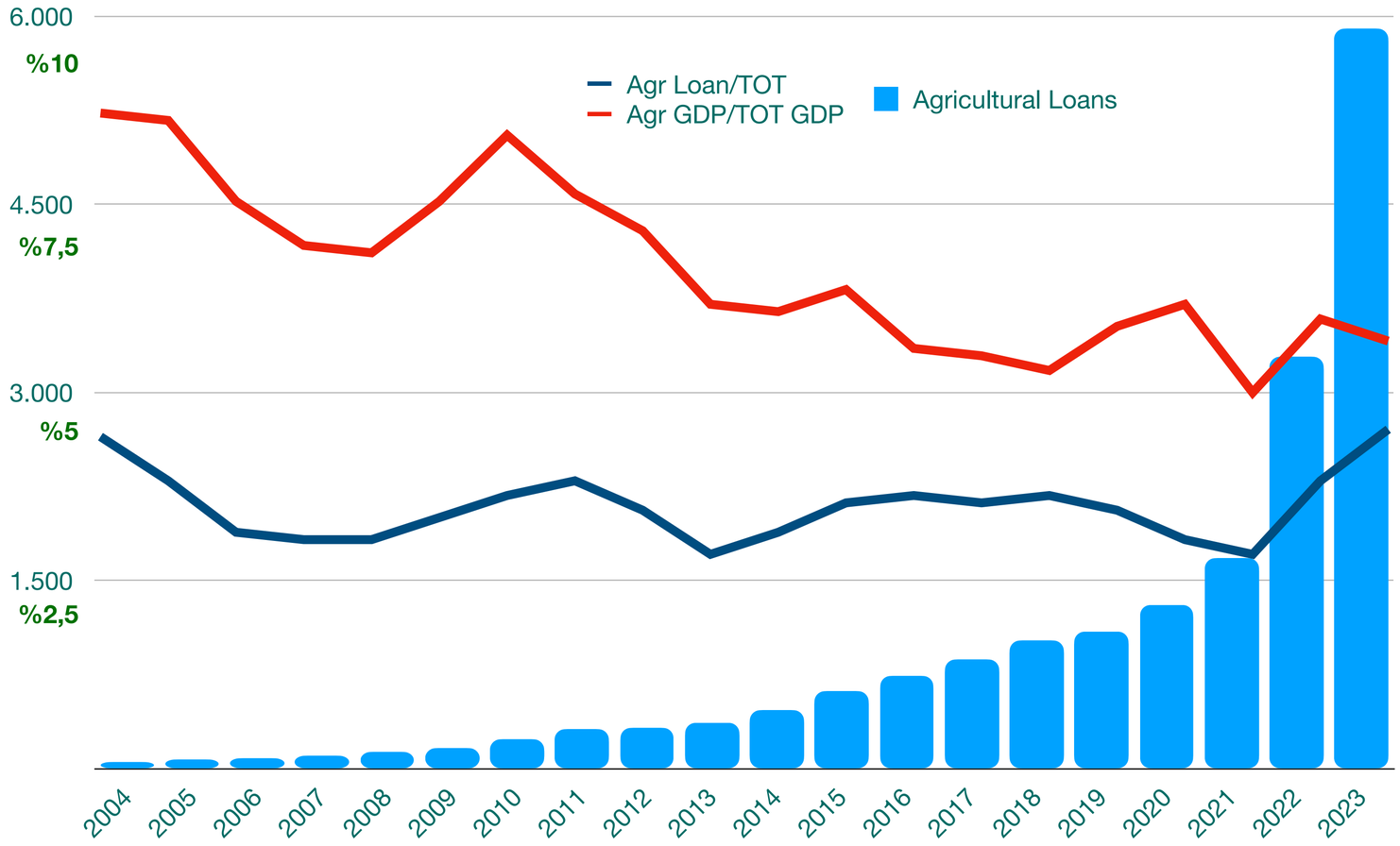
Turkish agricultural gross domestic product at current prices increased steadily, reaching 1.6 trillion TRY in 2023 (TurkStat). The average agricultural output in the previous decade from 2004 to 2013 averaged USD 54 billion, but in the last decade from 2014 to 2023 it averaged USD 51 billion. The creation of such added value requires significant financing.

According to data from the BDDK, loans extended to firms in the agriculture and fisheries sector totalled 605.731 billion TRY in December 2023. As seen in the graph below, the share of agriculture in GDP has steadily declined, reaching 6.2% by 2022. In the same period, the share of agricultural loans in total loan volume was 4% on average. In other words, agriculture's share of credit volume has been regularly below its share in GDP.

A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

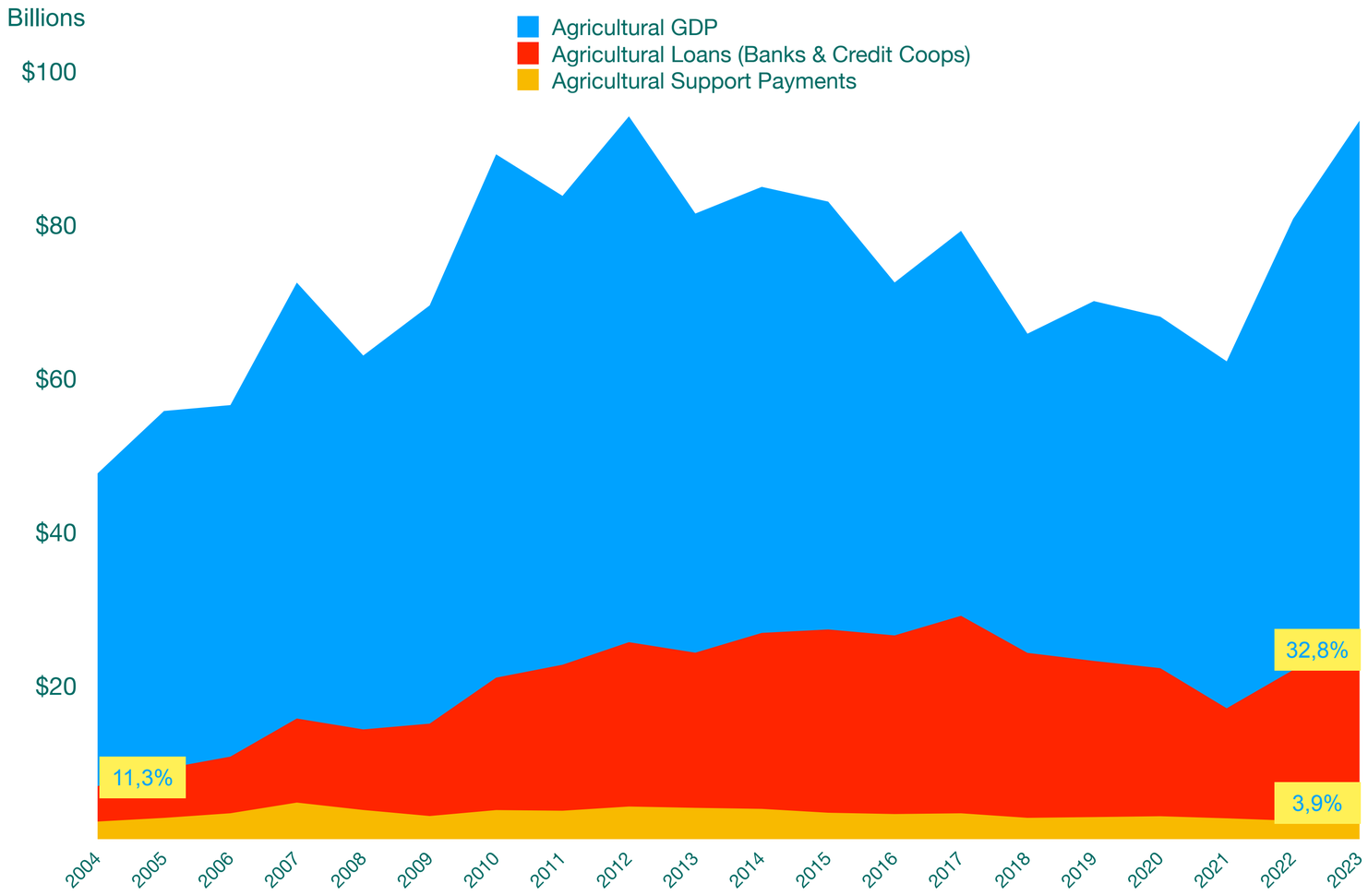
The total volume of loans disbursed to agricultural enterprises by banks and agricultural credit cooperatives will reach over USD 20 billion in 2023. One of the indicators of financialisation in agriculture is the share of agricultural loans in agricultural GDP. While this ratio was slightly above 10% in 2004, it increased steadily until 2018 and reached around 51.7%. After 2018, as a result of the currency crisis and deterioration in the Turkish economy, the share of agricultural loans in agricultural GDP decreased and fell to 32.8% by 2022 (Figure-4). In sum, the share of government agricultural support payments in agricultural GDP has been declining over the last two decades, while the share of bank loans increased steadily until 2018. This can be indirectly considered as an indicator of financialization in agriculture.

FIGURE 3: MARKET SHARES OF BANKS GROUPS IN AGRICULTURAL LOANS. SOURCE: BDDK



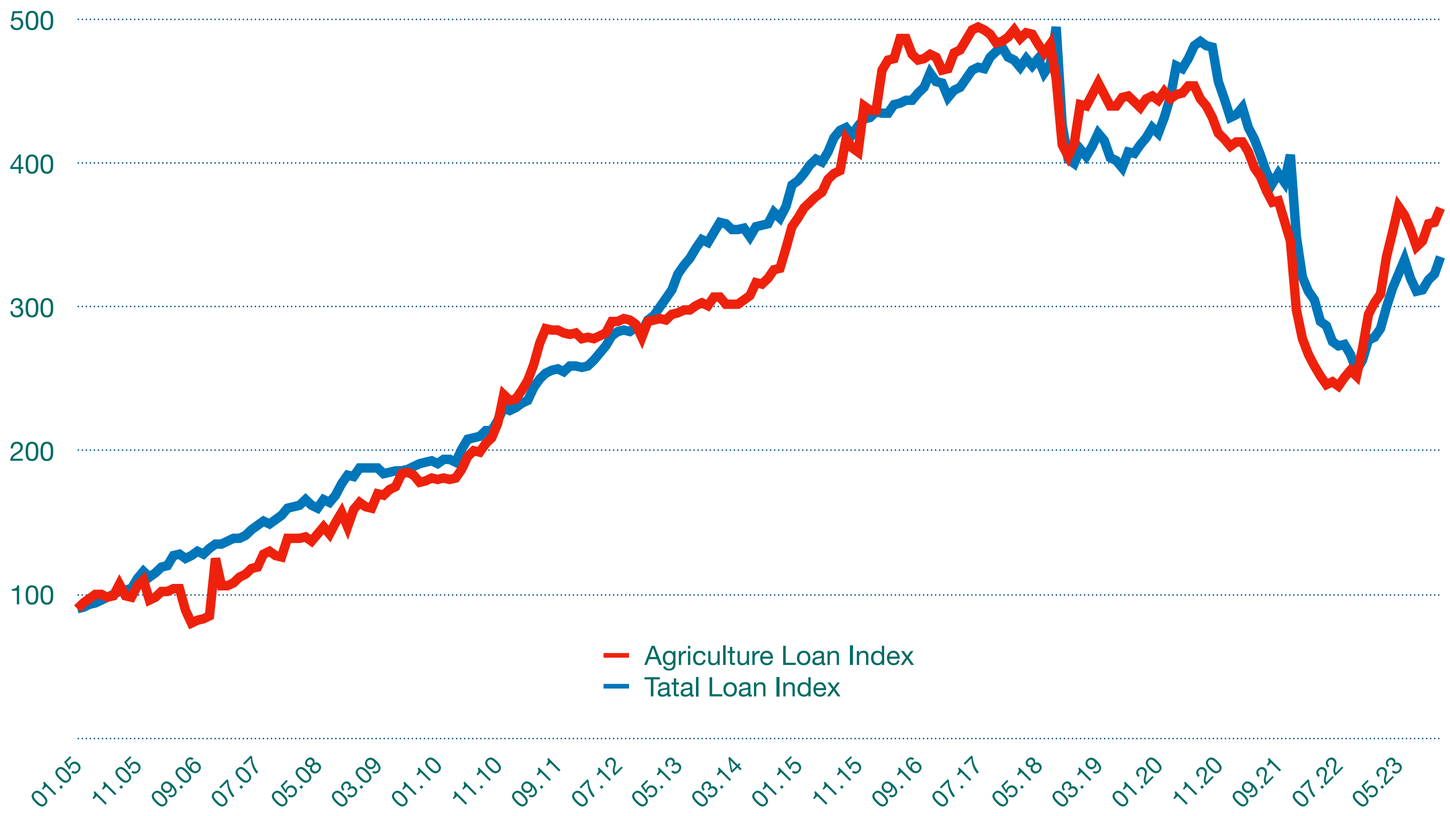
In the same years, although the budget allocated by the state from the central budget to agricultural support payments increased significantly in current prices of Turkish Lira, its share in total agricultural output declined. In 2023, total agricultural support payments in dollar terms amounted to USD 2.6 billion. This amount is slightly higher than the total payments made in 2004. The share of agricultural support payments in total output was 5.6% in 2004. This ratio remained unchanged on average throughout the 2010s. In 2023, this share is estimated at 3.9%.

Figure 4: Agricultural Loans and Support Payments in Agricultural GDP (Source: TurkStat (GDP), Ministry of Treasury and Finance (Agricultural Support Payments) and BDDK (Agricultural and Fisheries Loans)



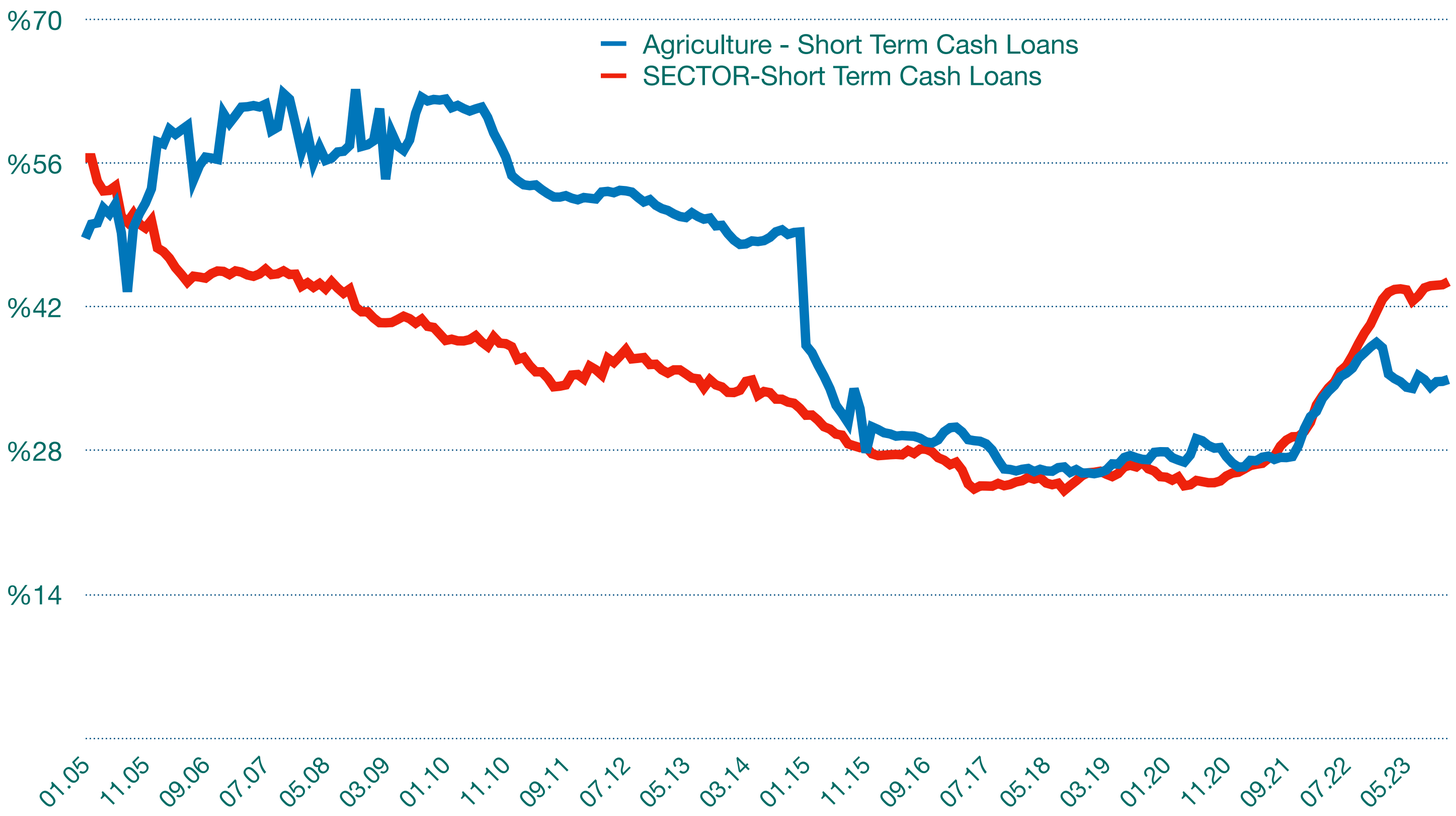
In Figure 5, the real growth of agricultural loans deflated by the producer price index compared to all sectoral loans is shown as a credit index. Accordingly, the two indices, which reached 100 in 2005, followed a similar trend and increased steadily until the summer of 2018, reaching 500. While the average annual real growth in agricultural loans between 2005 and 2019 was above 20%, the average annual real decline in agricultural loan volume between 2019 and 2023 was 4%. The decline in all sectoral loans was 4.7% in the same period.

FIGURE 5: REAL GROWTH IN AGRICULTURAL AND TOTAL LOANS (SOURCE: BDDK FOR LOAN STATISTICS AND TURKSTAT FOR PPI)



An analysis of the maturity distribution shows that while the weight of short-term loans was higher in the agricultural sector compared to other sectors, this situation has started to reverse in recent years. It is known that agricultural credits were mostly used to meet working capital needs when different financing instruments and opportunities for agriculture were not mature enough. As loan rates declined and different financing instruments developed to meet the needs of agricultural enterprises, long-term investment loans increased. Parallel to the increase in agricultural loans in the last 20 years, the share of short-term loans in agriculture has declined faster than in other sectors, reaching 25% in the pre-pandemic period. In the post-pandemic period, the share of short-term loans started to rise again due to the increased need for working capital in line with rising input prices and the rising producer price index. By the end of 2023, the share of short-term loans in agricultural loans approached 45%.

Figure 6: The Share of Short Term Loans in Agricultural and Total Loans (Source: BDDK)

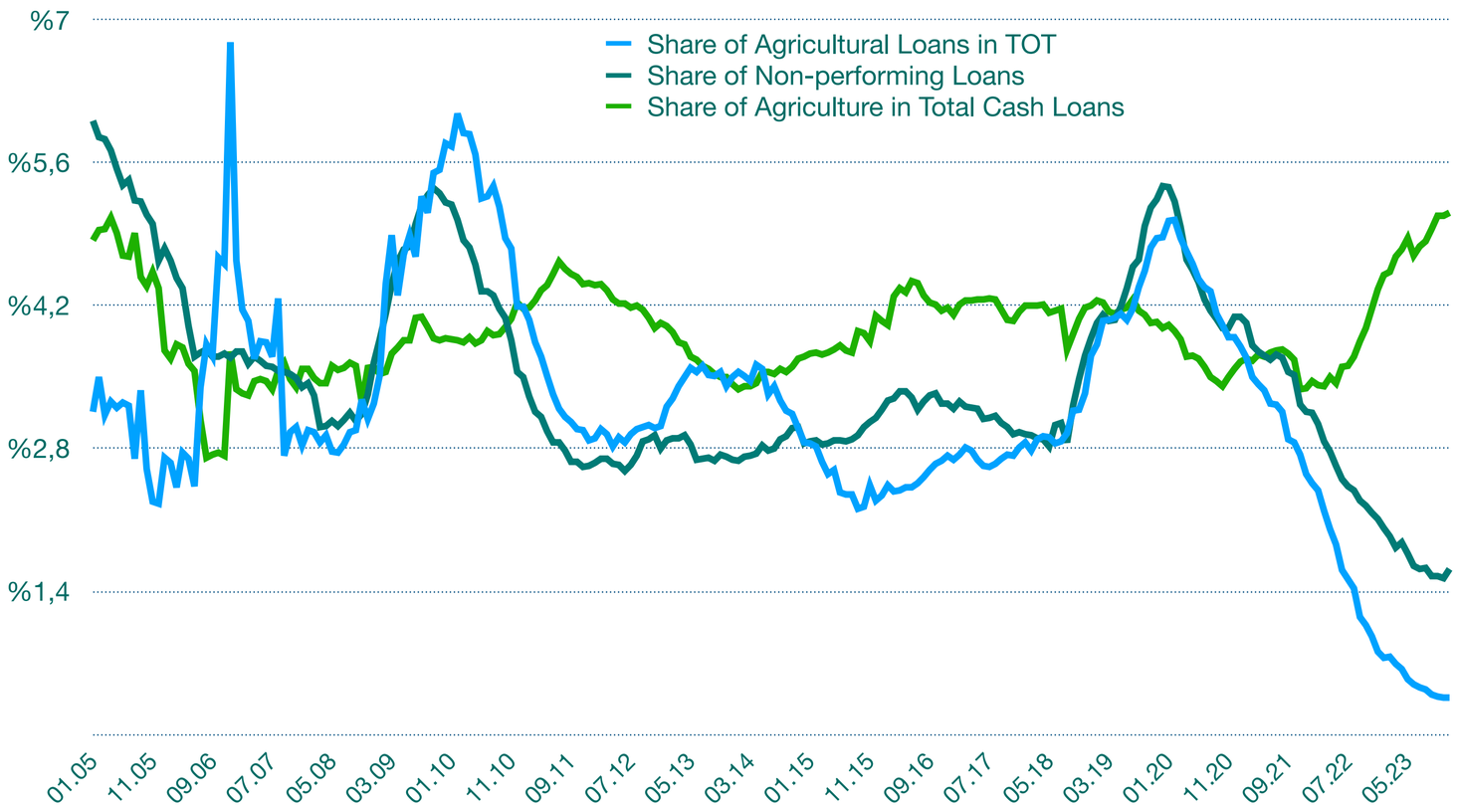


A3. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

According to BDDK data, the share of agricultural cash loans in total cash loans averaged 3.95% between 2005 and 2023. In 2023, the share of agricultural loans was 4.82%, above this long-term average.

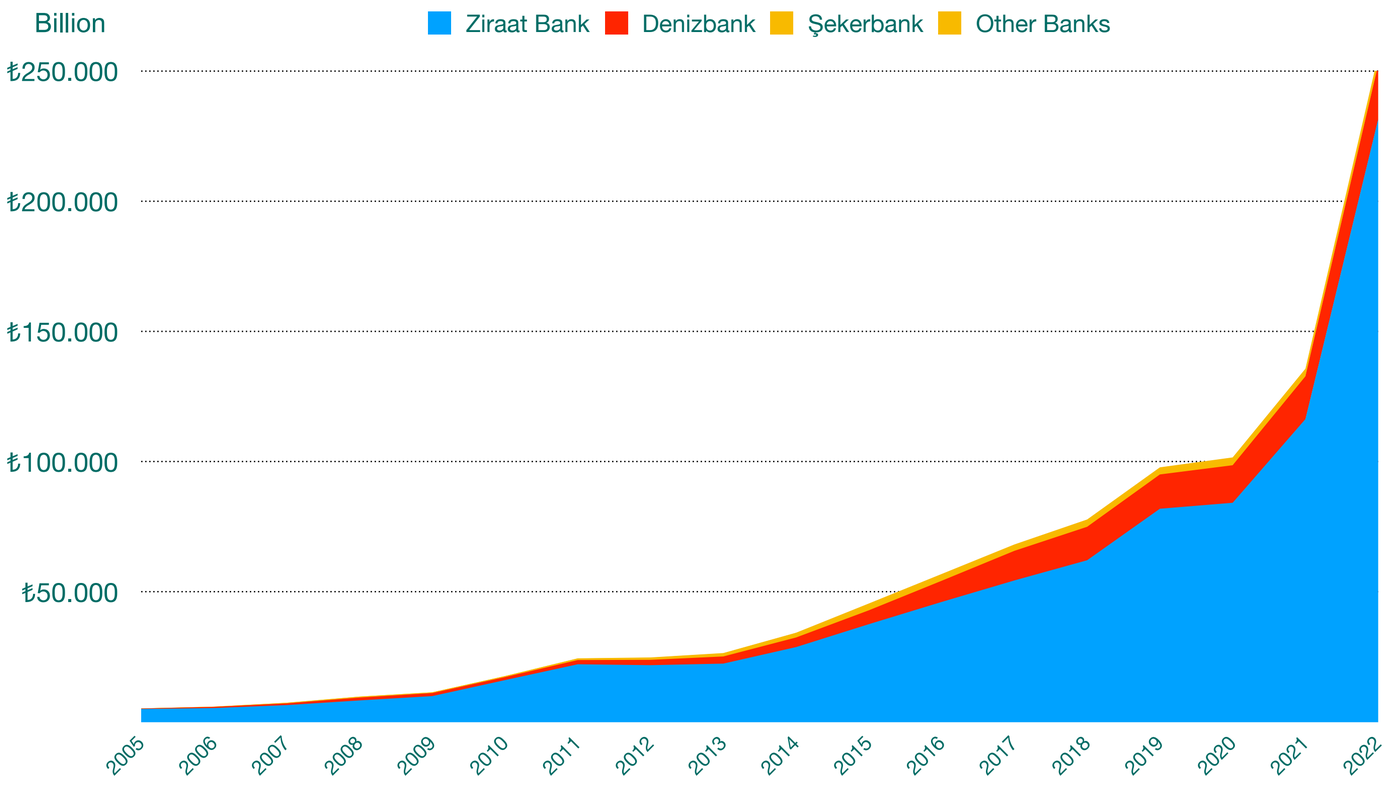
It is stated that non-performing rates in agriculture in Türkiye are generally low. Experts state that farmers have the capacity to repay their loans and are loyal to their debts. The above graph compares the non-performing loan ratios in all sectoral loans with the non-performing loan ratios in agriculture in the same period. These two indicators move in a correlated manner. However, these two indicators diverged after 2020. As of early 2020, the ratio of non-performing loans increased to around 5% in all sectoral loans, including agriculture. From 2020 until today, non-performing loan ratios have declined more significantly in agriculture. By the end of 2023, non-performing loan ratios in the agriculture sector declined to 0.36%.

FIGURE 7: SHARE OF AGRICULTURAL LOANS IN TOTAL AND SHARE OF NON-PERFORMING LOANS IN AGRICULTURAL AND TOTAL LOANS (SOURCE: BDDK)



"The Book of Our Banks", published annually by the Banks Association of Türkiye (TBB), shows the market shares of banks operating in the Turkish banking sector in sectoral loans. According to the most recently published data for 2022, the total volume of agricultural loans within specialized loans is 255 billion TRY. Considering that the BDDK's December 2022 data bulletin shows cash loans extended in the agricultural sector as 322 billion TRY, the data from the Banks Association show that the loans disbursed by some banks in the agricultural sector are not reflected in these data with a different classification. However, the data of the Banks Association allows for an inference to be made regarding the loan volumes and market shares of banks offering agricultural loans. The graph above shows the market shares of 3 major banks in the agricultural loan market of the Banks Association. Accordingly, Ziraat Bank is the most important actor in the agricultural loan market with a share of nearly 90%. Although Ziraat Bank's share started to decline with the activities of other private banks in agricultural banking in the last 20 years, Ziraat Bank's market share has increased again as a result of the developments in the market after 2018.

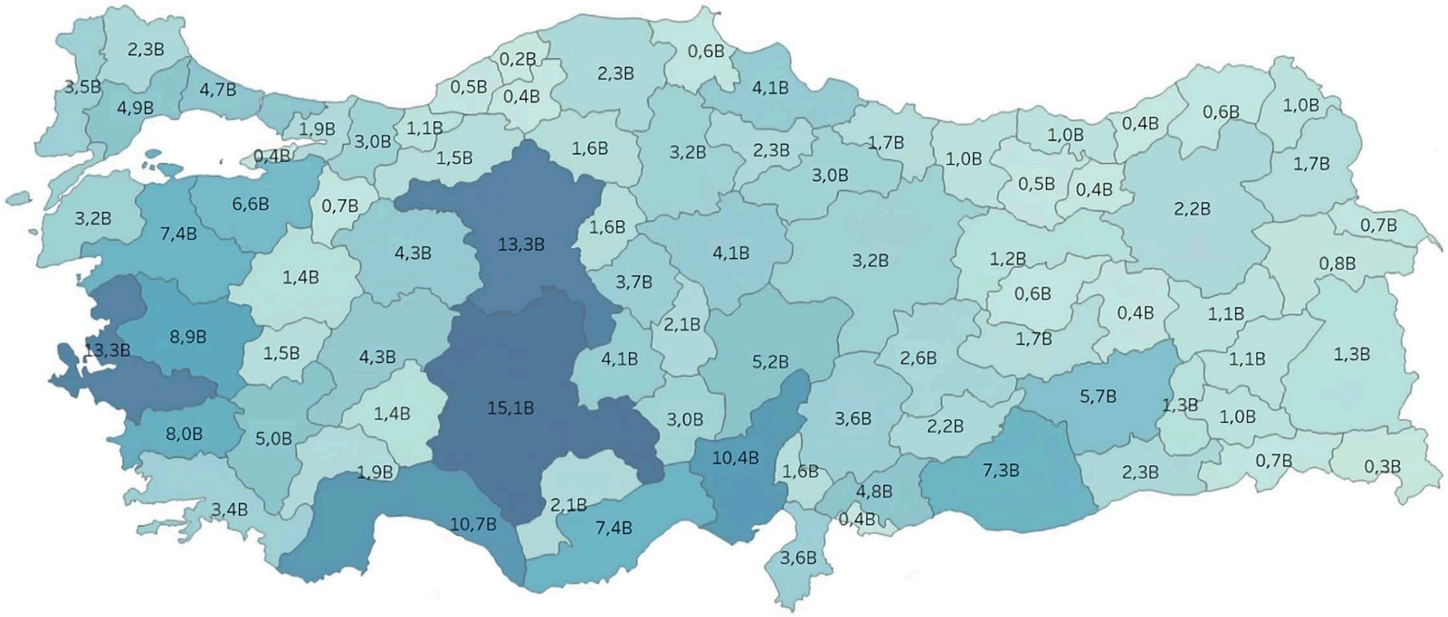
FIGURE 8: BANKS' MARKET SHARE IN SPECIALIZED AGRICULTURAL LOANS (SOURCE: TBB)



Map 1 displays the distribution of agricultural loans for the year 2022 based on data obtained from the TBB's data center. As evident on the map, the provinces where banks have most extensively granted agricultural loans are observed to be Konya, Ankara, İzmir, Antalya, and Adana.

In sum, although the share of agricultural loans in total loans is lower than the share of agriculture in the economy, the rate of increase in agricultural loans has been higher than the rate of increase in total loans in recent years. During the 2010s, when interest rates were generally low, the share of short-term loans in agricultural loans decreased. The need for working capital in the agricultural sector has increased in parallel with the increase in input prices due to the 2018 exchange rate crisis and the pandemic. For this reason, short-term loans have recently started to increase. The rate of non-performing loans has been decreasing for the last three years in line with the interest rate subsidies provided by the government.

MAP 1: AGRICULTURAL LOANS BY PROVINCE, 2022 (SOURCE: TBB)



When the summary results of TARSİM for 2023 are analyzed, it is seen that a record transaction volume was reached as a result of the increased awareness of damage and insurance following the major fires in the Aegean and Mediterranean Regions in 2021 and the extreme climatic events in 2022, and the widespread use of insurance as a condition for loan utilization, and it is expected that the increase will continue in the following years.

A4. Donors of Agricultural Sector in Türkiye

Key Findings*

- **Governmental Influence:** Governmental bodies are crucial in both allocating resources directly to agriculture and in regulating the flow of international aid into the sector.
- **Broad Spectrum of Support:** Support from national donors extends beyond direct agricultural activities to include socio-economic development, environmental sustainability, and community resilience.
- **Diverse Contributions:** Contributions from various foundations and organizations encompass financial assistance, capacity building, educational programs, and technical support aimed at enhancing the agricultural sector's productivity and sustainability.
- **Support for Disadvantaged Communities:** Many organizations focus on aiding socially and economically disadvantaged communities within agriculture, reflecting the sector's broader socio-economic importance.
- **Range of Funded Projects:** Projects cover diverse topics such as financial inclusion, capacity building, entrepreneurship, support for women, and assistance for refugees, reflecting a broad approach to agricultural development.
- **Collaborative Efforts:** The projects often involve collaborations with multiple stakeholders including local authorities, NGOs, and educational institutions, aiming to create comprehensive solutions for agricultural challenges.
- **Marginalization of Small-scale Farmers:** Smaller farmers and informal sector participants often find it challenging to access the benefits of these projects, which tend to favor well-established cooperatives and large-scale agricultural businesses.
- **Skepticism and Effectiveness Concerns:** There is a notable gap in knowledge and skepticism among local communities regarding the effectiveness of these projects, with many expressing doubts about the actual impact versus the stated objectives.
- **IPARD II Initiatives**: IPARD II, with a substantial budget, focuses on modernizing agriculture, adopting EU standards, and promoting rural development. It prioritizes inclusivity, with special considerations for women and young investors.
- **Distribution of IPARD II Funds:** The program emphasizes diversification of the rural economy, agricultural holdings improvement, and processing and marketing enhancements.

*Key Findings also includes notes for *A5. Projects in the Agricultural Sector in Türkiye*.

- **Geographical Spread and Sector Focus:** The projects under IPARD II are spread across various provinces with a strategic emphasis on diversifying agricultural practices and enhancing the sector's overall capacity.

- **World Bank's Thematic Priorities:** The World Bank's projects are scored and prioritized based on themes like environment and natural resource management, urban and rural development, and private sector development, indicating a holistic approach to agricultural and rural development in Türkiye.

- **Strategic Importance of Environmental Management:** Both the EU IPARD and World Bank projects place a significant emphasis on environmental sustainability and natural resource management, indicating a strategic priority to align agricultural practices with environmental conservation goals.

- **Urban and Rural Development:** The World Bank's focus on urban and rural development underscores the aim to balance growth and ensure equitable development across different regions, enhancing both agricultural productivity and sustainability.

- **Private Sector Involvement:** Emphasizing private sector development reflects a strategy to stimulate economic growth and innovation within the agricultural sector, fostering more robust business models and market-oriented agricultural practices.

- **Human Development and Gender Equality:** A notable portion of the project funding is directed towards human development and promoting gender equality, ensuring that agricultural development also contributes to social equity and educational opportunities.

- **Financial Infrastructure Development:** The relatively lower scoring for finance-related projects suggests a need for further emphasis on developing financial infrastructure to support other developmental areas effectively.

- **Priority for Climate Change and Mitigation:** The highest priority scores for climate change and mitigation in World Bank projects highlight the critical need to address climate-related challenges within the agricultural sector, aiming for resilience and sustainability.

- **Comprehensive Approach to Disaster Management:** The balanced scoring across disaster response, risk management, and reduction indicates a comprehensive approach to managing agricultural risks associated with natural disasters.

- **Community Engagement and Inclusivity:** There is an ongoing effort to involve community stakeholders directly in project planning and execution, which is essential for ensuring that the projects meet the actual needs of the agricultural communities they intend to serve.

A4. Donors of Agricultural Sector in Türkiye

Executive Summary*

- This section provides detailed information on selected agricultural projects and donors, focusing on the European Union Instrument for Pre-Accession Assistance Rural Development (EU IPARD) and the World Bank (WB). After organizing the datasets according to each institution's classification system —covering primary objectives, key investment areas, thematic priorities, and priority scores— we offer an overview of our analytical results.

- It is important to note that, despite the multitude of national and international, governmental and non-governmental organizations in the agriculture sector, support mechanisms are notably scarce especially for small-scale and refugee farmers. All support, whether national or international, is channeled through state bureaucracy before reaching farmers.

- Agricultural development projects often overlook small-scale farmers who are part of the informal agricultural sector and exclude them from accessing the opportunities that these projects offer. Such opportunities tend to be more accessible to established cooperatives and large-scale agribusinesses, which not only benefit from existing relationships with local government authorities, but also have the organizational and infrastructural capacity to participate more effectively in these development initiatives. This disparity widens the gap between large, formal agribusinesses and small-scale farmers who play a critical role in the sector but lack the formal support mechanisms to benefit from these collaborative development efforts.

- The second phase of the EU IPARD program (IPARD II, from 2014 to 2020), focused on diversifying agriculture via Local Development Strategies. This phase emphasized modernizing the agricultural sector, adopting the EU legislative standards, and promoting sustainable rural development, notably supporting underrepresented groups such as women and young investors. The program, with a robust budget, involves collaboration across ministries, local governments, NGOs, and universities. IPARD III, set to start in 2024, will continue these themes and it will primarily aim at developing small and medium-sized agricultural enterprises.

*Executive Summary also includes notes for *A5. Projects in the Agricultural Sector in Türkiye*.

A4. Donors of Agricultural Sector in Türkiye

- The World Bank's involvement in Türkiye's agriculture is holistic, prioritizing sustainability and equity across themes like Environment and Natural Resource Management, Private Sector Development, Human Development and Gender, and Finance, each assigned priority scores for strategic planning.

- The Environment and Natural Resource Management theme prioritizes sustainable farming and climate resilience to safeguard future food security, with a focus on climate change mitigation, water resource management, and biodiversity conservation. The Private Sector Development strategy enhances agricultural productivity and competitiveness through innovation and investment. The Human Development and Gender theme boosts the agricultural workforce by improving access to education, health, and resources.

- Projects highlight the comprehensive strategies of the key funding bodies to advance sustainable agricultural development in Türkiye, stressing the importance of modernization, inclusiveness, and environmental sustainability.

a. List of existing and potential donors in the field of agriculture in Türkiye (especially regarding topics such as financial inclusion, capacity building, entrepreneurship, women, and refugees)

i. The donors can be divided as international (such as EU, World Bank, EBRD, Embassies of Foreign Countries, other international institutions, etc.) and national (such as Governmental programmes, funding programmes of private companies, municipalities and universities)

List of International Donors in the Agricultural Sector

The list below includes main international organizations in Türkiye that are actively supporting agricultural activities. It also provides information on the priority topics of the projects supported by these organizations.

A4. Donors of Agricultural Sector in Türkiye

Table 3: International Organizations in Türkiye that are supporting agricultural activities

Foundation Name	Information
IFAD (International Fund for Agricultural Development)	Plays a crucial role in providing financial aid and expertise to projects aimed at improving agriculture in rural areas.
GEF (Global Environment Facility)	Focuses on projects that tackle critical environmental issues that intersect with agricultural practices, such as land degradation, biodiversity conservation, and climate change resilience.
UNDP (United Nations Development Programme)	Aims to enhance agricultural productivity and ensure sustainable forest management as part of broader initiatives to combat poverty and promote equitable growth.
World Bank	Provides financial resources, knowledge, and policy advice to implement projects that can transform agricultural sectors.
UNEP (United Nations Environment Programme)	Integrates environmental considerations into agricultural and forestry practices, thereby promoting sustainability.
FAO (Food and Agriculture Organization of the United Nations)	Leads international efforts to combat hunger and enhance food security through a variety of projects, ranging from improving agricultural outputs to implementing sustainable farming techniques.
ISDB (Islamic Development Bank)	Finances agriculture-related projects that align with Islamic finance principles, contributing to the economic upliftment of its member countries.
ISEDAK	Supports projects that foster innovation in agricultural methods, enhance research and development, and encourage educational exchanges in the field of agriculture.
IRASME	Contributes to improving animal health and agricultural research, fundamental to the prosperity of the agricultural sector.
EU - Horizon Europe	Supports projects aimed at meeting international standards, thereby facilitating trade and enhancing the quality of agricultural produce.
European Joint Programme (EJP)	Leverages specialized expertise to support projects that apply innovative technologies to agriculture, enhancing crop yields and improving food security.
EU – PRIMA	Focuses on sustainable development projects that include improving agricultural practices and rural development.

Foundation Name	Information
OIE (World Organisation for Animal Health)	Fosters regional agricultural development through collaborative projects.
EU – ERASMUS +	Aids in developing the agriculture sector in its partner countries.
CGIAR (Consultative Group on International Agricultural Research)	Contributes significantly to developing the agricultural infrastructure and productivity in the Asian region.
STDF (Standards and Trade Development Facility)	Focuses on sustainable fisheries and aquaculture, integral components of the broader agriculture and forestry sectors.
IAEA (International Atomic Energy Agency)	Plays a crucial role in providing financial aid and expertise to projects aimed at improving agriculture in rural areas.
JICA (Japan International Cooperation Agency)	Focuses on projects that tackle critical environmental issues that intersect with agricultural practices, such as land degradation, biodiversity conservation, and climate change resilience.
SDC (Swiss Agency for Development and Cooperation)	Offers extensive support in numerous countries, aiming to enhance agricultural productivity and ensure sustainable forest management as part of broader initiatives to combat poverty and promote equitable growth.
GIZ (German Corporation for International Cooperation GmbH)	Provides financial resources and knowledge and policy advice to help countries implement projects that can transform their agricultural sectors.
TIKA	Collaborates closely with nations to integrate environmental considerations into agricultural and forestry practices, thereby promoting sustainability.
ICCAT (International Commission for the Conservation of Atlantic Tunas)	Aids in developing the agriculture sector in its partner countries.
CACFISH (Central Asian and Caucasus Regional Fisheries and Aquaculture Commission)	Fosters regional agricultural development through collaborative projects.

Foundation Name	Information
BSEC (Black Sea Economic Cooperation)	Leads international efforts to combat hunger and enhance food security through a variety of projects, ranging from improving agricultural outputs to implementing sustainable farming techniques.
AIIB (Asian Infrastructure Investment Bank)	Finances agriculture-related projects that align with Islamic finance principles, contributing to the economic upliftment of its member countries.
ASEAN (Association of Southeast Asian Nations)	Supports projects that foster innovation in agricultural methods, enhance research and development, and encourage educational exchanges in the field of agriculture.
APO (Asian Productivity Organization)	Contributes to improving animal health and agricultural research, fundamental to the prosperity of the agricultural sector.
NATO	Supports projects aimed at meeting international standards, thereby facilitating trade and enhancing the quality of agricultural produce.
GFCM (General Fisheries Commission for the Mediterranean)	Leverages specialized expertise to support projects that apply innovative technologies to agriculture, enhancing crop yields and improving food security.
EUROFISH	Focuses on sustainable development projects that include improving agricultural practices and rural development.
EU IPA and IPARD Programs	Contributes significantly to developing the agricultural infrastructure and productivity in the Asian region.

List of National Donors in the Agricultural Sector

Organizations that deliver extensive funding support directly to agricultural projects typically fall under the purview of governmental administrative bodies, with the Ministry of Agriculture and Forestry and its affiliated entities being among the most significant contributors in this realm. These governmental institutions play a critical role not only by allocating their own resources to bolster agriculture but also by overseeing and facilitating the distribution of funds from international bodies such as the European Union, the World Bank, and the Food and Agriculture Organization of the United Nations.

For those seeking a comprehensive understanding of the stakeholders involved in agricultural support, Section A of this report, Stakeholder Mapping and Partner Identification, offers an exhaustive list and details on these entities. This section encompasses a broad spectrum of organizations, including national governmental bodies as well as non-governmental organizations such as foundations and associations that engage in agricultural activities and provide specific types of agricultural support. This resource is invaluable for identifying potential partners and understanding the landscape of agricultural funding and support.

In Türkiye, alongside governmental bodies, a variety of foundations and organizations contribute to the agricultural sector, extending support to socially and economically disadvantaged communities, including those within agriculture. These entities, while not primarily focused on agriculture, recognize the sector's significance in promoting socio-economic development and sustainability. Their contributions can vary from financial assistance, capacity building, educational programs, to technical support aimed at enhancing agricultural productivity, sustainability, and community resilience. Below is an overview of some leading organizations that play a pivotal role in this domain:

A4. Donors of Agricultural Sector in Türkiye

Table 4: National Organizations in Türkiye that are supporting agricultural activities (For more details please see Appendix B: Donors and Projects)

Organization Name	Brief Description
Türkiye Vakıflar Bankası (VakıfBank)	Though primarily a banking institution, VakıfBank has initiatives that support agricultural development through loans and financial products tailored for small and medium-sized enterprises (SMEs) in the agriculture sector.
Türkiye Kalkınma ve Yatırım Bankası	Though primarily a banking institution, VakıfBank has initiatives that support agricultural development through loans and financial products tailored for small and medium-sized enterprises (SMEs) in the agriculture sector.
TEMA Vakfı	Focuses on environmental sustainability and conservation, with projects that often intersect with sustainable agriculture practices, combating soil erosion, and promoting reforestation.
Türkiye Çevre Koruma Vakfı	Engages in activities that, while broadly environmental, include support for sustainable agricultural practices that protect biodiversity and ecosystems.
Anadolu Vakfı	Supports educational and developmental initiatives, including those that empower communities through agricultural education and innovation.
Sabancı Vakfı	Known for its broader social development programs, it occasionally supports projects that have a direct or indirect impact on agricultural communities, aiming to uplift socially and economically disadvantaged groups.
DEKALB Tarım	While primarily a seed company, DEKALB Tarım engages in various agricultural development programs that focus on improving crop yields and promoting advanced farming techniques among farmers.
Ziraat Bankası	As one of the largest and oldest banks in Türkiye, Ziraat Bankası has a significant role in providing financial services and support to the agricultural sector, including loans, insurance, and banking services tailored for farmers and agricultural businesses.
SÜTAŞ	Known for its dairy products, SÜTAŞ also invests in agricultural development, particularly in dairy farming. It provides support through training programs for farmers, animal health services, and research on dairy production.

Organization Name	Brief Description
Borusan Kocabıyık Vakfı	Engages in various social responsibility projects, including those that support rural development and agriculture, aiming to improve living standards and economic conditions in rural areas.
Doğuş Grubu	Through its corporate social responsibility initiatives, it supports sustainable development projects, including those in agriculture, focusing on environmental protection, and community development.
Limak Vakfı	Focuses on education, culture, and social development, with some programs aimed at enhancing vocational skills and employment opportunities in rural areas, including agriculture.
TGDF	Focuses on improving market access for farmers, providing training on agricultural marketing, and promoting sustainable agricultural practices.
Eğitim, Geriatri, Ekolojik Tarım, Turizm (EGET)	Advocates for organic farming, supports research, and provides education and certification support to organic farmers, aiming to increase organic agriculture's footprint in Türkiye.
Çiftçiler Derneği	Aims to protect the rights of farmers, offering them educational programs on new agricultural techniques, legal advice, and lobbying for farmer-friendly policies.
Yeşilay	Primarily known for its efforts in combating addictions, Yeşilay also engages in social responsibility projects that include promoting healthy living through sustainable agriculture and supporting rural development projects.
WWF Türkiye	While part of a global network focused on environmental conservation, WWF Türkiye's projects often intersect with agriculture, such as promoting sustainable farming practices and protecting natural habitats crucial for agriculture.
Mikado Sustainable Development Consulting	A social enterprise that provides consulting services to organizations, including those in the agricultural sector, on sustainability, social impact, and corporate social responsibility projects.
Kadın Emeğini Değerlendirme Vakfı	Focuses on empowering women, including those in rural and agricultural communities, through initiatives that enhance their economic status and promote gender equality in agriculture.
TEB Cetelem	Offers financial products and services, including credit facilities tailored for agricultural businesses and farmers, aiming to increase access to finance for agricultural development.
TÜRKONFED	A confederation of business people and entrepreneurs that includes support for small and medium-sized enterprises in the agricultural sector through advocacy, research, and development projects.

A5. Projects in the Agricultural Sector in Türkiye

Outline

This chapter provides detailed information on the selected projects in the field of agriculture. Given the high number of donors and projects, we chose two leading institutions: the European Union - Instrument for Pre-Accession Assistance for Rural Development (EU IPARD) and the World Bank (WB). After constituting the data sets for the projects funded by each institution, we organized the data according to the variables provided by the classification system of each institution, such as primary objectives, key areas of investment, thematic priorities, and distinct priority scores. This chapter provides an overview of the result of our analysis of the projects. More details on these projects can be found in the Appendix B.

a. List of internationally and nationally funded projects in the field of agriculture in Türkiye (especially regarding topics such as financial inclusion, capacity building, entrepreneurship, women and refugees)

i. The projects can be divided into three categories based on their timeline: active, recently finished or will begin in the future.

Although there are a limited yet manageable number of both national and international, governmental and non-governmental entities providing support and funding within the agricultural sector, it is conceivable that a dataset of unwieldy dimensions could emerge, potentially exceeding the operational capacity of their respective projects. To mitigate this risk, we have strategically confined the scope of our data collection by specific selection criteria indicated in the title of this chapter. Our primary focus has been the projects initiated in 2020 and onwards, although we have also considered certain pivotal projects predating 2020, incorporating them into our dataset after thorough evaluation. Additionally, our classification methodology was influenced by the funding institutions, leading to a concentrated analysis of detailed project datasets funded by the European Union - Instrument for Pre-Accession Assistance for Rural Development (EU IPARD) and the World Bank (WB).

A5. Projects in the Agricultural Sector in Türkiye

The rationale behind prioritizing projects from these entities stems from their extensive collaborative efforts with various Turkish government agencies and ministries, alongside their broad engagement with civil society and the private sector within Türkiye. Furthermore, these organizations are significant contributors to a plethora of other entities that support various agricultural initiatives.

This chapter endeavors to compile and critically assess data pertaining to projects specifically associated with the EU IPARD II and WB. Below, you will find the analysis we conducted on the datasets of the projects funded by these two institutions. Please refer to the Appendix B that consists of a spreadsheet entitled "Donors&Projects" in order to examine the detailed lists of the projects funded by each of these institutions, and organized under different tabs of the document.

Field Note: The Other Side of the "Projects"

In the course of our fieldwork, it has become evident that the funding agencies of the agricultural development projects often collaborate with both national and international institutions to achieve their goals. This collaborative approach necessitates a robust institutional framework within the agriculture and food sectors to facilitate the success of these multi-partner initiatives. Unfortunately, this requirement tends to marginalize small-scale farmers who operate within informal agricultural sectors. They find themselves unable to access the benefits offered by these projects, which are more readily available to well-established cooperatives and large-scale, industrial agricultural entities. These larger entities often have the advantage of established relationships with local government officials, further enhancing their ability to participate in and benefit from these projects. The only option for smaller entities or communities of small farmers to be involved in the projects is to collaborate with development experts who can become the intermediary between the agricultural world of farmers and the professional world of development projects.

Through interviews conducted in the field, it has become apparent that there exists a significant gap in knowledge regarding the operations and effectiveness of these agricultural projects among the people most directly affected by them.

Many interviewees express skepticism about the actual impact of these projects, noting that a substantial number fail to achieve their stated objectives. This failure can be attributed to several factors, including mismatches between the project scope and its objectives, inadequacies in budgeting, challenges in the duration and methods of implementation, and overall project management issues.

The ambitious promises made at the outset of these projects often do not align with their actual outcomes, leading to a perception that the primary goal of these initiatives is to attract funding through overstated potential benefits. This discrepancy between promises and actions, between the scope of a project and its tangible objectives, has become a persistent issue within the sector. It is perpetuated by the practice of producing standardized project reports that claim the achievement of all objectives, regardless of the project's real-world effectiveness. This practice results in a misleading representation of project success and contributes to an ongoing cycle of inefficiency, where the actual needs and potential improvements in the agricultural sector are overshadowed by the formalities of project reporting and the pursuit of funding over tangible outcomes.

EU IPARD II

The Instrument for Pre-Accession Assistance for Rural Development (IPARD) is an initiative led by the EU Commission and aims at preparing candidates and potential candidate countries for EU membership. This fund is distributed by the national institution in Turkey, Agriculture and Rural Development Support Institution (Tarımsal ve Kırsal Kalkınmayı Destekleme Kurumu, TKDK) that was established in 2007 under the Ministry of Agriculture and Forestry.

IPARD II covered the period from 2014 to 2020. Initiated in 2014, the program has designated the post-2020 period as the most significant phase for project implementation, with continuations planned through 2024. Accordingly, IPARD III programme is planned to start in 2024. IPARD initiative is particularly impactful as it focuses on a multitude of small-scale projects, specifically aimed at enhancing the capabilities of small and medium-sized agricultural enterprises. It involves a comprehensive collaboration with multiple stakeholders, including:

- Ministry of Agriculture and Rural Affairs
- Local authorities
- Social, economic, and environmental partners
- Centers of knowledge
- Non-governmental organizations (NGOs)
- Universities

With a budget of **1,045,665,700 EUR**, IPARD II's primary objectives are to:

- Facilitate the sustainable modernization of the Agriculture and Food Sector
- Encourage the adoption of EU legislation on food safety, veterinary, phytosanitary, and other standards
- Promote the sustainable development of rural areas

A5. Projects in the Agricultural Sector in Türkiye

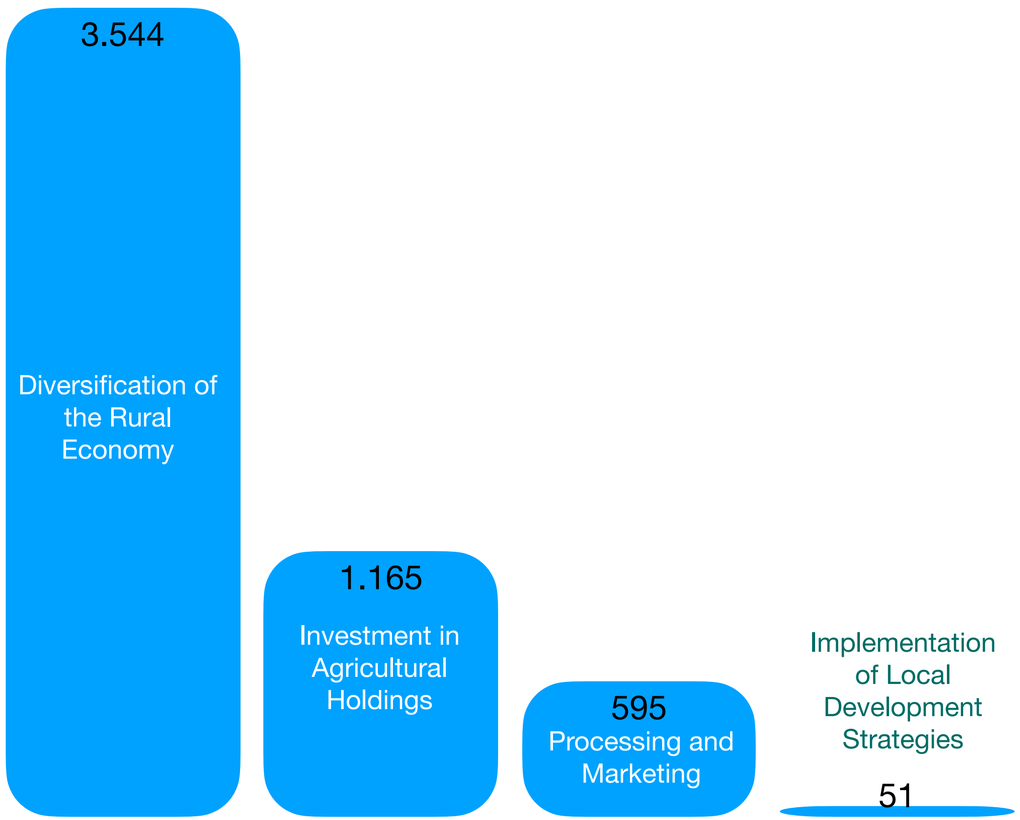
IPARD II places a special emphasis on inclusivity and support for the underrepresented groups in the agricultural sector:

- Women investors are prioritized in the project ranking process.
- Young investors under the IPARD II Program are eligible for higher grant rates.
- Support is extended to 42 provinces within the targeted regions.

The program focuses on several key areas of investment:

- Investment in Agricultural Holdings (Measure Code: 101)
- Processing and Marketing (Measure Code: 103)
- Implementation of Local Development Strategies (Measure Code: 202)
- Diversification of the rural economy (Measure Code: 302)

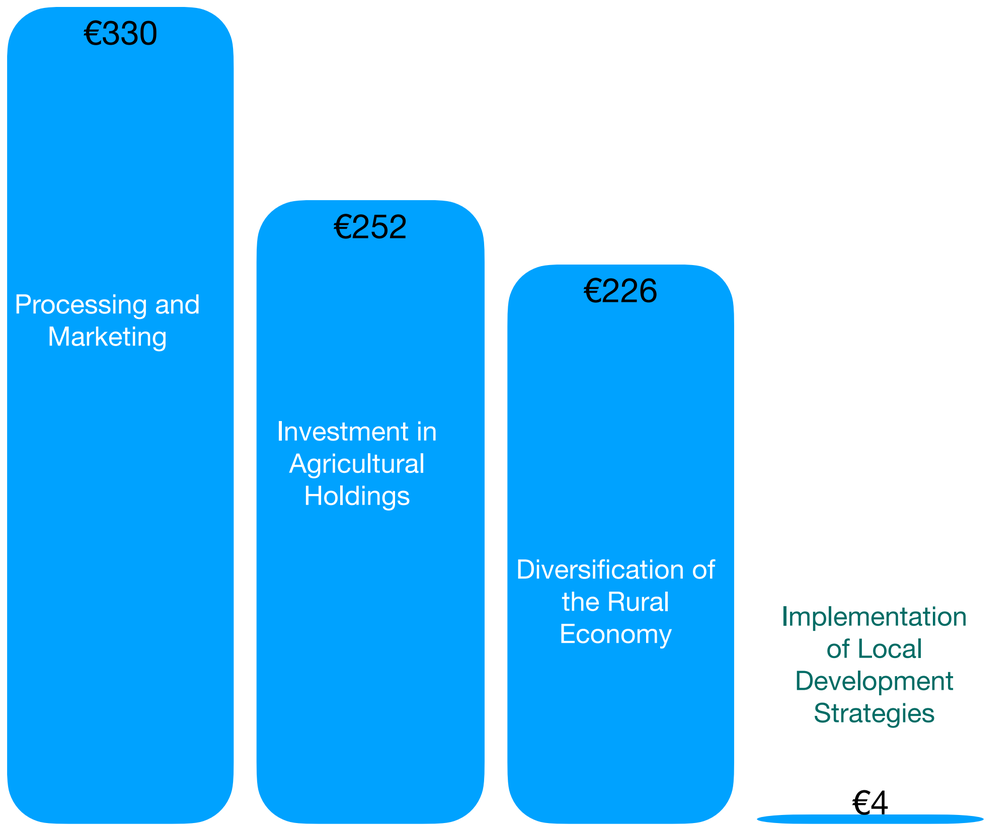
FIGURE 9: NUMBER OF PROJECTS BY KEY AREAS OF INVESTMENT



Diversification (302) is the focus of the majority of projects, underscoring a strategic thrust on diversification within Türkiye's IPARD II framework. Diversification in an agricultural context typically entails branching into new crops, integrating livestock production, or creating value-added products. The prominence of this measure suggests that Türkiye is placing a substantial emphasis on broadening the agricultural sector's scope. This approach aims to bolster resilience against market and/or climate volatility, reduce dependency on a narrow range of agricultural outputs, and potentially augment income avenues for farmers.

Investment in Agricultural Holdings (101) is the second highest category. It indicates a strong focus on fortifying the foundational aspects of agricultural holdings. This likely involves capital infusion into infrastructure, technological upgrades, and enhancing overall farm capacities. Such investments are pivotal for elevating productivity levels and ensuring the long-term sustainability of agricultural enterprises.

FIGURE 10: TOTAL BUDGET IN EACH KEY AREAS OF INVESTMENT / MILLIONS EUR

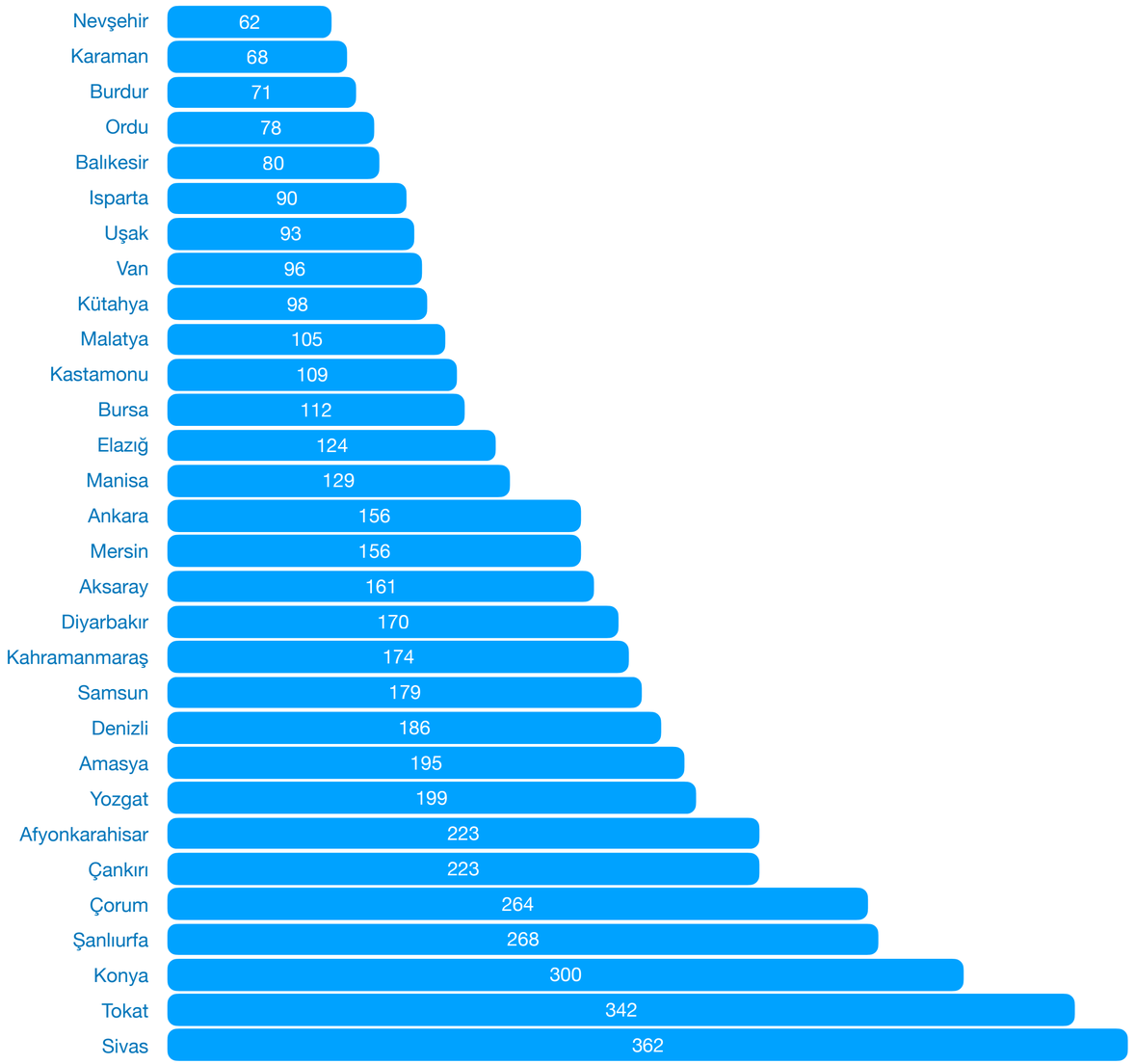


Processing and Marketing (103) is the third highest category and it represents a considerable segment of the focus areas. Improving processing techniques and marketing strategies is essential for adding value to primary agricultural products and boosting their competitiveness in the marketplace. The data indicates that while significant, this area receives a somewhat lower priority compared to diversification and direct investments in agricultural holdings.

Implementation of Local Development Strategies (202) is a focus with the lowest number of projects. It reflects a more niche or specialized concentration within the scope of IPARD II. This could signify targeted support for rural development projects that are customized to address distinct needs and that capitalize on opportunities within specific localities or communities across Türkiye.

In summary, the chart suggests that Türkiye's IPARD II program is primarily geared towards diversifying the agricultural sector and bolstering the capacity of agricultural holdings, with a lesser but still significant focus on improving processing and marketing capabilities and a selective approach to implementing local development strategies.

FIGURE 11: NUMBER OF PROJECTS BY PROVINCES



A5. Projects in the Agricultural Sector in Türkiye

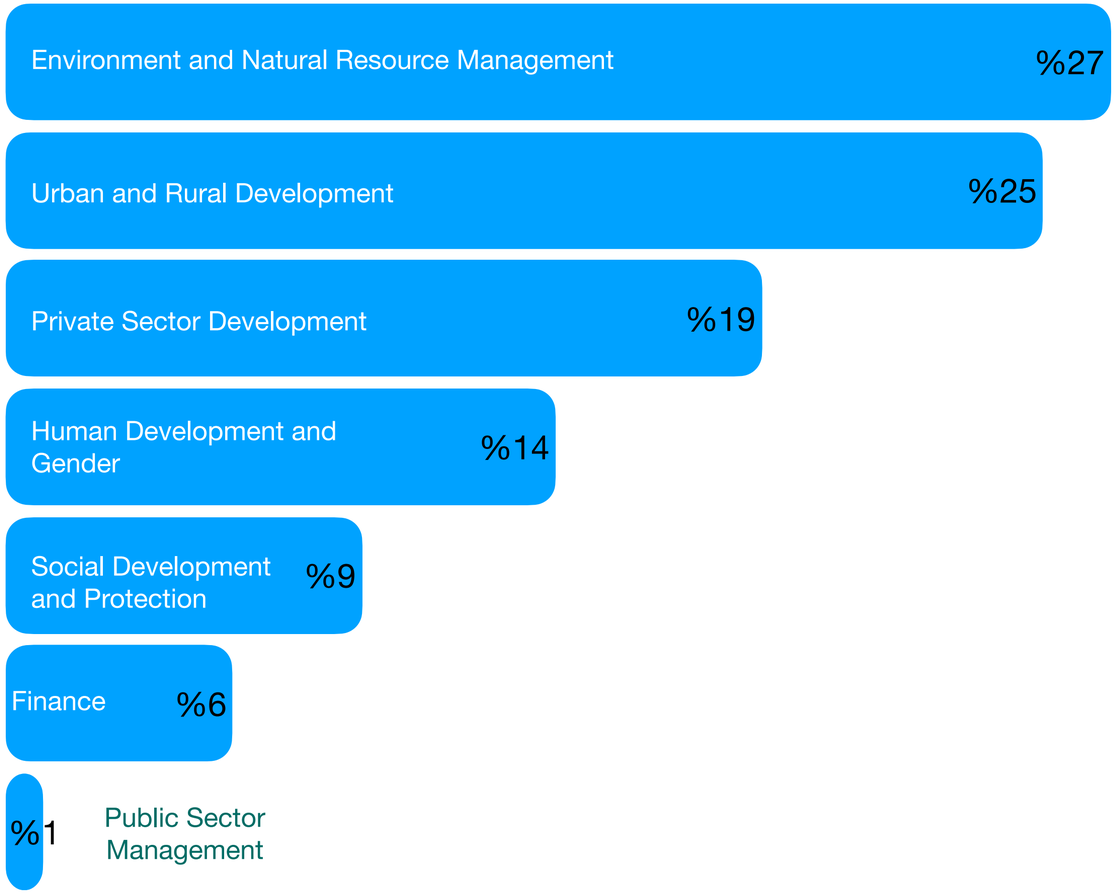
We focused on the particular projects funded by World Bank in the agricultural sector in Türkiye. We paid close attention to the thematic priorities and distinct priority scores for resource allocation and strategic planning. The organization of data into themes, total priority scores, and proportional rates offers an analytical framework to understand the priorities that have been supported by the WB projects.

The World Bank agricultural development strategy adopts a holistic approach, prioritizing sustainable growth and equity. It emphasizes Environment and Natural Resource Management, advocating for sustainable farming and climate resilience to protect future food production.

Private Sector Development is key to boosting agricultural productivity and competitiveness through innovation and private investment. Human Development and Gender prioritize empowering the agricultural workforce, emphasizing education, health, and access to resources for all, including women and disadvantaged groups.

The Finance component, though smaller, is vital in providing farmers and agricultural enterprises with access to necessary financial services, enhancing their ability to invest in sustainable and innovative practices.

FIGURE 12: SHARE OF WB PROJECTS IN EACH THEMES

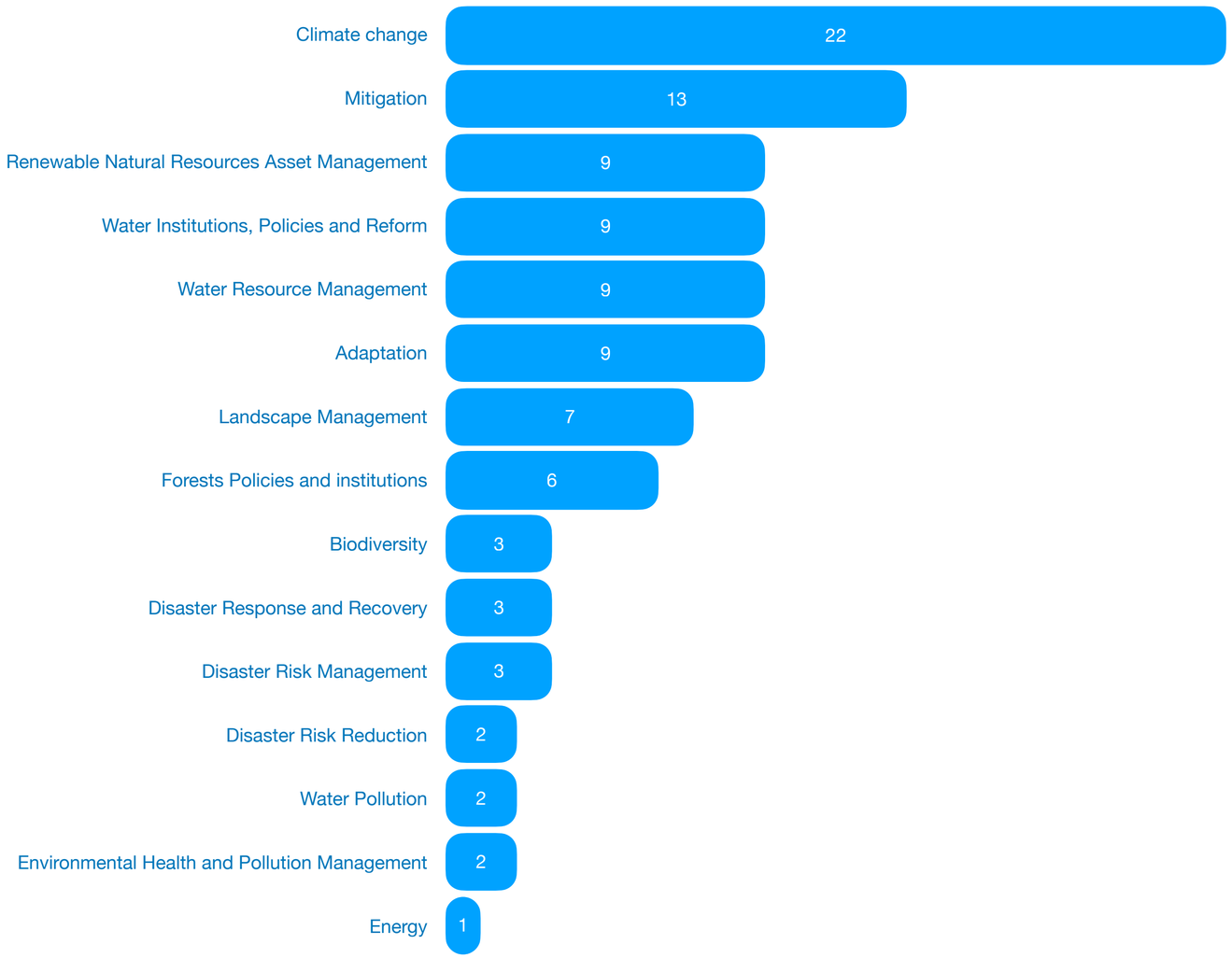


World Bank

The allocation of scores and rates provides a quantified look at how project priorities are distributed, revealing a strategic emphasis on environmental management and balanced urban-rural development. This analytical frame highlights the World Bank and Turkish stakeholders' holistic development approach, integrating environmental sustainability, economic growth, and social equity into their strategic objectives.

Environmental and Natural Resource Management priorities are scored as priorities of the projects funded by the World Bank. At the apex of this priority pyramid stands the formidable challenge of climate change, commanding the list with the highest urgency score. Closely following is the issue of mitigation, which is pivotal as it encompasses efforts to curtail the emissions that fuel climate change. Renewable natural resources management and water-related concerns underscore the necessity for institutional reform and policy development to facilitate such management, pointing towards a strategy that goes beyond mere conservation to include the restructuring of governance mechanisms.

FIGURE 13: PROJECT PRIORITY SCORES IN ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT THEME



Adaptation and landscape management also receive notable attention in these projects, signaling a shift towards resilience-building and the fertility of the land. These priorities suggest an acknowledgment that adapting to the inevitable changes brought on by a warming climate is necessary for long-term sustainability.

The modest yet significant scoring accorded to forests and biodiversity speaks to an appreciation of the critical roles they play in environmental equilibrium. Although not at the top of the priority list, these scores hint at an integrated view of environmental management where every aspect has a role in the tapestry of ecological well-being.

Disaster management's consistent scores across response, risk management, and reduction reveal a balanced commitment to addressing emergencies. It suggests an understanding that managing the aftermath is as important as taking proactive measures to mitigate risks but the priority as clearly seen was not given to the high concern of the project which is likely to change after the Hatay and Kahramanmaraş earthquakes in 2023.

In essence, the Project Priority Score is a revealing index of an organization's strategic focus areas, displaying a nuanced understanding that while climate change takes center stage, a multifaceted and systemic approach is paramount to sustainable environmental and natural resource management.

Section B

Training Needs Analysis for Farmers

B1. Farmers in Türkiye

Key Findings

- **Inconsistent Data on Farmers:** Various sources report conflicting numbers of farmers, with notable discrepancies among national statistics, the Farmer Registration System (ÇKS), and Chambers of Agriculture.
- **Population and Labor Statistics:** Only 6.6% of Türkiye's population resides in officially designated rural areas; agriculture employs 14.8% of the total workforce.
- **GDP Contribution and Labor:** As of 2022, agriculture contributed USD 58.6 billion to the GDP, accounting for 6.5% of the total GDP. Agriculture employs 14.8% of the total workforce.
- **Employment Dynamics:** The total number of people employed in agriculture was 4 million 673 thousand as of the 3rd quarter of 2023, with a labor force participation rate of 70.8% for men and 35.7% for women.
- **Decline in Insured Agricultural Workers:** The number of insured agricultural workers has steadily declined, indicating a rise in informal employment within the sector. The number of insured persons in the agricultural sector has decreased significantly from 1 million 360 in 2008 to 491 thousand by the end of 2023.
- **Subsistence Farming Prevalence:** Many farmers engage in subsistence farming and require additional income sources for sustainability.
- **Land Registration and Fragmentation:** Significant gaps exist between land registered in the ÇKS and actual cultivated land; land ownership remains fragmented.
- **Dependency on Intermediaries for Labor:** Agricultural labor heavily relies on intermediaries, increasing costs and vulnerabilities for workers.
- **Regional Variability:** There is significant regional variation in land size and agricultural employment across Türkiye.
- **Cooperative Membership Challenges for Refugees:** Legal restrictions prevent refugees from holding board positions in cooperatives.
- **Aging Farmer Population:** The average age of farmers is rising, suggesting a generational shift away from agriculture. The average age of male farmers is 57.7 years, the average age of female farmers is 60.1 years, and the average age of all registered farmers is 58.1 years.

- Gender Disparity in Agriculture: Women are more likely to be unpaid family workers, while men are more often self-employed or salaried. Out of the farmers registered in the ÇKS system, 278,691 are young farmers and 289,233 are women.
- Urban Versus Rural Employment: Urbanization influences labor dynamics, reducing the rural workforce available for agriculture.
- Economic and Social Challenges for Small Farmers: Small farmers face challenges in market access, financial services, and technology adoption.
- **Refugees and Seasonal Work:** The sector relies on refugees for seasonal work, contributing to low wages and discouraging local labor participation.
- **Low Wages and Labor Conditions:** Low wages and challenging conditions make agriculture unattractive for local workers.
- **Technological Adoption:** Slow technological adoption impacts productivity and the sector's appeal to younger workers.
- **Dependence on Agricultural Intermediaries:** Reliance on intermediaries for labor recruitment increases costs and affects workers' economic conditions.
- **Shift Toward Non-Agricultural Income:** Farming households increasingly rely on non-agricultural income due to farming's low profitability.
- **Regional Disparities in Agricultural Employment:** Agricultural employment varies significantly by region, with some areas having higher agricultural activity.
- **Challenges in Formalizing Employment:** The sector struggles with formalizing employment due to the seasonal nature of much work.
- **Cooperative Membership and Refugee Integration:** Legal restrictions limit refugee participation in cooperative governance.
- **Export-Oriented Agricultural Production:** The sector increasingly focuses on export markets, influencing farming practices and crop selection.
- **Environmental Impact on Farming:** Climate change affects productivity, emphasizing the need for sustainable practices.

B1. Farmers in Türkiye

Executive Summary

- This chapter starts with the ways in which the exact number of farmers can be estimated through different data sources in Türkiye. After providing different methodologies and statistics regarding the number of farmers in Türkiye, it continues by providing the available information on their demographics, regional distribution, and size of businesses. Then, it highlights the position of refugees in the agricultural sector - as entrepreneurs and cooperative members. The last part of this section is dedicated to the employment patterns and opportunities in the agricultural sector in Türkiye.

- There are different statistics concerning the exact number of farmers in the country. This chapter provides the number of farmers according to three different sources: the national statistics on agricultural enterprises; the farmer registration system, and by the Chambers of Agriculture.

- The most comprehensive and up-to-date enterprise-based survey in Türkiye was the agricultural census conducted in 2001. In the following years, “Agricultural Enterprise Structure Surveys" were conducted at the sample level, and published by TurkStat in 2006 and 2016. According to the results of the "Agricultural Census", the total number of agricultural holdings decreased by 24.4% from 4.1 million in 1991 to 3.1 million in 2001. Yet there were only 2.1 million producers registered in the Farmer Registration System (ÇKS) in 2001. While this number increased to over 2.5 million by 2003, its fluctuations resulted from the enrollment of the farmers to the system rather than an actual change in numbers.

- Since 2001, there has been a steady decline in cultivated agricultural land, the share of agricultural output and the share of agriculture in employment. In November 2023, the Minister of Agriculture and Forestry, İbrahim Yumaklı stated that there are 2 million 245 thousand 526 farmers registered to the ÇKS. Yet according to the Agricultural Organization Table published by the Ministry of Agriculture and Forestry, as of January 2024, there are 5,225,151 farmer members registered in the Agricultural Chambers Information System. A realistic estimate would suggest that there are approximately 2.5 million agricultural holdings in Türkiye.

B1. Farmers in Türkiye

- According to Agricultural Chambers Union of Türkiye (TZOB) records, 82% of registered farmers are male and 18% are female.The average age of male farmers in Türkiye is 57.7 years, the average age of female farmers is 60.1 years and the average age of total registered farmers is 58.1 years. According to the ÇKS data, the average registered land per enterprise is approximately 7 hectares for Türkiye. The average land sizes in Central Anatolia, Thrace and South East Anatolia are higher than the other regions, while in the Black Sea and Mediterranean coastal provinces, the amount of land per enterprise is much lower.

- The Turkish state shared limited data on refugees in Türkiye, including their presence in the agricultural sector. There is some qualitative research but very limited quantitative data on refugees in agriculture. According to different estimates, between 7.8% and 12% of Syrian refugees work in the agricultural sector. Given the informality and the mobility the seasonal agricultural work implies, it is likely that the studies underestimate the number of Syrians in the agricultural sector. The number of refugees who are self-employed and/or can be considered entrepreneurs in the agricultural sector is assumed to be marginal.

- Out of those employed in agriculture, 2 million 746 thousand are men and 1 million 927 thousand are women. While 630 thousand of those employed in agriculture are wage or salaried workers, only 55 thousand are registered as employers. The remaining 83% are employed in agriculture as partly self- employed or unpaid family workers. While 3 out of every 4 women employed in agriculture are unpaid family workers, this rate is 17.2% for men. While 2 out of every 3 men employed in agriculture are self-employed, this rate is 13.1% for women. Uninsured and unregistered work is also very common in agricultural production. 80.4% of workers are not registered with any social security organization. This rate rises to 90.7% for women.

In Türkiye, agricultural areas have decreased in the long run due to development, industrialization and urbanization dynamics, while agricultural production has grown in real terms thanks to the increase in productivity. The relative importance of the agricultural sector in the composition of gross domestic product (GDP) and the share of agriculture in total employment has declined over the years. By 2022, agricultural GDP amounted to USD 58.6 billion, 6.5% of total GDP.

According to the Address Based Population Registration System, the population of Türkiye is 85 million 279 thousand 553 people in 2022 (TUIK 2022). 6.6% of the total population, i.e. 5 million 666 thousand people, live in towns and villages. Although towns and villages are generally rural in Türkiye, this administrative definition is based on the population of the settlements. In other words, there are also provincial and district centers with a rural character that might have a larger population than towns and villages. Therefore, this statistic does not include the entire "rural" population. As of 2022, TurkStat revised the urban-rural definitions and started to use the "Degree of Urbanization (DEGURBA) method developed by the European Statistical Office. Accordingly, the new urban-rural definition consists of three classes at the neighborhood-village level. According to this classification, population distribution as of the end of 2022 is shown in the table below. According to this classification, the rural population in Türkiye is 14.7 million people, 17.3% of the total population.

TABLE 5: POPULATION AND SURFACE AREA RATIO IN RURAL AND URBAN (TURKSTAT, 2022)

Type of Settlement	Surface Area Ratio	Population Ratio
Dense Urban	%1,6	%67,9
Medium Dense Urban	%4,9	%14,8
Rural	%93,5	%17,3

The population between the ages of 15 and 64 in Türkiye is approximately 58.1 million, i.e. 68.1% of the working-age population. As of October 2023, 34 million 796 thousand people aged 15 and over are in the labor force. The labor force participation rate is 53.1%. This rate is 70.8% for men and 35.7% for women. Among those in the labor force, 31 million 835 thousand people are employed, while 2 million 961 thousand people are unemployed. As of the 3rd quarter of 2023, the unemployment rate was 7% for men and 11.3% for women. The youth unemployment rate is 16.3%.

a. How many farmers and agricultural MSMEs are there in Türkiye?

i. Demographic Information (age, gender, nationality)

The agricultural structure of Türkiye is famous for the persistence of small farmers who form the majority of agricultural producers. However, there are different statistics concerning the exact number of farmers in the country. Below, we discuss three different sources available in terms of the number of farmers they suggest. First, we introduce the national statistics on agricultural enterprises; and then, we discuss the inconsistencies between the figures suggested by the farmer registration system and by the Chambers of Agriculture. In the next section (B1.b), we will also introduce the statistics regarding agricultural employment, which also contribute to the demographic information of the farmers in Türkiye.

National Statistics on Agricultural Enterprises

Article 3 of the Agricultural Law No. 5488 enacted in 2006 defines farmer and agricultural enterprise. According to the Law, farmers are defined as real and legal persons who are engaged in agricultural production continuously or for at least one production period or cultivation period as owners, tenants, sharecroppers or partners.

Using production factors; enterprises that carry out agricultural activities for the production of plant and/or animal and/or aquaculture products or that carry out activities for processing, storage, preservation and marketing in addition to the agricultural activity in question are also defined as agricultural enterprises. What is meant by the concept of agricultural enterprise is mostly the farm structure consisting of land and animals owned by the farmer. In Türkiye, the status of agricultural enterprises is usually analyzed through statistics on the number of land or livestock owned.

It is not possible to access accurate, consistent up-to-date data on the number, size, type and distribution of farmers and agricultural holdings in Türkiye. Different sources provide conflicting figures on the number of farmers and agricultural holdings.

The most comprehensive and up-to-date enterprise-based survey in Türkiye was the agricultural census conducted in 2001. In the following years, "Agricultural Enterprise Structure Survey" was conducted at the sample level with the aim of determining the physical size of agricultural enterprises, classifying agricultural enterprises on the basis of type and economic size, and compiling basic structural statistics on enterprises, and data from these surveys were published by TurkStat in 2006 and 2016.

Hence the last statistical data collection on the structure of agricultural holdings in Türkiye belongs to the results of the 2001 agricultural census conducted by the TurkStat. The 2006 and 2016 Agricultural Enterprise Structure Surveys share the proportions of agricultural holdings by economic size, but do not provide absolute numbers of agricultural holdings.

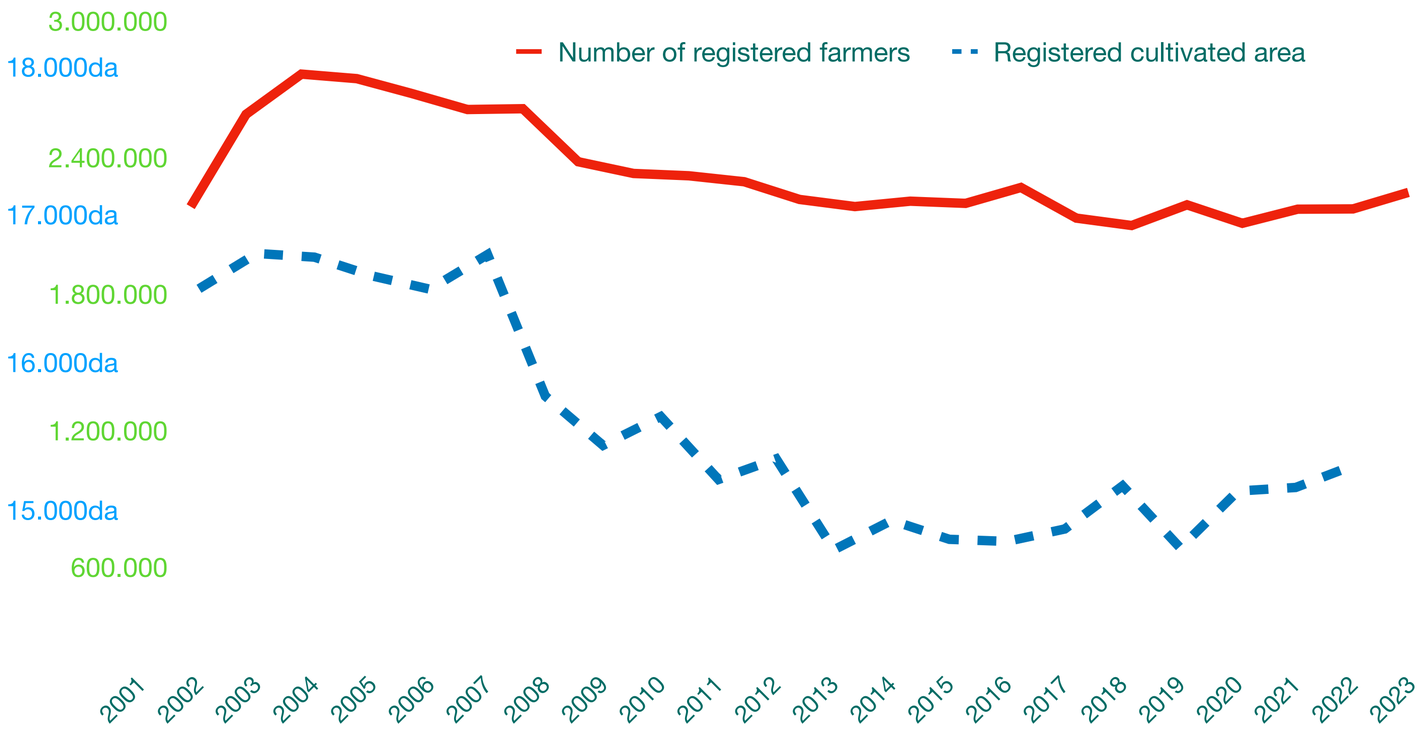
According to the results of the "Agricultural Census", the total number of agricultural holdings decreased by 24.4% from 4.1 million in 1991 to 3.1 million in 2001. Since 2001, there has been a steady decline in cultivated agricultural land, the share of agricultural output and the share of agriculture in employment. On the other hand, the observations of researchers, experts and academics working on agriculture and rural areas in Türkiye indicate that agricultural holdings have been on a downward trend in the last 20 years. Yet, as indicated above, according to TurkStat Labor force statistics, there are 4 million 673 thousand people employed in the agricultural sector as of the 3rd quarter of 2023.

Inconsistency Between the Numbers: Farmer Registration System and Chambers of Agriculture

Another source for the number of farmers and agricultural enterprises is the Farmer Registration System, an agricultural database created by the Ministry of Agriculture and Forestry. The ÇKS was first established and put into practice in 2001 to record the agricultural activities of farmers in order to contribute to the determination of agricultural policies.

In order for farmers to access agricultural subsidies provided by the government, they need to be registered in the ÇKS. Accordingly, the number of farmers registered to the system has increased in the years since the implementation of the ÇKS. In 2003, the number of farmers registered to the ÇKS increased to 2 million 765 thousand. In the following years, the number of registered farmers decreased steadily. In 2023, 2 million 245 agricultural holdings were registered to the ÇKS. According to the average of the last 5 years, the number of registered farmers/agricultural enterprises was 2.178 million

Figure 14: The number of Farmers / Agricultural Holdings and The Size of Cultivated Area, registered to National Registry of Farmers (Source: TOB)



ÇKS records differ from those of TurkStat and the Central Union of the Chambers of Agriculture of Türkiye (CUCA). According to the Agricultural Census of 2001, TurkStat indicated that there were 3 million agricultural holdings, whereas there were only 2.1 million producers registered in the ÇKS in 2001. In November 2023, the Minister of Agriculture and Forestry, İbrahim Yumaklı stated that there are 2 million 245 thousand 526 farmers registered to the ÇKS by 2023. Yet according to the Agricultural Organization Table published by the Ministry of Agriculture and Forestry, as of January 2024, there are 5,225,151 member farmers registered in the Agricultural Chambers Information System, corresponding to the members of a total of 760 Chambers of Agriculture in the country. If one were to accept that the records of the Chamber of Agriculture are accurate, then it is likely that more than half of the farmers are not registered to the ÇKS.

It is estimated that a large proportion of farmers/agricultural holdings engaged in active and commercial agricultural production are registered in the Farmer Registration System (ÇKS) since registration is mandatory to benefit from agricultural subsidies, receive agricultural loans, or have agricultural insurance.

According to these data compiled from different sources and estimates based on current developments, there are approximately

2.5 Million

agricultural holdings in Türkiye.

According to TZOB records, 82% of registered farmers are male and 18% are female. The average age of male farmers in Türkiye is 57.7 years, the average age of female farmers is 60.1 years and the average age of total registered farmers is 58.1 years (TZOB, 2023).

According to the rural development indicators published in the National Rural Development Strategy (NKKS 2021-2023), the number of young farmers (age not specified) among the 2 million 172 thousand farmers registered in the ÇKS system is 278,691 and the number of women farmers is 289,233.

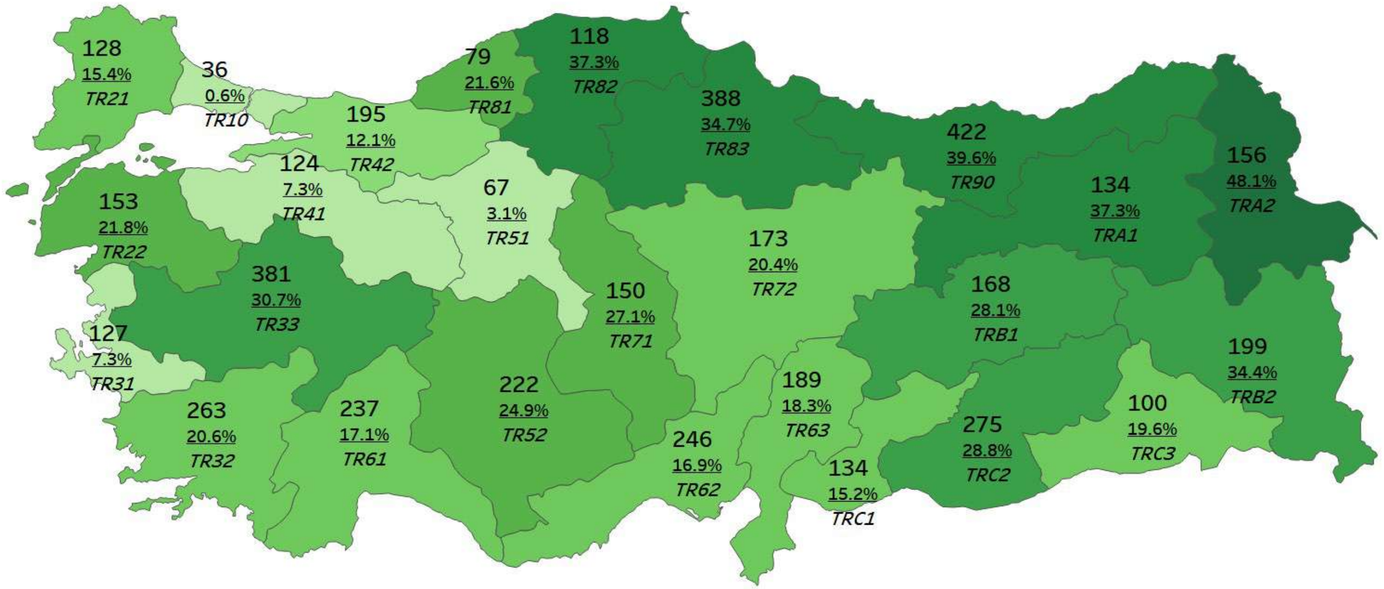
Table 6: Age Distribution of of Farmers (Source: TZOB 2023)

Age	Number of Farmers	Ratio
18-24	51.620	%1
25-32	196.156	%3,8
33-49	1.362.768	%26,4
50-64	1.786.052	%34,6
65	1.755.080	%34

ii. Regional Distribution

Map 2: Employment in Agriculture by NUTS-2 (People in thousands, ratio of employment in agriculture, Nuts; Source: TurkStat)

Map-2 is based on TurkStat's employment data for 2022. The map shows the number of people employed in the agriculture sector (thousand people) by NUT-2 regions in Türkiye. The map also reveals the regional distribution of agricultural employment and holdings in Türkiye. According to the employment data for 2022 published by TurkStat, the Eastern Black Sea Region (TR90), Samsun Subregion (TR83) and Manisa Subregion (TR33) in the Aegean Region are the regions with the highest share of agricultural employment. The map shows the proportional share of agricultural employment in total employment in each region, and the coloring in the map is based on this indicator. The share of agricultural employment is higher in the regions that appear in darker green on the map than in other regions. As shown in the map, the share of agricultural employment in total employment is higher in Eastern Anatolia, Central and Eastern Black Sea and Central Aegean regions than in other regions.



iii. Size of businesses

Agriculture in Türkiye has historically been practiced by family farms producing in small and scattered plots. Although the number of agricultural holdings has decreased over the years with the increase in mechanization in agriculture, industrialization and the spread of green revolution practices, it is difficult to say that the agricultural structure based on small family holdings has been completely resolved. On the other hand, cultural codes and legal regulations that determine land ownership and inheritance practices have caused the dispersed and fragmented land-dependent structure to continue.

Land consolidation policies and inheritance regulations implemented by the state to achieve economies of scale and support productivity have partially prevented land fragmentation and increased the average land size in recent years. Economic, social and ecological factors shaping agricultural transformation in the long run have also made it increasingly difficult for small-scale agricultural enterprises to sustain agricultural production. The share of medium-sized lands in the total number of enterprises has increased due to the tendency of large-scale enterprises to turn to sectors other than agriculture. The share of land owned by this type of enterprises in the total has also increased.

The results of the 1991 and 2001 Agricultural Censuses and the 2006 Agricultural Holding Structure Survey (AHS) are not directly comparable due to the different data collection methods and scope. However, it is the most recent survey that can parallel the agricultural censuses in terms of reflecting enterprise classifications and changes in land sizes.

The Agricultural Holding Structure Survey (2016) did not include data on enterprise classifications by land size. Hence, it is impossible to compare that survey with the 1991 and 2001 agricultural censuses and the 2006 AHS statistics and evaluate the recent development of the average land size of agricultural holdings in Türkiye. Yet, we used the Farmer Registration system records to map the average size of cultivated land in each province.

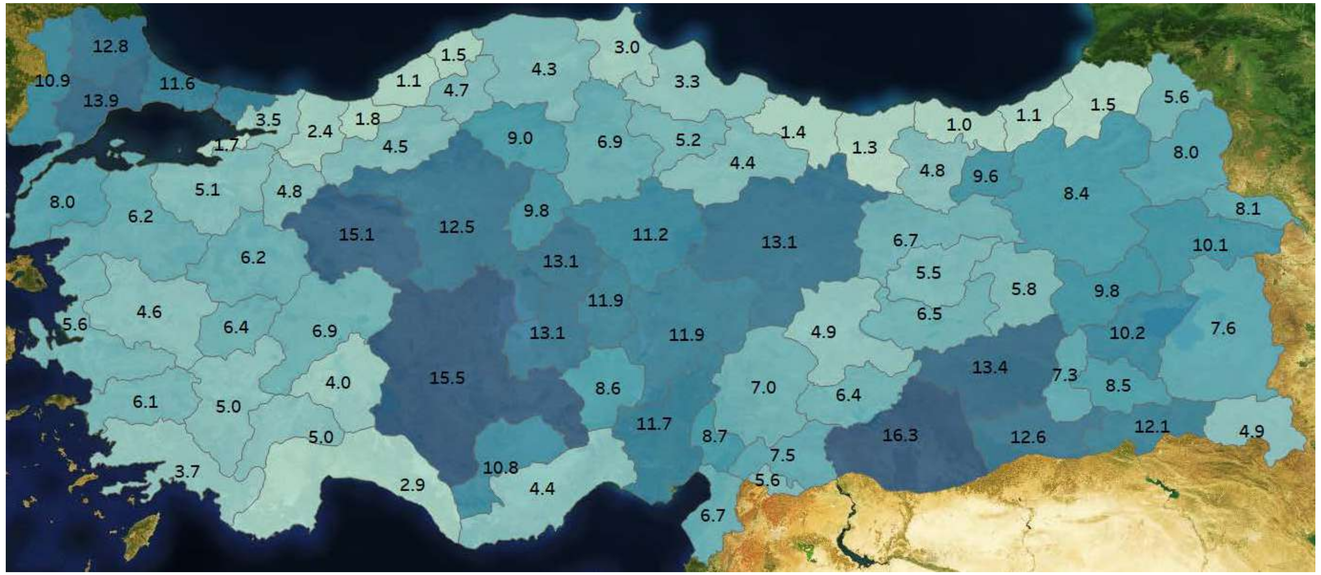
TABLE 7: THE SHARE OF AGRICULTURAL HOLDINGS AND AGRICULTURAL LAND BY SCALE (SOURCE: TURKSTAT)

Typology based on holding size	Share in all agricultural holdings			Share in total agricultural land		
	1991	2001	2006	1991	2001	2006
Up to 20 decares	36,6	34,6	24,9	5,7	5,4	3,2
Between 20-49 decaress	31,3	30,9	32,7	16,5	16,0	12,9
Between 50-99 decares	17,5	18,2	21,4	19,9	20,7	18,1
Between 100-199 decares	9,4	10,6	12,7	21,0	23,8	21,0
Between 200-499 decares	4,3	5,0	6,6	19,8	22,8	23,6
Larger than 500 decares	0,9	0,7	1,7	17,1	11,3	21,2

Map 3 is based on the ÇKS data of the Ministry of Agriculture and Forestry for 2021. The map shows the cultivated land (hectare) per enterprise registered in the farmer registration system by province. According to the ÇKS data, the average registered land per enterprise is approximately 7 hectares for Türkiye. As can be seen in the map, it is observed that the average land sizes in Central Anatolia, Thrace and South East Anatolia are higher than the other regions, while in the Black Sea and Mediterranean coastal provinces, the amount of land per enterprise is much lower.

In 2021, 2,171,748 farmers and 15.1 million hectares of land were registered to the ÇKS. Yet, according to the TurkStat, the cultivated agricultural land in Türkiye is 23.5 million hectares by 2021. It is important to note that approximately 8 million hectares of land are not registered in the ÇKS. According to the ÇKS, the average land owned by a farmer in Türkiye can be calculated as 70 decares. Land Registry Cadastre data in Türkiye suggests that a farmer owns approximately 6 parcels of agricultural land on average, and that each agricultural land parcel has an average of 3.5 title deed shares. When combined, the two datasets imply that the total of 70 decares of land per farmer is usually divided into around 6 parcels, each of which would be around 10-15 decares.

Map 3: Average size of cultivated land per agricultural holdings registered in Farmer Registration System (2021)



iv. Refugees active as agricultural entrepreneurs

The Turkish state shared limited data on refugees in Türkiye, including their presence in the agricultural sector. There is some qualitative research (Development Workshop 2016a, 2016b, FAO 2019, 2023) but very limited quantitative data on refugees in agriculture. According to different estimates, between 7.8% and 12% of Syrian refugees (ILO 2020, INGEV 2019, UNHCR 2022) work in the agricultural sector. Given the informality and the mobility the seasonal agricultural work implies, it is likely that the studies underestimate the number of Syrians in the agricultural sector. Yet there is not any study about Syrian entrepreneurs in the sector. It is assumed that the overwhelming majority of the Syrians in the sector are seasonal agricultural workers, mostly employed informally.

This situation also applies to all refugees who work in the agricultural sector. The number of refugees who are self-employed and/or can be considered entrepreneurs in the agricultural sector is assumed to be marginal. The FAO project "Promoting self-reliant livelihoods through employment and micro-entrepreneurship" financed by the Government of Japan provides significant individual cases of micro-entrepreneurships in the agricultural sector (FAO, 2020).

Similarly, our key informant interviews revealed that Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Deutsche Welthungerhilfe (WHH) funded projects in Yayladağı, Hatay, and enabled many refugees to invest in strawberry and mushroom cultivation.

Please see **B3.3** for an overall evaluation of the refugee entrepreneurs, and the **Field Report** for more details on the conditions of the refugee entrepreneurs in the agricultural sector we visited in Mersin and Adana.

v. Refugees – agricultural entrepreneurs, which are members of Unions or Cooperatives

The Turkish state does not have detailed statistics on the members of the cooperatives. There is not any official, publicly available statistics about the number of refugee cooperative members. According to the Article 56 of the Cooperatives Law No.1163, the board members of the cooperatives can only be Turkish Citizens.

In other words, the main legal obstacle for the refugees in Türkiye to be part of cooperatives is that they cannot be in the Board of Directors of a cooperative. In the course of our fieldwork, we managed to visit one agricultural cooperative that has refugee members, S. S. Meryem Women's Cooperative in Adana. Our key informant interviews revealed that many cooperatives work with refugees in their production process but that the ones with refugee members are rare.

While there are more cooperatives in the food sector, we reached the following agricultural cooperatives during our research: S. S. Şahinbey Women's Cooperative (Gaziantep), S. S. Bİr Dünya Üreten Kadin Girişimi Üretİm Ve İşletme Kooperatifi (Mardin), S. S. Hatay Altınözü Zeytin Emeği Kadın Girişimi Üretim ve İşletme Kooperatifi (Hatay), and S. S. Yayladağı Mantar Üretİm Ve İşletme Kooperatifi (Hatay).

Please see section **A2.iv** for more detailed information on cooperatives with refugee members. Please see Field Report for more details on Meryem Women's Cooperative.

b. Employment opportunities within the sector (which occupations exist within this sector, what are the variety of employment opportunities in this sector – broken down into age/gender/nationality/qualification where possible)

In parallel with the share of the agricultural sector in total GDP in Türkiye has declined over the years, the share of agriculture in employment has also declined steadily. As of the 3rd quarter of 2023, there were 4 million 673 thousand people employed in agriculture. Accordingly, the share of agriculture in total employment has fallen to 14.8%, which is below the world average and the average of high-middle income countries, including Türkiye, but well above the European Union average of 5%.

TABLE 8: EMPLOYED BY STATUS IN EMPLOYMENT, BY GENDER (SOURCE: TURKSTAT)

Employed by status in employment	Female			Male			Total		
	Employed (thousands)	Unregistered (thousands)	Informality (%)	Employed (thousands)	Unregistered (thousands)	Informality (%)	Employed (thousands)	Unregistered (thousands)	Informality (%)
Regular employee and casual employee	215	176	%82,1	415	293	%70,6	630	470	%74,6
Employer	5	3	%71,4	50	27	%53,0	55	30	%54,5
Own account worker	250	225	%89,9	1.805	1.278	%70,8	2.055	1.502	%73,1
Unpaid family worker	1.458	1.343	%92,1	475	412	%86,6	1.933	1.755	%90,8
Total	1.927	1.747	%90,7	2.746	2.010	%73,2	4.673	3.757	%80,4

Out of those employed in agriculture, 2 million 746 thousand are men and 1 million 927 thousand are women. While 630 thousand of those employed in agriculture are wage or salaried workers, only 55 thousand are registered as employers. The remaining 83% are employed in agriculture as partly self-employed or unpaid family workers.

B1. Farmers in Türkiye

FIGURE 15: EMPLOYMENT STATUS, TOTAL, (SOURCE: TURKSTAT)

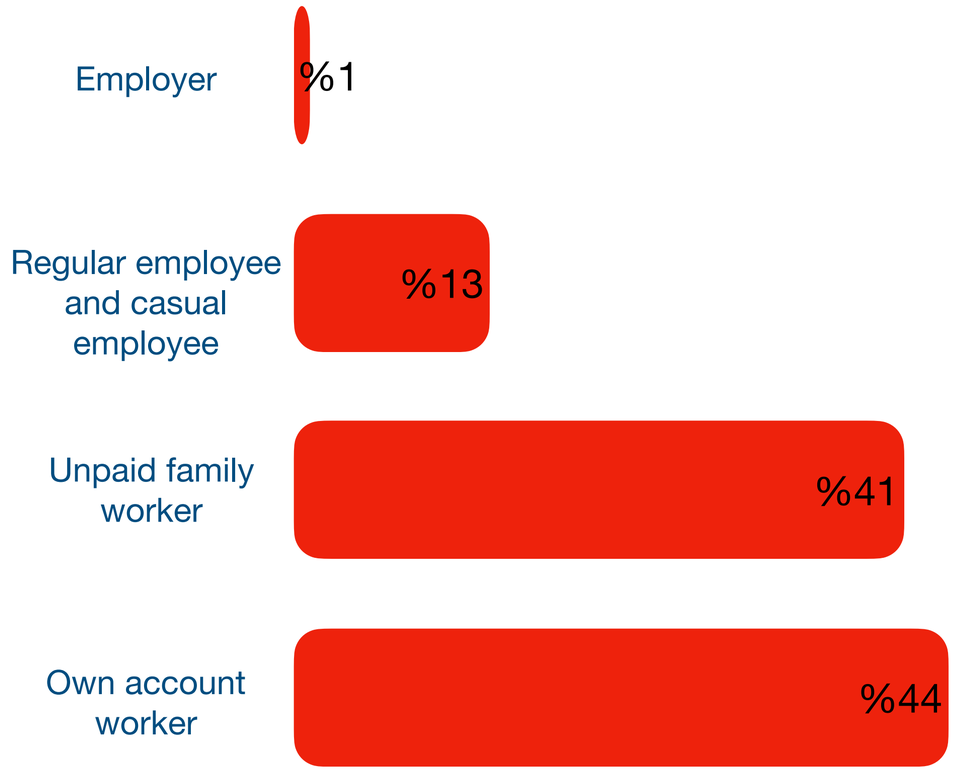
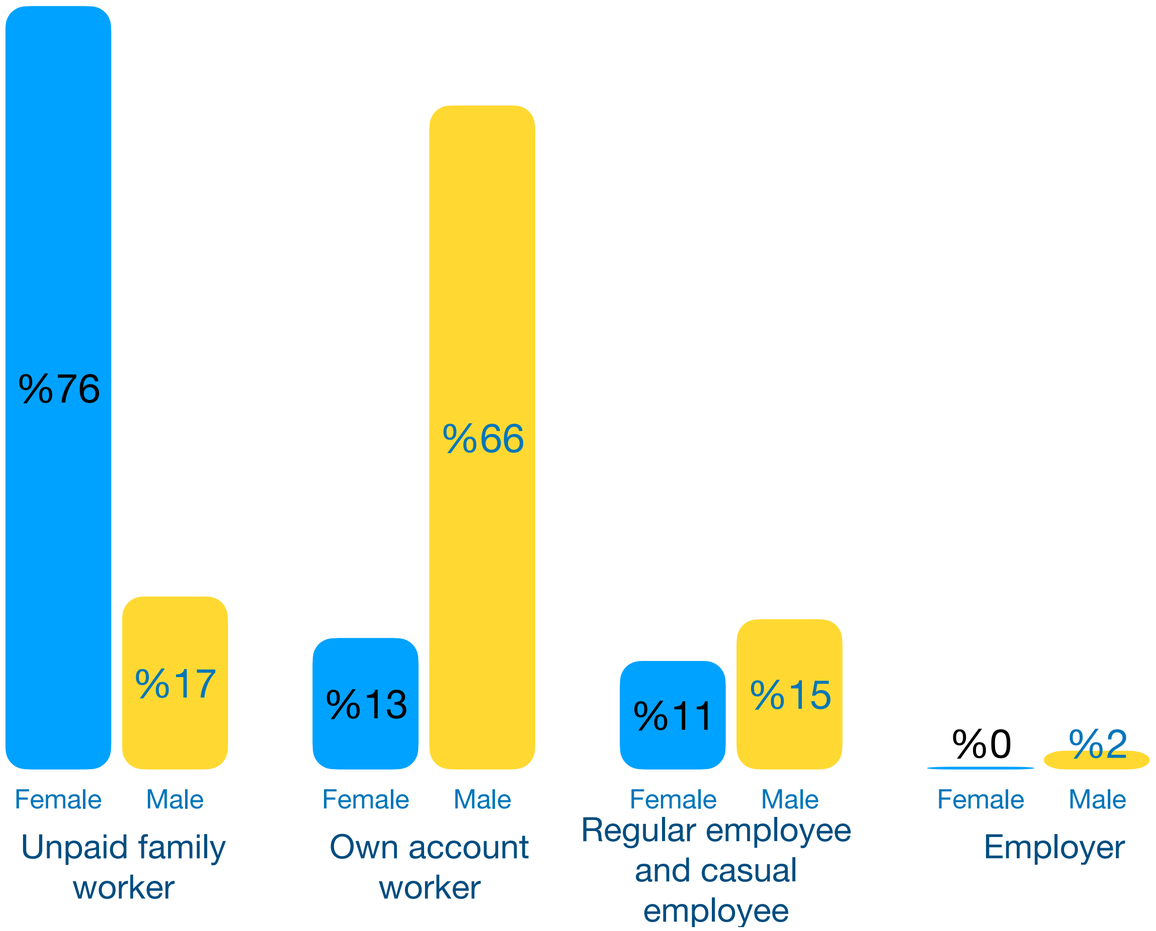


FIGURE 16: EMPLOYMENT STATUS BY GENDER (SOURCE: TURKSTAT)



It is clear that the gendered division of labor is dominant in agriculture. While 3 out of every 4 women employed in agriculture are unpaid family workers, this rate is 17.2% for men. While 2 out of every 3 men employed in agriculture are self-employed, this rate is 13.1% for women. Uninsured and unregistered work is also very common in agricultural production. 80.4% of workers are not registered with any social security organization. This rate rises to 90.7% for women.

According to the data provided by the Social Security Institution, the number of insured persons in the agricultural sector increased from the early 2000s until 2008, reaching 1 million 360. This number has steadily decreased ever since. By the end of 2023, the number of insured persons in the agricultural sector decreased to 491 thousand. This decline of the number of insured employees in the agricultural sector can be considered as a clear indicator of informality in the sector. Yet, this trend can be an indirect consequence of a set of interrelated factors: the decline in the rural population engaged in agriculture, the decline in the number of agricultural enterprises, the increase in the average age of farmers, and the unwillingness of young people to be employed in the agricultural sector.

As most of the agricultural producing operations in Türkiye are seasonal and/or periodic, it is typical for the owners or employees of the agricultural enterprises, and for members of farming families to work in other forms of paid employment, including public services.

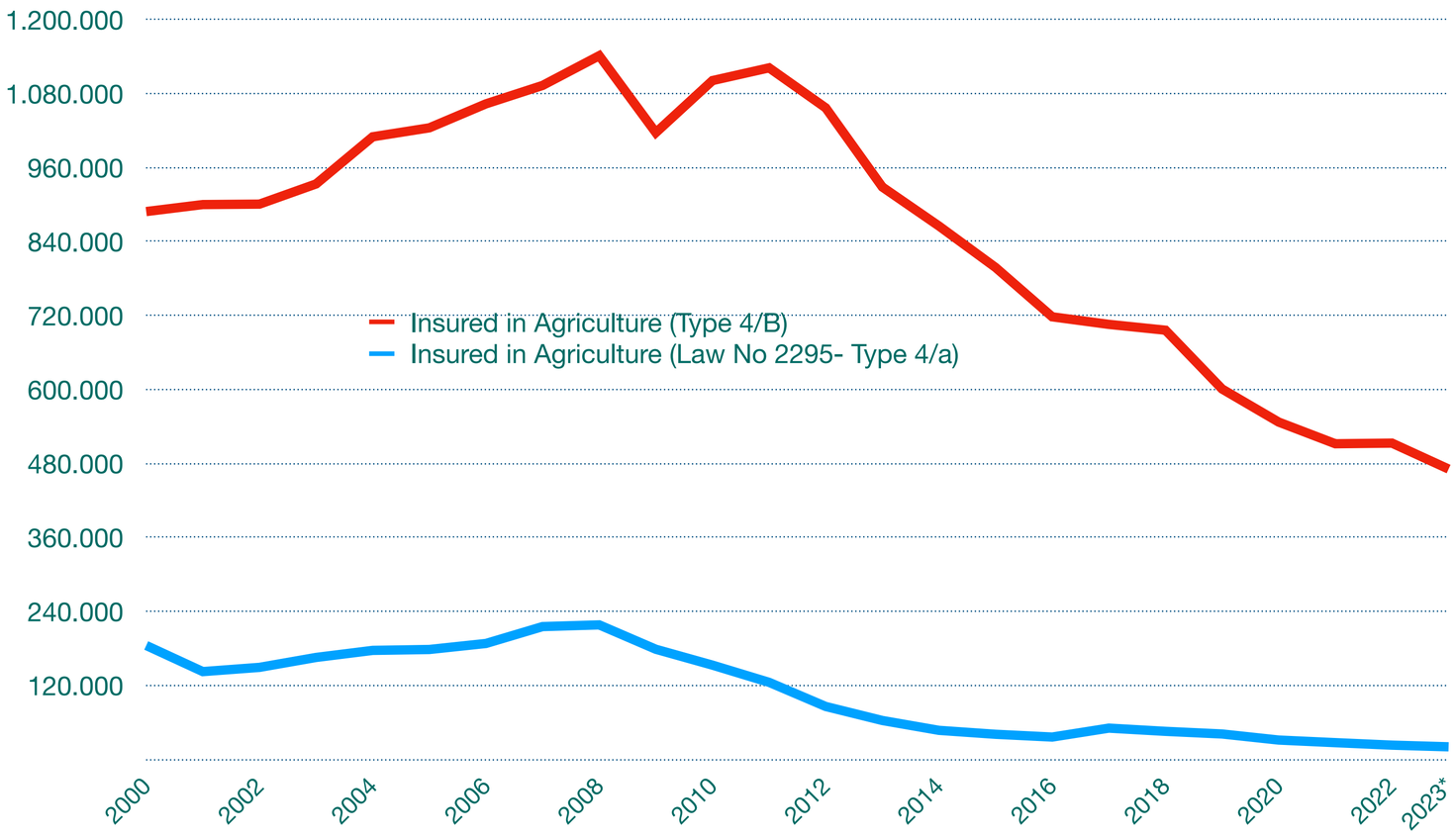
Furthermore, numerous small and medium-sized organizations in rural regions are involved in agricultural production as a supplementary endeavor. According to Agricultural Outlook Field Research (KKB, 2022:37) conducted by Frankfurt School for the KKB among the farmers participating in the survey, 34% of farmer households (including other members of the family) have no income-generating activities other than agriculture, while the remaining 66% of households have additional sources of income alongside agricultural income, such as retirement pensions, regular wages from other jobs, and entrepreneurship/trading.

Based on this result it can be claimed that the income derived from agricultural activities has become insufficient for more and more micro, small, and medium-sized agricultural enterprises over the years. One can conclude that, for most enterprises, agricultural activities can only be sustained with non-agricultural income in Türkiye.

There is no publicly available data regarding the occupations in the agricultural sector. Based on our fieldwork and the key informant interviews we conducted, parallel to the recent trends in the agricultural sector in Türkiye such as export-oriented production, and the rise of supermarket and online retail, we have an impression that the packaging industry has become an important employment opportunity in the sector. Another rising trend is digitalization in the sector, both in the production and marketing processes. Communication expertise and agritech companies are also becoming important new trends of employment in the sector.

There are several factors that prevent disadvantaged groups, including refugees, women and economically vulnerable individuals, from being stably employed in agriculture. The main one is that agricultural capacity is too low to constitute a significant economic sector.

FIGURE 17: NUMBER OF INSURED PEOPLE IN AGRICULTURE SECTOR. (SOURCE: SOCIAL SECURITY INSTITUTION RECORDS)



Most farmers are engaged in a subsistence economy, producing only enough to support themselves. Moreover, the demand for agricultural labor in these regions is irregular and seasonal, leading individuals to rely on brokers (called dayıbaşı or çavuş in Turkish) for labor recruitment rather than directly seeking employment. These brokers in the agricultural labor market serve as intermediaries that connect farmers and workers. However, these intermediaries bring additional challenges as they charge commissions for their services. The cost of intermediary services is borne by workers rather than agricultural producers, further increasing the economic vulnerability of the labor force.

The dynamics of both informal and formal labor markets are significantly influenced by intermediaries. Our key informant interviews and fieldwork with cooperatives revealed that they mostly rely on projects to have formal employees. When a project is over, the cooperatives tend to switch to piecework payments without social security benefits. In the context of external funding for cooperatives, individuals from the targeted disadvantaged group are often recruited as formal employees. Nevertheless, the availability of external funding is not the exclusive determinant of formal employment practices by itsef; the expectations of partner organizations also significantly influence the cooperative's employment decisions. For instance, when a funding entity mandates the formal employment of staff as a condition for financial support, the cooperative obliges.

Please see the **Field Report** for more details on this pattern of employment.

As indicated above, the average age of farmers has been steadily increasing in Türkiye in the last decades. This also implies the unwillingness of the youth and local rural population to work in the agricultural sector. Accordingly, an increasing number of refugees are employed in the sector - mostly informally as seasonal workers and shepherds. This trend is aggravated since the informal employment of refugees kept the wages very low, discouraging the local population from being employed in the sector, which in turn led to a lack of labor force in the sector.

Please see the **Chapter B3** and the field report on the employment of refugees in the agricultural sector.

B2. Capacity Development of Farmers in Türkiye

Key Findings

- Illiteracy among farmers is approximately 8.6%, with university graduates at 5.7% and primary school graduates at 53.2%.
- Rural residents have slightly higher primary and secondary school attendance (94.8% for males and 94.6% for females) compared to urban residents.
- High school attendance is significantly lower in rural areas (71.1% for males and 68.2% for females) compared to urban areas.
- Over 1,261,824 people participated in extension activities organized by the ministry in 2022.
- Extension services also integrate efforts from research institutes, universities, and civil society, though these collaborations are less developed.
- In 2022, 70,078 agricultural extension activities were organized by provincial directorates, with participation from over a million people.
- A significant emphasis is placed on certifying agricultural advisors and extensionists through rigorous training and examinations.
- Practical, field-based training is preferred over theoretical classroom sessions.
- Farmers show a particular interest in trainings that directly enhance the price or quality of their agricultural products.
- Digital tools and applications that provide real-time agricultural advice and market data are becoming increasingly important.
- Financial tools that help manage agricultural expenses and revenues are in demand, particularly those that simplify record-keeping and cost-benefit analysis.
- Technologies focused on improving irrigation, pest management, and crop monitoring are seen as beneficial for increasing productivity and sustainability.
- Farmers express a strong preference for training programs that result in immediate, visible benefits, preferring those that can directly increase productivity or profitability.
- The effectiveness of training programs is also influenced by cultural factors such as the trainer's approach, attire, and interaction style, which can affect farmer engagement and receptivity.
- Applied training in the farmers' own environments, such as field schools, are particularly effective and well-received.
- There is often a gap between the availability of training programs and farmer participation, primarily due to the perception that training does not directly contribute to increased profitability.

- Training programs often struggle to meet registration minimums, indicating a need for more relevant and directly applicable content.
- The centralized nature of some training programs can hinder accessibility for farmers in remote or rural areas.
- Specific training programs aimed at women and young farmers, such as those under the Women Farmers Agricultural Extension Project, have seen thousands of participants receiving specialized training aimed at boosting their economic roles in agriculture.
- Training in financial literacy, especially those that tie directly to practical farming benefits such as cost reduction or yield improvement, are highly valued.
- Farmers often rely on advice from product suppliers or local agricultural offices, which they sometimes find unreliable or biased.
- There is a significant need for independent and reliable sources of agricultural advice, possibly in the form of mobile agricultural advice bureaus, to provide unbiased and region-specific guidance.

Executive Summary

- This Chapter starts with providing the available information on the educational background of farmers in Türkiye. Then, it summarizes the agricultural extension services in Türkiye. Next, it focuses on the publicly available training services, government accreditation, and official institutions that the Ministry of Agriculture and Forestry collaborates with. The last part highlights the data gathered from the key informant interviews on the most demanded training topics and the most effective training methodologies.

- There is not a publicly available database where the statistics concerning the educational background of farmers can be reached in Türkiye. According to the different resources, it is plausible to estimate that a vast number of farmers are primary school graduates, and that more than 70% of the group that makes almost 70% of all farmers have an education level less than high school.

- The Ministry of Agriculture and Forestry (TOB) is located at the center of the agricultural extension services in Türkiye. It is responsible for formulating and managing agricultural policies, as well as coordinating and financing agricultural extension programs.

- Provincial Directorates of Agriculture and Forestry that are located in each province provide guidance to farmers on agricultural practices, manage agricultural projects, and coordinate agricultural extension activities at the local level. There is a particular department in the ministry, called the Department of Training and Publication, which has three different sub-departments. One of these sub-departments, the Department of Extension and Training (Yayım ve Eğitim Daire Başkanlığı) specifically targets the organization of training and extension services.

- Other main actors of the extension system include research institutes, universities, chambers of agriculture, producer and breeder unions, agricultural fairs, and civil society organizations engaged in extension activities. Agricultural research institutes and universities also carry out agricultural extension activities in cooperation with research-farmer-university coordination. In 2007, the TOB started the process of authorizing and certifying freelance agricultural consultants to carry out agricultural advisory activities.

- An important recent international cooperation was realized between TOB and FAO to develop a web-based extension information network system, and to produce a policy document on the national strategy on agricultural extension.

B2. Capacity Development of Farmers in Türkiye

- The Ministry of Agriculture and Forestry is the principal institution that provides the most widespread training services in Türkiye. Each provincial directorate of the Ministry and their local branches organize hundreds of training programs each year. In 2022, 70,078 activities with more than 1 million participants were organized within the scope of extension activities by the ministry's provincial/district directorates, including farmer inspection trips, incentive competitions, exhibitions, conferences, panels, farmer courses, farmer meetings, demonstrations and field days for farmers.

- The Ministry of Agriculture and Forestry has a number of active protocols on education services to be provided through various state agencies. Among these protocols, the one with the Directorate of Lifelong Learning of the Ministry of Education has a critical role not only in the provision of a wide variety of training but also in the provision of certificates by the Ministry of Education. The chapter offers an overview of the wide variety of the training programs from herd management to pruning, from apiculture to elderberry cultivation. It gives more details on the training programs targeting women and cooperatives. WebTarımTV and the Agriculture and Forestry Academy can be cited as the important online training platforms.

- Agricultural education specialists have observed that training programs often fail to engage farmers effectively, resulting in low participation rates. These programs, though potentially beneficial, struggle to attract enough applicants to commence a course, indicating a gap between the availability of educational opportunities and the interest in or perceived relevance of the programs among the farming community. Farmers usually request training in order to obtain the certificates that the market and financial institutions require of them.

- Farmers and agricultural education professionals agree that the most impactful training methods are those involving direct experience or observation. Transitioning from conventional lecture-based approaches to hands-on, demonstrative practices in farming enables active participation and observation by farmers in their own settings, leading to more effective learning outcomes.

- Many cooperative members told us that they would be interested in learning about different crops that they could cultivate. The representative from the Agricultural Credit Cooperatives that we contacted in this research indicated that, in addition to the use of pesticides, herbicides, and fertilizers, the farmers are interested in the training programs that focus on the use of new technologies.

- Farmers are unexpectedly good at learning about financial services, making cost-benefit calculations, and calculating their yearly revenues. However, they are not accustomed to keeping records of their expenses; accounting appears to be the main incompetency. For the success of the training programs, it is crucial to tailor them according to the target group, region and product. It is important to take into account the local dynamics and the priorities of each farmer community.

- The training programs become more effective when the trainers travel to the villages or fields where applied training programs can involve farmers' participation. Various cultural elements such as the expert's clothing, car, manners, and language affect the effectiveness of the training programs in rural areas. Our research suggests that farmers need independent offices that may provide reliable information regarding agricultural activities. This need can be formulated as an "agricultural advice bureau", which can also be mobile in designated regions or basins.

a. What is the overall educational background of farmers in Türkiye?

There is not a publicly available database where the statistics concerning the educational background of farmers can be reached in Türkiye. During the course of this project, we made an application to CİMER but we did not get any answers yet. To provide some insight into this question, we will use various resources including scientific reports, news, and official statistics.

Although there has not been an agriculture census in Türkiye since 2001, social scientists come up with different samples to produce quantitative data on agriculture, farming, and life in rural areas. In the course of the "Socio-Economic and Cultural Transformation of Rural Space: Modernizing and Disappearing Traditional Spaces and Meanings" Project (TÜBİTAK 1001-114K145) a comprehensive fieldwork was realized in 1222 households at 201 villages selected as a representative sample of all villages of the country. The results on the educational background indicated that illiterate individuals constituted 8.6%, university graduates constituted 5.7%, and primary school graduates constituted 53.2% of all the participants. (Kentel, 2017:68)

Another important resource is the 2018 Türkiye Demographic and Health Survey published by Hacettepe University Institute of Population Studies (Hacettepe 2019). This survey does not have an explicit category of farmers but provides national educational statistics according to urban and rural residences. The primary and secondary school attendance ratio is 94.8% for males and 94.6% for females living in rural areas as opposed to 93.5% and 94.4% respectively in urban areas.

The high school attendance ratio is 71.1% for males and 68.2% for females living in rural areas as opposed to 79.6% and 80.1% respectively in urban areas. (Hacettepe, 2019, 30-38).

While primary and secondary school attendance is slightly higher among rural residents than urban residents, the high school attendance ratio is significantly lower among rural residents than urban residents.

It is likely to conclude that a significant number of individuals who continue high school might be moving out of the village, and/or a significant number of the individuals who decide to stay in the village and become mostly likely a farmer, might drop out of the education system.

The survey provides more detailed information on the educational background of women. 6% of urban women have not completed any educational level compared to 11% of rural women. While the percentage of women who have completed secondary school is greater in rural areas than in urban areas (23% versus 19%), the percentage of women who have completed high school or higher is greater in urban areas than in rural areas (46% versus 25%).

Another factor that needs to be taken into account in the educational background of the farmers is the demographic profile of the farmers in Türkiye. As announced recently by the President of the Union of Chambers of Agriculture in Türkiye, the average age of male farmers is 57.7 and they constitute 82% of the total population of farmers in Türkiye. The average age of female farmers who constitute 18% of the total farmer population is 60.1. The overall average is 58.1. More importantly, 34% of all farmers are 65 years old and above, and another 34.6% are between 50 and 64 years old. While farmers who are between 33 and 49 years old constitute 26.4% of all farmers, the share of the ones who are between 18 and 32 years old corresponds to only 4.8%. (Ajansbizim, 2023). According to the national statistics of education, only 27.3% of the population above 50 years old have completed high school or a higher degree. Hence, it can be concluded that more than 70% of the group that makes almost 70% of all farmers have an education level less than high school.

b. What is the role of extension services providers in capacity building and what exactly do they offer?

The agricultural extension system aims to help farmers adopt better agricultural practices and increase agricultural productivity through technology transfer and training activities. The TOB is located at the center of the agricultural extension services in Türkiye. It is responsible for formulating and managing agricultural policies, as well as coordinating and financing agricultural extension programs. Provincial Directorates of Agriculture and Forestry are located in each province and provide guidance to farmers on agricultural practices, manage agricultural projects, and coordinate agricultural extension activities at the local level. There is a particular department in the ministry, called the Department of Training and Publication (Eğitim ve Yayın Daire Başkanlığı), which has three different sub-departments. One of these sub-departments, the Department of Extension and Training (Yayım ve Eğitim Daire Başkanlığı) specifically targets the organization of training and extension services. This department has four relevant working groups: Extension and Training Services (Yayım ve Eğitim Hizmetleri), Agricultural Consultancy Services, Services for Women and Family in the Rural, Remote Training and Expertise Services, Coordination Services

For the detailed organization structure: Extension and Training.

Apart from the TOB, other main actors of the extension system include research institutes, universities, chambers of agriculture, producer and breeder unions, agricultural fairs, and civil society organizations engaged in extension activities. Agricultural research institutes and universities also carry out agricultural extension activities in cooperation with research-farmer-university coordination. Although the latter has been developing in the last two decades, it can still be said to work to a limited extent.

Chambers of agriculture, cooperatives, and producer organizations are expected to address farmers' problems at the local level and organize training and extension activities through agricultural advisors. Extension activities are also carried out in cooperation with other ministries (Family and Social Services, Industry and Trade, National Education, etc.), development agencies, regional development directorates, and local administrations. (see also Abacı, 2023; Demirtas and Kaya, 2018; Boyacı and Yıldız, 2016, 2017).

While agricultural engineers, veterinarians, technicians and technicians working in provincial and district directorates of theTOB work as "agricultural extensionists", those who work independently in Chambers of Agriculture, Producer Unions, Cooperatives or on their own account are called "agricultural advisors". Graduates of relevant faculties and colleges must take an exam in order to acquire a certificate and work as an agricultural advisor.

There are also freelance agricultural consultants who work in private consultancy firms, individual farms, agricultural enterprises, agricultural cooperatives, associations and some government-supported agricultural projects. The legislation on the Regulation of Agricultural Extension and Advisory Services was issued in 2006. In 2007, the TOB started the process of authorizing and certifying service providers to carry out agricultural advisory activities.

The state started to subsidize agricultural advisory services in 2009, with support payments made to farmers until 2012, and since then directly to the organizations providing agricultural advisory services. (TOB, 2020) In 2022, services were provided to 61,458 agricultural enterprises by 608 independent agricultural advisors and 1,018 agricultural advisors of the chambers of agriculture and producer organizations. 52,000 TRY Agricultural Extension and Advisory Support (TYDD) payment was made to each agricultural advisor. Central Technical Committee for Agricultural Extension and Advisory (TOB, 2023:131).

The agricultural extension system in Türkiye has been undergoing a transformation in parallel with the support and guidance of international institutions such as the World Bank (WB), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Program (UNDP), etc.

This transformation started with technology transfer and participatory approaches and then included a series of changes such as farmer field schools (FFS), public-private partnerships in providing extension services, and international financial and know-how support through various projects. Although private extension activities have increased in Türkiye, a public-based extension system still prevails, yet the role of the public sector has changed and a more participatory approach has been adopted in the last two decades.

An important recent international cooperation was realized between TOB and FAO when the project "Strengthening Agricultural Extension and Advisory Services" (TCP/TUR/3602) was realized. The project aimed to institutionalize effective communication between agricultural information providers and farmers, and increase the participation of stakeholders in the decision-making process on extension activities. It targeted to strengthen rural women-centered extension and advisory services by introducing a pilot model that relies on establishing rural women advisory groups in two provinces of the project, namely Şanlıurfa and Eskişehir. While a web-based extension information network system was developed through the project, the first policy document in the country dedicated specifically to this issue, "National Strategy on Agricultural Extension" was prepared (FAO, 2019).

Another recently completed project that was coordinated by the Department of Training and Publication was called FASTool. As a project funded by the EUROPEAN COMMISSION, ERASMUS+ PROGRAM, European Union Education and Youth Programs Center (Turkish National Agency), FASTool aimed to develop a “blended learning programme” that provides the competencies required of a qualified consultant from an EU perspective. 15 training modules for the specialist advisors in the EU Farm Advisory System were developed in the course of this project which is expected to be integrated into the current advisory system of Türkiye.

Another comprehensive agricultural extension project that included both host and refugee actors in the agricultural sector was called "Building Resilience of Syrians under Temporary Protection and Host Communities in Türkiye through Supporting Socioeconomic Integration and Creating Livelihood Opportunities". This project, financed by the European Union and implemented in partnership with FAO, the Ministry of Agriculture and Forestry, and the Ministry of Labour and Social Security (ÇSGB), consisted of several capacity-building activities.

In collaboration with Provincial Directorates of Agriculture and Forestry, FAO conducted vocational training courses in crop production, livestock breeding and food sectors, and provided the Turkish language-certified courses. 2,947 male and female SuTP/IPASH beneficiaries and Turkish trainees (1,455 SuTP/IPASH and 1,846 women) completed 125 vocational group training programmes. FAO also trained 1,500 participants through the farmer field school (FFS) approach with a variety of courses in 24 different topics including citrus production, animal husbandry, baking, pistachio and tomato breeding.

These trainings were important as FFS has been a new agricultural extension tool for Türkiye. Graduates of FFS were encouraged to establish agricultural women's cooperatives or to join existing cooperatives. While a complimentary training on social protection was provided to all beneficiaries by the Ministry of Family and Social Services, the Turkish Employment Agency (ISKUR) assisted beneficiaries and trainees to be registered formally in the labour force market. This initiative not only enabled them to find a job but also provided work permit exemptions to more than 1000 SuTP trainees. If found a job, ISKUR Service Points also paid the trainees' social security premiums (SGK premium) for six months (FAO, 2022:19-20).

c. What are the publicly available training services accredited by the Government? What training do the Ministry and/or official institutions provide related to the agricultural sector?

i. If available, does the government (or relevant agency) have a database of the number of certificates held by farmers registered in the government system?

The Ministry of Agriculture and Forestry is the principal institution that provides the most widespread training services in Türkiye. Each provincial directorate of the Ministry and their local branches organize hundreds of training programs each year. Within the course of this research, we have informally reached two officials from two different provincial directorates who both indicated that they organized more than 300 trainings in their provinces.

These trainings are registered in a central database that collects the information from all the directorates. We contacted the relevant department of the ministry, namely the Department of Training and Publication (Eğitim ve Yayın Daire Başkanlığı - EYDB), but we could not obtain detailed information on the training programs organized in 2023.

In 2022, 70,078 activities were organized within the scope of extension activities by the ministry's provincial/district directorates, including farmer inspection trips, incentive competitions, exhibitions, conferences, panels, farmer courses, farmer meetings, demonstrations and field days for farmers. 1,261,824 people participated in these activities (TOB, 2023:145).

B2. Capacity Development of Farmers in Türkiye

The ministry has a number of active protocols on education services to be provided through various state agencies:

Training Cooperation Protocol with the Central Union of Milk Producers of Türkiye (Türkiye Tarımsal Süt Üreticileri Merkez Birliği)

Cooperation Protocol with Ministry of National Education - Directorate of Lifelong Learning (Milli Eğitim Bakanlığı Hayat Boyu Öğrenme Genel Müdürlüğü)

Agricultural Training and Extension in the region of Southeastern Anatolia Protocol with Southeastern Anatolia Project (GAP) Regional Development Administration (Ministry of Industry and Technology) [GAP Bölge Kalkınma İdaresi Başkanlığı]

Agricultural Extension and Cooperation Protocol with the Union of Chambers of Agriculture of Türkiye [Türkiye Ziraat Odaları Birliği, TZOB]

Agricultural Training and Extension Cooperation in the region of the Konya Plain Project Protocol with Ministry of National Education, Directorate General of State Hydraulic Works, and Konya Plain Project (KOP) Regional Development Administration [Milli Eğitim Bakanlığı, Devlet Su İşleri Genel Müdürlüğü ile Konya Ovası Projesi Bölge Kalkınma İdaresi Başkanlığı KOP Bölgesinde Tarımsal Eğitim ve Yayım İşbirliği Protokolü]

Active Labor Market Programs Cooperation Protocols with Turkish Employment Agency [Türkiye İş Kurumu Genel Müdürlüğü (İŞKUR)], the Union of Chambers of Agriculture of Türkiye [Türkiye Ziraat Odaları Birliği, TZOB], General Directorate of Livestock [Hayvancılık Genel Müdürlüğü (HAYGEM)], General Directorate of Agricultural Enterprises [Tarım İşletmeleri Genel Müdürlüğü (TİGEM)], and the Union of Sheep and Goat Breeders' Associations of Türkiye [Türkiye Damızlık Koyun Keçi Yetiştiricileri Birliği (TÜDKİYEB)]

All the institutions that signed protocols with the TOB provide different training services related to the agricultural sector. They also support the already existing training programs of the TOB in different ways.

Among these protocols, the one with the Directorate of Lifelong Learning of the Ministry of Education has a critical role not only in the provision of a wide variety of trainings but also in the provision of certificates by the Ministry of Education. Our farmer informants as well as contacts from the ministry acknowledged that these certificates play a crucial role for the farmers to make project applications to different institutions and to make loan applications to the banks. These training services are organized in Public Education Centers (Halk Eğitim Merkezi).

There are 281 training programs listed under the subject codes ‘Agriculture Technologies’ and 'Gardening'. The infrastructure of classrooms, course equipment, and the organization needed for the trainings are provided by the Ministry of Education, which also issues the certificates and keeps the records of the training programs. Once a program is open, the trainers are appointed by the local and/or relevant branches of the TOB. The ministry defines the aim of this protocol as follows:

‘to provide farmers, especially young and women farmers, with the necessary knowledge and skills, to make them voluntary implementers of the agricultural extension system in the environment where they live, to create a wide extension infrastructure consisting of young, dynamic, open to innovations, farmers who live in production, to enable them to transfer the knowledge and skills they have learned to other farmers, to prevent rural out-migration by training people who fulfill the requirements of modern production and raising awareness’.

In 2022, 15.522 people received certificates of participation in these training programs (TOB, 2023:147).

TOB Strategic Plan includes training of actors involved in the value chain of dairy production on food safety. The training programs “Milk Hygiene” and “Milking Hygiene and Sanitation in Dairy Farming” have been implemented in coordination with the Ministry of Education. The funds of the Agricultural Extension Services Project are used to organize visits to observe the correct implementations of milking, transferring, and cold storage processes.

The Central Union of Milk Producers of Türkiye focuses on training services concerning the well-being of dairy animals, hygiene conditions of animal sheds, milking procedures and equipment, and the efficient use of milk collection centers and tanks. In 2021, 1049 farmers (420 men, 629 women) participated in the 62 training programs (TOB, 2021:9). In 2022, 1.828 farmers (1021 men, 807 women) participated in the 72 training programs (TOB, 2023:147)

The Union of Chambers of Agriculture of Türkiye, as the largest organization of farmers in the country, has local branches in each province and almost in each district of the country. They organize trainings according to the local production patterns in different districts. Within the course of the protocol on Active Employment Market Programs, an important project called 'Agricultural Population Is Getting Younger' has been implemented since 2013. Young people between the ages of 15 and 40 participate in various training programs for which they are also paid daily wages by İŞKUR. In 2021, 11.997 people participated in 519 training programs and got certificates of participation. (TOB, 2022:12)

As part of the protocol on Active Employment Market Programs between EYDB, İŞKUR, HAYGEM, TİGEM, TZOB, and TÜDKİYEB, 'I am the Administrator of Flock Management' [Sürü Elemanı Benim] training programs have been designed and implemented through the General Directorate of Lifelong Learning of the Ministry of Education.

These trainings, targeting young candidates between 15 and 40 years old, converse topics such as building sheds for sheep and goats, distinguishing breeds of sheep and goat, taking care of the nutrition and reproduction of small ruminants, their protection against contagious and animal diseases, implementations of biosecurity, and milking procedures. İŞKUR pays daily wages to the participants of these training programs. In 2021, 4.033 people received certificates of participation in the training activities of this program (TOB, 2022:13). In 2022, this number dropped to 3.202 (TOB, 2023:147).

The TOB declares that it prioritizes women and families in rural areas in the organization of training programs. These trainings organized in all the 81 provinces of Türkiye, include a wide variety of topics from viniculture to livestock, from fruit growing to greenhouse cultivation, from apiculture to silkworm breeding as well social topics such as family resources management, nutrition, and child development.

According to the latest statistics shared by the TOB, between 2003 and 2021 the ministry organized 203.000 training activities that reached 2.3 million farmer women. 10.528 of these activities that reached 77.383 women were organized between 2019 and 2021

Our interview with the representative of the Agricultural Credit Cooperatives revealed that the latter also organize training activities in collaboration with the Ministry of Agriculture and Forestry. Yet the cooperatives organize themselves most of their training programs, which focus on manure, fertilizers, pesticides, herbicides, agricultural equipment, animal rearing, and particular crops.

The Women Farmers Agricultural Extension Project has been an important part of the agenda of the Department of Training and Extension since 2000. The objective is to increase the economic role of rural women in agriculture by revealing their potential capacities for sustainable rural development, to improve their social status, and to maximize the number of women participating in employment and entrepreneurship in agriculture. Within the scope of this project; intensive agricultural trainings have been provided to the women farmer groups formed to carry out projects; they have been provided with knowledge and skills, and their project activities have been supported by providing inputs (seeds, seedlings, fertilizers, saplings, hives, pesticides, greenhouse materials, milking equipment, etc.).

Since 2015, the "Women Farmers Agricultural Extension Project" has been carried out in 3 stages. The first stage "Strengthening Women Entrepreneurship in Agriculture" Program was launched in 2015. Women with entrepreneurial characteristics living in rural areas were provided with certified applied entrepreneurship trainings in cooperation with the Turkish Employment Agency (İŞKUR) and the Small and Medium Enterprises Development Organization of Türkiye (KOSGEB).

The TOB organized the "Entrepreneurial Women Farmers Award Ceremony" each year after 2015, and successful projects as well as successful women farmers have been awarded. Under the "Strengthening Women Entrepreneurship in Agriculture" Program that was completed in 2019, 5,292 women farmers in 81 provinces received entrepreneurship trainings in 4 years. In 2019; in 17 provinces (Ağrı, Ankara, Ardahan, Bayburt, Erzurum, Eskişehir, Gümüşhane, Hakkari, Ordu, Rize, Siirt, Sivas, Şırnak, Trabzon, Tunceli, Van, Yozgat), a total of 1,081 women received entrepreneurship trainings and prepared projects.

The second stage of the project was called "Women Farmers Meet with Agricultural Innovations Program". Since 2015, agricultural extension projects have been carried out in cooperation with the Research Institute Directorates and Provincial Directorates of the Ministry to ensure that women farmers, who are most involved in agriculture but are the last to be informed about agricultural innovations, can manage and use resources more effectively for more productive agriculture, teach and apply new technologies and disseminate women-oriented innovations.

Under the Women Farmers Meet with Agricultural Innovations program, 5,276 women farmers received training and benefited from various activities through 81 agricultural extension projects between 2015-2018. In 2019, 518 women farmers received training through 21 different projects to disseminate agricultural innovations in 21 selected provinces. In 2022, 1,384 women farmers received training and benefited from project activities through 26 different projects in 24 provinces.

The third stage of the project is called "Special Provincial Projects for Women Farmers". Since 2015, projects especially targeting women farmers have aimed to train women farmers to acquire vocational skills, increase their employability and entrepreneurship capacities and contribute to regional development.

Between 2015-2018, 1,509 women farmers received training through 20 special projects and 315 women farmers were employed in workshops, enterprises and cooperatives established within the scope of project activities. In 2022, 312 women farmers received training through 6 special projects (TOB, 2023:149-152). These projects, as listed below, include many collaborations between the Ministry, several public institutions, and private companies.

- "Rural Women Producing Mozzarella Cheese Project (2021-2022)" in Diyarbakır province: 50 women farmers were trained for 32 working days. They were given cheese kits and their home-based mozzarella cheese production was monitored. The project aims to register the "MANDARRELLA" brand and the establishment of a cooperative by the women farmers who received training, is ongoing.
- "Women Producing Honey in Dargeçit Project" in Mardin province: Mardin Metropolitan Municipality is a stakeholder in this project. 70 women farmers have completed their training. Beehives with and without bees, beekeeping materials and honey milking machines were distributed to 50 women farmers who successfully completed their training on May 12, 2022.

- In Ardahan Province, 54 young women were given theoretical and practical trainings within the scope of beekeeping training with the "Geographically Marked Ardahan Flower Honey and Caucasian Bee My Hope Project". All of the women who were successful in the training were given beekeeping certificates, royal jelly production and queen bee breeding certificates, and 15 young women were given 10 beehives each, totaling 150 beehives in total, as a result of the lottery drawn among those who were successful in the training, and they were employed in this field.
- In Kilis province, 40 women farmers received 72 hours of training on bee breeding through the Public Education module with the "Life is Common Project" and at the end of the training, 35 women farmers were sent to the Ordu Beekeeping Research Institute Directorate in the first week of June 2022.
- "Women's Touch to Greenhouse Farming with Applied Training Project" in Şırnak province: A two-day technical trip was organized to Mersin province. Eight women farmers participated in the training and were trained on greenhouse vegetable cultivation by the technical staff of the Akdeniz District Directorate of Agriculture and Forestry.
- In Kastamonu province; "Elderberry Cultivation and Utilization of Elderberry Products Project" was realized in collaboration with Dadaylı Women Entrepreneurs Association and Sarıkonak Women’s Cooperative. A total of 4 demonstration areas were established in 2 decares in the Center and Daday districts where elderberry saplings were planted. Within the scope of the project, 140 women farmers benefited from trainings on "Medicinal and Aromatic Plants". With the protocol signed between Kastamonu Provincial Directorate of Agriculture and Forestry and Kastamonu Regional Directorate of Forestry on April 28, 2022, Elderberry Saplings are to be produced in the nurseries of the Regional Directorate of Forestry (Gölköy and Daday Nurseries). A cooperation protocol was also signed with Kastamonu University, Faculty of Tourism, Department of Gastronomy and Culinary Arts, and Faculty of Engineering and Architecture, Department of Food Engineering. In 2022, 2 separate study tours were organized, and 144 women received training on elderberry cultivation and the utilization of elderberry products
- "Peninsula Women Add Life to the Mastic Tree Project (2022-2023)" in Izmir province: 200 mastic tree saplings were planted and 4 kg of amaranth seeds were planted. Within the scope of the project, training on "Mastic Tree Cultivation, Vaccination, Harvesting and Product Evaluation" is planned for women farmers.

- "My Sister Project" was realized between the Ministry and Coca-Cola Soft Drinks Marketing Consultancy Inc. Trainings were provided to the target audience on Financial Awareness, Mobile Photography, Security in the Digital World, Customer Relations and Sales, Product Presentation and Marketing Techniques, Advertising and Awareness Increase in Social Media, Food Safety and Labeling Legislation. In 2022, within the scope of this project, a total of 750 women (62 in Nevşehir, 39 in Kayseri, 51 in Düzce, 43 in Mersin, 42 in Osmaniye, 47 in Denizli, 32 in Adıyaman, 56 in Kahramanmaraş, 69 in Tokat, 34 in Çanakkale, 42 in Tekirdağ, 41 in Çorum, 43 in Hakkari, 52 in Çankırı, 42 in Aydın and 55 in Muğla) were trained.
- "Local In-situ Centaury Project": In collaboration with ABC Detergent Inc., the ministry has been producing different "local in-situ" projects. The cultivation of the Centaury plant was deemed appropriate by the Kars Provincial Directorate of Agriculture and Forestry, and a protocol was signed with the S.S. Oğuzlu Village Agricultural Development Cooperative in 2022 to carry out the project.
- Leading Children Agriculture Camp Program: The program is carried out in 81 provinces and at least 25 children in each province benefit from this program. In 2022, the number of child beneficiaries amounted to 2.580.
- As part of the National Program for Combating Child Labor (2017-2023), "Leave No One Behind: Empowerment and Increased Participation of Rural Women in Türkiye and Central Asia" Project (GCP/SEC/018/TUR) in partnership with the Food and Agriculture Organization of the United Nations (FAO), started in September 2021. Within the scope of the activities of the project in 2022, field visits were made to the pilot provinces of Burdur, Kahramanmaraş and Ordu where project promotion meetings were held. Women Development Units (WDUs) were established in these provinces and data on activities targeting women and on agricultural production have been shared with the Ministry.

In addition to the Women Farmers Agricultural Extension Project, women farmers are also the primary target of the training programs on cooperatives, which include general education on cooperatives and specific trainings on the fields of activity of each cooperative. Between 2004 and 2021 more than 74.000, and between 2019 and 2021 1.133 women farmers participated in these trainings. In 2018, TOB, Ministry of Family, Labour, and Social Services, and the Ministry of Trade signed a protocol that aims the cooperation of the three ministries on empowering women's cooperatives, ensuring their sustainability, developing their capacity, increasing their visibility, and enabling women to effectively participate in economic and social life through cooperatives.

The protocol was renewed for 2 years as of July 2021 with the approval of the Ministries. In addition to the activities such as workshops, trainings, and technical trips, one of the outputs of the protocol is the EU-funded "Women's Empowerment through Cooperatives Project". The pilot provinces of the project are Adana, Afyonkarahisar, Aksaray, Ankara, Antalya, Artvin, Batman, Bitlis, Bursa, Çanakkale, Çorum, Diyarbakır, Erzurum, Eskişehir, Gaziantep, Hatay, Isparta, İstanbul, İzmir, Karabük, Kars, Kırklareli, Kocaeli, Konya, Malatya, Mardin, Muğla, Sinop, Sivas, and Van.

In the course of this project, the consultancy service was launched at the end of June 2022 and training activities for cooperative members were launched in July 2022. Within the scope of institutional capacity-building activities, awareness-raising trainings were organized for staff working on women's empowerment and cooperatives in public institutions, universities and civil society organizations at the provincial level, including the Ministry's general directorates and provincial directorates of agriculture and forestry. In 2022 the following trainings were provided in Adana, Ankara, Aksaray, Artvin, Diyarbakır, Erzurum, İzmir, Kars, Malatya and Mardin: 5 days for women who are cooperative members, 2 days for women who want to establish/partner in cooperatives and 1 day for men who are cooperative members.

These trainings were planned to be continued in other provinces in 2023. Local Stakeholder Meetings, a sub-activity of the project, were organized with the participation of local authorities and stakeholders in Ankara, Adana, Isparta, Bursa, Çorum and Malatya. Within the scope of this project, 8 cooperative representatives from Ankara, Adana and Bursa attended a 5-day study visit to Italy that was organized in October 2022 to share the experiences of successful women's cooperatives and exchange information with relevant institutions in EU member states.

Besides this project on women's cooperatives, the TOB also organizes trainings on agricultural cooperatives targeting all cooperatives. In 2021, 14.855 farmers participated in a total of 483 extension activities on cooperatives, including investigation trips, exhibitions, conferences, panels, trainings and meetings (TOB, 2022:14). In 2022, 15.164 farmers participated in 510 extension activities (TOB, 2023:147).

The Pruning and Finishing Systems in Fruit Trees Project was launched in 2019. This 3-year-long project aims to increase yield and quality by preventing incorrect pruning in fruit species. Trainings are provided by subject experts working in institutes affiliated with the General Directorate of Agricultural Research and Policies. In 2021, 36 technical staff and 405 farmers were trained on pruning. (TOB, 2023:147)

The Education and Extension Project for Dissemination of Compost Use was a 3-year project realized between early 2020 and the end of 2022. In 2020, 2 wood chippers, moisture meters and temperature meters were purchased for compost preparation. The project aimed to popularize compost production, especially in the Aegean and Marmara regions. The number of farmers who participated in the trainings on composting was 100 in 2021, and 500 in 2022 (TOB, 2023:46).

Irrigation has also been a major topic of training programs. In 2021, 1.329 farmers in 26 provinces obtained certificates from 73 training programs on 'Pressure Irrigation Systems' and 'Effective and Efficient Irrigation Systems'. %16 of these farmers were women, %84 of them were men; %11 of them were members of irrigation cooperatives, and %27 of them were members of irrigation unions. In 2022, 1.957 farmers participated in 103 training programs. %12 of these farmers were women, %88 of them were men; %14 of them were members of irrigation cooperatives, and %21 of them were members of irrigation unions.

In addition to the workshops, conferences, field days and seminars on irrigation, field trips and visits were organized to universities, research institutions and organizations, training centers and facilities of companies producing irrigation equipment. In 2022, 958 farmers who participated in these extension activities had the opportunity to talk one-on-one with subject matter experts and academics about the problems they face in practice and to develop solution alternatives to these problems.

The "Program for Saving Water Use in Agriculture" was prepared on 1 June 2022, and it targets all farmers currently engaged in agriculture, young people with the potential to enter agriculture-based value chains, and children of farmer families. 50.000 farmers participated in 750 training activities organized in the course of this program (TOB, 2023:147).

Another relevant and important project of the TOB is called "Supporting Agricultural Education and Publication Services Project". The periodical "Turkish Journal of Agriculture and Forestry" has been published 6 times a year in 2-month periods since 1986. As of June 2022, the hard copy publication has been suspended in accordance with the savings measures and its publication continues online. In 2022, "Farmer Training Series" consisting of 107 books was prepared for the Training and Extension activities of the project.

27 fair visuals, 200 posters and brochures, 50 bulletins and 50 books were designed for the activities related to the service units of the Ministry. Within the scope of the GAP Region Training and Extension Program, 1,050 films were made cumulatively by the end of 2022. WebTarımTV [WebAgricultureTV], which broadcasts on the internet address "www.tarimtv.gov.tr", includes training films and informative short films on issues of interest to the producers and all other stakeholders of the agricultural sector.

The Agriculture and Forestry Academy [Tarım Orman Akademisi] was first launched on May 5, 2020. It continues to grow and includes numerous contents related to agriculture and forestry under headings such as plant production, animal production, soil fertilization and irrigation, agricultural control, food, nutrition and consumer awareness, agricultural finance and marketing, aquaculture, agricultural environment and sustainability, agricultural technologies and agricultural structures, nature and forest, occupational health and safety in agriculture, drought. By the end of 2022, 310 trainings, 622 video contents, and 222 trainers exist in the online platform of the Agriculture and Forestry Academy. Similarly some provincial offices of the ministry use online platforms to organize trainings. Youtube channel of the Antalya Provincial Directorate of the Ministry of Agriculture and Forestry has been producing popular content and training programs.

While agriculture finance, financial literacy, and financial inclusion have been important topics of the various training programs by the TOB, Ziraat Bank has been making important protocols with many universities in the country to organize trainings that would provide the necessary certificates to the farmers who would like to apply for "Women Farmer" and "Young Farmer" loans.

While women who have completed the age of 18 and have a minimum of 8 years of primary education can apply to Women Farmer loan; high school graduates between the ages of 18-41, and graduates of the Faculty of Agriculture, Faculty of Veterinary Medicine, or any agriculture-related college (with no military service obligation) will be able to apply for Young Farmer loan.

The applicants should not be employees registered with the Social Security Institution (SGK), and they will have to reside in the place where agricultural activities will be carried out during the loan term to be able to apply. In addition, the bank asks for an Agricultural Credit Training Certificate issued by Universities in the field of activity. The fields of the activity can be one of the following:

Animal Production Activities:	Bovine Dairy Farming
	Small Ruminant Livestock
	Small Ruminant (sheep/goat) Breeding
	Small Animal Husbandry
	Beekeeping
	Broiler Breeding (Meat Poultry)
Crop Production Activities:	Greenhouse Vegetable Cultivation
	Greenhouse Vegetable Cultivation

Hence Ziraat Bank made protocol with many universities which has "Continuing Education Centers" where applicants can participate in these trainings online or face to face and acquire the required certificate upon the successful completion of the program. Some of the universities where these trainings can be accessed are Sakarya Uygulamalı Bilimler Üniversitesi, Kırklareli Üniversitesi Sürekli Eğitim Merkezi, Selçuk üniversitesi Sürekli Eğitim Merkezi, Kayseri Üniversitesi Sürekli Eğitim Uygulama ve Araştırma Merkezi, and Atatürk Üniversitesi Ziraat Fakültesi Çiftçi Eğitim Merkezi.

The universities and other institutions approved by the Ministry of Education are the only accredited institutions in Turkey which can provide valid training certificates to the farmers. TOB, through the protocols it has signed with many institutions as indicated above, provides special trainings, yet the accredited certificates should be issued by universities or other institutions approved by the Ministry of Education.

d. What are the most demanded training topics that farmers would like to receive? (multiple choice can be provided here)

e. What specific applications/tools are useful for farmers?

As our field research and our contact with officials and trainers reveal, farmers mostly are not interested in attaining training, but in ways of increasing the price of their products. The training programs are not regarded as ways of improving their agricultural knowledge and skills, but as means to increase profit through certification documents.

Even when farmers attain training programs, they do so to use the certificates they obtain as part of their relations with financial institutions or marketing strategies. Therefore, the designed training programs become hard to conduct, and most of the time cannot attract the attention of the farmers and reach the minimum number of registrations needed for a course to be opened.

However, without providing any specific topics, our informants also stated that farmers are more interested in topics, the positive effects of which can be observed directly by them. Especially the techniques and tools that can contribute to the price or fertility of their agricultural products can be more appealing. Moreover, the informants also stated that, rather than explanation-based training programs, farmers are more interested in practice-based training, which is conducted in fields and spaces where they work or close to where they work.

Our key informant interviews highlighted that the requirement of certain certifications by financial institutions is the major reason identified by the farmers regarding their training demands. This contributes to the perception of trainings as a procedure by farmers. When we asked farmers what kind of training topics they would be interested in, many cooperative members told us that they would be interested in learning about different crops that they could cultivate.

Crop diversification is an important topic that allows farmers to be more resilient against the shocks in the value chains. This demand is also in line with the answers of the key informants in civil society organizations and private companies.

The latter emphasized that farmers are interested in training programs that can enhance their possibilities of production in the local climatic and cultural conditions. Hence these informants emphasized that training programs should be adapted to the particular place or region where they will be delivered - both in terms of climate conditions and cultural circumstances.

When asked about financial literacy trainings, all of our key informants (from farmers to cooperative managers, from CSOs to private companies) stressed that the farmers are unexpectedly good at learning about financial services, making cost-benefit calculations, and calculating their yearly revenues.

However, they are not accustomed to keeping records of their expenses. In other words, accounting appears to be the main incompetency. Several reasons were indicated by the farmers, CSOs, and representatives of public and private institutions: the time between each harvest period is usually very long in agriculture, there is a complicated system of state subsidies, merchants and other intermediaries might irregularly supply some of the inputs, and farmers tend to estimate their revenues through rough cost-benefit calculations rather than careful itemization.

Our interviewee, who is a representative of one of the institutions organizing financial literacy trainings, stated that the interest and participation of farmers in financial literacy trainings is high in all regions. She emphasized that the farmers should not be considered as a homogenous entity. Farmers from different age groups, gender, geographical regions, and with different levels of experience have different priorities and expectations. She underlined that it is important to tailor these trainings according to the target group, region and product.

Farmers' approach to financing - which we elaborate on in the Field Report - has to be taken into consideration in the design of relevant training programs. While securing financing is imperative for farmers, our interviews and fieldwork confirmed that their approach to cost-benefit analysis can be considered rather simplistic and incomplete when compared to the detailed accounting by enterprises.

Farmers typically calculate in their monetary cost-benefit analysis only the 'external' financial inputs, such as loans or credits - the ones that oblige them to make payments. This would not correspond to a precise calculation of inputs and outputs since they tend to neglect the market value of their personal and/or family labor, as well as other in-kind supports they might receive - these can include fertilizers, seeds, pesticides, fuel, and any tools or materials.

Thus, these essential resources are usually not factored into the economic evaluation of the farmers as inputs, leading to a skewed assessment of outputs solely against financial obligations. Farmers refer to the latter as a whole as their 'debt'. Consequently, if revenue exceeds debt, it is viewed as profit, ignoring the substantial contributions of unpaid labor, non-monetary inputs, and also their own monetary resources.

One training expert among our interviewees expressed that she finds the farmers more engaged when she explains apparently unrelated phenomena through financial expressions. For instance, the topic of ameliorating the living and working conditions of farm animals should be discussed not only as a matter of the well-being of the animals only, but also through the financial loss caused by the inhumane conditions. According to this trainer, the training on finances should be structured mostly indirectly, by pointing out the benefits of record keeping through particular examples that are not explicitly linked to accounting.

When asked about the usefulness of the trainings, farmers indicated that they approach the trainings on agricultural production that take place in enclosed classrooms in urban settings as ineffective and a waste of time. Key informants who are development experts, agricultural engineers, and agronomists also stressed in our interviews that the training programs become more effective when the trainers travel to the villages or fields where applied trainings can involve farmers' participation. Yet, they also stressed that various cultural elements also affect the effectiveness of the training program in rural areas: the expert's clothing, car, manners, and language also matter for the effectiveness. It is crucial to take into account the local dynamics and the priorities of each farmer community.

The representative from the Agricultural Credit Cooperatives that we contacted in this research indicated that, in addition to the use of pesticides, herbicides, and fertilizers, the farmers are interested in the training programs focus on the use of new technologies. Regarding the trainings on innovative agricultural technologies for which an applied program may not be possible in any random village, it is important to organize field trips for farmers so that they can observe an already installed technology. Our informant from Smart Village (Akıllı Köy) emphasized that they organize field trips during which farmers can observe and touch the new technologies, while they care about choosing the technologies that are not very expensive and complicated for the farmers, hence accessible for them.

During our fieldwork, farmers expressed that, regarding their questions on crops, they consult the representatives of the firms from whom they buy various products such as pesticides, herbicides, and fertilizers. However, they do not always find the information they receive reliable. They also consult the Chambers of Agriculture, and provincial directorates of the TOB. Our fieldwork reveals that the former is far from perceived as an organization run by farmers. It is rather perceived as a state institution by the farmers.

Hence, both institutions are approached by the farmers with the pressure of being audited by them. As our visits to the public officials in Adana and Mersin revealed, they also don't feel comfortable since they represent the state institution that systematically inspects farmers, and penalizes them if necessary. We conclude that farmers need independent offices that may provide reliable information regarding agricultural activities. This need can be formulated as an "agricultural advice bureau", which can also be mobile in designated regions or basins.

Please see the **Field Report,** for a more detailed discussion of the limitations and experiences concerning the implementation of training programs.

B3. Refugees in Agriculture Sector in Türkiye

Key Findings

- **Employment in Agriculture:** No precise statistics exist on the number of refugees working in agriculture in Türkiye, but estimates suggest that between 7.8% and 12% of Syrian refugees are employed in the sector.
- **Legal Framework:** Refugees in Türkiye are predominantly under temporary protection with restricted rights compared to citizens, impacting their labor market integration and living conditions.
- **Geographical Distribution:** The majority of refugee agricultural workers are located in provinces such as Şanlıurfa, Hatay, and Adana, which are major hubs for agricultural activities in Türkiye.
- **Challenges Faced by Refugee Workers:** Refugees often work under informal agreements due to the stringent requirements and costs associated with obtaining work permits, contributing to their vulnerability in the labor market.
- **Economic Impact:** The involvement of refugees in agriculture helps to fill labor shortages but also puts downward pressure on wages due to the informal nature of their employment.
- **Demographic Information:** The agricultural sector sees a high involvement of young and middle-aged male refugees, reflecting the demographic profile that is typically associated with physical labor-intensive jobs.
- **Work Permit Issues:** Regulations allow for certain exemptions in agriculture, yet bureaucratic hindrances and the fear of losing additional social benefits deter many from formalizing their employment.
- **Economic Contributions vs. Challenges**: Refugees contribute to filling critical labor gaps in Türkiye's agriculture, particularly during peak seasons. However, their employment conditions are often substandard, with issues like underpayment and lack of legal protections being common.
- **Social Integration and Community Impact:** While refugees are crucial to the agricultural workforce, their presence in rural communities can sometimes lead to tensions due to competition over jobs and resources, necessitating community relations and integration efforts.
- **Impact of International Support and Projects:** International organizations and projects often play a crucial role in supporting agricultural training and employment for refugees, which can be enhanced through better coordination with local policies and practices.

B3. Refugees in Agriculture Sector in Türkiye

Executive Summary

- This chapter offers an overview of the refugees in the agricultural sector. After providing the background of the refugee presence in Türkiye, it focuses on the available information on the geographical distribution, employment patterns, entrepreneurial activities, support and training needs of the refugees.

- Despite the lack of official statistics, the chapter refers to the available publications that focus on the seasonal agricultural labor by the refugees. The last part of this chapter provides a discussion on the current political approach towards refugees in the agricultural sector, highlighting informality, deportation thread, and work permit exemption in seasonal agricultural work.

- Türkiye is the country with the highest number of refugees - Türkiye only gives refugee status to citizens of member states of the Council of Europe. Agriculture in Türkiye has always relied on migrant labor. Since 2011, with the mass migration of Syrians, this sector has started to be dominated by Syrian seasonal workers. It is important to note that the refugee labor in agriculture is not a homogenous entity but rather a constellation of different actors, migrant groups, and regulations.

- The legal basis for temporary and international protection in Turkey is established by the Law on Foreigners and International Protection, and the 2014 Temporary Protection Regulation. This framework significantly influences the day-to-day experiences and the living and working conditions of refugees.

- According to the official statistics, there were 3.186.561 registered SuTPs as of January 24, 2023. Around 7.5% of the Syrians are estimated to be working in the agricultural sector. While there are not any reliable statistics regarding the refugees in the agricultural sector, the chapter provides the data available on the geographical concentration of the refugees.

- Şanlıurfa, Hatay, Adana, and Ankara are cited among the cities with high numbers of Syrian seasonal agricultural workers. All the reports draw attention to the informality, as well as to the prevailing women and child labor in the employment structure of the refugees. An overwhelming majority of refugees in the agricultural sector work as employees. Among them a high percentage is expected to be mobile seasonal workers. There is also a significant number of shepherds among the refugees.

- Although it appears marginal to the mainstream studies of entrepreneurship, it is important to stress that the agricultural sector poses its own peculiar difficulties for refugee entrepreneurs. Türkiye-Syria Refugee Resilience Plan by FAO draws attention to the obstacles such as lack of access to banking services, lack of productive assets, and inadequate understanding of property rights and market dynamics.

- While cooperatives can also be good means of entrepreneurship for the refugees, both the unfamiliarity of the refugees with the institutional and legal infrastructures of the cooperatives and the fact that they cannot be board members according to the legal arrangements prevent refugees from engaging in cooperativism. Finding specific ways of supporting the potential agricultural entrepreneurs from the refugee communities has tremendous economic and social potential. The chapter draws attention to the already existing informal forms of entrepreneurship and the intermediary roles that can become a promising form of entrepreneurship for refugees.

- Records indicate that Gaziantep, Mersin and Hatay are the three provinces with the highest number of enterprises with a Syrian partner; and that together with Şanlıurfa, Kilis, Adana, Kahramanmaraş, and Mardin, these cities amount to 40% of total companies with a Syrian partner. Yet agriculture does not appear to be a significant field in which these enterprises operate. During our research and key informant interviews, we encountered agricultural cooperatives with refugee members in Gaziantep, Mardin, and Hatay.

- Cooperative enterprises cannot formally employ them because of the legal constraints regarding work permits and/or the unwillingness of the refugees who lose the financial support provided by the state and other institutions once formally employed.

- The main issue for the refugees appears to be the insecurity and uncertainty about their future. The entrepreneurs expressed that they are afraid of making larger rental agreements and investing more resources in agricultural production since they don't feel they have a permanent position in Türkiye. Citizenship is expressed as the ultimate aim that can reassure them to invest. Opening a bank account as a refugee is usually a big challenge. We also realized that refugee entrepreneurs do not have detailed information on the legal regulations.

- During our interviews and fieldwork, many refugees expressed similar training interests with farmers. We learned that the refugees not only learned a lot in their interactions with local experts and farmers, but in most cases they also shared their own knowledge with them. Hence, training programs can aim to organize experience-sharing workshops and to train the refugees as educators.

- In recent years, the deportation of foreigners (including Syrians, asylum seekers, and recognized refugees) has become increasingly widespread and used unlawfully in Türkiye. The risk of deportation and work permit regulations discourage them from choosing permanent forms of employment, such as renting land or establishing a company.

- Refugees can legally apply for a work permit six months after following the lodging date of their international protection and temporary protection application. Like other foreigners, refugees are subject to the employment quota regulation, which requires 5 Turkish citizens to work for each foreigner. There are still restrictions on the employment of refugees in specific fields (lawyers, nursing care, pharmaceutics, etc.) that work permit applications for these professions are automatically rejected.

- Refugees are eligible for work permit exemptions in two sectors: i. seasonal agriculture, ii. animal husbandry. They can apply for work permit exemptions six months after they complete their registration. If their application is proven, they can work for up to one year in farming and seasonal agriculture as registered workers with the 'Work Permit Exemption Document.' Refugees have to obtain this exemption from the provincial units of the Turkish Employment Agency where they are registered, and they have to show a valid employer. The chapter will summarize the main difficulties and problems with obtaining the exemption.

a. General situation of refugees in the agricultural sector in Türkiye

Becoming both a transit and target country since the 1990s, Türkiye has faced a great mass migration as a result of the uprising that started in Syria in 2011 and has received millions of migrants and asylum-seekers. According to UNHCR, Türkiye is hosting about 3.3 million Syrians and 297,000 refugees and asylum-seekers from various countries, including Iran, Afghanistan, Iraq, and sub-Saharan Africa. These figures make Türkiye the country with the highest number of refugees (UNHCR, 2023).

However, due to the geographical limitation it retains to the 1951 Geneva Convention Relating to the Status of Refugees, Türkiye only gives refugee status to citizens of member states of the Council of Europe. The ones under international protection received conditional refugee status, which prevents their possibility to benefit from refugee status rights and their right to citizenship and only enables them to reside in Türkiye until their resettlement.

On the other hand, displaced refugees from Syria receive temporary protection status that grants them the right to stay in Türkiye until a more permanent solution is found and to access basic rights during this time.

Unlike those under international protection, Syrians have been able to obtain exceptional citizenship since 2016. According to Interior Minister Yerlikaya, the number of Syrians who became citizens as of November 2023 is 237,995 (BBC, 2023).

The legal frameworks for both groups (temporary protection and international protection) are the Law on Foreigners and International Protection and the 2014 Temporary Protection Regulation, which shape the material realities of everyday life and refugees' living and working conditions. These regulations retain a range of rights and services, including the right to health, education, and access to the labor market. Specifically focusing on the labor market, the above-mentioned legal regulations, combined with the difficulties of obtaining work permits, as described in Section 4b, make refugees in Türkiye ideal workers for agriculture, where informal and precarious conditions prevail.

Agriculture in Türkiye has relied on migrant labor for many years. In the '90s, internal migrant workers, such as Kurdish people, Turkish Arabs, and Romanies, constituted an important part of the agricultural labor market as seasonal migrant workers (Pelek, 2018). After the dissolution of Soviet Russia, Georgians started to concentrate on the hazelnut and tea harvest in the Black Sea Region and the Azeris in the Kars and Ardahan regions as seasonal migrant workers (Dedeoğlu, 2018).

However, Georgians and Azeris were not refugees; they were mostly on tourist visas, worked in the informal economy, including agriculture, and were subject to circular migration (İçduygu, 2006). With the changing visa regulations and the depreciation of the Turkish lira, the numbers of Georgian and Azeri seasonal workers have decreased in recent years. Since 2011, with the mass migration of Syrians, this sector has started to be dominated by Syrian seasonal workers. Besides, especially during the pandemic, due to border closures, Africans with residence permits in Türkiye started to emerge as a new actor in the tea and hazelnut harvest in the Black Sea region (see Cumhuriyet, 2022 and HürriyetDaily, 2022).

We will discuss refugees in agriculture in more detail in the next section, where we will mostly focus on the Syrians. We need to underline that, as this quick snapshot illustrates, refugee labor in agriculture is not a homogenous entity but rather a constellation of different actors, migrant groups, and regulations.

Despite a decline in agricultural employment rates, the sector still constitutes 15.2% of the total employment in Türkiye in 2022. Notably, more and more host community members have been opting out of seasonal agricultural work, which has been performed by an increasing number of refugees (including Syrians under temporary protection (SuTPs), International Protection Applicants and Status Holders (IPASH), as well as other immigrants). As the latter mostly secure employment in the informal sector, and the seasonal agricultural work has always been mostly informal, the wages fall well below the legally established minimum.

i. How many refugees are working in the agricultural sector in Türkiye?

There is not any publicly available statistics concerning refugees working in the agricultural sector in Türkiye. The largest refugee group in Türkiye consists of Syrians who are under Temporary Protection status (SuTP). According to the official statistics, there were 3.186.561 registered SuTPs as of January 24, 2023 (PPM, 2024).

The second largest group of refugees in Türkiye consists of Afghans.

Although there is not any official statistics about their actual numbers, they constitute the majority of the International Protection applications (PPM, 2024). In 2021, President Erdoğan mentioned that there were around 300.000 Afghans living in Türkiye (AA, 2021).

TABLE 9: REFUGEES IN TÜRKIYE ACCORDING TO THE UNHCR (BY THE END OF 2022)

Country of Origin	Refugees under UNHCR's mandate		Asylum-seekers		Stateless persons		TOTAL	
	2022	2023*	2022	2023*	2022	2023*	2022	2023*
Afghanistan	10581	12946	128813	126387			139394	139333
Iran (Islamic Rep. of)	5114	5340	13084	11976			18198	17316
Iraq	11855	12473	122629	115241			134484	127714
Unknown	2043	2551	5621	5298			7664	7849
Ukraine	2768	2770	2189	1703			4957	4473
Syrian Arab Rep.	3535898	3332896					3535898	3332896
Stateless					439	439	439	439
TOTAL	3568259	3368976	272336	260605	439	439	3841034	3630020

*The data for 2023 is available up until the mid-year >> Refugee Statistics UNHCR

According to the different estimates, between 7.8% and 12% of the Syrian refugees (ILO 2020, INGEV 2019, UNHCR 2022, FAO 2022) work in the agricultural sector. Given the informality and the mobility the seasonal agricultural work implies, it is likely that the studies underestimate the number of Syrians in the agricultural sector. An ILO report estimates that 7.8% of the Syrians, that approximately amounts to 63,100 people, work in the agricultural sector (ILO 2020, p.12). The most recent Syrians Barometer published by the UNHCR also indicates the same estimate (UNHCR 2022, p.83). A more recently published report by FAO indicates 7.5%.

However, similar studies lack for the rest of the refugees, whose numbers officially reached 300.000 without including undocumented refugees. It is known that some refugee groups are concentrated in specific jobs, for example, Afghan shepherds (Yılmaz & Kara, 2023; see also newsbeezer, 2022), and that refugees under international protection are involved in agricultural activities (Iranian in a greenhouse in Yalova) in the cities where they live (Dincer, 2022). Research conducted by Hacettepe University (2017) in satellite cities with individuals under international protection reveals that Somali and Afghan refugees also participate in the agriculture sector.

During their fieldwork, they interviewed 424 Afghan refugees and 45 Somali refugees and found that 10.6 of 424 Afghan refugees and 3.3 of 45 Somali refugees work in agriculture. However, no publicly available resource includes an estimate for the total number of these refugee groups working in the agricultural sector.

1. Their geographical distribution and demographic information (age, gender, nationality)

The Presidency of Migration Management (PMM) of Türkiye publishes the number of registered SuTPs in each province. As they constitute more than 90% of all refugees in the country, their distribution leads to meaningful information on the geographical distribution of all refugees. According to the PMM, the ten cities with the most SuTPs are: İstanbul, Gaziantep, Şanlıurfa, Hatay, Adana, Mersin, Bursa, İzmir, Konya, and Kahramanmaraş (PMM 2024).

While the percentages of Syrians registered under the Temporary Protection are relatively high, it is important to remember that many refugees choose to stay undocumented. The registration rate among Syrian refugees living out-of camps is expected to be lower than 90% (INGEV-IPSOS, 2017, p.2).

The major reason for being undocumented for Syrians is that they have to reside in the province where they are registered, and they are not allowed to travel until they receive a travel permit from PMM. When they live outside the province where they are registered, they cannot benefit from basic rights such as health and education.

Even though they are subject to different regulations than Syrians, the individuals under international protection must also stay in the cities assigned by the Turkish state after their registration. These cities are called ‘satellite cities,’ and the number of these cities reached 62 in 2015 (Nizam & Songül, 2017). Bigger cities such as Ankara, Istanbul, Izmir, and Antalya are exempted from the satellite city regulation.

There is no data on the distribution of refugees by satellite cities. According to satellite city regulations, refugees must “sign-in” regularly at the PMM offices and cannot leave their assigned city without travel permits issued by PMM. If a refugee does not sign three times or is caught by police outside the assigned city, their asylum cases can be closed, and they face the risk of deportation. Refugees are often settled in smaller cities where job opportunities are limited.

Therefore, some of them take the risk of deportation and move to big cities, where informal job opportunities are high. Also, as agricultural work opportunities require workers to move frequently, many refugee agricultural workers also take the risk of deportation while employed informally and temporally as mobile workers.

This informality also contributes to the low costs of labor; scholars draw attention to the crucial role of refugees in the informal employment market, and to the "threat of deportation as a disciplining apparatus" to implement high and cruel levels of exploitation (Karadag and Sert, 2023, p.455).

The same effect can be observed in the agricultural sector where refugee workers receive much lower salaries than the workers from the host community. Considering the high number of undocumented migrants and the lack of official data on the exact number of refugees living in each city, it is also difficult to know the geographical distribution and demographic information of refugees in agriculture. As there are no official statistics on the refugees in the agricultural sector, some insights might be collected from the existing literature.

Development Workshop is a research cooperative that has been conducting fieldwork on seasonal agricultural labor for a dozen years. The fieldwork conducted for their report "Current Situation Report on Foreign Migrant Workers" published in 2016 showed that it is possible to come across foreign migrant workers in almost every part of Türkiye where agricultural production is carried out.

"For example, Georgian and Syrian migrants actively participate in agricultural production in provinces where hazelnut and tea are predominantly produced in the Eastern Black Sea Region, Azerbaijanis work in grass cutting and animal husbandry in Kars and Ardahan, Georgian workers take part in hazelnut harvesting in Sakarya, Düzce and Zonguldak in the Western Black Sea region where hazelnuts are produced, and Syrians work as shepherds in Malatya, Konya, Ankara and Karabük. In Central Anatolian provinces, Syrian agricultural workers who work alongside seasonal mobile agricultural workers from Eastern and Southeastern Anatolia in the production of sugar beets, vegetables and legumes work and live in difficult conditions like other workers … The Development Workshop 2016 report emphasizes the increasing prevalence of Syrian migrants in Mersin and Adana, where citrus fruits are grown." (Development Workshop, 2016, p.).

It is not surprising that this trend intensified in the last decade.

Sociologist Saniye Dedeoğlu who worked with Syrian seasonal agricultural workers in Adana shares the following details about her sample consisting of 905 workers: "Almost half of the population (47%) was illiterate and primary school graduates made up only 22.5%. Dropouts from primary school (9.8%) and secondary education (4.6%) were also high. More than half (53.6%) of the sample were agricultural workers back in Syria and 18.8% were farmers. All of the families had stayed in refugee camps and 17% were not registered with Turkish authorities and had no identification cards." (Dedeoğlu 2021, p. 349).

Similar details can be obtained about the Syrian seasonal agricultural workers (SSAW) from a recent report published by FAO (2023). Based on the 804 surveys, 43 focus group meetings and 114 stakeholder interviews conducted in 11 provinces (Adana, Ankara, Gaziantep, Hatay, Izmir, Kahramanmaras, Konya, Mersin, Kilis, Mardin and Şanlıurfa), the report shows that Şanlıurfa, Hatay and Adana host almost 60 percent of SSAW, and that Ankara, especially the Polatli district, hosts a significant share of SSAW (FAO 2023, p.1).

The following data is obtained regarding their education level: "Approximately one-third of the SSAWs are illiterate and 16 percent are literate but have not completed any formal education. The share of SSAW who have completed lower primary and upper primary education is 24 percent and 17 percent, respectively. Only 9 percent have completed secondary or a higher level of education." (FAO, 2023, p.3)

All the reports on seasonal agricultural labor draw attention to child labor. Development Workshop reported that 49% of the population consisted of women, 40.5% of whom participated in agricultural labor (Development Workshop, 2016, p.). Dedeoğlu also shares similar figures: 56% of the women her surveys reached worked as seasonal workers. These figures become more important when compared to the ones among the general population of the Syrians under temporary protection.

A recent survey conducted by the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) suggests that only 15 percent of Syrian women engage in income-generating activities (UN Women, 2018); similarly the results of the 2018 Türkiye Demographic and Health Survey conducted Hacettepe University Institute of Population Studies indicates that the employment rate of SuTP women is around 9% (Hacettepe 2019b, p.25, see also FAO 2022).

The seasonal agricultural labor market involved an intensified use of not only female, but also child labor. For instance, the Development Workshop report indicated that more than half of the population living in the tents in Adana Plain were under 17 years old, and 49% of boys and 50% of girls worked as agricultural workers (Development Workshop, 2016). Dedeoğlu indicates that 49.3% of the 6-14 year old girls, and 89.7% of the 15-17 year old girls work as agricultural workers (Dedeoglu 2021).

2. What percentage of refugees are working as employees and what percentage of refugees are working as self- employed agricultural entrepreneurs in the agriculture sector in Türkiye?

An overwhelming majority of refugees in the agricultural sector work as employees. Among them a high percentage is expected to be mobile seasonal workers who are employed mostly on a daily and temporary basis during the harvest seasons of different crops, from hazelnut and tea to cotton or different fruit and vegetables. There is also a significant number of shepherds among the refugees. Most of these workers are part of the informal labor market.

B3. Refugees in Agriculture Sector in Türkiye

The legislations of the Turkish State targeting the seasonal mobile agricultural workers have inevitably become more and more concerned with the refugees since the latter have increasingly made the most of this largely informal workforce. The "Agricultural Employment Support Project for Refugees and Turkish Citizens through Enhanced Market Linkages" Project (FESAS – Formal Employment Support in Agriculture Sector) has been implemented by Agricultural Credit Cooperatives of Türkiye since November 2020 with the financial support of the World Bank and the European Union.

This project aims to formalize the seasonal agricultural workers (both from the host and refugee communities) by supporting the farmer employers from the host community. By February 2024, refugees constitute approximately half of the almost 8,000 agricultural workers whose formal employment has been supported by the project.

While some studies focus on the entrepreneurs among the refugee population (see for instance INGEV 2019 and TEPAV 2018), there is not any publicly available quantitative study on the entrepreneurship by the refugees in the agricultural sector. For the estimated share of entrepreneurs (6.4%) among the SuTPs, the agricultural sector does not seem to be a significant one. Agriculture is not listed among the primary sectors in which companies established by Syrians in Türkiye operate (Building Markets, 2018, 2020).

Although it appears marginal to the mainstream studies of entrepreneurship, it is important to stress that the agricultural sector poses its own peculiar difficulties for refugee entrepreneurs. Türkiye-Syria Refugee Resilience Plan by FAO draws attention to the obstacles such as lack of access to banking services, lack of productive assets, and inadequate understanding of property rights and market dynamics (FAO, 2002, 13). While cooperatives can also be good means of entrepreneurship for the refugees, both the unfamiliarity of the refugees with the institutional and legal infrastructures of the cooperatives and the fact that they cannot be board members according to the legal arrangements prevent refugees from engaging in cooperativism.

FAO's report also underlines "the importance of providing capacity building on business management, entrepreneurial skills and financial skills, while conducting market and value chain assessments" in supporting Syrian entrepreneurs in the agricultural sector (FAO 2022, 14). We would also add that particular mechanisms of consultancy on the intricate legal regulations and means of financial inclusion are crucial in this support. Finding specific ways of supporting the potential agricultural entrepreneurs from the refugee communities has tremendous economic and social potential.

The FAO project "Promoting self-reliant livelihoods through employment and micro-entrepreneurship" realized with financial support from the Government of Japan in Izmir, Sanliurfa and Mardin provinces, can be cited as a significant good example (see FAO 2020). Similarly, our key informant interviews revealed that Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Deutsche Welthungerhilfe (WHH) funded several projects in Yayladağı, Hatay, which enabled many refugees to invest in strawberry and mushroom cultivation. While some Syrian refugees involved in these projects have already acquired Turkish citizenship, many are still under temporary protection status, renting fields and greenhouses or being employed as workers.

We would like to draw attention to two important issues that would bring insights for understanding the complicated realities of the refugees who might be considered as agricultural entrepreneurs:

1. Informality

Although we were able to reach one small enterprise founded by refugees in our fieldwork (see more in the Field Report), we also encountered and heard many stories about the informality that sustains the invisibility of the refugee entrepreneurs who are already a tiny minority among the refugees.

First of all, the Syrians, who constitute the majority of the refugees in Türkiye and in the agricultural sector of the country, don't have the right to obtain any property in Türkiye. Hence even if they have the financial means, they are not allowed to buy fields or greenhouses where they can invest and start a business as a farmer.

Yet they can establish a company that is entitled to acquire property for commercial purposes. Not only that this is more costly than simply being a self-employed small farmer, but also refugees working in the agricultural sector, if they had a past in the sector in their countries of origin, were not familiar with farming as a company.

Moreover, once the refugees become formally self-employed or employers, they would also lose state support such as the Kızılay card, which makes formal self-employment undesirable. In our fieldwork, we encountered some refugees who rent fields from host community members informally, and employ other refugee workers informally. Albeit marginally, these informal forms of agricultural entrepreneurship exist, and they display a potential to be formal means of subsistence with appropriate support and securities.

2. Intermediary position between employers and agricultural workers

The intermediary agents between seasonal agricultural workers and employers, called çavuş or dayıbaşı in Turkish, perform a crucial role in the labor market. While the employers contact a few agents in order to reach dozens or hundreds of workers, the latter rely on çavuş in order to communicate with the employer as well as satisfy their basic needs around the fields. While these çavuş used to be almost explicitly Turkish until a few years before, Syrians have increasingly been performing this intermediary position. One of our key informants expressed that in some cases a Turkish and a Syrian dayıbaşı can collaborate and double the commission cut from the workers.

Even though the role of çavuş can be seen as a simple brokerage, it is important to realize that these intermediaries not only earn much more than the workers by cutting a percentage of their daily wages, but also mobilize their resources such as knowledge of Turkish, contacts with other refugee workers, and communication with the potential employers from the host community, which can be translated into important entrepreneurial skills for an employment agency in a formal labor market. The informality of this intermediary connection also decreases the share of the agricultural workers.

3. If any refugees are active as self-employed agricultural entrepreneurs, what is the geographical distribution and demographic information?

Although there is no study on the refugee self-employed agricultural entrepreneurs in Türkiye, the data that exists on the companies that are established by Syrians or that have Syrian partners can point to the places where refugee agricultural entrepreneurs are also more likely to be found. TEPAV report highlights Gaziantep, Mersin and Hatay as the three provinces with the highest number of enterprises with a Syrian partner (Tepav, 2018, 27).

It also indicates that together with Şanlıurfa, Kilis, Adana, Kahramanmaraş, and Mardin, these cities amount to 40% of total companies with a Syrian partner. During our research and key informant interviews, we encountered agricultural cooperatives with refugee members in Gaziantep, Mardin, and Hatay.

Our key informant interviews revealed that Yayladağı, Hatay is an important place in terms of the refugees (SuTPs) who are active entrepreneurs in cultivating strawberries and mushrooms.

It is also important to note that many cooperatives we contacted from different provinces such as Ankara, İzmir, and Antalya have also expressed that they employ refugees in the production of different products but they cannot formally employ them because of the legal constraints regarding work permits and/or the unwillingness of the refugees who lose the financial support provided by the state and other institutions once formally employed.

During our fieldwork, we managed to reach one formal agricultural enterprise established by SuTPs in Mersin, one entrepreneur SuTP who informally rents a field in Adana, and one cooperative in Adana that has refugee members. While the cooperative members were women, both of the entrepreneurs were men. Please see the Field Report for details.

Please see the **Field Report** for details.

4. If any refugees are active as self-employed agricultural entrepreneurs, what are their support and training needs?

The main issue for the refugees appears to be the insecurity and uncertainty about their future. The entrepreneurs we contacted in this research expressed that they are afraid of making larger rental agreements and investing more resources in agricultural production since they don't feel they have a permanent position in Türkiye. Citizenship is expressed as the ultimate aim that can reassure them to invest. Yet we also realized that refugee entrepreneurs do not have detailed information on the legal regulations.

For instance, Syrians know that they do not have a right to buy property in Türkiye, yet founding an enterprise allows them to acquire property as a company for production purposes. Hence although they cannot individually become registered to the Farmer Registration System without land ownership, their company can acquire the status of an agricultural enterprise which can be registered to ÇKS. Hence legal consultancy services are important for refugees who might have the resources to become agricultural entrepreneurs.

Opening a bank account as a refugee is also a challenge. Although there is no legal obstacle, the banks usually don't prefer to have refugee customers. Projects, grants, or other support targeting refugees should also take this into account.

During our interviews and fieldwork, many refugees expressed similar training interests with farmers - **see chapter B2.c** for more details on the training demands. Yet we observed that the refugees not only learned a lot in their interactions with local experts and farmers, but they also shared their own knowledge. Two refugee entrepreneurs we encountered in the field had been involved in agricultural work before they migrated to Türkiye. They provided important knowledge regarding pests, pruning, or irrigation methods to the farmers. Hence training programs can aim to organize experience-sharing workshops and to train the refugees as educators.

Please see the **Field Report** for a more detailed account of the support and training needs of the refugees who are self-employed agricultural entrepreneurs.

b. What is the current political approach in Türkiye towards refugees working in the agricultural sector? Recent news, laws, publications which may be useful.

Despite having made significant progress in integrating Syrian refugees, Türkiye's approach to them turned into a "deportation policy'' in the last few years (Şimşek, 2021). Especially in recent years, the deportation of foreigners (including Syrians, asylum seekers, and recognized refugees) has become increasingly widespread and used unlawfully.

The Turkish asylum law accepts the principle of non-refoulement, which prohibits states from deporting refugees to a country where they can face danger of persecution. Regulations regarding non-refoulement and the prohibition of deportation are also included in the LFIP. Article 4 of the law defines non-refoulement, and Articles 53, 54, and 55 specify in detail who can be deported or not and the administrative and judicial mechanisms that can be applied against a possible deportation decision (Görendağ, 2016). Also, the 2014 Temporary Protection Regulation underlines that Syrians under temporary protection cannot be sent back to Syria until their own request.

However, it is seen that the evaluation of deportation decisions for those under international protection and temporary protection is not taken based on these regulations in practice. Türkiye’s asylum and migration management extensively relies on unlawful detention and deportation of refugees, and the country violates international law.

Unlawful deportations make refugees live in constant fear and anxiety, which also affects their relationship with the labor market. The risk of deportation and work permit regulations discourage them from choosing permanent forms of employment, such as renting land or establishing a company.

Karadag and Simsek highlighted how this "threat of deportation as a disciplining apparatus" lies beneath the implementations of cruel levels of exploitation and the sustenance of the informal labor market as a crucial component of the economy (Karadag and Sert, 2023). Similarly in our fieldwork, we also encountered various ways in which the insecurity of the refugees affects their entrepreneurial decisions of investment.

Please see the **Field Report** for more details.

On work permits

Foreigners' access to the labor market in Türkiye was regulated according to the Law on Activities and Professions in Türkiye Reserved for Turkish Citizens (Law No. 2007, dated June 16, 1932), which constrained foreigners' participation in the labor market through some professions such as actors, waitress, photographer, dentist, midwives, lawyer, etc. This regulation was changed with the Law on Work Permits for Foreigners (Law No. 4817, dated March 15, 2003), which simplified foreigners' access to the labor market. The Law on Foreigners and International Protection (LFIP), which came into force in 2014, gave "refugees" the right to work directly (only those from the Council of Europe country); this right is somewhat limited for non-European asylum seekers. With the Regulation on Employment of International Protection Applicants and Persons with International Protection Status, issued in 2016, the right to work has been expanded.

According to this regulation, refugees (conditional refugees and Syrians under temporary protection) have been granted the right to work on paper.

According to the regulation, refugees can legally apply for a work permit six months after following the lodging date of their international protection and temporary protection application. The employer makes work permit applications, and refugees, like other foreigners, are subject to the employment quota regulation, which requires 5 Turkish citizens to work for each foreigner.

Besides, even though the restrictions on foreigners' participation in the labor market through some professions in Law No. 2007 have decreased, there are still restrictions on the employment of refugees in specific fields (lawyers, nursing care, pharmaceutics, etc.) that work permit applications for these professions are automatically rejected.

These criteria, combined with employers' refusal to pay these high costs and social security premiums and the fact that many workplaces employing refugees are already unregistered, create barriers to refugees' access to work permits, causing their exclusion from formal employment and work in the informal sector.

On the other hand, according to "Regulation on Work Permits of Foreigners under Temporary Protection" and Law No. 6375 on International Labor Force, refugees are eligible for work permit exemptions in two sectors: i. seasonal agriculture, ii. husbandry.

They can apply for work permit exemptions six months after they complete their registration. If their application is proven, they can work for up to one year in farming and seasonal agriculture as registered workers with the 'Work Permit Exemption Document.'

Refugees have to obtain this exemption from the provincial units of the Turkish Employment Agency where they are registered, and they have to show a valid employer. As refugees mostly choose to work informally in the agricultural sector in order not to lose other financial support they receive, the number of exemption documents is very low.

Another reason for the very low number of exemption documents is that the cities where refugees are registered, and the cities where they live are generally different. Since many refugees do not reside in the provinces they got registered, and they are not usually allowed to move their registration to another province, acquiring a work permit exemption became a burden for refugees. First, they need to apply for work permit exemption in the cities they registered. Therefore, to make an application, they must return to those cities, creating an economic burden.

Second, even though they could receive a work permit exemption with the possibility of working outside of the registered cities, they need to apply for a travel permit to travel, which creates a bureaucratic burden, and adds another layer of uncertainty as there is no guarantee that their travel permit would be approved.

Our key informant from the FESAS project explained some stories from the implementation of their project, which clearly illustrates these burdens. As mentioned before, if refugees are trying to become registered workers in a province other than where they are registered, they need to return to the province where they are registered to get a work permit exemption. In some cases, even if the refugees managed to go to the province they registered, their applications were denied by the employment agency officials without any reason.

Our informant told us that in many cases the employers get in touch with the relevant employment agency before the refugee workers travel in order to make sure that the latter would likely obtain an exemption document. The implementation of the work permit exemption legislation, although it appears simple on paper, is much more complicated than it seems, creating many burdens and barriers that prevent refugees from applying for it. Hence, this does not cause the desired effect of formalization of seasonal agricultural labor of the refugees.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Key Findings

- **Reliance on Informal Lending Networks:** Many farmers still rely on informal networks for financial support due to a lack of access or trust in formal financial institutions. This reliance can be risky, as informal loans often carry high interest rates and do not provide legal protection.
- **Challenges in Accessing Microcredit:** While microcredit has potential, its reach and effectiveness in addressing the unique needs of agricultural workers are limited. Issues such as high collateral requirements and the focus on urban rather than rural needs restrict its utility for farmers.
- **Need for Tailored Financial Products:** Farmers require financial products specifically tailored to the agricultural cycle and risks. Current financial products often do not align with the seasonal and volatile income patterns of farming, leading to mismatches in loan repayment schedules and financial needs.
- **Insurance and Risk Management:** Agricultural insurance is underutilized due to high costs and the perception of inadequate coverage. Effective risk management tools are essential to protect farmers against unpredictable factors such as weather and pest infestations.
- **Financial Education and Literacy:** There is a critical need for financial education targeted at farmers to enhance their understanding of financial products and enable better decision-making. Improved financial literacy can lead to more informed use of financial services and better financial health.
- **Digital Financial Services:** The expansion of digital financial services could improve access and reduce transaction costs for farmers. However, there is a need for significant infrastructure development, especially in rural areas, to support this transition.
- **Regulatory Framework and Support:** Strengthening the regulatory framework to support financial inclusion specifically for the agricultural sector is crucial. Policies that encourage the development of agricultural finance and protect the interests of farmers can help improve their financial stability.
- **Partnerships for Development:** Collaborations between government, financial institutions, and international organizations can drive the development of financial services tailored to the needs of the agricultural sector. Such partnerships can leverage expertise, technology, and resources to create sustainable financial solutions.
- **Long-term Investments:** Encouraging long-term investments in agriculture through favorable loan terms and investment credits can support sustainable agricultural practices and innovations, which are crucial for the sector's growth and resilience.

- **Improvement in Payment Systems:** Streamlining payment systems to facilitate quicker and more reliable transactions between farmers and buyers could significantly improve cash flow management for farmers, reducing the need for high-interest loans to cover short-term liquidity gaps.

- **Integration with Supply Chains:** Integrating financial services with agricultural supply chains can help farmers gain better access to markets and financing. Financial institutions could collaborate with agribusinesses to offer financing based on supply chain dynamics, such as invoice factoring or supply chain financing.

- **Enhanced Government Subsidies and Supports:** Government interventions in the form of subsidies or financial support for specific agricultural activities can help alleviate the financial burden on farmers. These supports could target areas such as organic farming, sustainable practices, or innovation in agriculture.

- **Development of Cooperative Financial Models:** Encouraging the development of financial models through cooperatives can help pool resources and distribute risks among members. This approach could also facilitate better terms for loans and insurance products tailored to the needs of cooperative members.

- **Focus on Youth and Women in Agriculture:** Special financial products designed for young and female farmers can help encourage their participation in agriculture. These products should consider the unique challenges faced by these groups in accessing land and capital.

- **Technology-Driven Financial Services:** Leveraging technology to develop innovative financial services such as mobile banking, smart contracts for agricultural transactions, and precision farming tools financed through flexible payment solutions can increase financial inclusion.

- **Local Banking Initiatives:** Local banks and microfinance institutions can play a crucial role in providing financial services to rural communities. These institutions should be supported to expand their services and develop local knowledge about the agricultural sector.

- **Incentives for Sustainable Agricultural Practices:** Financial incentives for adopting sustainable agricultural practices can help promote environmental stewardship and economic sustainability. These could include lower interest rates on loans or higher price premiums for sustainably produced goods.

- **Transparency in Financial Dealings:** Increasing transparency in financial dealings within the agricultural sector can build trust between farmers and financial institutions. Clear terms and conditions, straightforward repayment schedules, and open communication channels are essential

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Executive Summary

- This chapter starts with a brief discussion of the financial inclusion in Türkiye. Next, it provides a discussion of microcredit and microfinance in Türkiye. Then, it focuses on the financial inclusion in the agricultural sector in Türkiye. Building on the data presented in the Section A3, this part focuses more on the evolution of the agricultural financing and agricultural banking in Türkiye, and it presents the needs of the financial institutions and farmers.

- This chapter ends with a list of the needs and suggestions regarding financial inclusion in the agricultural sector. Please see the Field Report for more specific experiences and needs of small farmers we encountered in our fieldwork.

- Agricultural financing in Türkiye is a crucial component of its economic landscape, given the significant rural population and the predominant role of agriculture in employment. The nature of agricultural production necessitates a distinct financing system due to its dependency on natural factors such as climate and geography.

- Unlike industries and services, agriculture involves distinct production, harvesting, and selling periods, resulting in a need for financing during periods of low liquidity. Traditionally, rural farmers have relied on borrowing, lending, or bartering during production, particularly for essentials like seeds and inputs. Over time, this practice has evolved into a more formalized financial system.

- Financing periods in agriculture vary depending on the crop type, with some crops requiring multi-year financing due to their extended growth cycles. However, the uncertainty of selling prices exposes farmers to financial risks, often leading to cash flow imbalances. Farmers require funds for various purposes such as purchasing seeds, equipment, and maintaining land. Agricultural finance aims to ensure farmers' access to affordable credit, vital for sustaining farming operations and fostering agricultural development.

- Over the past two decades, Turkey has witnessed noticeable enhancements in financial inclusion within its agricultural sector, evidenced by metrics like the uptick in farmers holding bank accounts, enrollment in agricultural insurance, and the surge in agricultural loan disbursements. Undoubtedly, the pivotal role of government-backed credit subsidies and subsidized agricultural insurance policies cannot be overstated in fostering this progress.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

- Post the 2001 economic downturn, systemic reforms within the banking sector and financial intermediary institutions, coupled with the establishment of robust risk assessment mechanisms tailored for agricultural loans, have spurred heightened interest from private banks towards agricultural financing. Concurrently, as private entities venture into this domain, a diverse array of financial instruments, notably agricultural credit cards, have emerged to cater to the evolving needs of farmers.

- Noteworthy is the recent integration of Islamic finance products and services into agricultural banking, with participation banks spearheading initiatives in this space. Conversely, a burgeoning cohort of agri-fintech enterprises has emerged, offering innovative financial solutions aimed at streamlining access to agricultural inputs through pioneering supply chain finance models. This multifaceted transformation underscores Turkey's dynamic evolution towards a more inclusive and technologically-driven agricultural finance landscape.

- Despite the importance of agricultural finance, challenges persist. Collateral requirements, bureaucratic procedures, and limited loan products hinder farmers' access to finance. Additionally, high-interest rates, particularly in private banks, disproportionately affect small-scale farmers. To address these challenges, initiatives like the Agricultural Finance Summit have highlighted areas for improvement, including reducing costs, improving financial literacy, and expanding loan opportunities for conservative producers.

- Efforts to enhance financial inclusion in agriculture have seen some progress, with public and private banks offering specialized agricultural banking services. However, gaps remain, particularly in terms of farmers' digital and financial literacy. Despite increasing technology adoption, there's still a need to empower farmers with the necessary skills and knowledge to navigate financial services effectively.

- Financial literacy holds paramount importance for farmers as it equips them with the necessary skills to effectively manage their finances, navigate agricultural markets, and make informed decisions regarding investments and borrowing. Enhanced financial literacy enables farmers to better understand financial products and services, negotiate favorable terms with financial institutions, and mitigate financial risks associated with farming activities. Moreover, it empowers them to optimize resource allocation, improve productivity, and ultimately enhance their overall economic well-being.

- Current financial literacy programs for farmers have yielded valuable insights, emphasizing the need for tailored approaches that consider the diverse profiles of farmers within target groups. Collaborative efforts with local institutions and agricultural organizations have proven instrumental in ensuring the sustainability and relevance of these programs.

- Leveraging adult education methodologies, training of trainers, and peer education strategies have shown promise in effectively delivering financial literacy content. Moreover, integrating financial literacy training within broader educational initiatives, such as ecological and digital literacy programs, presents an opportunity to foster comprehensive skill development among farmers and maximize the impact of financial literacy initiatives.

- Moving forward, a comprehensive approach involving collaboration between government, financial institutions, and agricultural stakeholders is crucial. Developing a financial inclusion strategy tailored to the needs of farmers and prioritizing initiatives to improve financial literacy can help bridge the gap and ensure sustainable agricultural development in Türkiye.

a. What are the specific needs of farmers towards financial services? (loans, insurances, etc.)

Financial inclusion is pivotal in promoting economic growth, reducing poverty, and fostering social inclusion. Financial inclusion empowers individuals and businesses to manage risks, invest in education and healthcare, and accumulate assets by providing access to financial services such as banking, savings, credit, and insurance. Moreover, financial inclusion enhances resilience to economic shocks, as individuals can better withstand financial emergencies and smooth consumption patterns over time. It promotes entrepreneurship and job creation by facilitating access to credit and capital for small and medium-sized enterprises, thereby contributing to economic development and wealth creation.

Recent research that discusses financial inclusion's effect on poverty suggests that while financial inclusion can create opportunities for economic growth, it may not necessarily reduce poverty (Neaime and Gaysset, 2018). Since the banking structure in the Middle East and North Africa region is not developed enough in terms of poverty alleviation through access to financial services, financial inclusion risks exacerbating income inequality. Hence, it is crucial for financial inclusion policies to understand the exact needs of the stakeholders and the (intended and unintended) consequences of financial instruments.

Measuring Financial Inclusion and Level of Financial Inclusion of Türkiye

Measuring financial inclusion involves assessing the extent to which individuals and businesses have access to and actively use financial services. Common metrics include the percentage of adults with a bank account, banking infrastructure availability, and formal financial services usage. Additionally, indicators such as savings behavior, credit access, and insurance coverage provide insights into the depth and breadth of financial inclusion within a population. Composite indices, combining multiple indicators, offer a comprehensive assessment of financial inclusion levels and enable cross-country comparisons to identify gaps and inform policy interventions.

Financial inclusion can be measured in three dimensions:

(i) access to financial services

(ii) usage of financial services, and

(iii) quality of the products and the service delivery.

Both supply-side and demand-side data are included to form a comprehensive view.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

According to the Adult Financial Literacy Competency Survey conducted by the OECD International Network on Financial Education in 2016 (OECD/INFE, 2016) Türkiye ranked 21st among the 30 countries surveyed in terms of the overall average score of financial knowledge, financial behavior, and financial attitude. Among the 17 OECD member countries surveyed, Türkiye ranked 15th.This implies that Türkiye's financial literacy levels are low compared to other countries surveyed, and efforts can be made to enhance financial knowledge, behavior, and attitudes among its adult population.

Global Findex Database developed by the World Bank can be used to measure and compare the financial inclusion status of countries. Data in this database also indicates the advancement of financial inclusion in Türkiye. According to the country brief report, 74% of adults in Türkiye have a bank account in 2021. While this figure has increased from 58% in 2011, it is 10 percentage points lower than the upper-middle-income economies average, which corresponds to 84%. The use of accounts has grown in recent years (from 50% in 2014) as 68 % of adults now use their accounts to make or receive digital payments (WB, 2021b).

In addition to these developments, the same report points to the following issues regarding financial inclusion. Türkiye still maintains a significant gender disparity of 23 percentage points in account ownership, as well as an income gap of 20 percentage points. Different demographics also show a digital gap: women and individuals with lower incomes who have an account are less inclined to use it for digital payments.

In 2021, the percentage of adults who saved decreased by half compared to the previous year. Türkiye emerges as the country with the smallest proportion of financially resilient adults in Europe and Central Asia, and with one of the lowest in upper-middle-income economies. Low financial resilience is influenced by difficult economic conditions that affect the poor and vulnerable more than the rest of the population.

Targeted investments in financial education, customer-centric product design, and robust consumer protection measures are essential to enhance financial inclusion by ensuring that customers can benefit from financial services and establishing public trust in the financial system (WB, 2021b).

Despite the increasing efforts of the government, financial institutions, and civil society organizations to improve financial literacy in recent years, it would be unrealistic to say that Türkiye has reached a sufficient level in financial literacy studies. According to the results of a survey published by the Financial Literacy and Inclusion Association (FODER, 2017), 70% of the population in Türkiye have some knowledge of financial matters, while about 40% state that they have been able to save money in the previous year.

The decision to save money is mostly driven by feelings of insecurity, uncertainty and anxiety about the future. During our interview with a representative from this association, she emphasized that more studies are needed to assess the situation accurately.

Based on her impressions in the training programs of the association, she stated that the main issue is not the access to financial services anymore especially due to the widespread use of smart phones, but rather raising awareness of the risks and innovative ways of using digital technologies. To this end, they care the design of the training programs tailored for the specific needs of different communities they work with.

The "Financial Literacy, Access, and Digital Maturity in Türkiye" report, published by the Boğaziçi University Center for Analytics and Insight Research (2022), shares the results of the Financial Literacy and Access (FOE) survey conducted annually in Türkiye since 2013. Over the past decade, the calculated financial literacy and access index scores have consistently increased nationwide.

The report also emphasizes that in terms of both financial literacy and access, women, singles, individuals with relatively low education, income, and socio-economic status, as well as predominantly unemployed individuals, housewives, and students are in a more disadvantaged position. While self-employed individuals are generally in good financial access conditions, within this group, farmers' financial access scores are calculated to be below the group average.

Moreover, some academic studies have developed provincial and regional financial inclusion indices using financial access indicators such as the number of bank branches and ATMs or financial utilization indicators such as loan and deposit data from the TurkStat, the Banks Association of Türkiye, the Participation Banks Association of Türkiye and the Banking Regulation and Supervision Agency of Türkiye (Yorulmaz, 2013; Gündüz and Özyıldırım, 2019; Bozkurt and Karakuş, 2020; Sarıgül, 2021).

These studies focusing on regional differences point to a positive correlation between education, income, social development levels, financial access, and financial inclusion. As the first three variables tend to be lower in rural areas compared to urban centers, and in agricultural employment compared to other sectors, it is plausible to assume that financial literacy and access to financial instruments might be relatively lower in agricultural sector. Yet, financial inclusion in the agricultural sector is an understudied field in Türkiye. In the agricultural context, measuring the inclusion and level of access of farmers to financial services involves assessing various indicators such as the percentage of farmers with bank accounts, loan approval rates, and the presence of financial institutions in rural areas.

During our research, we conducted seven semi-structured interviews with financial experts, two from international financial organizations, two from national financial institutions, two from civil society organizations working on financial literacy and microcredit, and one academic studying financial inclusion. Combining the data gathered from these interviews with the literature review, the remaining part of this chapter provides a brief overview of microcredit in Türkiye, the current level of financial inclusion in the agricultural sector, and the needs identified by the financial institutions and farmers that would contribute to the financial inclusion in the agricultural sector.

Brief Overview of Microcredit in Türkiye

Since the 1980s developing countries witnessed a radical change in economic policies for promoting entrepreneurship among the poor, in line with the strategy to alleviate poverty and generate employment. As a result of this new strategy, microfinance institutions, mainly targeting women, proliferated in almost all major parts of the developing world.

In Türkiye, as in other countries, men have more choices in terms of accessing formal or informal financial resources than women, regardless of their social class background (DGSPW 1996, Özar 2003). Women's access to formal credit organizations as well as to informal financial services and networks has always been limited. Banks advance credit only to businesses that are able to fulfill the established legal requirements, especially those regarding collateral.
They require either property collateral, usually about twice the value of the loan, or a letter of guarantee by a civil servant. Moreover, they analyze the balance sheet of the enterprise and thus are usually reluctant to extend credit to start-ups. Since it is estimated that only 9 percent of the assets in Türkiye are owned by women, they are less likely to fulfill the collateral requirements of the banks (Directorate General on the Status of Women, KSGM website).

In addition to this, women's ability to use household savings and property is very limited. Household assets are mainly placed under the control of male members of the household. Microfinance institutions and microcredit has been an attempt to support women by providing finance services that are not easily accessible to them.

The microfinance sector was absent in Türkiye before the late 1990s. The devastating impact of the earthquake in 1999 and the economic crisis of February 2001 were felt most severely by the poor. These two disasters seem to have determined the context that gave rise to activities in the field of microfinance services.

In June 2002, the Kadın Emeğini Değerlendirme Vakfı (Foundation for the Support of Women's Work, KEDV) launched the Maya Enterprise for Microfinance in the earthquake region as well as in Istanbul. KEDV provides small loans with a maturity of 6-12 months to low-income women who want to start their businesses.

It has distributed over 14,000 loans so far. It has been organizing the Micro Entrepreneur of the Year Award Programme with Citibank. Recently, KEDV prioritized empowering women economically through cooperatives rather than microcredit.

In 2003, the Türkiye Grameen Microcredit Programme (TGMP) was first implemented in the Southeastern Anatolia Region based on a pilot project. The programme was implemented with a budget of 500 million USD provided by the World Bank and 130 million USD provided by the Prime Ministry of Türkiye. On 11 June 2003, a contract was signed with Türkiye for the implementation of the Build-Operate-Transfer (BOT), Grameen model. In this context, the programme was first launched in Diyarbakır in cooperation with the Turkish Foundation for the Prevention of Waste (TISVA), Grameen Trust, and the Governorship of Diyarbakır.

Thus, it is possible to say that Türkiye has a fair amount of experience with microcredits. Moreover, based on the experience, several shortcomings in the application of this system have already been noted.

Problems faced by Lenders
The microfinance initiatives still lack an appropriate legal framework. The Banking Regulation and Supervision Agency (Bankacılık Düzenleme ve Denetleme Kurulu, BDDK) had prepared a draft act concerning microfinance institutions. However, the draft act has not yet been ratified and remains subject to deliberation. Thus far, little information is available on the outcome of the existing microcredit programs in Türkiye. Thus, commercial banks have been hesitant to establish microcredit programs and benefit from them as a tool for financial inclusion.

Problems faced by Borrowers
The only information provided by microcredit programs concerns their high repayment rates. Although high repayment rates are essential for the sustainability of the programs from a financial point of view, they do not reveal the effects of microcredit on women's lives, that is, whether participation in microcredit programs is sufficient to provide an escape from poverty or to improve the position of women in the family and society at large. Current investigations point to the fact that in Türkiye, particularly in the southeastern region where poverty is prevalent and the male and female unemployment rates are above the national average, male members of the family frequently make use of loans given to women.

Women's informal ways of accessing money: Staying away from microcredit
However, women have invented informal ways of accessing credit which may not be for business, but for the daily expenses of the household or their own needs. Groups of women organizing tea parties at regular intervals started altın günleri (gold coin days) or dolar günleri (dollar days) as an informal source of obtaining credit. In this case, the host receives as many gold coins as the number of guests. These parties thus act as informal rotating credit sources.

Shortage of cash seems to have revived the tradition of *bohçacı kadınlar* (women vendors), who in the past used to provide particular goods for the çeyiz (trousseau) for unmarried daughters of the household. A similar practice is evidenced at present. In this case, mobile male vendors, small neighborhood retail shopkeepers, and open market stallkeepers try to sell their products to women in weekly or monthly installments without asking for any legal contract. The relative immobility and reliability of women in repaying their debts play an important role in the perpetuation of these transactions.

By 2013 guidelines for countries had been signed by 108 countries – mostly from the global South – committed to implementing financial inclusion policies to lower the cost of financial services and create an enabling environment for the financial sector.

The key aspect of financial inclusion, as it is promoted, is saving the poor from inefficient and informal financial services such as mentioned above, and implementing financial inclusion policies to lower the cost of financial services. During the financial inclusion process, state intervention is crucial through legal regulations to support the financial system and to create trust in the financial sector among the poor.

The state in Türkiye, by not issuing a legal framework for microcredit financing, prevented the commercialized finance institutions from entering microcredit financing. According to Gürgen, the process of achieving financial inclusion in Türkiye is distinct from other countries where commercialized microfinance institutions (MFIs) have played a dominant role, as well as from regions where infrastructural investment was the main priority. It also differs from countries where the financial sector has acted independently to tackle financial exclusion. What sets Türkiye apart is the active involvement of the state in two key areas that promote financial inclusion: its official strategy for financial inclusion and the absence of a commercialized microcredit sector that is securitized (Güngen 2018).

During this research, we contacted both of the microcredit institutions mentioned above. While Türkiye Grameen Microcredit Programme did not answer our emails, we managed to meet the Maya Enterprise for Microfinance by KEDV. Our short interview revealed that the agricultural sector was not among the sectors in which their microfinance programme operated.

Financial Inclusion in Agricultural Context

By its very nature, agricultural production requires a specific financing system. As the agricultural production depends on natural conditions, climate, and geography, the production and value cycle is realized in a different way than industry and services. In agriculture, the production period differs from the harvesting and selling period, which implies that the farmer has to spend during the production process until the products are converted into cash after the harvest. The time interval between production and harvest periods creates the need for financing in cases where equity is insufficient. It has long been common among rural farmers to borrow and lend money or barter during the production process, especially for seeds and other agricultural inputs. Although the tradition of lending and borrowing still continues, it has increasingly been monetized and financialized in the last few centuries.

The financing period is less than a year for agriculture with annual harvests, but longer for the production of crops that require many years after planting, such as fruits. The financing period is shorter for most vegetables where the crop is grown in a few months. Yet the selling price is in most cases uncertain, and the farmer is exposed to great risk.

The financing period is less than a year for agriculture with annual harvests, but longer for the production of crops that require many years after planting, such as fruits. The financing period is shorter for most vegetables where the crop is grown in a few months. Yet the selling price is in most cases uncertain, and the farmer is exposed to great risk.

If prices are too low, the farmer does not want to harvest since the cost of harvesting can be even more than the price. Or if the crops are already harvested, then the farmer wants to wait until prices rise again. In both cases, this corresponds to a financing problem: debts need to be paid and inputs need to be supplied for the new production season.

Hence, farmers require funds for various purposes, such as purchasing seeds, equipment, livestock, land maintenance, etc. Agriculture credit offers a lifeline to farmers by providing them with the necessary capital. Agricultural finance's principal aim is to guarantee farmers’ access to affordable and appropriate credit to sustain their farming operations. This is essential for the sustainability and development of agriculture, as it enables farmers to invest in their farms despite financial constraints.

Considering the economic and financial capacities of the social segments undertaking agricultural production, agriculture financing has always required a special arrangement and has always been an important element of rural development and agricultural policies.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Agricultural finance is the key to agricultural development in any country. It is critical in a country like Türkiye with a relatively large rural population, where agricultural employment is still high, agricultural production is mostly carried out by small-scale family agricultural enterprises with fragmented land structure, and where food security conditions are deteriorating day by day due to long-term structural problems related to agricultural production and the climate crisis. Since the level of cash and cash-like capital accumulation in the agricultural sector in Türkiye is low, farmers' own capital (internal financing) alone is not sufficient to finance production, ensure food security or achieve green and fair transformation in agriculture. Therefore, an agricultural financing system that meets the needs of farmers is vital for sustaining agricultural production, ensuring food security and transition to climate-neutral farming.

The cash flow balance of most farms is negative for a significant part of the year because farmers have to spend continuously from the beginning of production until harvest without making any sales. Due to the small scale and the low processing and storage capacity of the average farmer profile, producers are forced to dispose of their produce in a short period of time. Although it varies regionally and depending on the product, producers generally sell their products to traders/merchants who operate on a local scale.

These intermediary actors are in contact and communication with producers throughout the season. In other words, the sale agreement is usually signed or implicitly agreed way before the harvest. Since the marketing opportunities of small farmers are limited and their bargaining power is low, they usually get a lower share from the value chain of the product, and they might easily be affected negatively by the price fluctuations. In this respect, a sustainable financing system in agriculture is important for producers to sustain production, have a more orderly market system, and increase productivity by providing external resources for agricultural investments.

While the need for agricultural financing in Türkiye was almost entirely met by public banks until the early 2000s, private banks have also started play a role in financing agriculture with different products and services, particularly agricultural loans. In addition to the working capital loans, which have been the traditional agricultural financing model mainly undertaken by public banks, private banks started to develop new financial instruments in line with the nature of agricultural production and farmers’ needs. Since the mid-2000s, as a result of the special interest and efforts of a few leading banks in the agricultural sector, a niche area known as agricultural banking has emerged within the banking system.

The share of public banks and credit cooperatives in the loan volume of the sector's investment financing has started to decrease with the increased competition between more banks entering in the sector, and the transformation of the state's agricultural development policies.

As of 2024, the total balance of loans provided by banks to the agricultural sector exceeded TRY 600 billion. Of this balance, public banks have a market share of 84.4%, domestic private banks 6.8%, and foreign banks 8.8%. The volume of private banks' agricultural loans has increased since the mid-2000s, when agricultural banking developed under the leadership of a few banks such as Denizbank and Türkiye İş Bankası. Denizbank emerged as one of the most well-known private banks in agricultural banking due to its early entry into the sector, its new instruments, and its advertisement strategy. It can be said that while Denizbank targeted more farmers with smaller amounts of loans and with a shorter maturity date, Türkiye İş Bankası, as one of the strongest private banks in Turkiye targeted middle to upper-segment farmers with long-term loans.

The market share of the private banks in the agricultural sector rose to 30% until the summer of 2018. One of our key informants who worked in the agricultural banking sections of three different private banks expressed that the important role of the employees is not always recognized by the banks.

He indicated that the strategy of Türkiye İş Bankası targeted to specialize in agricultural banking not only by creating new instruments but also by launching new branches specialized in agriculture (Tarım İstihsas Şubeleri) in which they recognized the value of the relationship between employees and farmers and invested in their human resources. All of our informants from financial institutions acknowledged that the profile of the farmers as bank customers requires the bank employees to develop particular skills, different than industrial employers, urban entrepreneurs, or consumers. Bank employees need to know the farmers personally, and has to acquire knowledge about their specific agricultural production in order to figure out the appropriate expectations in terms of loan repayment.

After the currency crisis in the summer of 2018, private banks started to act more cautiously due to increased risks. The recent increase in the interest rates in Türkiye also made it difficult for customers to take loans from the banks. The market share of public banks increased again in the agricultural sector in the last five years, reaching 85% in 2023. Public banks are still the motor force of the agricultural credit market.

Yet more and more farmers continue to become trusted customers of private banks, and more banks continue to compete among themselves to offer specialized services to the farmers. An increasing number of farmers benefit from a wide range of financial instruments that are designed according to the different production regions, product groups, and producer scales. The support provided by the state through public banks, the increasing interest of private banks in the agricultural sector, and a competitive sector of agricultural banking have contributed to the financial inclusion of farmers.

Recently, new financial institutions such as Tarfin, FinAgro, and others, emerged in the agricultural sector. These firms provide "buy now, pay later" services to the farmers via their purchase of agricultural inputs such as fertilizers, seeds, and feed. They directly pay the contracted retailer on behalf of the farmer, who later pays the firm at the harvest. One of our key informants who works for one such company indicated that this financial service is less costly for the farmers than getting loans from a bank. This mechanism is also more reliable than agricultural loans of the banks since the farmers who acquire the input necessary for the production, are more likely to pay back with the harvest. An important problem the banks face with the loans is that the farmers may use the cash they obtain for other purposes than agricultural production. Our key informants who are farmers also confirmed that they do not always use the agricultural loan for agricultural purposes.

KKB, in collaboration with the Frankfurt School, has been conducting annual research since 2018 to track the transformations in the agricultural sector in Türkiye. By publishing the research results annually under the title Agricultural Outlook (Tarımsal Görünüm Saha Araştırması), they aim to improve the quality of financial services in the agricultural sector. In addition to the KKB, DOKTAR, one of Türkiye's leading agri-tech firms established in 2017, conducts Farmer Pulse Surveys (Çiftçinin Nabzı) to evaluate the general status of agricultural enterprises in Türkiye and the impact of conjunctural developments on the agricultural sector. Both the Agricultural Outlook of KKB and the Farmer Pulse reports of DOKTAR contain evaluations that will provide insights into farmers' financial literacy, access to financial tools, and financial attitudes.

In the KKB's 2022 Agricultural Outlook report, farmers were asked which sources of financing they used. While 25% of the farmers did not use any external financing, 60% used credit/cards from banks, and 27% used credit from the Agricultural Credit Cooperatives (TKK). Among farmers who used bank credit, 83% used it for financing agricultural operating expenses, 51% for investment financing, and 15% for non-agricultural needs. Those who used investment loans mainly used them for tractor/machinery purchases (63%), land purchases (22%), and breeding animal purchases (16%).

In the same research, farmers were asked how many banks they obtained agricultural loans from in a production season. 51% of the farmers who used bank loans worked with a single bank, 32% with two banks, and 9% with three banks. This is in line with our key informant interviews, which suggested that the limited collateral options prevent most farmers from taking loans from more than one bank. Yet the average number of banks per farmer using credit increased from 1.6 to 1.8 from 2021 to 2022. When farmers who did not use credit were asked for their reasons, 50% stated they did not need it, while 31% cited high-interest rates and expenses. 21% of the farmers expressed reluctance or opposed to borrowing with interest. This implies that a significant number of farmers are attracted to interest-free financial instruments in agriculture.

Farmers were also asked whether they had agricultural insurance. The responses showed that more than half of the farmers (52%) had not taken out agricultural insurance in the last three years. Among the reasons for not taking out insurance, the high premiums and difficulties in receiving payments in case of damage stood out. One of our key informants who is a farmer explained that when they make the insurance, their reasonable estimates for the output is accepted by the insurance company.

However when their output is damaged for a reason covered by the insurance, the company sends an expert to assess the output level. After being paid less than half of the value of their output, the farmer decided that the insurance was not worth it and stopped making insurance for this field.

The report also indicates that practices such as the contract farming model, licensed warehousing, and electronic product warrants, which have been promoted in recent years due to their potential to provide alternative financing options for agricultural production, are still not widely adopted among producers.

According to the Farmer Pulse 2018 by DOKTAR, 84% of farmers consider that they do not earn enough from farming activities to save money, highlighting one of the main constraints to farmers' savings and accumulation. Similarly, 68% of farmers indicating that they have not made any recent investments in their fields is striking from this perspective. Concerns about farmers' inability to earn sufficient income to invest in maintaining and improving production are also reflected in the research results of KKB.

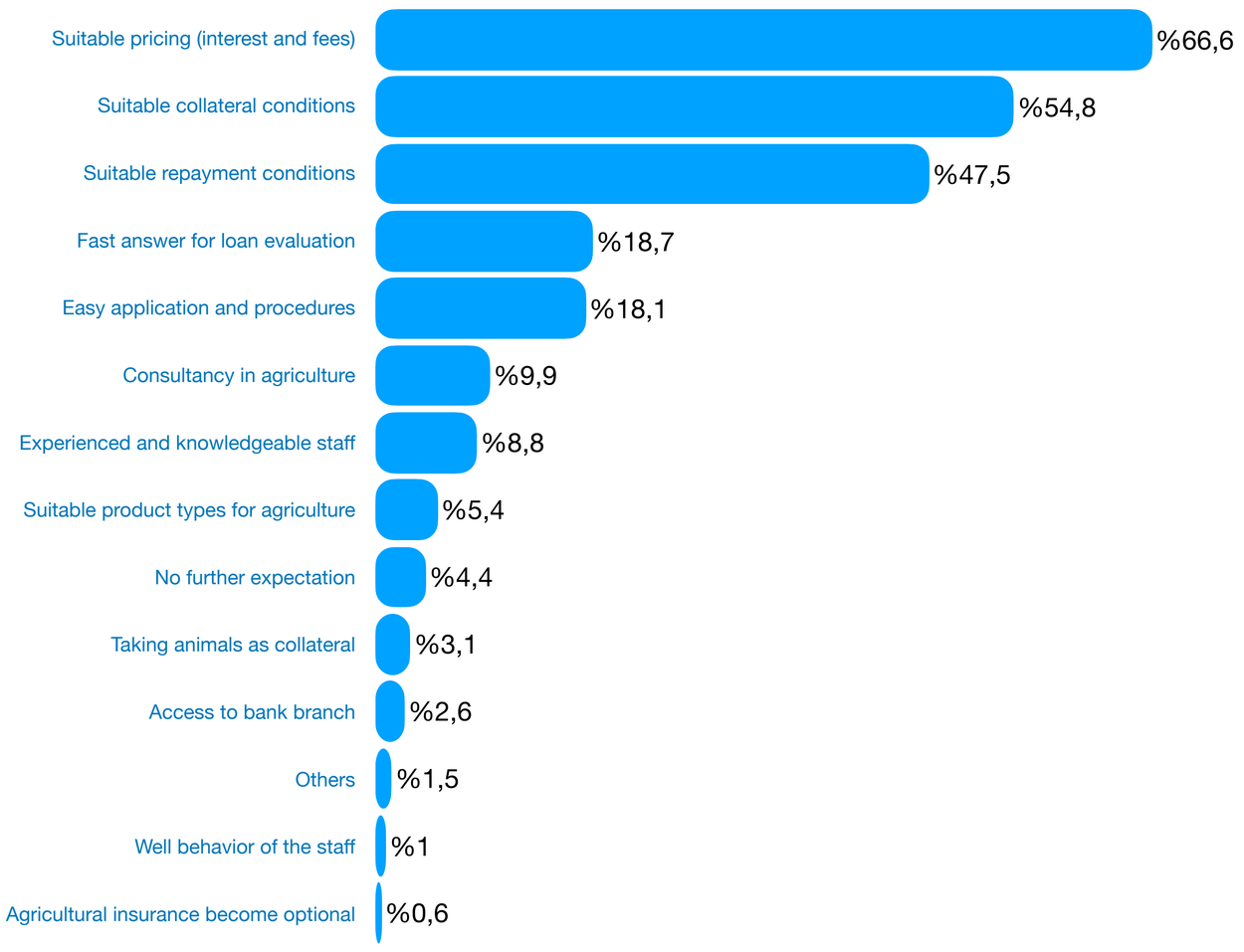
The European Bank for Reconstruction and Development (EBRD) initiated the Micro, Small and Medium Sized Enterprises (MSME) Lending Program in 2010. As part of this program, In 2011 and 2016, two research were conducted by the Frankfurt School to understand the needs of the agricultural MSMEs in Turkey regarding access to finance and banking services (Cebeci et al., 2017).

In those surveys farmer participants were asked about how they financed their agricultural productions, which financial services they accessed, and which banks they worked with. Expectations from banks to facilitate access to agricultural loans were also inquired.

The prominent expectations, as reflected in the report (2017), include more favorable pricing and repayment conditions to access loans. Collateral requirements were identified as a major hurdle for farmers in accessing agricultural loans. Evaluating farmers' expectations suggests that banks do not face significant challenges in reaching out to them.

Considering this study was conducted in 2016, it's plausible to expect that financial institutions in the agricultural banking sector have implemented various practices to meet farmers' expectations since then. Our key informants from the financial sector have highlighted the importance of integrating digital technologies and data science into agricultural banking to facilitate easier and more favorable access to credit and risk assessments for farmers. Additionally, some banks have aimed to familiarize farmers with agricultural banking and financial products and services by converting branches into specialized agricultural branches or redesigning branch organizations and designs with a focus on agricultural banking. As a result of these developments, certain improvements might have taken place in the above-indicated expectations of farmers' access to financial services.

FIGURE 18: FARMERS EXPECTATION FROM BANKS (SOURCE: CEBECI ET AL., 2017:17)



B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

In November 2017, at the Agricultural Finance Summit organized under the leadership of the Ministry of Agriculture and Forestry, the following problem areas were pointed out in the assessments made in terms of financing agriculture and financial inclusion in Türkiye:

Excessive bureaucratic procedures
Producers' lack of sufficient knowledge about banks' working principles and loan diversity
Limited loan products offered to farmers
Farmers' inadequacy in preparing the feasibility report required at the loan stage
Excessive additional costs such as loan file costs and life insurance
High agricultural loan interest rates in private banks,
Targeting large enterprises in agricultural loan disbursement and ignoring small enterprises
Failure to develop new loan opportunities for conservative producers

In addition to these problems, collateral, repayment and maturity problems were evaluated as the leading problem areas. The participants in the Summit agreed that Türkiye needs a comprehensive road map to be created with the right policies in the field of agricultural finance.

Following the situation assessments and needs analysis conducted at the summit, it was recommended to focus on the following six areas of agricultural financing (TOB, 2018g).

One of the decisions made in this summit was the preparation of “Türkiye Agricultural Finance Action Plan" (Türkiye Tarımsal Finans Eylem Planı) by the TOB, which did not result in a document open to the public. In the last 20 years, subsidized credit support from the public sector and increased interest and investments by commercial banks in agricultural banking have led to a significant increase in agricultural term loan amounts disbursed by banks. However, the share of agricultural loans in total loans is still low compared to the contribution of agriculture to the economy. As the 2017 summit also revealed, the government, in collaboration with relevant stakeholders in the finance and agriculture sectors, should develop a financial inclusion strategy for agriculture to increase access to financial instruments for the financially excluded in the agriculture sector.

Making macro-level planning in agricultural finance, increasing efforts to overcome the difficulties faced by small-scale family enterprises in accessing finance
Reducing costs and improving collateral diversity in agricultural loans
Implementation of subsidized agricultural loans by all banks
Improving financial literacy in agricultural enterprises,
Improving financing for agricultural equipment and machinery,
Carrying out activities to eliminate the lack of information on agricultural insurance in agricultural enterprises.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Despite the various educational and capacity-building efforts mentioned in the report by different organizations, both the literature and our key informant interviews suggest that there is still a significant need to increase the levels of financial and digital literacy among farmers. Despite the recent increase in technology usage and the growing interest of financial institutions in agricultural banking and digital banking, the above-presented data shows that steps need to be taken to enhance financial inclusion. Below, relying on our desk review and key informant interviews, we provide a list of the needs and suggestions regarding financial inclusion in the agricultural sector.

Please see the **Field Report** for more specific experiences and needs of small farmers we encountered in our fieldwork.

It is important to note that the list below and the findings in the Field Report reflect that a thorough empirical study is needed in order to evaluate the level of financial inclusion and the needs of both farmers and financial institutions in different parts of Turkey.

Although a significant number of farmers use loans from public banks, especially Ziraat Bank, there are still a considerable number of farmers who do not or cannot use loans from private banks for various reasons. According to the financial experts we interviews, Ziraat Bank enjoys a privileged position that does not allow farmers to get in touch with other banks and try new instruments. According to the farmers we interviewed, farmers, especially small-scale producers, lack access to affordable credit options. The government should foster an institutional framework that encourages the presence of bank and non-bank entities, and a variety of financial institutions from the private and social sectors that can supply instruments that meet the needs of financing of the small-scale producers.

Agri-fintech companies whose numbers have been increasing in the last five years can create an important market that would increase the financial inclusion of farmers and agricultural workers. Targeting farmers' financing needs for acquiring agricultural inputs, these companies differentiate themselves from traditional financial institutions by their heavy use of digital banking technologies, mobile applications, open banking services, cloud-based resource management technologies, and blockchain-based smart contracts.

B4. Financial Inclusion of Agricultural Farmers and Workers in Türkiye

Banks should produce financial products and services tailored to the needs of farmers, as some of the leading banks in the field have started to do in recent years by opening specialized agricultural branches, organizing meetings and gatherings where they can communicate directly with farmers, and collect their opinions on the financial services. This would also contribute to the farmers' need for flexible financing and collateral models. Innovative ways need to be developed on the agricultural banking side to overcome the strict collateral requirement, which is one of the main reasons why micro and small agricultural enterprises have difficulty accessing agricultural loans.

Risk assessments for agricultural loans and insurance transactions should be improved by ensuring integration between the registration systems and data sources under the responsibility of the Ministry of Agriculture and Forestry, such as the Farmer Registration System, Animal Information System, Farm Accounting Tax Network, the Land Registry and Cadastre Information System, and the Agricultural Credit Assessment Systems developed by the Credit Registry Bureau for banks extending agricultural loans.

Throughout this research we observed that cooperatives and agricultural entrepreneurs tend to use grants obtained from international and national donors. Successful experiences can be analyzed to formulate a collaborative model for new financial institutions that can create loans for the cooperatives. Cooperative models of agricultural financing can be integrated into the requirements of the grants. By targeting agricultural cooperatives, joint liability models can be developed for cooperatives with appropriate financial structure and sufficient administrative capacity.

While decreased significantly in the last decades, Agricultural Credit Cooperatives (ACCs) play an important role in financing agriculture in Türkiye. However, in recent years, they have mostly been acting as intermediaries in the delivery of subsidized loans provided by the public sector to producers. Some of our key informants criticized that ACCs have been instrumentalized by the state to intervene in problems in the agriculture and food sector, and that they do not operate autonomously as a proper farmer organization. This also violates the international principles of cooperativism as well. While the ACCs offer tremendous potential with their widespread institutionalization in the country, farmers have been perceiving them as not very different from banks and merchants.

In addition to agricultural credit cooperatives, other agricultural cooperatives also have an important potential to address the needs of farmers, and promote financial inclusion in agriculture. They can also be operationalized in creating co-guarantee mechanisms which would facilitate access to credit for their members. Yet it is clear that financial training programs and train-the-trainer programs should be developed for agricultural cooperatives. Trainers from cooperatives should be trained to provide hands-on training and technical assistance to improve the financial literacy of cooperative members. Developing the cooperative banking model, which has been successfully implemented in many countries to increase cooperative financing, could also facilitate access to financial instruments for farmers who are cooperative members.

Coordination and cooperation should be ensured between banks operating in the field of agricultural banking, agricultural cooperatives and institutions implementing microfinance programs in Turkey, and pilot practices should be developed to expand microfinance in agriculture.

Part 2

Field Report

Key Findings

- **Diversity Among Producers:** Agricultural producers exhibit a wide diversity in practices, capacities, and backgrounds, complicating standardized approaches to financial inclusion.
- **Refugee Inclusion:** Refugee agricultural workers, though similar in variability to host populations, face additional challenges and restrictions in movement and economic participation.
- **Informal vs. Formal Sector:** A significant portion of agricultural production occurs informally, with around 60% of farmers in Turkey not registered in the Farmer Registration System (ÇKS).
- **Financial Services Accessibility:** Many farmers, especially those outside formal channels, face difficulties in accessing financial services due to a lack of formal financial literacy and unfavorable credit histories.
- **Limited Financial Options:** Financial tools like credit cards and bank loans are not adequately meeting the needs of farmers, many of whom find themselves in legal disputes or on banking blacklists due to repayment issues.
- **Cyclical Financial Challenges:** Farmers experience cyclical financial challenges that limit their ability to secure necessary resources, with informal borrowing from personal networks as a common recourse.
- **Cultural and Religious Influences:** Cultural and religious beliefs significantly impact financial behaviors, often discouraging formal financial engagements like loans and insurance.
- **Inefficacy of Financial Formalization:** The formalization of agricultural practices and additional financial support has not effectively improved financial inclusivity among farmers.
- **Production Constraints:** Agricultural production is frequently hampered by fragmented land use and limited scalability, hindering economic efficiency and financial sustainability.
- **Marketing Challenges:** The marketing of agricultural products is heavily influenced by informal transactions and fluctuating market demands, which affect the financial stability of producers.
- **Commissioners Role:** Commissioners play a critical role in the agricultural market, often setting prices and terms that limit producers' financial autonomy and market flexibility.
- **Registration Impacts:** Registration within the Farmer Registration System (ÇKS) is crucial for accessing formal financial services, but a large segment of farmers remains unregistered, thereby excluded from these benefits.

Key Findings

- **Credit Repayment Issues:** Significant issues with credit card expenditure repayment among farmers highlight the mismatch between available financial products and the actual needs of agricultural producers.
- **High-Risk Banking Status:** Farmers often find themselves labeled as "high-risk" by banks due to difficulties in repaying loans or credit card debts, which restricts their future access to financial resources.
- **Role of Informal Loans:** Informal loans from family, friends, and business contacts serve as a critical financial lifeline for many farmers, underscoring the inadequacy of formal financial systems to meet their needs.
- **Cultural Barriers to Financial Access:** Cultural and religious reservations about borrowing and insurance inhibit the use of these financial tools, limiting options for managing financial risks.
- **Institutional Collaboration:** There is a need for better institutional collaboration to address the financial inclusion challenges faced by farmers, emphasizing the role of governmental bodies, private sector, and civil society.
- **Constraints in Agricultural Practices:** The lack of modern accounting and planning techniques among farmers points to a broader gap in business acumen, which impacts financial management and sustainability.
- **Land Ownership Constraints:** The inability of many farmers, especially refugees, to own land directly affects their financial stability and access to credit, as land is a primary asset for securing loans.
- **Influence of Market Dynamics:** Market dynamics, including the saturation of certain crops due to trend-following behaviors, significantly impact the financial viability of agricultural practices.
- **Dependence on Commissioners:** Farmers' dependence on commissioners for both marketing and financial support creates a dependency that can restrict their economic independence and market participation.
- **Challenges with Formal Market Entry:** The difficulties faced by unregistered farmers in accessing formal markets highlight the barriers to market entry and the need for regulatory reforms to support small and informal producers.
- **Economic Impact of Policy Decisions:** Government policies and economic measures, such as export quotas and anti-inflationary strategies, directly affect the financial returns of farmers by influencing market prices and product demand.
- **Necessity of Direct Selling:** The importance of direct selling venues, like local neighborhood markets, for farmers lacking formal registration underscores the value of alternative market strategies to bypass traditional supply chains.

Key Findings

- **Active Pursuit of Information:** Both local and refugee farmers actively seek out expert advice, particularly regarding pesticide application, soil analysis, and crop monitoring, demonstrating a proactive approach to improving agricultural practices.
- **Valuing First-Hand Experience:** Farmers show a strong preference for adopting agricultural practices that they can witness and verify personally, reflecting a pragmatic approach to integrating new knowledge.
- **High Engagement with Agriculturalists:** Direct collaboration with agriculturalists leads to higher quality products and better market prices, as evidenced by a refugee farmer's experience with tomato cultivation.
- **Challenges with Conventional Training:** Standardized training programs often fail to engage farmers effectively, as they find these programs too abstract and not directly applicable to their immediate needs.
- **Low Training Participation:** Organizing training sessions is challenging with low enrollment and participation rates, indicating a disconnect between the training offered and the farmers' perceived value of these sessions.
- **Preference for Practical and Visual Training:** Farmers are more likely to engage in training that includes hands-on activities on their farms and utilizes visual and digital content, suggesting a need for more tailored and interactive educational methods.
- **Effective Communication Channels:** The use of social media and SMS for communication with farmers is effective, indicating that digital platforms are valuable for information dissemination and engagement.
- **Climate-Smart Agriculture Training:** Initiatives like training in climate-smart agriculture show promise, particularly when they involve close collaboration with organizations like GIZ and FAO and focus on practical applications like greenhouse cultivation, beekeeping, and mushroom farming.
- **Need for Localized Training Topics:** There is a discrepancy between the training topics selected by organizations and the actual needs and interests of farmers, with many training decisions made without direct input from the farmers themselves.
- **Cooperative Support for Refugees and Local Farmers:** The cooperative is particularly notable for its inclusive approach, providing support and employment opportunities to both refugee and local community members, which helps integrate diverse agricultural practices and enhances community resilience.

Key Findings

- **Cooperative Impact on Agricultural Practices:** Innovations introduced by the cooperative, such as the processing of lemons into products like cologne and beverages, not only offer new economic opportunities but also demonstrate viable alternatives to traditional agricultural outputs.

- **Cooperative Impact on Training and Employment Integration:** By integrating training with employment, the cooperative ensures that learning is directly applicable and immediately beneficial, making it an effective model for skills development and economic empowerment.

- **Focus on Women's Empowerment:** The cooperative places a strong emphasis on empowering women in agriculture, providing them with specific training, support in production, and assistance in marketing their products, which enhances their economic independence and community status.

- **Collaboration with International Organizations:** The cooperative benefits from robust support from international entities such as the USA Foreign Ministry, the World Bank, and the International Labour Organization (ILO), which provide financial and training resources that are crucial for its operations and sustainability.

- **Local Government Support:** The cooperative's success is also bolstered by significant local government support, which includes the provision of land and essential equipment, demonstrating the importance of local government involvement in supporting agricultural initiatives.

- **Market Access for Farmers:** By facilitating direct access to large national chain stores, the cooperative helps bridge the gap between small-scale farmers and large markets, providing a stable outlet for their products and ensuring better economic returns.

- **Provision of Safe and Supportive Work Environments:** The cooperative's focus on creating a safe and supportive work environment, including transportation and better food for workers, significantly contributes to worker satisfaction and productivity.

- **Sustainable Practices and Local Development:** The cooperative not only focuses on immediate agricultural outputs but also promotes sustainable practices and long-term community development, making it a model for other regions and sectors to emulate.

Executive Summary

- This part of the report consists of a field study of the agricultural actors, their activities and the institutions that enable agricultural production. It is hoped that this data will show how an in-depth study of a particular region can provide insights into the details of agricultural relationships, showing where the bottlenecks lie and suggest future policy.

- The Mersin-Adana region was chosen for an in-depth case study because of its diversity, dynamism and high level of market inclusion. Mersin is known for the large number of small scale agricultural producers, while Adana has, for a long time, been the seat of large landowners and producers. It is rich and over-commercialised, using large amounts of industrial inputs and therefore requires investment.

- The Mersin-Adana region is among the fertile agricultural areas of Turkey but the soil needs to be rehabilitated. Three types of agricultural production are undertaken: orchards devoted to citrus and fruit trees, greenhouse production devoted to vegetables, and open fields in the Adana region devoted to cereal production. Most of this production is undertaken by small scale producers. Plots are small and fragmented. Farmers cultivating mostly rented orchards, try to increase their income by engaging in produce trading and marketing.

- Harvesting is manual and performed by seasonal workers. Seasonal laborers consist of migrants to the region. At first these were Kurds, now they are mostly Syrian refugees. Household labor is used mostly in vegetable production, especially in greenhouses. Finding adequate labor is a big problem and intermediaries called çavuş are used as labor suppliers.

- The Adana-Mersin region produces the bulk of citrus fruit consumed in Turkey and exported to countries such as Russia and the Ukraine. State support for agriculture through grants and donations is limited and requires farmers to register with the Chamber of Agriculture. Most farmers prefer to stay outside the purview of the state and obtain their inputs from private firms. The quality and quantity of products are controlled through the use of state-issued certificates especially for exports and for products sold through large retail stores.

- A small number of refugees are involved in agricultural production and some also are labor suppliers (*çavuş*). Syrian refugees are not able to buy land nor are they able to register as farmers (unless they establish a commercial firm). Apart from this, refugees use the same techniques as host farmers and face similar bottlenecks.

- Agricultural produce is sold to commissioners in the city's fruit and vegetable market or to large scale exporters. These commissioners are organized as a market association and are largely able to set prices. The sale of the produce often proceeds in an informal atmosphere. Any debt to the buyer is settled first and the transactions proceed through the use of cash. All decisions and transactions are carried out according to the immediate needs of the farmer and advance planning is rendered rather impossible because of the uncertainty that surrounds issues such as pricing. Price depends on the decisions of large scale buyers, export firms in particular. It is also said that export quotas for agricultural goods are used by policymakers to keep the price of agricultural products low by creating an excess of agricultural products.

- Marketing of agricultural products is adversely affected by fluctuating market prices and cost pressures from rising input expenses. The role of commissioners in the agricultural market is also pivotal, often dictating price terms and providing crucial financial support, albeit at high interest rates and with significant control over the farmers' market actions.

- Farmers require significant amounts of financial needs during the course of agricultural production. Small farmers in the Mersin region try to keep away from obtaining bank loans and bank credit. Most farmers find loans to be excessive and carry the risk of being blacklisted by banks in cases of trouble with repayment.

- The gap between formal and informal financial practices is wide, with many farmers outside the formal banking system. Traditional financial inclusion tools have proven inadequate in fully integrating agricultural workers into the financial system.

- Financial literacy among farmers is generally limited. Many have basic banking services but face challenges with debt repayment, particularly concerning credit card debts. A significant segment of the agricultural population remains unregistered in the Farmer Registration System (ÇKS), which complicates their access to formal financial services. Refugees especially face stringent banking barriers due to their status and regulatory requirements.

- Although farmers all have bank accounts and are able to use credit cards, farmers use two sources of credit: private firms supplying agricultural inputs such as fertilizers or plastic sheeting for greenhouses and commissioners in the fruit and vegetable market. Vital capital in cash and in kind needed for production is obtained from these two sources by both host and refugee farmers. Such loans create a dependency between farmer and commissioner and input trader since farmers are thus bound to buy from the same supplier and sell to the same commissioner whatever the price quoted.

- Loans obtained from private firms and commissioners are registered through the use of promissory notes are often settled after the harvest. Smaller loans that can be repaid without interest can also be obtained from relatives and acquaintances. Bank loans are mostly used by large-scale farmers as a financial strategy as indebtedness can be used to obtain tax advantages and rebates. The use of mobile banking is widespread among all types of farmers.

- Refugee agricultural producers we interviewed have bank accounts but they do not possess a credit card and have not used credit facilities provided by banks. Refugees told us that they can open a checking account only if they can present a work permit issued by a governmental institution.

- Farmers operate in a highly variable environment with cyclical market demands influencing crop selection. Modern accounting practices are absent, and most farmers manage their financial records informally. Both host and refugee farmers commonly use informal channels for financial needs, heavily relying on personal networks for loans, which often come without formal terms but may include hidden costs.

- The fragmented nature of farms limits economies of scale and complicates efforts toward more organized and financially sustainable agricultural practices.

- The agricultural market is heavily influenced by commissioners and informal transaction mechanisms, which restricts direct market access for many farmers and complicates financial planning.

- There is a need for tailored financial education programs and more accessible financial services that consider the unique needs of the agricultural sector.

- Both refugee and local farmers demonstrate a proactive approach to acquiring professional and technical support throughout the agricultural production cycle. They routinely seek expert advice, particularly for tasks such as pesticide application and soil analysis. This openness to new knowledge, verified through firsthand experience, is a significant factor in their willingness to implement innovative agricultural methodologies.

- Despite their reliance on ancient agricultural wisdom, farmers show readiness to embrace modern techniques that prove beneficial firsthand. For example, a refugee farmer achieved higher crop quality and market prices by collaborating closely with an agriculturalist, underscoring the value of direct expert involvement.

- Traditional educational programs and training models often fail to engage farmers effectively, seeming too abstract and disconnected from practical application. Governmental and NGO training initiatives struggle with low participation rates, often due to their failure to meet the immediate needs and interests of farmers, who frequently participate only to obtain certificates viewed as beneficial marketing tools.

- Insights from agricultural professionals suggest that the most effective training methods are those allowing farmers to directly experience and observe practical applications on the field. Recommendations include shifting from lecture-based to more interactive, demonstrative sessions that involve direct, in-person engagement and are held on actual farms.

- Many institutions assisting agricultural producers include Provincial Directorate of Agriculture, The Chamber of Agriculture, the Adana and Mersin municipalities, state and private banks and numerous private firms selling industrial inputs. These institutions provide information and training on products and techniques, various types of credit and services related to soil and plant analysis, the application of fertilizers and pesticides and methods of irrigation.

- The relationship between farmers and agricultural institutions is complex. While agricultural chambers and governmental bodies aim to provide education and guidance, their dual roles as regulators and penalizers can create a conflict, leading farmers to feel distanced. There is a need for these institutions to balance their supportive and regulatory roles more effectively, possibly by segregating these functions into separate organizations.

- The Meryem Cooperative we visited in Adana initiated by the local municipality, serves as a pivotal institution in the region, demonstrating a sustainable model of agricultural cooperation. Supported robustly by the municipality, the cooperative is able to innovate and expand its activities even amidst financial challenges. This backing allows it to serve as a practical example for local farmers, showcasing effective agricultural practices and innovative.

- Described by key municipal officials as an exemplary model, the cooperative provides a dynamic platform for local and refugee farmers to engage directly with advanced agricultural practices. This direct engagement facilitates the practical learning and adoption of new techniques, particularly beneficial for small-scale farmers who lack the resources to experiment independently.

- The cooperative focuses significantly on creating employment opportunities, particularly for refugees, with a diverse workforce including individuals from Afghan, Iranian, and Syrian communities, as well as the local host community. Currently, it boasts around 40 partners engaged in cultivating products like potatoes and flowers in open fields and greenhouses.

- The cooperative’s products are rigorously analyzed and registered, making them eligible for sale to large nationwide chain stores. This structured approach to production and marketing ensures quality and market compliance, enhancing the cooperative’s commercial viability.

- Beyond its agricultural functions, the cooperative acts as a community hub, offering safe work conditions, better food, and transportation services. It engages extensively with the local community, facilitating both commercial and collaborative relationships. Furthermore, it conducts effective in-house training, tailored especially for refugee women, integrating them into both the production and marketing processes.

- The cooperative's establishment and sustainability have been supported by significant international funding, particularly from the USA Foreign Ministry, with additional support from the World Bank and the International Labour Organization (ILO). This global backing is complemented by essential resources like land and equipment provided by the local municipality.

- The Meryem Agricultural Cooperative stands as a beacon of successful agricultural collaboration and innovation. By combining local and international support, practical training, and a focus on inclusive employment, it not only supports its members but also significantly influences agricultural practices in the region. This cooperative model illustrates the potential for similar initiatives to foster sustainable agricultural development and community empowerment.

Introduction

This chapter presents the outcomes of the fieldwork conducted in the cities of Adana and Mersin. This field report takes into account most of the issues regarding the process of production and marketing, the producers and the various actors supplying them with inputs and information needed during the process of production and the means and contacts needed to realize the sale of products. The sum of these relations amount to the general conditions that determine agricultural production in the Mersin-Adana area. This data is intended to show how an in-depth study of a particular region can provide insights into the details of agricultural relationships, showing where the bottlenecks lie and suggesting future policy. The following is based on a week-long stay in Mersin with visits to Erdemli, Tarsus and Adana. Hence interviews with host farmers and representatives of institutions were carried out mostly in Mersin, with one project manager, a cooperative, and a group of refugee farmers in Adana.

List of Interviews

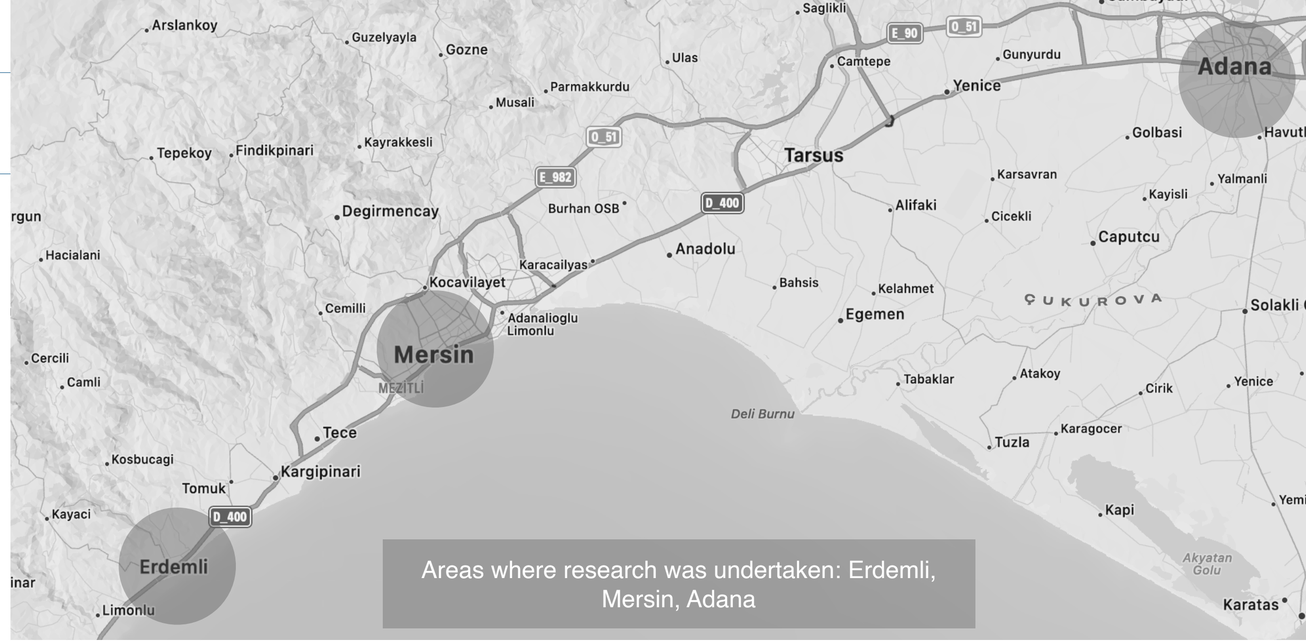
No	Interviewer	Host / refugee	Relevance to agriculture	Age	Education	Gender	Location
1	MRS1	Host	Producer	52	Primary	Male	Yenipazar/ Mersin
2	MRS2	Host	Producer	46	Primary	Male	Yenipazar/ Mersin
3	MRS3	Refugee	Producer	36	-	Male	Erdemli/Mersin
4	MRS4	Host	Chamber of Agriculture	45	Undergraduate	Male	Mersin
5	MRS5	Host	Provincial Directorate of Agriculture	46	Undergraduate	Male	Mersin
6	MRS6	Host	Market Association Member, *Çavuş*	45	Primary	Male	Mersin
7	ADN1	Refugee	*Çavuş (intermediary)*	29	High School	Male	Adana
8	ADN2	Host	Co-op Founder	40	Undergraduate	Female	Adana
9	ADN3	Host	Co-op Manager/ Partner	43	High School	Male	Adana
10	ADN4	Refugee	Co-op Partner/ worker	40	-	Female	Adana
11	AND5	Host	Municipality Agriculture Projects Officer	47	Graduate	Male	Adana
12	ADN6 Focus Group	Refugees	Producer	25-40	-	Male	Adana

Research Site: Demography, and Economy

Mersin is a city on the Mediterranean coast of Turkey with a mild climate and extensive fruit gardens. It is close to Silifke, Anamur and Erdemli along the coast where both fruits and vegetables are grown either in the open, or in greenhouses. It is an economically thriving area. Apart from agriculture, Mersin hosts a number of textile and packaging facilities, a large commercial harbour, and a free zone where manufacturing takes place. The city spreads east-west along the coast and most gardens are situated towards the mountains in the north.

The town itself occupies 8000 hectares of land. It is a relatively new settlement, established in the mid-nineteenth century. Its development has been mainly due to commercial activities as a result of the existence of the harbour. It was not until the 1940s that agriculture became a commercial enterprise and citrus production began to develop. Today both citrus and other fruit trees are the main agricultural products of the Mersin region.

The population of Mersin has always been extremely variable due to the constant influx of migrants. At the turn of the 20th century, large numbers of Alevi Arabs came to Mersin from Latakia; these were soon followed by Sunni Arabs from similar regions. The 1970s and 1980s were characterized by middle-class migrants from the north of Turkey, especially comprised of retired civil servants in search of a milder climate.



Areas where research was undertaken: Erdemli, Mersin, Adana

Migrants from the Kurdish regions started to arrive from the mid-1950s onwards. The yearly numbers of Kurdish migrants were few and most came in search of jobs. During the 1990s Kurdish migration accelerated, especially those who tried to get away from political strife. These became the prime seasonal workers in agriculture. Now, however, with the influx of Syrian and Afghan refugees since the beginning of the war in Syria, it is estimated that another 300, 000, 223,000 of whom are registered, were added to the population of migrants.

The last category of persons to arrive in Mersin were survivors of the February 6, 2023 earthquake. Initially, 400,000 people were estimated to have arrived in Mersin right after the earthquake. Many of these left and the final count of earthquake survivors who remained in Mersin is at the moment not known. The official figure for emigrant earthquake survivors is 100,000. The vice-chairperson of the Chamber of Agriculture in Mersin claims that more than 400, 000 survivors still live in Mersin along with a total of 3 million Syrian and Afghan refugees. These numbers cannot be officially verified. The population of Mersin was about 2 million people in 2022. It is estimated that with the addition of these migrants and refugees, the population now exceeds two and a half million.

Adana by contrast had been an industrial city until recently also with a long history of in-migration. It is the 7th largest city in Turkey. During the 1970s and 80s in-migration, especially from the Kurdish regions, increased the population of the city; however, after 2000, emigration was greater than in-migration. Today Adana's official population is put at 2.3 million. It is estimated that another 400,000 Syrian refugees also live in the Adana region, 234,000 of whom are officially registered. The main economic activities of the Adana region are industry and manufacturing, with agriculture ranking 5th in contribution to the Gross National Product. Of its 1.5 million hectares of land, 38% is agricultural land, 79% of which is open fields, 14% fruits, and %7 vegetables.

Mersin until recently, was mainly an agricultural city with fruit trees dominating production. Next to agriculture, its main economic activity was, and still is, construction, as the city is constantly expanding. The port also served as a hub of economic activity, creating work in packaging, transport and The local Turkish and Arab population is mostly engaged in trade and construction, and maintenance.

Kurds formed the backbone of unskilled labour, working as porters in the harbour, and as seasonal workers in both in agriculture and construction. Nevertheless work was and still is scarce, especially for unskilled labour. One of our Kurdish farmers told us he had been working in the agricultural sector since childhood, because Kurds had no other opportunities available to them.

The high number of migrants in Mersin has always been regarded as a problem, whether they were Kurds, Syrians or earthquake survivors. Locals complain about rtired civil servants, ethnic Turks complain about Kurds, and everyone complains about Syrians. Today, the presence of large numbers of refugees is seen as a problem by seasonal workers and other less advantaged sections of the city because they are seen as pulling down daily wages and increasing the cost of housing.

Farmers and other employers, by contrast, state that they enjoy the advantages of a cheap labour force. A vignette we were told showed this distinction clearly. A squabble that broke out between local and refugee labourers ended up with refugees being driven out of the village they had been living in only until farmers urged them to come back for the fruit harvest.

The refuges farming fields
Sarıçam, Adana

This labour force has, of course, its disadvantages. Syrian refugees were at first not used to the agricultural techniques used in Turkey and did not speak Turkish. It has now been about ten years since refugees live in the Mersin-Adana area and they have now become accustomed to life, agriculture and the language. Refugees are usually assigned by the Turkish Migration Bureau (Göç İdaresi) to a particular location and are not allowed to leave that location. One refugee who was able to buy and farm land told us that this immobility was quite restrictive as land and work available in other locations was, in this way, made inaccessible. Host labourers who once were agricultural labourers now work in the packaging in factories, in the harbour area, or in the wholesale market.

Mersin produces a large part of the fruit, vegetables and flowers both consumed in Turkey and exported to Russia and the Ukraine. Vegetable production is undertaken both in open fields and in greenhouses. Seasonal labourers are used for the harvest of both types of production. Both types of production use of industrial fertilizers and insecticides. Most of these are administered by agricultural engineers, experts who graduate from Departments of Agriculture. These experts are often hired by private firms that sell the industrial inputs. The Directorate of Agriculture tries to control production through the use of certificates that indicate the amount of insecticide to be used. Furthermore, farmers are required to register to the Chamber of Agriculture which will then allow them to have access to different forms of support, grants and donation issued to farmers by the state. The state also tries to control both the quality and the quantity of agricultural production, especially fruits. Exports require certificates of production, stating the amounts of pesticides used, and this certificate can only be obtained once registered in the Farmer's Registration system (ÇKS).

Our informant in the Provincial Directorate of Agriculture told us that the amount of citrus fruits produced in the Mersin region largely exceeded the demand. The small-scale farmers repeated this statement. As a remedy, the Directorate of Agriculture aims to proliferate the spectrum of fruit production by encouraging the production of tropical fruits such as lychees, mangos and guava.

The same informant also claimed that agricultural production is mostly profit-driven and focuses only on the amount produced. Agricultural engineers in the Chamber of Agriculture and the Provincial Directorate of Agriculture claim that producers do not have any concerns about the ecological implications and the detrimental effects of their practices on nature. We were told that large-scale agricultural producers are more concerned with the quality of their products, while small-scale ones tend to behave in more unruly manners with short-term benefits in mind.

The director of projects in Adana stated that in effect, one of the most significant problems in the Çukurova region is the quality of the soil. The loss of fertility is the result of the high demands for productivity and the quest for higher profits, which over-exploits the soil and does not leave any opportunities for its regeneration. In order for the cultivation areas to regain their fertility, he proposes that the state should make comprehensive planning for agricultural production and facilitate forms of land restoration.

The director of projects in Adana stated that in effect, one of the most significant problems in the Çukurova region is the quality of the soil. The loss of fertility is the result of the high demands for productivity and the quest for higher profits, which over-exploits the soil and does not leave any opportunities for its regeneration. In order for the cultivation areas to regain their fertility, he proposes that the state should make comprehensive planning for agricultural production and facilitate forms of land restoration.

Another significant factor is climate change which drastically transforms the fundamental conditions of agricultural production not only in Turkey but also in the Mediterranean region as a whole. Land restoration projects, he claimed, are much needed, that fallow systems need to be developed and the earth needs to be regenerated. However, small farmers in particular prefer to obtain short-term benefits rather than adopt long-term land improvement strategies. By contrast to the poor nature of the quality of the soil in Adana, the representative of the Chamber of Agriculture in Mersin claims that the land around the city is one of the most productive in the region.

Our informant in the Mersin Chamber of Agriculture repeated these general statements. He further claimed that the agricultural sector is considered a “foster child” in the sense that it does not receive proper attention from the state.

He claimed that farmers are predominantly seen as being amongst the lowest sociocultural groups in Turkey, with very low levels of education and without sufficient agricultural knowledge concerning for example the use and choice of appropriate fertilizers, suitable ingredients or technical tools. He complained that even they did not know what the pesticides and fertilizers contained since most of these were imported by private firms from large-scale manufacturers such as Bayer. As a result, hearsay and the word of the experts determine the amounts used.

Most of the farmers in the Mersin area are small-scale farmers with approximately 1-15 dönüms of land. The representative of the Chamber of Agriculture calls these small farms of approximately 8 dönüms niche farming. These lie to the west of the city, while to the east, plains extend all the way to Adana and beyond where larger-scale vegetable farming is undertaken. Mersin producers try to increase their income by renting land and/or simply buying the finished product from other producers and marketing it. The two small-scale producers from the host community that we interviewed were in that category and defined themselves as farmers and traders. One farmer we interviewed stated that he was cultivating an area of 100-120 dönüms, mostly producing lemon, peach, pomegranate and nectarine.

General View of Agriculture

Indeed many of the farmers we contacted are generally engaged in fruit production with citrus dominating the production. These can be classified mostly as small to medium sized farmers. Larger farmers with land exceeding 200 dönüms exist mainly in the Tarsus and Adana areas. The project manager in Adana claimed that small farming is rapidly disappearing in Turkey since they cannot invest and produce enough to repeat the production cycle only. Large-scale farmers with land exceeding 200 dönüms in the Adana region are more innovative and cooperate with various state institutions to try new techniques and new products.

Women are now active in vegetable production as the intermediary can watch over them more easily. Furthermore, vegetable production is still largely based on family farming, whereas fruit production is the business of the head of the household, very few of whom are women. Thus, vegetable harvests depend on household labour, including women and children, whereas fruit tree harvest are undertaken by seasonal labourers who come in groups of two and three women, often relatives or neigbours. Today 70% of the workers in the agricultural sector consist of refugees, migrants or foreigners. It is hard to find locals to employ in the agricultural sector due to the very low salaries that dominate seasonal agricultural labour.

Inside view of a greenhouse
Meryem Agriculture Cooperative
Adana

The representative of the Chamber of Agriculture claims that they have 22,000 registered farmers, but is not sure of the veracity of this number since the system is based on declaration. It does not seem to have much clout over small farmers in the Mersin region. The chamber's representative explains this by the fact that they do not have any sanctioning power nor resources that can solve farmers' problems. Recently, the government declared that 5,000 TRY would be given as a promotion to retired persons who were not employed. This meant that farmers registered to the Chamber of Agriculture would not be able to get this money. Many farmers thus asked to be erased from the registry.

The biggest problem farmers face this year, a problem repeated by all our interviewees, has to do with the low price that citrus fetches in the market. Farmers cannot even harvest oranges and especially lemons because of the low market prices that do not even match the cost of labour. The Chamber of Agriculture estimates that there exist 2,000.000-3, 000.000 tonnes of citrus that cannot be sold or utilized in the industry for other purposes such producing shampoo or detergent. The lack of industry in Mersin that can process agricultural products and the fact that international collaboration agreements and projects for funding the agricultural sector work to the advantage of large-scale producers explain to a large extent the inability of the Chamber to support and control its members.

Products are mostly sold to large-scale export firms or to the fruit and vegetable market located in the Adana and Mersin. Each producer knows and shops with a dealer in the market who extends them credit when needed. Digital agricultural markets are very rarely utilized. Prices are fixed daily by dealers who meet in the market. This price serves as the base line around which each producer/trader can negotiate with the dealer; this, in turn, depends on the extent to which the producer/trader is indebted to the dealer.

Refugees

While there are both Afghan and Syrian refugees in Mersin, only Syrians are permitted to be registered and stay in this region. Afghan people are not permitted to stay and work in Mersin. The state made a distinction and allowed Afghans only to stay and work in the northern side of the Toros mountains but not on the southern side. In the south, only Syrians can be registered. So Afghans and some Syrians are unregistered. Syrians who acquire Turkish citizenship enjoy all the rights of a full citizen. However, the majority are placed under temporary protection, a status that allows a social security payment waver and other rights such as sending children to school.

Refugees, for their part, cannot engage in agricultural production formally and legally. They can do so only informally by renting land from a host farmer. One refugee farmer found that establishing a production company and registering it with the revenue directorate has allowed them to both obtain a Farmer's Certificate and to be able to engage in agricultural production legally. Most of these refugee farmers do not know the rights that having a company brings. One such farmer we visited learned from us that, as an owner of a company, he could obtain a Farmer's Certificate. Many farmers and even the representative of the Chamber of Agriculture did not know that ownership of a company could provide them with such an advantage and this information is not shared with refugees.

Refugees

Our informant from the Provincial Directorate of Agriculture states that Syrian refugees started to take part in the agricultural sector first as workers, then they began to rent land and became agricultural producers. He estimates that 70% directly contribute to the agricultural sector. Of these 10 % are producers, the rest are workers. Therefore the Provincial Directorate of Agriculture considers them as stakeholders, and does not exclude them from the system. Most of the work is seasonal and contracted on a daily basis. Very few exceptions include refugees employed as watchmen year round. These are live in makeshift structures near the fields and orchards and keep watch over the fields and the agricultural machinery.

Not many refugees were previously involved in agriculture in Syria. Those who told us that production systems there were rather different indicated that it took time for them to adapt to the systems in Mersin. One refugee who was a farmer in the Azez region of Syria before the war stated that they were cultivating 350 dönüms of potatoes, 100 dönüms of wheat, and 100 dönüms of onions, as well as production of red beet, and cotton. When ISIS came to their province, they took away all of the devices and equipment that they use in farming. Another who rented land to cultivate vegetables also acted as a çavuş in both, organizing around 25 persons living in a refugee camp close to Adana. He took them to work in open fields in vegetable harvests as well as in orchards, pruning and picking.

A bare-metal framework of greenhouses
Sarıçam, Adana

Methodology and Field

The method that we used in the field consisted mostly of recorded interviews. We prepared interview schedules according to the information we required of the different interviewees. We thus produced 8 different interview schedules we used in the field, and we also had to improvise in the field according to the particular status of the informant. A refugee, for example, could answer questions regarding agricultural labour, production as well as labour organizer and a producer could act as a çavuş and therefore answered those questions as well.

The Mersin field included interviews with a representative of the Chamber of Industry, a member of the Provincial Directorate of Agriculture, two representatives of a cooperative that received support from the municipality, a project manager involved in devising and finding funds for large scale projects, a refugee seasonal worker, a refugee cooperative worker, three refugee farmers, one refugee intermediary (çavuş), a refugee UN worker, an agricultural engineer, two host small scale farmers and a host çavuş. We conducted 11 in depth interviews with host and refugee farmers and 1 focus group interview with refugee farmers in total.

The wide spectrum of informants has allowed us to see not only the workings of the different sections of the agricultural system of the Adana-Mersin region, including production, marketing, financing and technical advising but also how these different sections are tied with one another. Conducting separate interviews in six different locations ranging from Adana to Erdemli also allowed us the opportunity to understand both the forms and the informal aspects of the agricultural system and to place the needs and priorities expressed by the different actors in the context in which they make sense. This is especially true for terms such as “capacity” and “need.”

Field Director Nükhet Sirman conducting focus group interview with refugee farmers. Sarıçam, Adana

Needs change according to perspective: while farmers say they need pesticides and fertilizers, agricultural engineers find that these inputs are overused. Regarding the problems faced by farmers and traders of both the host and the refugee communities, the similarities expressed in the different interviews are striking. The excess of citrus farming, the export quotas and the problem of finding labour were problems that all sections articulated.

We also conducted a number of focus group interviews. These were impromptu occasions where we saw a group of farmers sitting together. Our interview with Syrian farmers in the Adana region and the interview with a host farmer and a host çavuş was of this nature. Furthermore, informal conversations before and after the recorded interviews, the visits paid to farmers in their fields and bureaucrats in their offices allowed us to garner a sense of their working conditions.

We traveled to Erdemli to meet with two Syrian brothers who farmed land they had bought through a commercial company they had established. We also traveled to the outskirts of Adana to visit a village populated by Syrian refugees that was situated next to a Syrian refugee camp hosting 50,000 people. These visits allowed us to realize the rather large distances that were involved resulting in the insular quality of the lives of refugees, a result of the travel ban imposed by the Migration Bureau on refugees.

The interviews and the informal conversations we conducted were very open and frank. Most of our interviewees seemed to want us to record the problems that they were facing. Syrian refugees, especially, tried to some extent to get, through our intermediary, the authorities to hear them. The only exception to this was a state employee who refused to have the interview recorded but allowed us to take notes.

The Adana-Mersin region is very particular in that it is rich, over-commercialised and able to diversify rather easily. Most production is undertaken in greenhouses that require considerable investment. Furthermore, drip irrigation requiring inputs of electricity is used by most farmers, host and Syrian alike. State institutions in the region experiment with new products and urge the state and the producers to invest in semi-industrial products such as volatile oils produced from citrus fruits and to create freeze-dry facilities to preserve agricultural products.

This cannot compare to production requirements and possibilities of diversification in an area devoted to cereal production in extensive open fields. Therefore the results of this field study have to be understood to be particular to the region. In effect, a general view of agriculture in Turkey has to take into account the fact that there are special niches where location-specific forms of agriculture are undertaken.

The data gathered through individual and focus group interviews, was then coded according to the kind of data required of us and the codes retrieved to form the basis of this report. We included a few vignettes to provide a sense of the place and the relationships involved.

Initially, our efforts were focused on conducting field interviews and observations to ascertain the current status concerning the issue of financial inclusion. Although the communities commonly referred to as agricultural producers may appear to be a homogeneous cohort, it is essential to acknowledge the existence of a broad spectrum of diversity among them. This diversity spans various dimensions, including but not limited to, agricultural practices, production capacities, property relations, the variety of agricultural products, characteristics specific to the cultivated areas, agricultural techniques and skills, as well as educational backgrounds and experiences. In addition to these differences, there are also notable cultural and political differences that must be considered.

Furthermore, it is imperative to include within this analysis refugees involved in agricultural production and the labor process. Specifically, we refer to those under Temporary Protection in the regions of Adana and Mersin. These refugees have been placed in agricultural areas through administrative organization, with restrictions on their movement to other regions. Afghan refugees have been situated outside agricultural zones. Despite exhibiting a relatively more homogeneous appearance, refugees engaged in agriculture or employed as agricultural workers exhibit similar levels of variability observed among the host farmer population.

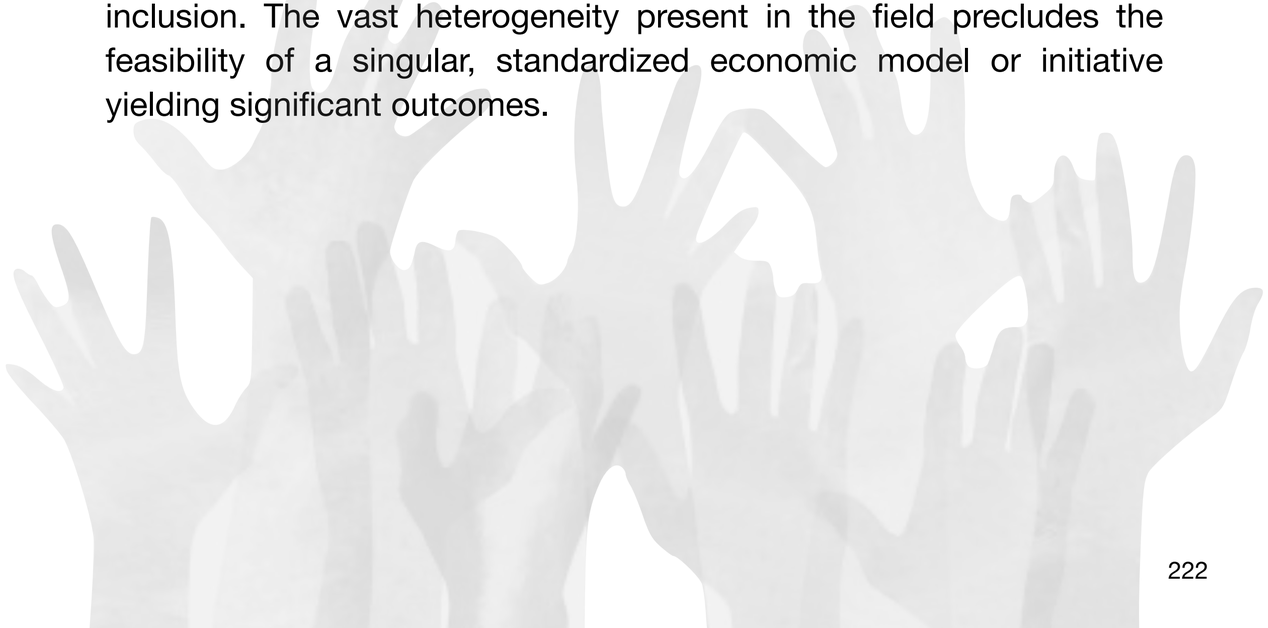
In conclusion, the examination of both the formal and informal statuses of host communities and refugees engaged in agricultural production furnishes significant insight into the degree and forms of financial inclusion. Drawing upon the perspectives of field experts (MRS4 - Chamber of Agriculture, MRS5 - Provincial Directorate of Agriculture, ADN5 - Municipality Agriculture Projects Officer), whom we consider to possess more coherent views regarding the distribution between informal and formal sectors, we can deduce the ratio of informal versus formal agricultural producers.

Through our consultations with officials from the Chamber of Agriculture, the Provincial Directorate of Agriculture, and the Municipality, we ascertained that the most recent comprehensive agricultural census was conducted in 2001. This census was inclusive, encompassing not only registered farmers but also all individuals involved in agricultural production and/or labor. Since then, these findings have not been updated.

Experts employ estimation models that are based on observations and other supplementary data to study the distribution between individuals engaged in formal and informal agricultural production. A primary indicator of formal agricultural production status in Turkey is registration within the Farmer Registration System (ÇKS).

Estimation models suggest that approximately 40% of household farmers in Turkey are registered with the ÇKS, implying that, officially, 60% of farmers are presumed to operate within the informal sector. However, it is critical to note that registration in the ÇKS does not unequivocally confirm active participation in agricultural production. Given that the ÇKS is predicated on self-declaration and application, the registration system cannot update the information of the registered farmers.

These diverse and distinct circumstances highlight the challenges faced in trying to achieve comprehensive financial inclusion within the agricultural sector. Myriad differences and the unique characteristics of enterprises complicate the identification and implementation of initiatives aimed at enhancing the extent and quality of financial inclusion. The vast heterogeneity present in the field precludes the feasibility of a singular, standardized economic model or initiative yielding significant outcomes.



There is a prevailing consensus that the application of traditional financial inclusion tools and methodologies do not constitute an adequate approach for integrating workers within the agricultural sector into the financial system. While the provision of financial assistance to agricultural producers, facilitating their transition towards more institutional and operational frameworks, increasing their financial literacy, and initiating measures to incorporate them into financial investment networks, are acknowledged as direct strategies for financial inclusion, experts, particularly those specializing in agriculture, argue that such direct approaches alone are insufficient for achieving comprehensive financial inclusion of agricultural producers.

Experts generally do not perceive the formalization of agricultural practices or the provision of additional financial support to farmers as effective means to achieve financial inclusivity. When comparing farmers registered in the Agricultural Registry System (ÇKS) with those operating outside formal channels, there is no significant disparity observed in terms of financial inclusion. It cannot be conclusively stated that farmers with access to financial support mechanisms possess markedly greater financial stability compared to those without such access.

In summary, the processes of formalization and providing financial assistance do not seem to be directly correlated with an increase in financial inclusiveness. Therefore, it may also be wrong to regard training and capacity-building programs for farmers as definitive solutions for ensuring financial inclusion.

In the regions where our field research was conducted, we observed farmers operating on small and fragmented plots of agricultural land. This observation underscores the fact that individual farmers possess limited space and capacity for achieving economies of scale in their production efforts. The inability to realize scale production precludes the establishment of a cycle where the financial assistance received from external sources (such as loans, grants, and debts) could be repaid, while simultaneously generating additional value for further financial investment. The constraints inherent in the current individual production capacities, coupled with the inefficacy of the production relationships and organizational structures that have developed around them, make it challenging to transition towards financially more sound and sustainable agricultural practices.

The suggestion to improve agricultural productivity does not imply the consolidation of fragmented production units into a singular, large-scale production model, nor does it advocate for the creation of traditional collective farming entities.

Rather, it emphasizes the need for a collaborative approach to organization and relationship management within the context of agriculturally fragmented units and limited production volumes. Achieving a collective organizational structure necessitates the cooperation among all relevant stakeholders, including but not limited to producers themselves.

The emphasis is on fostering this cooperation at an institutional level, prioritizing the establishment of synergistic partnerships across various sectors. By facilitating effective collaboration between governmental bodies, the private sector, civil society, and both national and international stakeholders, it is possible to address and surmount the persistent challenges that hinder the financial inclusivity of farmers. The focus is not merely on devising and applying traditional tools and methodologies to secure direct financial support for small-scale and fragmented farming operations. Instead, it centers on integrating farmers into the organizational body that materializes through institutional collaboration.

To thoroughly examine the financial inclusion of farmers in our designated research area, we conducted systematic inquiries across 3 primary domains, targeting a diverse range of groups. These inquiries focused on their understanding, practices, experiences and case stories in the following areas:

1. **Financial Literacy and Financial Relationships**
2. **Production and Constraints**
3. **Marketing and Constraints**

Each domain was investigated in the context of both host and refugee agricultural producers to underline differences, offering a comprehensive perspective on financial inclusion within the agricultural sector.

Financial Literacy and Financial Relations

Host Community

Our findings reveal that financial literacy among the farmers we contacted in the field is generally limited. The primary basis of their financial literacy appears to be the possession of a checking account with a bank, with many host farmers maintaining accounts at multiple banks. The most commonly utilized financial instrument among these individuals is a credit card. However, we observed significant issues with credit card expenditure repayment. For instance, an interviewee engaged in agricultural production in Mersin expressed regret over using a credit card. This individual (MRS2 - Producer / Host) encountered difficulties in repaying credit card debts, leading to an ongoing legal dispute with the bank. Additionally, he noted that others who use credit cards also face similar challenges.

We utilized loans by mortgaging our assets, including land, houses, and cars, and explored every loan option available. These loans have turned out to be highly unfavorable. We deeply regret taking them and would not engage in such financial activities again. The reason for this regret is the excessive cost of the loans. For example, on a loan of one million, an additional 400 thousand is required for repayment. Essentially, a loan of 1.000.000 ends up costing 1.400.000 in total (MRS2 - Producer / Host)

Our research indicates a negligible prevalence of bank loan usage among the host farmers we interviewed. Those who have previously utilized bank loans describe the process as outdated and unsatisfactory. While applications for loans are exceedingly rare, credit card applications appear to be more frequent. However, these applications often result in getting negative responses from the banks. For instance, an interviewee (MRS1 - Producer / Host) engaged in high-volume financial agricultural production and trade in Mersin reported consistent rejections from the bank for credit card applications. According to the bank, the financial success and activity demonstrated in his agricultural ventures were not adequately reflected in their system, leading to these negative decisions.

Based on the information we gathered and the accounts from both experts and agricultural producers, it is evident that these producers face significant financial needs at various stages of the agricultural production process. Those who have engaged with banks through credit cards or loans often struggle to repay these funds during critical financial periods in the production cycle, leading to legal complications with the banks. Farmers encountering legal issues with banks due to credit card or loan repayment challenges are labeled as "high-risk" individuals in the banking system, a status colloquially known as being on the "blacklist". This classification is recorded in the central banking system and is visible to all banks.

As a result, a farmer listed on the "blacklist" is considered high-risk for a period of five years, during which all applications for financial resources are typically denied. Given the cyclical nature of financial needs in agricultural production, it becomes almost inevitable for farmers to find themselves on this "blacklist" at certain intervals, potentially as frequently as once every five years. This cycle exacerbates their financial challenges and limits their access to necessary resources through formal banking channels.

Conversely, direct access to bank financing necessitates specific prerequisites: either owning a registered business, or possessing a record from the Social Insurance Institution (SGK) indicating formal employment. For farmers, there are two key criteria to fulfill for registration: they must either be a legally recognized company, or be registered in the Farmer Registration System (ÇKS).

However, considering that 60% of farmers are not registered in the ÇKS, the implications are significant. Without registration in this system, and in the absence of a Social Security record of employment in another institution, these farmers face considerable challenges in accessing the credit provision tools offered by banks.

Refugees

Refugee agricultural producers typically maintain a current account with a single bank, which, for all refugees interviewed, was the Ziraat Bank. Notably, none of these refugee agricultural producers possess a bank-issued credit card, nor have they ever utilized credit facilities. The majority disclosed a minimal relationship with banking systems in their host countries, citing the limited and demanding nature of banking activities there. Most refugees reported the absence of banks in the regions where they reside in the host country, necessitating travel to central cities for any banking transactions.

The majority of bank accounts held by refugees were opened in the past, and it has become increasingly difficult for them to open a current account at a bank nowadays. This change is largely due to the banks' measures to combat the widespread issue of money laundering (ADN6 - Producers / Focus Group /Refugees). For refugees to open a bank checking account under current regulations, a document confirming they have a work permit needs to be presented. This permit must be obtained from the necessary governmental institution and is valid only for one year, requiring annual renewal.

Financial Inclusion

Additionally, refugees seeking to open a bank account with their work permit are required to demonstrate to the bank literacy in their native language. To fulfill this requirement, they must visit a notary public, accompanied by a translator, to verify their literacy. It is only with this notarized document that a refugee can open an account at a bank (ADN2 -Co-op Founder / Host).

Almost all of the refugee agricultural producers we interviewed, similar to host agricultural producers, utilize mobile banking. Nearly all the interviewees, both refugees and the host community, indicated that they use mobile banking solely to transfer money.

Also, cultural and religious elements play a significant role in shaping the financial literacy and financial relations of both host and refugee farmers. Interviewees from both groups disclosed that taking loans is considered religiously prohibited. For example, a host interviewee mentioned his refusal to insure his agricultural land, citing religious beliefs that view insurance as a sin because it involves speculating about the future (MRS1 - Producer / Host).

Neighborhood market place.
Mersin

Production and Constraints

Agriculture Process: Planning and Accounting

The organization and planning of the agricultural production process, the nature of labour involved, the application of knowledge and techniques, decision-making in agricultural product selection, and resource acquisition strategies can tell a lot regarding the financial inclusion levels of both host and refugee agricultural producers.

None of the farmers employ modern accounting techniques to organize the agricultural production process. Most of the farmers we interviewed do manage agricultural enterprises of various sizes, and yet they do not systematically manage, or record the financial aspects of their agricultural operations—specifically costs and outputs. The approach of farmers to the financial assets they use in agricultural production is not evaluated in terms of calculating expenses and income. Income is assessed in terms of the extent to which it will meet the subsistence needs and the extent to which it will be sufficient for the next agricultural production requirements. In effect, no indication was given by the farmers of either receiving accounting assistance, or recognizing a need for such support in the field.

However, this does not imply that farmers are wholly unprepared. Given the cyclical nature of agriculture, there is an ongoing improvement of techniques throughout the production cycle. These improvements and the adoption of innovative practices are often learned and implemented through conversation with and observation of peers within the agricultural community.

A number of agricultural practices is almost universally adopted by both refugee and host farmers, including soil and plant analysis, targeted fertilization and pesticide application, and the adoption of modern drip irrigation systems with professional guidance. Under stable conditions—in the absence of adverse weather conditions, natural disasters, agricultural disease outbreaks, or market volatility—farmers possess the capability to achieve expected outcomes at the end of the production cycle. Thus, given optimal environmental, and optimal political, economic, and social conditions, both refugee and host farmers demonstrate the experience, knowledge, and skills necessary for successful production. Nonetheless, it is consistently reported that conditions rarely align optimally, leading to lower-than-anticipated yields and financial returns.

Consequently, the capacity of farmers, among both host and refugee farmers in the field, to realize agricultural production is crucial, offering the potential to accelerate their integration into financial networks through rational planning models and organizational approaches that effectively manage the contingencies and unexpected conditions.

Which crop to plant?

For the agricultural sector, the market serves as the primary determinant. Notably, the selection of crops for the upcoming planting season is informed by the market trends observed in the preceding period. Farmers typically aim to cultivate crops projected to be profitable in the forthcoming market scenario on the basis of past price levels. Thus, a significant number of farmers opt to plant crops that fetched high market values in the previous season.

Consequently, what were once profitable crops, cultivated en masse, can transform into unviable investments due to market saturation. This oversupply leads to crops being sold at prices below their production costs, while previously underproduced ones gain value in the market. Observing these trends, farmers adjust their strategies to plant these now scarce and valuable crops in the following season, thus reproducing a cyclical pattern of agricultural production and market response.

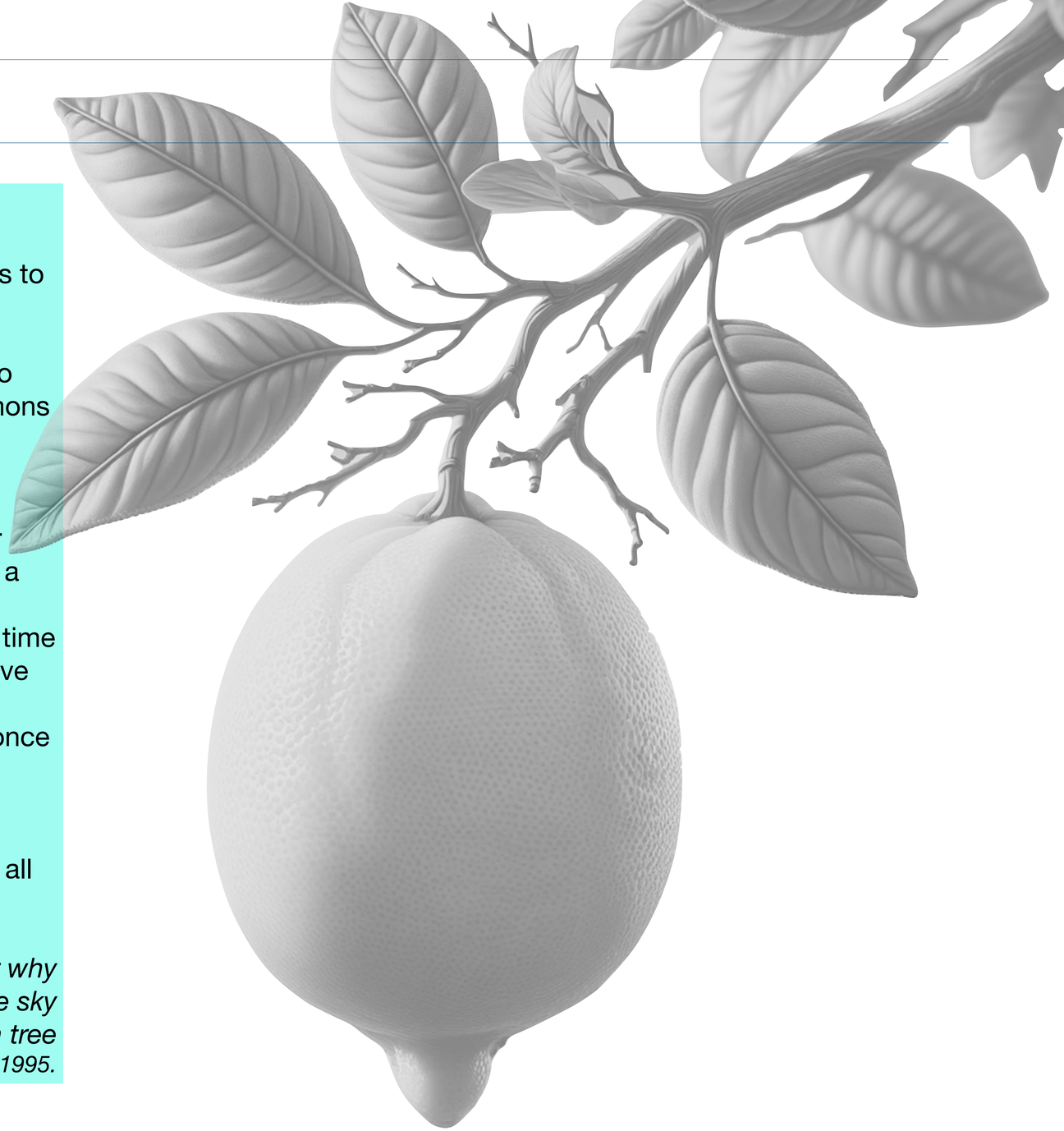
Beyond the short-term patterns that recur, agriculture also experiences similar long-term cycles on a broader scale. Many farming areas, once known for their crop diversity, have transitioned to monoculture practices. Presently, there's a growing trend towards the cultivation of tropical crops, as noted by the expert in the Chamber of Agriculture in Mersin (MRS4).

Citrus cultivation, once prized, is gradually being phased out in favor of these new crops, with government policies supporting this shift. This change is leading to a significant decrease in crop diversity in the future. This trend is reinforced as farmers tend to follow each other, causing what was once considered a valuable alternative to become ubiquitously grown across the region. Eventually, this leads to the prevalence of monoculture farming. As the market becomes flooded with these widely produced goods, the value of these agricultural products diminishes.

Historically, citrus production was confined to Mersin, specifically the area extending from Silifke to Tarsus. Currently, citrus cultivation has expanded beyond Yenice, dominating the region. Formerly, cotton was grown in Kozan (Adana), but now the area is filled with citrus orchards. The production of cereals such as corn, wheat, and barley has ceased, with a shift towards citrus fruit cultivation. Initially, citrus was highly valued due to its scarcity in the region, but its abundance has now significantly diminished its value (MRS2 - Producer / Host).

Despite the awareness among the farmers in our research area of this cyclical predicament, we observed a strong inclination toward perpetuating these patterns. Driven by a "Fear of Missing Out," they tend to follow the prevailing trends adopted by the majority. Nonetheless, viable solutions exist, addressing both the root causes of the issue and the measures needed to avert it. The consensus among both the agricultural producers and the official agricultural experts we consulted highlights a critical concern: irregular and unbalanced agricultural production.

The absence of a governmental mechanism for regulating the selection of agricultural products leads to imbalances in crop diversity. It is unrealistic to assume that farmers will independently assess market trends and societal consumption demands to tailor their production. Many of the farmers we interviewed advocated for the establishment of a regulatory body tasked with determining and monitoring crop diversity. Essentially, they indicated a readiness to follow guidelines if such an authority were to mandate specific crops for production.



Field Story - Mersin-Adana: The Bittersweet Lemons

Last year, lemons were deemed treasures, compelling most Mersin farmers to dedicate their fields to this golden fruit. They poured their hopes and resources into the soil, dreaming of bountiful yields. Yet, as lemon groves flourished, their market value waned, turning these once-covered fruits into mere ornaments in the farmers' gardens. Unsold and unharvested, the lemons adorned the trees, a vivid reminder of abundance turned futile.

In a bid to salvage what remained, farmers placed signs in their groves, offering the lemons for free to anyone willing to clear them away from their land. Yet, they found few takers, as offers to collect the lemons came with a price tag. In a twist of fate, the Meryem Agricultural Cooperative in Adana extended a helping hand, willing to harvest the lemons without cost. Alas, time had rendered the lemons unfit for consumption. Undeterred, the cooperative envisioned a second life for the fruit, transforming them into cologne and vinegar, thus giving rise to a new chapter from the remnants of what was once a symbol of prosperity.

But in the end, the lemon farmers, feeling defeated, cut down their lemon trees and promise never to grow lemons again—at least until they forget it all or see the high price of lemons next year.

I wonder how, I wonder why
Yesterday, you told me 'bout the blue, blue sky
And all that I can see is just a yellow lemon tree
Fool's Garden, Lemon Tree, on Dish of the Day, 1995.

Resources

Both refugee and host agricultural producers cite financial resources as a fundamental necessity for their farming operations. It has been observed that the vast majority of producers engaged in agriculture secure the required financial support through informal means. Consequently, the initial recourse often involves borrowing money from family members. Should additional funds be necessary, the next step is to seek loans from neighbors and friends. In instances where these measures prove inadequate, producers then turn to those with whom they hold commercial ties, specifically, individuals to whom they sell their agricultural outputs. Typically, these are commissioners operating within fruit and vegetable markets. This approach to acquiring funds, spanning three distinct categories of informal debt, is common to refugee and host agricultural producers.

Loans obtained from relatives and acquaintances typically come without the expectation of interest or additional fees, allowing for repayment of the principal amount only. Conversely, loans secured from traders and brokers often involve informal arrangements facilitated by the brokers themselves, who require the signing of promissory notes. These agreements usually incorporate maturity differences, effectively adding interest to the debt outlined in the promissory notes.

As a result, farmers are obligated to repay the borrowed amount with an additional financial burden. A refugee agricultural producer we interviewed shared their experience with such loans, noting that the promissory notes issued by the broker did not specify repayment deadlines. Consequently, they were left uncertain about when the broker might decide to enforce the collection of these debts (MRS3 - Producer / Refugee).

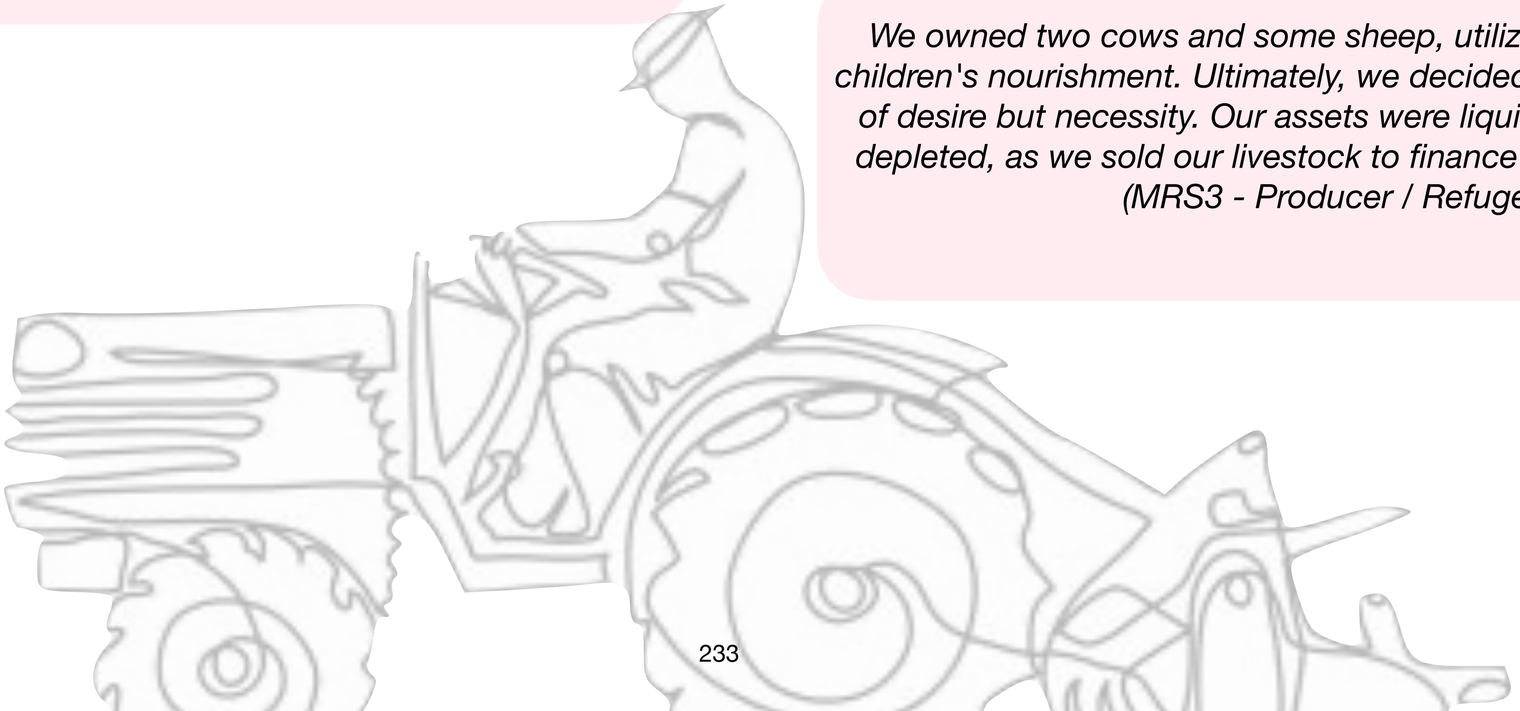
Refugee agricultural producers specifically mention that the financial resources they manage to secure through debts are quite limited. They attribute this to a general reluctance among money lenders to extend substantial amounts of debt to them, primarily because of their status as refugees.

Consequently to gather the necessary funds, they find themselves accumulating smaller loans from multiple sources. Consequently, when it comes to acquiring means of agricultural production that require significant investment—such as tractors—refugee producers are more inclined to rent these assets instead of purchasing them due to the financial constraints imposed by their limited access to larger loans.

Currently, we lack a tractor. When the time comes to plow my field, finding a tractor becomes a challenge as everyone is busy tending to their own plots, prioritizing their work over others. Consequently, my field planting is delayed. This delay affects the soil's ventilation, not meeting my desired standards. Ideally, I aim for the soil to be well-ventilated, soft, and fine, almost cotton-like, achieved through thorough plowing. However, the individuals available for hire often rush the job, leading to suboptimal conditions. If their work does not meet my expectations and I voice my dissatisfaction, their response is dismissive, suggesting I simply not hire them again, and so they leave (MRS3 - Producer / Refugee).

Besides borrowing from personal contacts, some financial support comes from bank loans, but this is rare. These loans are typically not specialized for agriculture but are secured by mortgaging assets like houses, cars, and land, and this option is available only to host agricultural producers. Refugee agricultural producers, in contrast, often resort to selling their assets to generate the financial resources they need, rather than taking on debt.

We owned two cows and some sheep, utilizing their milk for our children's nourishment. Ultimately, we decided to sell them—not out of desire but necessity. Our assets were liquidated, our resources depleted, as we sold our livestock to finance the purchase of land (MRS3 - Producer / Refugee).



The Way Data Speaks:

In an interview with the subject matter expert at the Provincial Directorate of Agriculture (MRS5 - Provincial Directorate of Agriculture), it was conveyed that 78% of agricultural financial needs are met through agricultural bank loans. The information pertaining to the magnitude and percentage of agricultural financial requirements is not solely derived from our interviewee's insights but is validated by data released by official institutions. It is not unreasonable to surmise that bank loans are predominantly utilized by large-scale and robust agricultural enterprises.

Indeed, while these substantial agricultural firms possess the capacity to fulfill their financial needs for agricultural production through their own resources, they frequently opt for bank loans. The primary rationale behind this preference is the tax advantages engendered by the appearance of indebtedness due to bank loans. It is imperative to recognize that this does not constitute a method of generating nonexistent financial resources via agricultural loans but rather represents a financial strategy favored for tax benefits, or more precisely, for tax avoidance purposes.

Such a strategy is feasibly implemented by large agricultural corporations that are both high-expenditure entities and possess sophisticated financial management systems.

In summary, the category represented by the data is not agricultural financial needs per se, but rather a resource crafted through financial strategies by large enterprises not out of necessity but in pursuit of significant tax advantages. This shows that both the aforementioned 78% of agricultural loans and the remaining 22% from other sources are allocated towards agricultural expenditures. Therefore, these should not be misconstrued as agricultural financial needs but rather categorized under agricultural expenditures.

Furthermore, it presents a significant discrepancy: despite the absence of definitive statistics regarding the number of farmers in Turkey and their respective share of economic benefits, detailed knowledge concerning their financial needs seems nevertheless to be available.

The Way Field Speaks:

In the realm of subsidies or loans, be it business loans, maintenance loans, or those issued by banks, one commonality prevails: nothing is granted without being part of the ÇKS. Private banks, too, adhere strictly to this rule, refusing loan disbursement to individuals not included in the farmer registration system. The rationale is straightforward: without registration, you're invisible in the agricultural financial landscape. Unregistered individuals are categorically denied access to agricultural loans, with the clear stipulation that registration in the system is a prerequisite. 'First, you must be registered,' they assert, underscoring the indispensability of formal inclusion in the agricultural community (MRS3 - Producer / Refugee).

There are 206 neighbourhoods in Mersin, divided into four central areas. We identified which among these are involved in agricultural activities. While it is possible to ascertain their population, a distinction must be made: not everyone residing in these rural locales engages in farming. This distinction muddies the waters, making it challenging to obtain precise and reliable data. Among our agricultural community, there are those who farm on treasury lands, a situation that previously precluded them from obtaining ÇKS documentation.(MRS4 - Chamber of Agriculture)

Land

A vital element in the production process is agricultural land. Our interviews conducted in both Adana and Mersin show that most farmers do not own the land they farm on. A substantial number of both refugee and host farmers operate on leased land.

Land leasing for host agricultural producers is commonly conducted through notarized contracts, indicating that formal land leasing practices are prevalent among these producers. Legislative constraints prevent refugee agricultural producers from owning land as individuals. Among the refugees engaged in agricultural production we interviewed, only one had managed to purchase land through a company he established. While Syrian refugees cannot own land as real persons, they are permitted to do so as legal entities, although this is rare. In Adana and Mersin, the majority of refugee farmers engage in agricultural activities on rented land through informal leasing arrangements, rather than formal processes.

Field Story - Sharing Knowledge: Refugee's Solution for Sustainable Coexistence

In a fertile land where farmers had laid costly irrigation pipes, a struggle brewed beneath the soil. These pipes, vital for conserving water, became a target for moles. These creatures, while enriching the soil by ventilating it with their tunnels, were viewed as pests by farmers because of the damage they could do to the irrigation system.

The farmers' solution was harsh: poison was laid near the moles' burrows to eliminate the threat.

Into this conflict scene stepped a wise Syrian agricultural worker, who saw a chance for peace between man and mole. He suggested a novel approach: instead of poison, use sugar. Place it away from the crops, he advised. The moles, drawn to the sweetness, would leave the pipes alone in favor of the easier meal.

This simple solution worked. The moles, satisfied with the sugar, no longer gnawed at the pipes, allowing the farmers to maintain their irrigation system without harm. The soil stayed ventilated and fertile, thanks to the moles' undisturbed work.

Marketing and Constraints

The transactional framework for agricultural commodities, as described by the farmers we interviewed, predominantly operates within an informal sphere. Monetary exchanges for these commodities transact predominantly in cash, circumventing conventional banking channels. Typically, financial compensation is not conducted concurrently with the transaction process. Furthermore, subsequent compensations lack a predefined schedule, eschewing any semblance of strategic planning, or organization. The lack of a reliable institution to ensure the integrity and consistency of these commercial exchanges renders the payment process and timing uncertain, or poses the risk of non-payment. Consequently, this situation leads to unpredictability in farmers' financial planning and future schedules. It has been observed that with the progression towards a more formalized market structure, such as chain stores that operate nationally, payment practices shift towards prompt or consistently scheduled disbursements.

Despite assertions from farmers regarding the current underuse and limited spread of contract farming, our findings reveal that farmers have historically engaged in and possess experience with contract farming practices. It was once adopted widely, but recent trends indicate a decrease in its prevalence.

Originally, contract farming served as a reliable mechanism for suppliers during periods when agricultural commodity production was limited. However, according to our findings, contract farming has become less favored. This change is linked to the surplus of agricultural products available, providing suppliers with a wide selection spectrum, consequently diminishing the attractiveness of contract farming as a practical option.

There used to be a system, but it's been abolished in the last five years. Why? Because the production of fruit has multiplied, and the farmer no longer needs that contract. He doesn't need to bind himself in that way anymore. Now, a buyer can just show up, see the fruit, and if interested, send an expert to examine the orchard. They check if the orchard is suitable for export, if the quality is good, if there's any scab or disease. They look into whether the tree is healthy, if the leaves are yellowed—they check everything. If they like it, they'll make a contract with you. If not, they'll say, 'This is your product, I can't take it this year' (MRS2 - Producer / Host).

Price

The commercialization of agricultural products is increasingly becoming a point of discontent among stakeholders within the agricultural industry. This growing dissatisfaction can be primarily attributed to the escalating costs associated with the agricultural production process, exacerbated by the prevailing inflationary pressures. As input costs surge, the financial strain on agricultural producers intensifies correspondingly.

Notably, despite the rise in production expenses, the prices of agricultural commodities, particularly in the initial stages of production, have not increased in tandem with these cost increases. This discrepancy between escalating costs and stagnant commodity prices fuels a growing sense of dissatisfaction among farmers, who reminisce about past sales experiences with a sense of nostalgia, thereby highlighting a stark contrast to the challenges currently faced. Consequently, the process of marketing agricultural products is increasingly perceived as unsatisfactory, with the situation deteriorating progressively over time.

Neighborhood market place.
Mersin

The informant from the Chamber of Agriculture (MRS4 - Chamber of Agriculture), explained that the underlying cause is attributed to the economic policy framework in Turkey, in which the agricultural commodities are strategically deployed for anti-inflationary measures. To curtail the inflationary pressures and the cumulative increase in food prices, policymakers have instituted export quotas for agricultural goods. This intervention results in an excess of non-exported agricultural products within the local market, precipitating a decline in their prices. Consequently, the quantity of agricultural produce, particularly fruits and vegetables, that is made available to the domestic market significantly exceeds consumer demand.

In addition to the aforementioned factors, there are other elements that contribute to suppressing the prices received by primary producers of agricultural products. The rapid escalation in costs associated with packaging, storage, logistics, and supply chain processes exerts downward pressure on the prices at the point of first production. While regulations aimed at ensuring food safety lead to increased labour and additional costs, these are not reflected in the prices afforded to the direct producers. In this context, the regulatory framework of the Common Agricultural Policy does not present a cohesive and integrated set of rules.

Although these regulations are designed to govern the production, supply, and marketing stages, their implementation in Turkey does not occur simultaneously, or uniformly across these stages. Moreover, agricultural producers are disproportionately burdened with the substantial costs engendered by these regulations. For instance, one agricultural producer we interviewed (MRS1 - Producer / Host) mentioned that, in compliance with these regulations, they are required to adhere to certain standards for packing and parceling—a practice not previously undertaken—and that neither suppliers nor marketers contribute to offsetting these incurred costs.

Commissioners

Commissioners have significant influence over the development of the agricultural product market. A majority of producers distribute their goods via commissioners and/or engage commissioners to ensure their products reach the market. Commissioners act as pivotal figures in establishing the price points for agricultural commodities within the fruit and vegetable market. Agricultural producers are obliged to adhere to the pricing structures decreed by these commissioners within the market.

Transactions deviating from these established price points are non-existent. In a discussion with a representative from the Fruit and Vegetable Market Association (MRS6 -Market Association Member, Çavuş /Host), the existence of a committee, formed by the sector's most influential commissioners, was disclosed. This committee functions as a regulatory body for pricing, ensuring that market price stability is not determined by an independent entity, or naturally through the interplay of demand and supply. Consequently, the pricing mechanisms, enforcement, and commercial interactions within this sphere are monopolized by the same entities – commissioners.

Commissioners, though not preferred by agricultural producers, paradoxically play an indispensable role in their operations. This complex relationship arises from the commissioners' involvement in both the marketing and financial aspects of agricultural production. On the one hand, they engage in the purchase and sale of goods, which can result in diminished returns for producers due to price reductions or commission charges. On the other hand, they offer vital financial assistance during the cultivation phase. As a result, agricultural producers, both host and refugees, depend on commissioners for the essential capital required for their farming operations. This situation underscores a nuanced dynamic where the provision of financial support and access to markets coexist with the potential for reduced profitability.

The financial support provided by commissioners to farmers during the production phase must be repaid under the commissioners' specified conditions, including added interest. Due to the informal nature of this financial relationship, it lacks regulation and overseeing by any institution. Furthermore, it is noted that farmers view these transactions as "advance" payments, leading to a dynamic that generally works against the farmers' interests.

In exchange for the financial aid from commissioners, farmers are compelled to sell their produce to these commissioners during the harvest, according to the commissioners' set conditions and prices. Through this mechanism of financial dependence, commissioners effectively limit the farmers' ability to make independent market decisions, significantly restricting their market flexibility. Moreover, commissioners purchase farmers' goods as repayment for the financial support provided, but do not pay any excess amount in advance.

Registered and Unregistered Products

In the broadest terms, agricultural products in Turkey are currently classified into two main categories: registered and unregistered. This categorization hinges on the farmer's registration status within the Agricultural Registry System (ÇKS). The produce from registered farmers is considered formalized, each bearing a distinct "tag" or label. This label serves as a license, facilitating the sale of the product in markets along with providing pertinent product information. Large retail markets can only purchase farmers' products that have such a "tag." Additionally, this labeling offers the possibility, should the products meet the requisite quality standards, of being eligible for export. In fact, exporting their products is often the most favored marketing strategy among farmers.

Both the farmers we interviewed and key informants provided insights into the dynamics of registered agricultural products. They also highlighted situations where the distinction between registered and unregistered agricultural products becomes blurred during the final sale transaction.

Specifically, it was noted that farmers possessing ÇKS registration might informally acquire agricultural products from non-ÇKS registered farmers and subsequently market these products under their own registered status. This approach enables farmers without ÇKS registration to indirectly introduce their agricultural products into the market, albeit potentially at a disadvantage. In this context, ÇKS-registered farmers assume a commissioner-like role, purchasing agricultural products at below-market prices to sell exclusively to markets that mandate registered goods. Farmers lacking ÇKS registration face a critical need to obtain such registration to bypass intermediaries and directly access market opportunities, thereby gaining greater flexibility and leverage in market transactions.

Markets distributing products of farmers lacking ÇKS registration also exist. Such markets enable these farmers to circumvent intermediaries. Specifically, within local neighbourhood markets, such farmers are afforded the opportunity to engage directly with smaller retail entities. It is important to highlight that, according to discussions with refugee agricultural producers, there is a concerted effort among them to utilize this direct selling approach for a portion of their products.

To state that farmers actively pursue information as required is certainly no overstatement. Both refugee and local farmers engage meticulously with pertinent departments and specialists, endeavoring to acquire professional and technical support, particularly across the agricultural production cycle. It is a widespread practice among farmers to seek advice from experts regarding pesticide application. They perform soil analyses on the lands they farm and document the findings. Should there arise any unexpected alterations in their crops throughout the growth phase, they promptly seek out the relevant authorities for a detailed examination of the crop or foliage.

While traditional and ancient agricultural knowledge occupies a pivotal role in the heart of agricultural production, farmers are not averse to embracing and implementing new knowledge and techniques, particularly those they have personally witnessed and verified. The critical factor in their willingness to adopt and apply novel methodologies is this first-hand experience.

For instance, according to a refugee farmer (MRS3 - Producer / Refugee), collaborating with an agriculturalist throughout the production process offers distinct advantages. The consistent weekly inspections conducted by the agriculturalist resulted in products of superior quality.

Consequently, even though the farmer cultivated the same variety of tomatoes as his neighbor, he was able to sell his produce at a higher price of 2 Turkish Lira per kilogram. Moreover, through his partnership with the agriculturalist, the farmer acquired skills in monitoring and inspecting his own products.

On the other hand, educational programs and other methods of knowledge dissemination often appear too abstract and are thus not given due weight by farmers. In essence, standard training models for farmers are neither engaging nor readily accepted by farmers.

Furthermore, the administrative and civil society experts we interviewed, who are directly engaged in farmers' training programs, provided insights into the practical aspects of training processes, including conventional training and knowledge transfer formats for farmers. Training programs are routinely conducted by governmental institutions, alongside additional programs organized by both national and international nongovernmental entities.

Training and Consulting

Our informant from the Chamber of Agriculture indicated that training programs are largely ineffective and generate little interest in farmers. To initiate a training course, a minimum registration of thirty farmers is required. However, achieving this number proves to be a challenging and time-consuming endeavor, often extending beyond a month. When the quota of thirty participants is finally met, it's not uncommon for some farmers to have forgotten about their registration, leading to situations where the course cannot proceed. According to our informant, the participation rate in these potentially beneficial training sessions is exceedingly low among farmers.

The representative from the Provincial Agricultural Directorate shared insights into the farmers' approach to information gathering, noting their propensity for research and active information exchange on social media platforms. They employ an SMS system for the dissemination of vital information and alerts, ensuring an uninterrupted flow of communication through social media, SMS, and the directorate's website. He underscored that agricultural producers are primarily attracted to training sessions that offer the possibility of increasing their product's market value and to acquire certifications to enhance their sales tactics.

Inside view of a greenhouse
Meryem Agriculture Cooperative
Adana

Despite this, there exists a notable disinterest in the trainings themselves, with farmers participating mainly to secure a certificate, which they regard as a beneficial marketing tool. Furthermore, he advised that effective training programs should be succinct, feature visual and digital content, and promote direct, in-person engagement on the agricultural lands for a more impactful knowledge transfer.

The Agriculture Projects Officer at the Municipality also told us that they conduct training with GIZ and FAO on forms of climate-smart agriculture. They also developed relations with the farmers, and started to buy products from them. They enabled 100 farmers to take training from TAYEM - Agricultural Production Enterprise Directorate of Agricultural Extension and In-Service Training Center.

They conducted training on different issues such as greenhouse cultivation, bee-keeping and mushrooms. He told us that they mostly conduct the training in places where farmers work if they want farmers to attend the training. He honestly explains that, rather than farmers' demands, most of the time they decided on the training topics themselves. According to him, farmers never say that they want or need training. Farmers think that they already know.

The project coordinator says that they are always in contact with the pesticide dealers because they are the ones who have the best communication with the farmers.

Pesticide dealers have the most accurate knowledge about the needs of the farmers. They have more knowledge and are respected by the farmers more than even the academics.

The insights and accounts we obtained from both the farmers we interviewed and our key informants representing governmental and non-governmental organizations, who possess professional expertise in agricultural education, indicated that the most efficacious training methods for farmers are those that can be directly experienced or witnessed.

Achieving outcomes that have impact can be realized by transitioning from conventional, lecture-based educational models to more engaging and demonstrative agricultural practices, which allow farmers to actively participate and observe within their own surroundings. It is feasible for such models to be implemented by central administrations through the use of exemplary and pilot programs. In essence, training initiatives should extend beyond the confines of traditional programs to encompass actual farming practices and be conducted within the very landscapes where farmers carry out their work.

Also, inability to link market information to production decisions is the main drawback faced by farmers. They base their decisions on prices obtained in the previous years and are therefore always out of step with current market information. This is also unpredictable as a result of state intervention in prices and export quotas

While it may be unrealistic to expect farmers to become experts in these areas, there is a pressing need for the establishment of organized, local structures that include farmers and offer guidance and solutions for such needs and gaps. These structures should be more actively developed to support farmers effectively.

We have seen that both agricultural chambers and provincial agricultural offices are distant from meeting these needs. These institutions are in a contradictory position for farmers in terms of their activities. On the one hand, they stand close to the farmers by providing education and guidance, displaying approaches that could be beneficial to them; on the other hand, they conduct inspections and impose penalties on farmers.

While these institutions attempt to meet the needs and requirements of farmers, they also regulate and penalize them, which can lead to farmers distancing themselves from these institutions. This is because the roles of "friend" and "enemy" are being fulfilled by the same institutions. Therefore, these two functions must be undertaken by separate organizations.

Adana

Field Story: A Refugee's Quest for Recognition

In the journey of our exploration, we encountered a figure of resilience: a refugee turned farmer who transcended the barriers that once seemed insurmountable. Denied the simple right to land, he ingeniously founded a company, a maneuver that allowed him to secure a plot for cultivation under the guise of corporate ownership. Yet, this victory was shadowed by his exclusion from the official channels of agricultural support, a realm where fertilizer, pesticide, and fuel subsidies breathed life into the endeavors of recognized farmers.

Prompted by curiosity, we delved into the bureaucratic maze, questioning why the refuge of corporate identity had not been sought for official recognition. The answer remained obscured, a riddle entwined with the complexities of policy.

Our quest led us to the guardians of agricultural tradition—the Mersin Chamber of Agriculture and the Provincial Directorate of Agriculture. From them, we unearthed a pivotal insight: no legal barricade stood against a refugee's company from entering the Farmer Registration System.

Armed with this knowledge, we communicated to the farmer that the door to official recognition was not barred. The information was a call to action, an invitation to step into the light of “formality”.

As our tale approached its culmination, the farmer's voice reached us, a testament to triumph. Against the odds, his company had been successfully registered in the Farmer Registration System. This milestone was not merely a personal victory but a signal to others in similar plights, highlighting the potential for change and the power of persistence in the face of adversity.

Ben bir mülteciyim / I am a refugee
Burda aslında sınır yok / In a place with no borders, you see
Kazanmak kaybetmek yok / There is no win or lose
Bu yüzden daha büyük güç yok / No greater power, in this world, I'll be
Şebnem Ferah, Ben Bir Mülteciyim, Cam Kırıkları, 2005

Cooperative

The Meryem Agricultural Cooperative stands out as a special organization, the product of a project devised and undertaken by the municipality. It continues to enjoy the backing of the municipality, and it is this relationship that allows it to innovate, extend its operations and continue its activities even in the face of financial losses. It provides a platform where farmers can engage, observe practices and methodologies first-hand, and subsequently apply these techniques to their own agricultural production activities.

This cooperative exemplifies the ideal model for the aforementioned training approach for farmers active in the region's agricultural sector. Indeed, the founders of the cooperative have expressed that a significant portion of the innovative methods implemented within the cooperative are designed to serve as a benchmark for farmers in the surrounding areas.

One such innovation that we were able to witness first-hand was the processing of lemons. The failure of farmers to sell their lemon harvest allowed the cooperative to obtain lemons freely. Workers/ partners were involved in peeling lemon rind, using the peels to sell to factories producing eau de cologne or beverages requiring aroma.

Peeled lemon for cologne or beverages
Meryem Agriculture Cooperative
Adana

Cooperative

Our key informant within the municipality, who played a crucial role in the establishment of the Meryem Cooperative, highlighted the significant impact of the cooperative on local farmers. He described the cooperative as an exemplary model, providing farmers with an opportunity to observe and learn from its practices directly.

The small-scale farmers need assistance, even about the amount of fertilizers to be used in their land. They also have difficulties in obtaining novel and helpful equipment. Small-scale farmers are not investors, since they do not have any money to spend. So they cannot afford to experiment with their land or cultivation process. They have to see the effective results to adopt new techniques or ways of doing (ADN5 - Municipality Agriculture Projects Officer).

The director of the cooperative further explains that the main aim in establishing the cooperative was to be able to secure employment for refugees. Among the partners, she cites 5 Afghan, 5 Iranian 15 Syrian and the rest, she says, are from the host community. The employment of the cooperative members started a year and a half ago when the cooperative managed to obtain the resources necessary to enter into production.

The cooperative does not distribute profits among its partners.The cooperative has approximately 40 partners from both the host community and the refugee community. At present, it cultivates potatoes on open fields and has an extensive greenhouse for flower production. The product is sold to large nation-wide chain stores that only buy products that are registered and have been analysed. The cooperative also undertakes the packaging and transport of the products that are sold.

The conditions of work are better in the cooperative since they provide a safe space, better food and also transportation services. Consequently, the cooperative maintains a high level of engagement with the broader community beyond its organizational confines. Farmers in the region, even those who are not members of the cooperative or who lack a formal affiliation with it, are involved in both commercial and collaborative relationships with the cooperative.

The cooperative is also an institution that conducts conventional training for its members and employees. This conventional training model, which we have previously noted is insufficient for farmers, is effective for the cooperative. The majority of the employees and members of the cooperative are refugee women, and the training process in the organization is part of their work.

The Cooperative director explained that they wanted to establish a space of education and training for women. The cooperative helps women agricultural producers not only in their production but also in their marketing process. It does not only provide fertilizers and other ingredients but also helps them to sell their products in supermarkets (ADN2 -Co-op Founder / Host).

The project director revealed that the cooperative's main funding source is the USA Foreign Ministry, highlighting the significant international support for their initiative, and also emphasizing the instrumental support from the World Bank and the International Labour Organization (ILO). The ILO, in particular, was pivotal during the cooperative's formative stages, not only by providing essential funding for the initial project but also by offering valuable training support.

This assistance was critical in establishing a solid groundwork for the cooperative's operations. Furthermore, partnership with the International Organisation for Migration, the IOM, has allowed the cooperative to have access to the refugees in the Adana area.

The local municipality played a key role by supplying both land and necessary equipment, ensuring the cooperative had the physical resources required for its activities. This, combined with the ILO's comprehensive support package, which included both financial and training assistance, underscored a well-rounded support system for the cooperative. This financial backing is complemented by a diverse array of local and global partnerships, including contributions from the local municipality, as well as commercial grocery store giants, which have all played a crucial role in the cooperative's comprehensive approach to entering the sector.

Suggestions

- Farmers often display proficient skills in the basic aspects of agricultural production, showcasing their ability to cultivate and manage crops effectively. However, when it comes to broader capacities that extend beyond the immediate realm of planting and harvesting, their capabilities are notably constrained. These constraints manifest in several critical areas: their ability to scale up production, oversee the entirety of the production process, navigate market mechanisms, perform financial analyses and assessments, and manage environmental, climate, and market risks. While it might appear essential for farmers to excel in these capacities to succeed, it's unrealistic to expect them to possess sufficient expertise across such a diverse range of disciplines. The complexity of modern farming demands not just agricultural know-how but also proficiency in market analysis, financial planning, and risk management. However, it's impractical to assume that individual farmers can become experts in all these facets simultaneously. This situation underscores the necessity for a support system that can bolster farmers' capacities and navigate them in these areas, facilitating a more comprehensive approach to overcoming the challenges they face in agriculture.

- Expecting farmers to independently incorporate comprehensive plans and strategies that address consumption needs, account for all environmental and natural factors during production, and bridge the gap between market information and production decisions through training alone is unrealistic. These complex challenges require intervention from institutional bodies that are in-depth, systematic, and inclusive in their approach. Such institutions should possess the authority to make decisions that are binding on farmers, ensuring that the necessary changes and adaptations are not just recommended but enforced, to effectively address these multifaceted issues.

- Addressing the myriad challenges faced by farmers necessitates the creation of systematic structures designed to foster effective collaboration. This approach transcends merely deploying traditional tools and methodologies aimed at directly supporting small-scale and fragmented agricultural activities. The strategy emphasizes the importance of promoting cooperation at an institutional level and forging synergistic partnerships across different sectors. By encouraging robust collaboration among government entities, the private sector, civil society, and both national and international stakeholders, it becomes feasible to tackle the persistent obstacles hindering farmers' financial inclusion. The primary goal shifts towards integrating farmers into a cohesive organizational framework through institutional cooperation, thereby enabling a more inclusive and supportive agricultural ecosystem.

Suggestions

- The lack of government regulation in guiding the selection of crops results in a lack of diversity in agricultural production. Expecting farmers to independently analyze market trends and adjust their crops to meet societal needs is impractical. Many farmers we spoke with supported the idea of creating a regulatory body to oversee and ensure crop diversity. They expressed willingness to comply with directives from such an authority if it were to recommend or require the cultivation of particular crops.

- To access financial inputs and advisory assistance from official institutions, farmers are required to be registered in the Farmer Registration System (ÇKS). The primary prerequisite for ÇKS registration is the ownership of agricultural land (or a formal rental agreement). Being registered in the ÇKS provides farmers with the opportunity to market their products domestically and internationally. In Turkey, certain agricultural lands are characterized by fragmented ownership, while a considerable number of farmers cultivate informally rented land. To address these issues, there is a pressing need for new regulations that ensure the inclusion of farmers involved in both fragmented ownership and informal rental arrangements into the ÇKS system.

- Due to legislative constraints, individual refugees are unable to register in the Farmer Registration System, leaving those unregistered without access to agricultural support and marketing opportunities. However, there is a workaround where farmers can form a commercial agriculture or food company, which can then be registered in ÇKS. While it may not be practical for each refugee farmer to establish a separate commercial entity, a collective approach where multiple refugee farmers come together to form a single company could provide a viable solution to circumvent the limitations imposed by informality in agricultural production. This collective strategy could serve as a bridge to accessing essential supports and expanding market reach, thereby enhancing the overall productivity and sustainability of refugee-involved agricultural ventures.

- There is a severe labor shortage in the agricultural sector, which is primarily filled by refugees who work in fields and gardens. A combination of inflationary pressures and an over-reliance on immigrant workers leads to depressingly low labor wages. In addition, brokers' commissions significantly reduce wages. To effectively handle these issues, it is necessary to acknowledge the impossibility of a total formalization and to implement new regulations that can achieve a balance between formal and informal structures in novel ways.

Suggestions

- Turkey is home to a sizable number of agricultural cooperatives, although many of these cooperatives have limited capabilities, poor infrastructure and provide insufficient assistance. The large number of these cooperatives leads to the dispersion of resources and assistance, which reduces their overall efficacy. Creating an infrastructure that would allow categorizing this high number of cooperatives so that the existing support can be channeled to fewer cooperatives with stronger infrastructure, and make the support more effective, contributing to the sustainable agricultural development through cooperatives.

- Cooperatives are frequently formed relying on external financial support, often neglecting infrastructural prerequisites, organizational strategies, and partners' own contributions. As a result, the cooperative's primary purpose becomes confined to the provision of this external support. When this support diminishes or ceases, non-institutionalized cooperatives do not continue their activities, and they become inactive. The cooperative formation process should be paced over a sufficient duration to guarantee institutionalization, incorporating comprehensive strategies tailored to the cooperative's needs, members' approaches, available resources, and market dynamics.

- Cooperatives focusing on supporting refugees or disadvantaged groups may fail to adequately inform them about cooperative activities and governance, leading to transparency issues. This can disadvantage less informed members, potentially resulting in exploitation, such as disproportionate labor contributions or restricted access to benefits. Thus, it is essential to develop monitoring strategies and audit systems for cooperatives. These evaluations should take into account the perspectives of all members and employees, ensuring fairness and transparency.

- Cooperatives risk making refugees and disadvantaged communities members primarily to attract funding, without equitably sharing the benefits. Their involvement can be more about securing financial support through grants and donations, than ensuring the acquisition of the intended advantages. To prevent this, donor should dedicate time to the integration of the members and closely monitor these cooperatives through third-party auditing agencies. Ideally, funders should mandate the inclusion of an external expert in cooperative management, ensuring a fair distribution of benefits and proper use of funds.

Suggestions

- It is recommended that banks provide financial products and services that are tailored to the distinct requirements of farmers. Innovative solutions are desperately needed in the field of agricultural banking to ease the burden of strict collateral requirements, which are a major obstacle to agricultural loans for micro and small-scale farmers. In recent years, a number of top banks in Türkiye have been establishing dedicated agricultural branches, organizing face-to-face meetings and get-togethers with farmers, and asking for farmers' opinions on financial services. These methods help to meet farmers' needs for flexible finance and collateral arrangements in addition to facilitating direct contact between small farmers and representatives from the financial institutions.

- In recent years, the number of training programs on financial literacy organized with the coordination and cooperation of farmer organizations, civil society organizations, and financial institutions has increased. There is still a need for training to boost levels of business and financial education. This needs to be focused on improved farm management, orientation to market information, project analysis and elementary business plan elaboration, record keeping and accounting, and efficient use of financial services. One of the most important avenues for the provision of such training programs is the local organization of farmers, especially the agricultural and women's cooperatives.

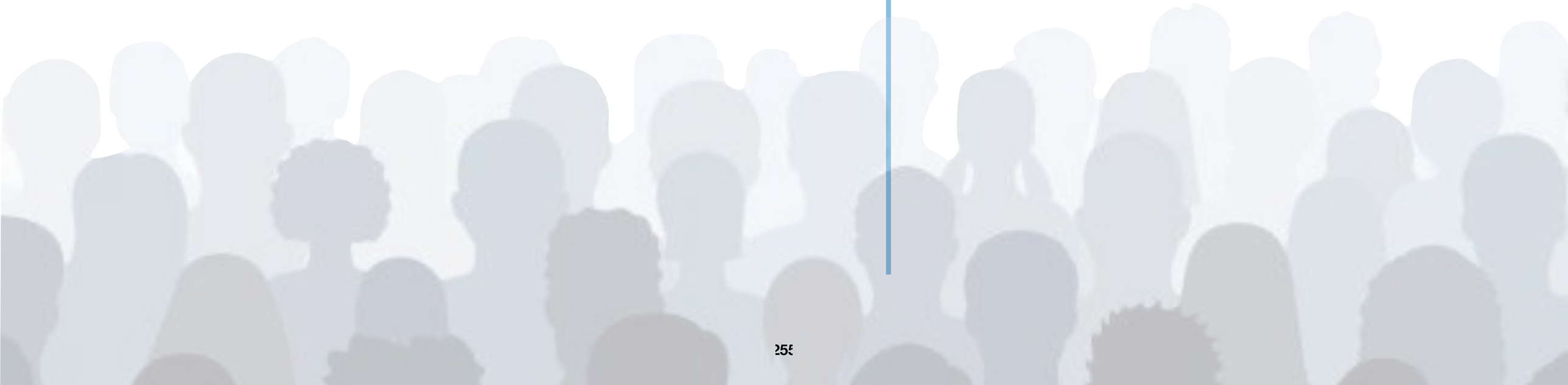
- Engaging with both experts and farmers highlights a clear preference for training methods that are observed, experienced, and actively practiced. Central governments and key stakeholders in the agricultural sector can facilitate these preferred learning models through the introduction of model and pilot programs. Effective training should transcend traditional classroom boundaries, focusing instead on genuine agricultural practices conducted on the actual land where farmers manage their operations. This approach ensures that learning is directly applicable and deeply rooted in the realities of everyday farming activities.

- Training programs that can increase farmers' productivity within the particular climatic and societal conditions of their area tend to attract them. It was shown that interest is heightened when training is tailored to the local environment and culture.

- Farmers' problems in accessing financial instruments and their needs for financial education vary according to production-related variables such as scale or crop, or demographic variables such as age and gender. Therefore, training and capacity building programs should be designed and implemented to respond to different conditions and needs.

Suggestions

- Chambers of agriculture and provincial agricultural directorates are often viewed as distant by farmers, attributed to their distinct roles, activities, and operations. While these entities provide services like training and guidance that could benefit farmers, their enforcement actions, including inspections and potential fines, contribute to a mixed perception. The simultaneous provision of support and enforcement by the same institutions leads to farmers' wariness, limiting their engagement with the offered services. Separating these two functions —supportive guidance from regulatory enforcement—into different organizations is suggested to alleviate this issue. Such a division could enhance the effectiveness of both support and compliance efforts, encouraging farmers to more readily seek out support services without the fear of regulatory repercussions. This need can be formulated as an "agricultural advice bureau", which can also be mobile in designated regions or basins.

German Sparkassenstiftung
FOR INTERNATIONAL COOPERATION

Dissensus
research