

Blame Covid-19 and Ignore the Long History of Industrial Standardisation in Agriculture: Supermarket and GLOBALG.A.P. Standards, Exploitation of Migrant/Refugee Farmworkers, and Marginalisation of Small-Scale Farmers in Turkey

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Abstract

This paper examines the resilience of small-scale farmers in Turkey who are facing an expanding industrial model in agriculture that is deepening the structural conditions of marginalisation and exclusion. This type of model is vulnerable to supply-chain disruptions due to various world-historical conjunctures, including the Covid-19 pandemic and the war in Ukraine, resulting in unprecedented hikes in agro-industrial-input and market-food prices, as well as food insecurity. Drawing on official documents and pre-pandemic interviews, the paper situates the resilience of these farmers within the state-planned expansion of agro-industrialisation directed towards boosting market- and export-based earnings. This industrial model is based on imported agro-inputs, land commodification, and contraction of village resources, as well as registration and standardisation as a condition for market access. It is further characterised by racially segmented agricultural labour markets, and exclusion of unregistered farmers and their food. The paper explores the structural constraints that emerge from an expanding industrialisation in agriculture, and considers how small-scale farmers might adapt to these conditions while co-existing with agro-industrialisation.

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INTRODUCTION

Covid-19 related social-distancing requirements, lockdowns, and transport restrictions have exposed the fragility of the global agri-food system. Although regional variation has been evident across the world, the most immediate impacts were: failures in the supply of seeds, feeds, and fertilisers; food-price hikes; fewer choices in and access to market food; food loss/waste on farms due to inability to harvest; and wage loss and disruptions to farm employment (e.g., UNCSN, 2020). The enduring impacts remain unclear, requiring a burden of proof to establish cause-and-effect relationships. This is not my goal here.

Existing research examines the Covid-19 effect on global agri-food in relation to labour productivity and production output through the lens of un/availability of farmworkers due to illness and migration restrictions (e.g., Haqiqi & Horeh, 2021). To avoid the risk of labour shortages, such research tends to suggest the adoption of digital technologies and biotechnologically improved crop varieties (e.g., Henry, 2020). 'Producing more food with less farming' is emphasised and further justified by fears of future food insecurity due to pandemics and population growth. An interesting research question emerges as to the growing prevalence of a perspective centred on high-tech-led productivity/yield optimisation in response to future supply-chain disruptions, but *without* examining its long-term effects on small-scale peasant-like farmers who continue producing food for local/regional consumption.

To get a better idea of the increasing predominance of market-oriented productivity/yield optimisation and its consequences for small-scale farmers, I adopt a big-picture approach to agri-food restructuring which the Covid-19 pandemic has only accelerated. Research shows that the global agri-food system was 'broken' long before the pandemic as regards its consequences for small producers. This can be traced back to the market- and export-oriented restructuring of global agricultures occurring since the 1980s under the World Bank's 'new agriculture' programme and the founding of the WTO in 1995 (Clapp & Moseley, 2020; McMichael, 2023). The pandemic became a 'revealer' of underlying structural problems within the industrial agri-food system. As a result of standardisation in production methods, crop varieties, agro-chemical and agro-industrial input use, and commercialisation of land, it has created significant vulnerabilities in small-scale food production.

Research on Covid-19's impact on agriculture in Turkey has often assumed, rather than demonstrated, widespread supply-chain disruptions. However, there is lack of comparative analysis on the *varied* and *combined* effects of various world-historical conjunctures, including the pandemic, the war in Ukraine, government's inflationary monetary policy, and climate change. These conjunctures are often 'added' to a list of factors in accounting for supply-chain disruptions (e.g., Urak, 2023). Some scholars also examine pandemic effects in relation to farmers' anxieties about the increasing cost of, and access to, inputs (e.g., Uğur & Buruklar, 2022), calling for reduced import-dependency on grain crops (Urak, 2023; Özden et al., 2022)¹. Such research often ignores the political-economic history of agricultural restructuring along an industrial model premised on the marginalisation and exclusion of small-scale farmers. My belief is that in Turkey, pandemic-induced supply-chain disruptions were neither long-term, nor permanent, nor uniform across agri-food relationships and scale of farming. The neglect of agricultural restructuring is surprising, especially in light of existing research which shows that a neoliberal, market-oriented developmentalist model (which began in Turkey in the 1980s) created the structural conditions for farmers' exclusion, marginalisation, and dispossession (Atasoy, 2017; Aydın, 2002; 2010; Gürel, 2011; Karataşlı & Kumral, 2023; Keyder & Yenal, 2011; Öztürk, et al., 2018) – long before the pandemic.

This paper highlights the structural constraints generated for small-scale farmers, while keeping in mind recent findings by Atasoy (2023a) showing that these farmers continue to produce market food, as they do in many places across the world (Harriss-White, 2023; Jansen, 2015; Lewison, 2022). Thus, this paper asks: How do we make sense of the structural constraints arising from an expanding process of industrialisation

¹Turkey, which is not self-sufficient in wheat, barley, and corn-seed crops, imports grain from Russia and Ukraine.



in agriculture? How do farmers adapt to these conditions? What, if anything, does Covid-19 have to do with this context?

The question of how small-scale farmers endure has been a subject of extensive research, which shows that smaller-scale agroecologically oriented farming *can* be more productive and resilient (Akram-Lodhi, 2021; Mosely & Battersby, 2020). In general, it is difficult to assess the resilience of farming at larger scales – resilience being the ability of a system to withstand shocks and overcome disturbances while retaining its basic features (Walker et al., 2006). This includes the ‘adaptability’ that a system can sustain by reforming itself through the reconfiguring of old elements and the combining of new ones. My aim here is not to demonstrate how small-scale farmers continue farming within agro-industrialisation. Rather, I am concerned with the issue of their adaptability through a historical understanding of the structural constraints that arise from market-oriented agricultural restructuring. My particular interest is in small-scale farmers’ options emerging from *within* these constraints. Farmers in Turkey do not formulate these options through a grassroots agroecological mobilisation *against* the industrial model (Atasoy 2023a; cf. Holt-Gimenez & Altieri, 2013), *but as actors situated within it*. They practice a mixture of customary and industrial production methods, thus constituting dynamic elements in the expansion of commercial relations. These farmers *may not know* the meaning of the term agroecology, but they are highly knowledgeable about the agroecological conditions of their farming, and their practices are rooted in tacit, experiential knowledge acquired over generations. They use natural resources and customary conservation methods to maintain soil productivity; blend elements of customary farming with selective use of industrial inputs; and feed themselves while also producing food for sale in local/regional markets. They simultaneously *co-exist* alongside the large-scale capitalist processes that deepen industrial agriculture. In an effort to understand the conditions in which these farmers operate, I first offer a broad description of expanding standard industrial agriculture since the early 2000s.

Structural constraints arising from the processes of state-led agro-industrialisation include: 1- expansion of a large-scale commercial agriculture with an emphasis on efficiency/productivity optimisation through land commodification, extended industrial inputs, and bio-digital precision-agriculture technologies; 2- standardisation of agriculture in compliance with private-sector supermarket standards; 3- increase of racialisation and exploitation in labour relations within commercial agriculture; and 4- exclusion of unregistered farmers from formally established markets. Farmers’ options are *determined within* these processes. Farmers of different scales and production/marketing trajectories adapt to changing contexts in their different ways. Large-scale commercial farmers are dependent on high-cost, high-tech industrial input and hired labour for specialised, standard monoculture production of high-value crops; they have little room to manoeuvre, other than by deepening labour exploitation. Small-scale farmers adapt through their use of some industrial methods, application of animal manure, reliance on unpaid labour of family members, and closer cooperation with one another and consumers, allowing them to *co-exist* with the dominant industrial model while situated within an expanding economic sphere of informalisation. Thus, the paper focuses on the structural conditions of agri-food in Turkey which the state periodically reorganises, along with resulting inequalities and farmers’ adaptation options.

Two types of data were used in this research: information gathered from publicly available official documents and statistics, and information gathered from pre-pandemic fieldwork and interviews conducted in the Harmancık village of Beypazarı in the summer months between 2018 and 2021. I use the first type of data to describe the first three processes of agro-industrialisation described above, and the associated structural constraints on farmers. Beypazarı has experienced a 6.3% increase in agricultural lands in recent years (TÜİK, nd), manifested in the expansion of large-scale specialised production of lettuce, spinach, and carrot varieties for supermarket chains, export, and industrial processing. This expansion pulls in migrant workers. A large proportion of Ankara’s 179 GAP-certified farmers operate in Beypazarı (MAF, 2022b). Agriculture in Beypazarı also consists of a significant number of small-scale farmers. I conducted my interviews in Harmancık in order to visit both large- and small-scale farms, and gain access to migrant/refugee farmworkers. My interviews

were open-ended, in-depth, and based on extended conversations held on the farms. The large-scale farmer I interviewed in Harmançik is one of the central figures in agro-industrialisation in Beypazarı. He produces carrot and lettuce varieties for supermarket chains and export, and employs Syrian refugees to reduce his labour costs. In total, I interviewed 23 Syrian refugee workers, one Kurdish seasonal-migrant worker, three labour contractors, and four farmers (one large-scale and three small-scale). My interviews with small-scale farmers relied on their willingness to talk to me; all of them gave their verbal consent to be interviewed. Small-scale farmers are all unregistered vegetable farmers who sell their produce on informal markets, and none of them has employed hired labour.

In what follows I describe the broad picture of agro-industrialisation expanding in tandem with high-tech 'precision agriculture'. This picture points to a growing emphasis on bio-digital precision-agriculture technologies for food-system predictability in the aftermath of the Covid-19 pandemic. Although there is a lack of systemic research on the effects of the pandemic on agriculture, this section underscores that there is an increasing push for leveraging the prospect of possible agri-food disruptions that could emanate from future pandemics, military conflicts, or climate change, to build a standardised high-tech agriculture. In this part of my analysis, I show that this push for standardisation results in growing dependency on imported industrial inputs, increased costs, land commodification, diminished access to locally available natural resources, and class-based food insecurity. I explore this through an analysis of GLOBALG.A.P., national GAP (good agricultural practices), and supermarkets' own private standards. Expanding on this understanding, I add that large-scale farmers' adaptation to the price/cost pressures of industrial agriculture relies on the availability of racialised migrant/refuge farmworkers and highly exploitative labour practices. I then examine how agro-standardisation exacerbates structural constraints on small-scale farming and deepens their marginalisation and exclusion. I raise the question of how these farmers might respond to these constraints and continue to produce market food. In the conclusion, I review my findings, noting that the Covid-19 pandemic afforded an opportunity to deepen industrial standardisation through high-tech precision agriculture.

Big Picture: Agro-industrial standardisation

In response to the Covid-19 pandemic, the Ministry of Agriculture and Forestry (MAF) immediately undertook several policy initiatives to supply farmers with seeds and fertilisers, expand e-agriculture platforms and farmers' internet access, and provide hygiene training for agricultural workers. Moreover, while social distancing, quarantine, and travel restrictions were implemented for longer periods in many European countries, Turkey did not impose lasting restrictions. A curfew was imposed for a limited period for those under 20 and over 65 years of age. However, the pandemic provided an opportunity for the government to intensify its efforts to launch new agro-industrial projects, including 'climate-smart agriculture and competitive agricultural growth' in 2022 – financed by the World Bank (MAF, 2023: 296). The government has also intensified its efforts to disseminate information on various high-tech 'agricultural innovations' to farmers through print and video documents. It published 8,820 such documents in 2022 alone (MAF, 2023: 146). The MAF's (2024) 2024-2028 strategic plan focuses on productivity/yield maximisation as a response to future food insecurity due to climate-change, natural disasters, future pandemics, and wars. The 106-page document mentions Covid-19 only once and the word epidemic/pandemic five times.

The MAF positions its productivity/yield maximisation plan on a continuum of agro-industrialisation – a recurring theme since the 1930s. Over the years, agro-industrialisation shifted from its early focus on surplus production for national consumption and in support of national economic development during the statist era of the 1930s and the import-substituting era of the 1960s-70s, to a focus on production for distant consumers through export-oriented production from the 1980s-90s, and increased incorporation into global supply chains from the 2000s. The efficiency-via-industrialisation principle for increasing productivity of labour and yields to enlarge market earnings has been a constant. Since the early 2000s, expanded agro-industrialisation has occurred within the context of a state-led neoliberal restructuring of the economy (e.g., Atasoy, 2017;



Aydın, 2010). The associated dynamics of this restructuring in agriculture include: growing standardisation, dependency on imported agro-industrial inputs, increased costs, land commodification, and diminished access to locally available natural resources. Currently, agro-industrialisation appears to be entrenched within the pandemic-induced mindset of market-oriented productivity/yield optimisation in agriculture.

Restructuring entails greater use of industrial inputs of synthetic fertiliser, pesticides, herbicides, and hybrid/engineered seeds, along with farm machinery, to increase yields of specialised crops (Atasoy, 2023a: 5). The enactment of at least 15 different laws since the 2000s has enabled the government to reorganise agriculture as an importing and exporting sector that relies on corporate-agro-industrial/biotech inputs, supermarket chains, and finance capital (Atasoy, 2017; Aydın, 2010). The AKP government, in power since 2002, is currently pushing for the 'integration of agriculture and industry' through contract farming to produce raw materials for industry (Hazine ve Maliye Bakanlığı, 2022: 45) – a push that would relegate agri-food in Turkey to 'industrial appropriation' for agro-fuel, animal feed, and processed food production (for the concept, see: Goodman et al., 1987). In what follows I elaborate on the processes of commercialisation in agriculture that produce the conditions for dispossession dynamics.

Dispossession through land commercialisation, declining natural resources, high-priced imported agro-inputs, and increasing food insecurity

The state's reconfiguring of access to, exclusion from, and claims over common resources, and the reorganisation of land-property relations underpin 'dispossession' dynamics in agriculture (Peluso & Lund, 2011). This reconfiguring encompasses an expansion of lands for large-scale industrial farming, a decline in small-scale traditional crop-producing lands and access to village natural resources, and alterations in customary land-use relations. These changes are central to the 'agrarian question' (e.g., Bernstein, 2010; McMichael, 2023) implicated in the commercialisation of agriculture and associated effects on marginalisation, exclusion, and dissolution of small-scale food production.

In Turkey, there has been a decline in the share of arable land from 59% in 2000 to 52% in 2019 (MAF, 2021: 44). There has also been a decline in low-value traditional grain and food-crop production on rain-fed dry lands and hilly plots, and an increasing diversion of small-scale farmlands to large-scale commercial monoculture production of high-value crops (Atasoy 2023a; Aydın, 2010; Öztürk et al., 2018). Between 2001 and 2020, the low-value traditional grain-sown areas decreased by 12.8%, while the area used for high-value fruits, beverage and spice crops increased 36.4% (MAF, 2021: 23). Areas sown with corn and sunflowers for industrial oilseed have also increased by 165% and 192% respectively (TÜİK, 2023f). These changes have been accompanied by a decline in small-scale farmlands of less than 10 ha. Nevertheless, small-scale farmers, a significant number of whom farm on less than two hectares of land, still account for 80.7% of all agricultural holdings, although they operate on only 29.1% of agricultural land (TÜİK, 2018; MAF, 2021: 23).²

On the other hand, there has been an expansion of public lands through various land-reclamation, cadastral work, and land-consolidation schemes. The state brokers these newly reclaimed public lands for commercial projects. There are at least 11 different laws in Turkey providing a legal basis for the treasury to lease, sell, and donate public lands for commercial use in agriculture, housing, mining, and infrastructural projects (Atasoy, 2017; Tuğal, 2023). Approximately 90% of public lands are registered as state owned (Milli Emlak [National Real Estate], 2023: 49). In 2021 there was a 6.75% increase in the number of parcels and a 14.44% increase in the area of public lands registered as state-owned, compared to 2020 levels. This continued in 2022 with a 4.5% increase in the number of parcels and 3.27% in km² from 2021 levels (Milli Emlak, 2023: 49-50). The government is currently working to open an additional 3,500,000 parcels and 60,000 km² of these lands for commercial deals (Milli Emlak, 2023: 49).³ This process involves a decline in previously open-access rural lands

² Only 6.4% of farms in Turkey have 20 ha of land (MAF, 2021: 13).

³ Because there are inconsistencies in official statistics, I do not offer data on the government sale/lease of public lands.

customarily used for small-scale low-value grain-crop farming.

Changes in metropolitan municipality laws constitute another link in the series of state-led reorganisation of land use/access relations that have diminished farming capacity in previously rural areas. These changes include Law No 3030 legislated in 1984, Law No 5216 legislated in 2004, Law No 6360 in 2012, and Law No 5747 in 2018. As a result, in 2014, almost half of all existing municipalities and villages, and 77.4% of the population in Turkey found themselves included within metropolitan areas (Ministry of Interior, 2015: 15). In 2022, 94.76% of the population was located within municipal boundaries (Ministry of Environment, Urbanisation, and Climate Change [MEUCC], 2023: 32). Legislative changes have impinged significantly on the legal status of formerly unregistered open-access village farmlands used by farmers to grow cereal/food crops, and meadows and pastures customarily managed as village commons, thereby creating opportunities for the state to register them as state-owned immovables. This has in turn produced the legal groundwork for dispossessing farmers from accessing village lands and their resources, and disrupting the economic dynamics of small-scale farming. As these laws prevent livestock farming within municipal boundaries, farmers are excluded from using previously open village common lands for livestock to generate animal manure. Between 2021 and 2023, there was a 37.4% decline in livestock production in Turkey (Table 1), indicating dismal prospects for mixed-farming and the availability of animal manure.

Table 1. Decline in livestock production in Turkey (2021-2023) (%)

Livestock production	Decline (2021-2022) (%)	Decline (December 2022-June 2023) (%)	Total decline (2021-2023) (%)
Cows	5.6	2	7.6
Buffalo	7.4	2.9	10.3
Sheep	1.1	4.7	5.8
Goats	6.2	7.5	13.7
Total	20.3	17.1	37.4

Author, based on data from TÜİK (2023h) and TÜİK (2022).

The state-sanctioned ‘enclosure’ of open-access village farmlands and commons has played a crucial role in expanding a more specialised, intensive agriculture that depends on market-based industrial inputs of synthetic fertilisers, while reducing opportunities to find local animal manure. Both increase farmers’ production costs as there have been unprecedented hikes in input prices due to Covid-19, the war in Ukraine, and government monetary policy. Overall, input prices increased by 135.06% in August 2022 compared to the same month in 2021 (TÜİK, 2022). Due to unaffordability, farmers reduced their use in 2022.^{4,5} Given that metropolitan municipal laws prevent traditional livestock farming in villages, small-scale farmers face the challenge of adapting to a lack of animal manure. To the best of my knowledge, there is no reliable data on the availability,⁶ use, and transport of animal manure from distant locations. However, Atasoy’s (2023a) in-depth interviews with small-scale farmers in the villages of Güdül highlight farmers’ mobilisation of friendship networks, reciprocity, and gift-giving-based arrangements to access animal manure.

A concern with potential supply-chain interruptions due to future pandemics, geo-political/military conflicts or climate change is driving deepening agro-industrialisation in a global agri-food system that favours large-

⁴ While there was an increase in the use of synthetic fertilisers from 10,278 tons in 2009 to 14,495 in 2020, there was a decline to 11,332 tons in 2022 (TÜİK, 2023c). Similarly, while the use of chemicals increased from 45,376 tons in 2006 to its peak of 60,020 tons in 2018, it declined to 55,374 tons in 2022 (TÜİK, 2023d).

⁵ While overall imports of hybrid seeds increased from 19,227 tons in 2002 to 56,355 tons in 2021, it declined to 37,729 tons in 2022. In vegetable seeds this decline was from 4,091 tons in 2021 to 1,159 tons in 2022 (MAF, 2022c).

⁶ Based on an estimated animal-manure availability for cattle (65%), sheep and goat (13%), and poultry (99%), Yılmaz et al. (2019: 252-253) predicted that in 2015 the total collectable fresh manure was roughly 105,500,000 tons in Turkey, of which 10% was used as fertilizer.



scale industrial farmers. This concern does not necessarily discount the food-producing capacity of small-scale farmers. However, their farming is increasingly seen as *insufficient* for producing food within a standard pattern of efficiency/yield maximisation required for sale in larger markets (Atasoy, 2013). A presumed lack of efficiency by small-scale farmers in achieving higher returns on resources (e.g., land, water, energy, labour) supports the belief that these farmers should exit agriculture altogether. An emphasis on techno-science-based resource-use efficiency to enhance growth in productivity/yields prevails in current discussions on food security and food-price increases in the conjuncture of Covid-19 and war in Ukraine (FAO, 2024). This implies a directional change towards digitalisation and biotechnology innovations in agriculture, and foreshadows the predominance of a high-tech-dependent large-scale commercial agriculture.

In Turkey, formally marketed food prices were 72.86% higher in August 2023 than in the same month in 2022 (TÜİK, 2023a). Food now constitutes the third largest price category in Turkey, following health (77.55%), and restaurant and hotel prices (89.31%). While restaurant and hotel expenditures are not a budgeting concern for low-income households in Turkey (as they rarely eat in restaurants or stay in hotels), food-price hikes are expressed in terms of food insecurity. In 2022, food and non-alcoholic drinks constituted the largest spending category in household budgets (22.8%), followed by housing and rent (22.4%) and transportation (21.3%). The lowest 20% income category of households spent 35.8% of their budget on food, compared to 16.6% for the highest 20% income category of households (TÜİK, 2023b). In 2022 in Turkey, the absolute poverty rate (food poverty) was approximately 0.5%; relative poverty (calculated as 50% of median income) remained at 14.4% of the population in 2022, as it was in 2021, while the ratio of those living below the poverty line (calculated as 60% of the median income) increased from 21.3% in 2021 to 21.6% in 2022 (TÜİK, 2023e). Those with limited income who cannot afford to purchase high-priced FFVs (fresh fruits and vegetables), meat, and other socially and nutritiously valued food on a regular and adequate basis experience food insecurity.

The Covid-19 pandemic does not explain class-based food insecurity arising from higher input and market-food prices in Turkey. The country is statistically self-sufficient in per-capita food consumption (Hürriyetdailynews, 2021; TÜİK, 2021f). In 2022, Turkey produced 128,600,000 tons of plant-based crops, including 70,200,000 tons of field crops, 26,800,000 tons of fruit, and 31,600,000 tons of vegetables (MAF, 2023: 9). In 2020, agriculture accounted for 6.7% of Turkey's GDP, 3.3% of its exports, and 16% of employment (MAF, 2021: 23). Turkey's FFV exports surged by 14.2% between 2021 and 2022, increasing earnings from US\$ 2,696 million to US\$ 3,079 million (Ministry of Trade, 2023). Despite these growth rates, Turkey was ranked 49th out of 113 countries in the Global Food Security Index of the World Bank in 2022, with a very low food-affordability score of 58.4 (EUI, 2022). The 'construction' of hunger in terms of low productivity and by reference to pandemic-induced high food and input prices masks structural vulnerabilities rooted in the state-led expansion of an export-oriented and market-based industrial model in agriculture.⁷

In Turkey, class-based food insecurity conditioned by a market-oriented model is masked by a government which prioritises foodbanks in providing food to the poor. Introduced in 2004 (Decree No 5035), food banks act within a 'new welfare regime' organised through neoliberal developmentalism (e.g., Akçay, 2021). It relies on poverty-relief charities, social assistance, cash transfers, infrastructure investments, and associated employment/income creation opportunities (e.g., Tuğal, 2023). In 2017, there were 64 foodbank networks operating in local municipalities across Turkey, along with other charities (Kala, 2020: 199). In addition to food, these networks provide support for basic household needs, including clothing, cleaning, and hygiene products. There is no data on the number of people who received food assistance under pandemic conditions. Generally, foodbanks and poverty-relief charities enable the poor to access food based on an Islamic almsgiving tradition that depoliticises food insecurity.

⁷ While in 2000 world food supplies were 20% higher than in 1961 (Patel, 2013: 6), the number of hungry people also increased by more than 111% (Rosset, 2000). Today there are around one billion people who suffer from malnutrition and cannot access healthy food.

Currently, the government in Turkey connects future food-system resilience to techno-science-based innovation, research and development, and technologies that are believed to increase efficiency/productivity in agriculture (MAF, 2023, 2020). This connection is also advocated globally to enhance food-system predictability in the face of stress and crises (e.g., FAO, 2021). Specifically, it points to bio-digital precision-agriculture technologies extending agro-industrial input use and generating site-specific data via internet-connected farm-equipment (e.g., drones, John Deere's new tractors) (Atasoy, 2023b; Gardezi & Stock, 2021). Yet these technologies remain experimental throughout the world. They have been adopted by only a few large-scale commercial farmers in the US, Canada, Australia, and Western Europe, concentrating mostly on variable-rate technology (VRT) application of fertilisers and herbicides (Gardezi & Stock, 2021). Many small-scale producers are unaware of such technologies or are unconvinced of the need to adopt them by changing their existing practices (Jones & Pimdee, 2017). In Turkey, very few large-scale export-oriented farmers have experimented with using drones, mobile devices, and Internet-of-Things technologies. Recent research on digitalisation in Turkey's agriculture highlights the role of electronic-networking technologies in expanding contract farming and finance via token-based smart contracts, commodity-backed token and smart-contract trading, and commodity hedging (Küçükçolak & Taylan, 2021). Although highly experimental in Turkey, these technologies serve to incorporate agriculture into corporate high-tech and financial circuits for agro-inputs, techno-scientific computational knowledge production, and algorithmic predictive modelling trajectories (Atasoy, 2023b; Gardezi & Stock, 2021; Stone, 2022). In parallel, the government of Turkey sees data processes as vital in decision-making (MAF, 2023, 2020). However, Atasoy (2023b) presents a convincing argument that data-driven algorithmic precision/predictive modelling trajectories strengthen corporate *bio-digital technology intensification* in agriculture, which further homogenises and standardises the agri-food system, creating new challenges to farmers' locally diverse knowledge and decision-making, while deepening farmers' dispossession.

Overall, Turkey's integration into global value chains increases import dependency on high-cost industrial inputs within standardised high-tech agriculture. The following section examines agro-industrial standardisation of food in supermarkets, which embody a unified notion of production, supply, and consumption of food through market access (Atasoy, 2013).

Standardisation in agro-food: Supermarkets, GLOBALG.A.P., and national GAP

Agro-industrial development is accompanied by the expectation that farmers comply with supermarket-led private standards. Supermarket chains began to proliferate in global agri-food relationships in the 1980s (Reardon et al., 2009) in the general context of a neoliberal reorganisation of global agriculture. In 2023, there were more than 51,000 supermarkets in Turkey with more than five stores. Of these 46,000 are nationally organised hard-discount markets. It is estimated that the number of stores opened by discount and national chains will reach 55,000 by 2029 (*Retail Türkiye*, 2023: 28-29). This represents one supermarket-store for every 1,545 consumers across Turkey. As these stores are located in the most populous cities in Turkey, there is intense per-capita concentration in urban areas (higher than that of Canada's supermarket distribution of one store for approximately 2,500 consumers).

Retailers here include Migros, founded as a joint venture in 1975 between the Turkish-owned Koç Holding and Migros-Swiss⁸, and CarréfourSA, founded in 1997 between Carréfour-France and Turkish-owned Sabancı Holding. Turkish-owned supermarkets include BİM, founded in 1995, ÜLKER (Yıldız Holding) after purchasing ŞOK in 2011, and A-101, founded in 2008. While joint ventures tend to operate markets of all sizes, the Turkish-owned chains focus on hard-discount stores, which became attractive to cash-constrained food-insecure consumers, particularly after the 2001 economic crisis. The example of BİM is instructive.

BİM is the first hard-discount store and currently the largest supermarket chain in Turkey. By the end of 2022, BİM had 11,500 stores. Compared to the previous year, it achieved 12% growth in the number of stores and

⁸ The Migros-Swiss is a GLOBALG.A.P. member.



a 109% increase in consolidated sales volume, reaching TL148 billion. In 2022, the average number of daily customer visits reached 5.8 million (BİM, 2022: 12). With a product portfolio of 850 items, BİM (nd1) supplies 80% of the basic daily consumption needs for a household. It also has a private-label portfolio of 68 products which accounted for 65% of sales in 2022 (BİM, 2022: 12).

The legislative changes undertaken by the government of Turkey prefigured the fashioning of an entire food-provisioning system along a market-oriented agro-industrial model and complemented the proliferation of supermarkets. These changes include the Good Agricultural Practices (GAP) project of 2004 (Bylaw No. 25577), amended in 2010 (By-law No. 27778) (İTÜİY [İyi Tarım Uygulamalarına İlişkin Yönetmelik], 2019, 2004), the Agriculture Law (No. 5488) of 2006 and the Seeds Law (No. 5553), also of 2006, as well as wholesale market laws. All point to greater standardisation within the general export- and market-based framework of GAP that anticipates the ascendance of large-scale farming. The Turkish GAP combines standards developed by the GLOBALG.A.P., International Organisation for Standardisation (ISO), particularly ISO 9001, ISO 22000, and HACCP standards. According to the Ministry of Trade (2020), Turkish FFV exporters adopt the ISO 9001, ISO 22000, HACCP, GAP, and GLOBALG.A.P. standards. Given that the government aligns Turkey's agriculture along an agro-industrial model and its standards for boosting exports, the following section examines how the GLOBALG.A.P. imposes compliance with these standards as a condition for supermarket-oriented sales. This has exclusionary outcomes for small-scale farmers.

The GLOBALG.A.P. (Global Partnership for Good Agricultural Practice)⁹ aims to harmonise standards for 'good agricultural practice' worldwide, leading to the growing influence of high-tech in the standardisation of global agricultures. It applies to at least 200,000 farmers in more than 132 countries, operating under GLOBALG.A.P. certification, and over 4 million ha of land, including in Turkey (GLOBALG.A.P., nd1).

Since April 2022, the GLOBALG.A.P. has emphasised that data-driven processes and technologies are essential for instituting outcome-oriented and impact-driven 'smarter standards'. It has revised its 'integrated farm assurance' (IFA) standards, currently called IFAv6, in fruit and vegetables. This was done to streamline and create 'stronger integrity' in farm-assurance of quality standards through Internet-based measuring of impacts, auditing, and certification for 'continuous improvement at every level' of production (GLOBALG.A.P., nd2). Digitised IFA requires farm-level data gathering and analytics. Data-driven technologies have been largely experimental in global agricultures, but GLOBALG.A.P. is pushing farmers to adopt these technologies to continuously produce 'enough' food while safeguarding food safety. In 2024, GLOBALG.A.P. joined with the online platform *Farmable*, which, through its farm-management software, is 'dedicated to revolutionising agricultural industry for enhanced productivity and efficiency'.¹⁰ Research reveals that small-scale farmers' compliance with GAP standards is short-lived, depending on the availability of financial support from governments (Holzapfel & Wollni, 2014). Standards may also result in the exclusion of small-scale farmers from GAP-certified FFV production (Atasoy, 2017: 64; Gibbon & Ponte, 2005). Thus, various multilateral organisations, including the FAO (2021), advocate for bridging the digital divide to allow small-scale farmers to improve their production quality and quantity, along with their capacity for responding to risks related to diseases, pandemics, and market access in a standard way.

The GLOBALG.A.P. is a 'third party certification' association, with 180 accredited certification bodies (CB) around the world¹¹. Its website lists 12 subject areas ranging from food safety to traceability. Within these areas, it lists: 190 principles to be met by producers; 221 "major musts" requiring 100% compliance; 120

⁹ The GLOBALG.A.P. was established in 2007, replacing the EUREPGAP (Euro-Retailer Produce Working Group – EUREP) which was founded in 1997. It is a consortium of many leading supermarket chains. Its website lists 51 retail and food-service members, including Walmart, Whole Foods, Tesco, Kroeger, Aldi, Ahold, Carréfour, McDonald, and Swiss-Migros. https://www.globalgap.org/content/galleries/documents/180221_Country_Partner_web.pdf. Unless otherwise mentioned, all GLOBALG.A.P. website references were accessed on 3 October 2023.

¹⁰ <https://www.globalgap.org/news/new-community-member-farmable/> (accessed 10 April 2024).

¹¹ <https://www.globalgap.org/>

“minor musts” with 95% compliance requirements; and 20 additional recommendations (GLOBALG.A.P., nd3). Producers are required to implement a ‘continuous improvement’ plan to analyse current practices using real data, report areas that can be improved, set measurable goals for improvement, implement new measures in their farming practices, check progress through audits, and revise their continuous improvement plan. The GLOBALG.A.P. also has several add-ons as voluntary tools to be used in combination with IFA. Among them is GRASP, designed for risk assessment of workers’ health, safety, and welfare, developed in accordance with the core principles of the ILO (International Labour Organisation) (GLOBALG.A.P., nd4), and the Food Safety Modernisation Act (FSMA) of 2023, which offers food quality- and safety-criteria guidance for industry (GLOBALG.A.P., nd5).¹²

These standards are all aligned with private supermarket standards. The GLOBALG.A.P.’s ‘Nurture’ is an audit module developed by TESCO in 2017. It is based on TESCO’s performance-measurement indicators. The accredited CBs whose members are trained at the GLOBALG.A.P. academy¹³ use ‘Nurture’ in their GLOBALG.A.P. compliance scoring system.¹⁴ These standards require extensive documentation, digital technology, labelling, input calculation, rigorous third-party certification, and the necessary infrastructure in equipment, tools, buildings, sampling and testing, as well as personal qualification, training and hygienic practices. The costs related to implementation and monitoring of standards, proof of compliance, CB service fees, and system participation fees belong to producers and vary depending on farm size, location, and existing national policies (GLOBALG.A.P., nd6). There are 1,000 international experts active on technical committees, national technical working groups, and focus groups, as well as 2,000 auditors¹⁵ working for more than 180 approved CBs affiliated with the GLOBALG.A.P. Farmers are not party to negotiations in the development of principles, standards and add-ons, which require the technical expertise of professional specialists. Supermarkets rely on CBs and preferred suppliers to achieve compliance with their standards (Gibbon and Ponte, 2005).

The GLOBALG.A.P. recognises nationally established GAP standards, provided they are equivalent and have received approval. The congruity established between the GLOBALG.A.P. and national GAP programmes ensures world-wide harmonisation of standards for a smooth and steady flow of food in global supply chains. National certification procedures follow the rules established within the GLOBALG.A.P. certification ‘Integrity Programme’, operational since 2008 (GLOBALG.A.P., nd7).

In Turkey, GLOBALG.A.P. standards are nationally implemented and have been monitored by the government since the enactment of the GAP project in 2004 in accordance with the previous EUREPGAP. The number of GAP-certified farmers in Turkey increased 15-fold from 2007 to 2022 (651 to 9,570), accompanied by a 39-fold increase in farmlands under GAP operation – from 5,361 ha across 18 provinces to 206,893 ha across 70 provinces. The amount of food produced under GAP certification also surged, from 56,000 tons in 2007 to 5,336,252 tons in 2022 (MAF, 2022a). Ankara now has 179 GAP-certified farmers. The largest concentration of these farmers is in Urfa (1,350 farmers), Adana (1,512 farmers), and Gaziantep (841 farmers) (MAF, 2022b), where all are involved in export-oriented monoculture crop production for European markets. The number of GAP-certified farmers is nevertheless very small compared with the approximately 5 million farmers operating in Turkey. There is no data on annual fluctuations in the participation rates and the scale of participating farms. Data presented by Atasoy (2017: 65) shows that in 2012 the average size of farms within the Turkish-GAP programme was approximately 16 ha – much larger than the average 5 ha-size held by the majority of producers in Turkey. National supermarkets are increasingly demanding that farmers comply with GAP standards and display the GAP-certification label on the food in their stores.

¹² Other add-ons include SPRING, a sustainable program for irrigation and ground water use; TR4, a biosecurity standard; Bio-diversity guidelines; AH-DLL GROW, a tool designed to measure producers’ risk management; and COOP ITALIA, a pesticide transparency act.

¹³ GLOBALG.A.P. academy was established in 2012. https://www.globalgap.org/uk_en/for-producers/globalg.a.p.-add-on/.

¹⁴ https://www.globalgap.org/uk_en/for-producers/globalg.a.p.-add-on/nurture-module/.

¹⁵ <https://globalgapsolutions.org/>



BİM is not a member of GLOBALG.A.P. but has its-own private criteria and tests the compliance of its products with national GAP standards. It tests at least 10,000 foodstuffs annually through independent and accredited public and private laboratories. The production plants and suppliers are inspected and audited in relation to a 'question list' designed by BİM (nd2) for quality assurance. The list is not displayed on BİM's website. The chain aims to ensure that by 2026, 10% of its private-label products have QR codes providing information on the quality of food sold in its stores (BİM, 2022: 8). In 2022, working exclusively with a total of 1,578 local suppliers, BİM conducted 756 supplier audits (BİM, 2022: 12).

Given that only a small number of large-scale commercial farmers (9,570 in 2022) operate as GAP producers, the government aims to expand standardisation into small-scale production through contract farming. In 2020, 185,399 farmers produced FFVs and seeds/cereals under contract (*Cumhuriyet Newspaper*, 2020). However, it is not known how many of these contracts have actually been concluded as they are not submitted to the Ministry. Moreover, the inspection of food standards is typically carried out through one-time farm visits by government-accredited inspectors using simple Yes/No questions.¹⁶ In general, farm-based food-quality assurance lacks rigorous inspection and completed contracts. Industrial input-dependent, standardised agriculture is nevertheless expanding, with a focus on a market-based enlargement of food production, particularly in the face of disease, pandemics, wars, and climate change.

Large-scale commercial farmers who operate within high-cost standardised high-tech agriculture producing for *formally organised markets* (e.g., supermarkets, large hotels, and export) have little flexibility to adjust to supply-chain interruptions and associated cost/price increases. As I demonstrate below, low-cost, unregistered migrant/refugee farmworkers and highly exploitative labour practices constitute their adaptation to the price/cost pressures of industrial agriculture.

Large-scale farmers' adaptation strategy: Racialised migrant/refugee households as a labouring unit

As regards labour standards, Turkey was considered a high-risk country in 2023, ranked 35th on the World Bank's country-risk-classification list.¹⁷ The Turkish GAP and wholesale markets law do not require registration of information for on-farm labour practices. The GLOBALG.A.P. itself presents its GRASP labour standards as an add-on voluntary tool. Medium and large-scale commercial farmers in Turkey rely on seasonally hired labour drawn from racialised Kurdish and Syrian migrant groups with no legal scrutiny. The mass influx of Syrian refugee workers after 2015 was crucial in the mitigation of potential disruptions to the food supply, including the impact of Covid-19. There are approximately 3,600,000 Syrian refugees in Turkey, who are not granted full refugee rights but are required to register with the government to receive 'temporary protection'. They can apply for a work permit six months after obtaining their temporary-protection status. Syrians working in seasonal agriculture and livestock are exempt from the work-permit requirement (Zuntz et al., 2022: 248), thereby enlarging an already significant pool of informally employed unregistered farmworkers within a racially segmented labour market.

There is only a small decline (5.58%) in the rate of unregistered labour in agriculture, down from 90.14% in 2002 to 84.56% in 2021, compared to a 23.14% decline in all categories of employment from 52.14% to 29% during the same period (Social Security Institute of Turkey [SGK], 2022). Unregistered farmworkers are generally hired for weed clearance and crop harvests, for which they earn very low wages. In Ankara in 2022 the daily wage for seasonal agricultural workers was TL191 (TÜİK, 2023g) or approximately Can\$10. Because informal employment is prevalent, the official daily-wage figure is misleading. Medium/large-scale commercial farmers rely on seasonally hired migrant workers, consisting of male and female members of

¹⁶ <https://www.tarimorman.gov.tr/Konular/Bitkisel-Uretim/Iyi-Tarim-Uygulamalari> (accessed 27 October 2023).

¹⁷ GLOBALG.A.P. Country Risk Classification, 2023. https://www.globalgap.org/content/galleries/documents/230101_Country-Risk-Classification-2023-Full-List-A-Z_en.pdf.

entire households. They are hired through the intermediary of agro-labour contractors (known as *çavuş*). There is no official data on ethnicity-based agricultural wages in Turkey. My research shows that their wages are based on the *entire household perceived as one labouring unit*, and that the low level of wages is justified by the assumed limited sustenance needs of a migrant family.

The following analysis is based on my interviews with farmworkers, *çavuş*, and a commercial farmer. The *çavuş* I interviewed subcontracted these migrant workers. Because they were not fluent in Turkish, my conversations with the workers were translated by *çavuş*. Two of the *çavuş* subcontracted with an agro-trader who was operating a commercial farm growing green-onions, and the third *çavuş* subcontracted with a lettuce- and carrot-producing export-oriented commercial farmer. Two of the *çavuş* were themselves Syrian refugees who knew Turkish. The other – fluent in Arabic – was a Turk. These *çavuş* were from Ceylanpınarı, a border town divided between Turkey and Syria by a fence and railroad tracks with a predominantly Kurdish and Arab population. The Turkish *çavuş* was from the Turkish part of Ceylanpınarı within the province of Urfa, and the Syrian *çavuş* was from the Syrian part of Ceylanpınarı known as Ras Al Ain. These *çavuş* communicated with workers in Arabic. Workers were members of three families with close kinship ties.

The workers were all teenagers, except one who was 22 years old. The youngest was a 14-year-old. They were students in Syria, but none were attending school in Turkey. The Turkish government cuts off refugee family-support for children over the age of 14, thereby pushing teenagers into the workforce and creating the conditions for *labouring by dispossession*. During my research I observed that Syrian refugees had replaced the Kurdish workers who were previously predominant in the migrant-labour force in agriculture. The Kurdish worker who knew Turkish explained the reason for this shift, and the Turkish *çavuş* from Urfa concurred. The worker, a 17-year-old from Mardin, was no longer a migrant and lived in Beypazarı:

There are now around 5,000 Syrian-refugee farm workers in Beypazarı. They are brought here to replace the Kurds ... after the 2015 tension with the Kurds¹⁸ [when] Kurds were violently expelled from Beypazarı ... not by the police but by some 40 young Turkish nationalists who physically attacked the Kurds and beat them up on the streets ... There were lots of street fights. The attempted military coup in 2016 intensified anti-Kurdish hatred by these Turkish nationalist thugs. (Interview, 23 May 2018)

The Turkish *çavuş* from Urfa added:

In the past we had about 5,000 Kurds working around here. I alone brought 1,500 Kurdish workers from Urfa. Some of these Kurds liked Beypazarı and settled here ... There was no tension between the Turkish and Kurdish people. But, after the attempted coup, they became unwanted. (Interview, 23 May 2018)

I asked if the police were not protecting the Kurdish workers, and whether Syrian refugees were facing similar racially motivated tension. The Turkish *çavuş* replied:

Police were Gülenists.¹⁹ They were fired and lost their jobs after the coup attempt ... There is another side to this: Kurds were taking their money back to family in their hometowns after the harvest rather than spending it here. Syrians ... are settled here ... shopkeepers are happy. From time-to-time we hear talk from the locals like 'the state takes it away from us and gives Syrians the money'. But so far there's no conflict. (Interview, 23 May 2018)

The Syrian *çavuş* explained:

We did not come here to make money. There is war in Syria. We have no choice; we cannot go back to Syria. We are from the Syrian Ceylanpınarı where the Kurdish PYD is dominant; either ISIS or government forces,

¹⁸ These tensions followed the collapse of negotiations, known as the 'solution process' (*çözüm süreci*), between the Turkish government and Kurdish groups in July 2015 when two police officers were murdered in Ceylanpınarı, Urfa, on 22 July 2015 by unknown individual(s). The crimes were blamed on the PKK.

¹⁹ The Gülenist movement is one of the main mass-based civil society religious movements which emerged in the 1970s under the leadership of Fethullah Gülen. It has been accused of engineering the attempted military coup against the AKP government in 2016.



or other groups dominate the other parts of Syria. These people are here for their safety. (Interview, 23 May 2018)

The Turkish *çavuş* from Urfa likened Syrian economic hardship to that of Turkish workers who migrated to Germany during the 1960s-70s. He explained:

Turks were guest workers in Germany whereas Syrians are refugees, escaping from the war. Nobody asked them to come to Turkey. Nevertheless, they are poor ... They supply low-cost labour, filling the labour gap, just as Turks in Germany did. (Interview, 23 May 2018)

The large-scale farmer who produces lettuce and carrots for export explained the important role of Syrian workers in agriculture after the Kurds were expelled:

After 2015 and 2016, we couldn't find workers ... Local people don't work in the open fields; weeds spread everywhere and we couldn't harvest our crops. The wealthy and the government made local people lazy and parasitic. There are lots of charity monies circulating around all the time. They don't need to work in open fields for long hours under the sun for little money. (Interview, 28 May 2018)

It is important to note that the scarcity of local labour and racially motivated removal of low-cost Kurdish migrant workers has resulted in Syrian refugees filling the gap at a very low cost. In 2018, Syrians working 12 hours a day at a TL50 per day (the equivalent of Can\$1.16 per hour based on the 26 May 2018 conversion rate) earned less than the official minimum wage.²⁰ However, these low wages take on greater significance when traced to labour-contracting arrangements between *çavuş*, agrotraders, and farmers. The *çavuş* contract workers on behalf of farmers or agrotraders, and transport them from their residences in town to the fields using their own vans. Workers do not pay for their transportation; agrotraders and/or farmers pay TL150 per van per day. Therefore, the *çavuş* earns three times more than the average worker if he uses only one van, and they generally use three vehicles. The *çavuş* is also responsible for organising work, disciplining labour, and increasing labour productivity, frequently yelling at workers using phrases as “*hadi, hadi, çabuk ol*” (come on, come on, be quick, fast). Farmers and agrotraders often complain that Syrians are slow and unskilled in farm work compared to Kurdish workers.

The large-scale commercial farmer explained that Syrians are very young and inexperienced; they are slow and often damage the crops by stepping on them or by cutting lettuce the wrong way. Given that an experienced local worker demands a wage three times greater than the average paid to a Syrian worker, this farmer continues to work with *çavuş* who support farmers' low-wage requirements (Interview, 29 May 2018). The *çavuş* from Urfa elaborated: ‘These people live in shanty houses as members of a whole extended family and share the rent. Shanty houses are already cheap. They don't need much. Since they work as a family, they can pool their income for spending’. (Interview, 28 May 2018) The Syrian *çavuş* explained that ‘These kids are all relatives, children of uncles and aunts; they can support each other’ (Interview, 28 May 2018). I interviewed the 14-year-old worker who explained that he and his sister can pool TL3,000 per month (Can\$833) in support of a family of nine (Can\$92 per each family member per month).

The widely-held perception of the ‘complete household as a labouring unit’ is commonly used to justify lower wages for individual workers who typically earn less than the legally defined minimum wage. Without legal recognition as refugees, Syrians work under the threat of deportation and loss of livelihood. In 2021, I observed that these workers were not tested on farms for the corona virus. Rather than their health, they were more concerned with lockdowns that might negatively affect their employment. Within a context where labour standards are ignored and nationalist ethnic tension is high, the use of low-cost Syrian farmworkers enables large-scale farms to adapt to the price/cost pressures of industrial farming.

Below I briefly discuss how small-scale farmers respond to structural constraints within agro-industrialisation and continue to produce market food. My argument is preliminary, requiring further research based on in-

²⁰ <https://www.csgeb.gov.tr/en/Contents/Istatistikler/AsgariUcret> (accessed 30 May 2018).

depth interviews.

Exclusion of the unregistered from formally established markets

There are 176 wholesale markets across Turkey (MAF, 2021: 44). The 'Regulation of Fresh Vegetable and Fruit Trade and Wholesale Markets Law' of 27 June 1995 (No. 552), revised (No. 5957) in 2010, requires farmers to sell their FFVs through municipally organised wholesale-market terminals via the intermediary of commissioners, agrotraders, producers, and producers' unions. Commissioners sell produce on behalf of producers; agrotraders purchase produce from the growers and sell as owners; and producers and producers' unions sell their own products.²¹ The law requires registration of products for traceability of quality and origin (Article 6), and the registration of product characteristics must be placed on packaging boxes to confirm 'product identity'. The law prohibits unregistered FFVs without product identification from being sold in supermarkets, municipally organised neighbourhood *pazars*, and other formal marketing outlets.

The Regulation also introduced an electronic 'wholesale registration system' within the Ministry of Trade. It requires FFV-trading individuals, who themselves must register, to enter product information.²² It also allows agrotraders to emerge as significant players in the formal marketing of FFVs. This effectively consolidates social hierarchies between medium/large-scale commercial farmers and small-scale producers. These hierarchies are based on agrotraders' dealing with a small number of medium/large-scale farmers who can produce larger quantities of standardised food according to an industrial model. The law, therefore, signals the exclusion of a large number of small-scale and unregistered farmers, along with their locally diverse customary practices and non-standard food.

Agrotraders also enter into contract-farming relations with medium/large-scale farmers, but these contracts often lack formal scrutiny by the Ministry. They contract out produce while it is growing in the fields, hire agricultural workers with the intermediation of *çavuş*, and formally sell the produce as their own to wholesale markets and supermarkets. Agrotraders are required to register information on products and producers via their smartphones in the wholesale registration system before transporting produce from the farm (Retail Türkiye, 2012). The law does not consider on-farm practices, nor does it offer mechanisms to protect farmers and labour against the potentially arbitrary business practices of agrotraders. There is currently approximately a TL15 difference in per-kilo price of FFVs between the farm-level procurement price and market-sale price in supermarkets, often attributed to agrotraders bypassing wholesale markets and selling directly to supermarkets when determining prices (Analiz Newspaper, 2022). In response, the government is planning to revise the existing law to ensure that market-food prices are determined daily at wholesale markets and that products unregistered with the wholesale market are considered 'illegal' for sale (Analiz Newspaper, 2022).

Given that registration is a formal condition for FFV sale, the law effectively enables agrotraders to exclude small-scale producers who do not or cannot comply with the GAP standards increasingly demanded by retailers. Excluded from retailer-led formal-marketing channels, small-scale farmers engage in street vending, door-to-door sales, rural district *pazars*, and other forms of informal-sale niches to sustain themselves.

The National Registry of Farmers (Çiftçi Kayıt Sistemi – ÇKS) founded in 2001 plays a central role in this exclusion. It ties farmers' eligibility for government agricultural support to formal ownership, size of farmland and number of livestock (Resmi Gazete, 2014), disregarding the existing customary tenurial relations prevailing in small-scale farming in Turkey (Keyder & Yenil, 2011). Many small-scale farmers own less than two hectares of land and are ineligible for government agricultural support. Hence, there is no reason to register. Unregistered farmers therefore have to act creatively and resourcefully to enlarge their marketing niches – a process which

²¹ Commissioners pay taxes to the municipality and receive a 3–8% commission on total sales for brokering FFV sales on behalf of producers. Traders, producers and producers' unions do not pay a commission to the municipality (Atasoy, 2017: 213).

²² Producers are not required to register themselves or their produce.



rests on the legally sanctioned exclusion of unregistered farmers and their food from formal markets.

Approximately 2,765,287 farmers were registered with the ÇKS in 2003 (MFAL, 2014: 209). Registration declined to 2,173,000 farmers in 2022 (TZOB, 2022), falling below the 2001 level of 2,182,767 farmers (MFAL, 2014: 209). The 2022 registration level represents 43.46% of the total number of approximately 5 million farmers in Turkey. Therefore, a significant 56.54% of all farmers are unregistered and cannot enter formally established markets. Small-scale farmers constitute the lowest income-earning category in agriculture (MAF, 2021: 45). They also operate *without any* social-security coverage as they are not registered with the SGK. In 2023, 459,463 farmers were registered with the SGK,²³ representing only 9.19% of all farmers in Turkey.

These farmers are not a homogeneous group: there *are* place-specific similarities, but also differences, particularly in relation to their adoption of agro-industrial methods (Atasoy, 2017; Aydın, 2010; Karataşlı & Kumral, 2023; Keyder & Yenal, 2011; Öztürk, et al., 2018). During my fieldwork I found that small-scale farmers are not entirely outside industrial input-supply chains, nor are they opposed to the idea of industrially driven productivity enhancement. They purchase their hybrid seeds and agro-chemicals from Ayık Tarım (a seed and agro-chemical distributing company) and seedlings from Bey Fide (the second largest greenhouse seedling-growing company in Turkey) in Beypazarı, and often utilise a mixture of industrial and customary methods in their production. They practice mixed-crop and livestock farming, generate natural fertiliser, use animal manure from village barns, manage weeds by hoeing or hand-picking, and generally engage in crop rotation on a yearly basis. Their non-standardised farming enables them to offset some of the adverse effects of input/price hikes. Because these farmers are flexible in combining a multiplicity of practices, they can easily switch to locally available resources. They are proud of producing food without a complete reliance on agrochemicals such as synthetic fertilisers, pesticides and herbicides, and have no desire to register or certify the quality of their produce industrially. They believe their lasting ties with established customers provide adequate verification of their food quality.

Small-scale farmers rely mostly on unwaged household labour (also see: Aydın, 2002; Keyder, 1993) and a strong work ethic, believing that a 'good farmer' and 'good farming practices' require 'hard work' (cf. Silvasti, 2003). They *occasionally* hire low-cost migrant labour, particularly during harvest time. The farmers I encountered during my fieldwork appear to be driven by a profound sense of what is 'enough', having no desire to earn more. One farmer explained to me that as a family they aim to live by their own means without depending on outside help. Believing that greed is a sin, he commented: 'There is nothing that we can take with us to the other side when we pass away' (Interview, 18 May 2021). Farmers' desire to produce 'enough good food' to sell dovetails with their labour practices. They rely mainly on their own labour, supplemented by the assistance of relatives and *hemşeri* (fellow village folk). Contrary to the general expectation that unpaid household female labour is the underlying factor in the survival of small-scale farms (Arizpe 2014; Kocabicak, 2022), household female labour has only occasionally been used (typically during harvest) on farms in the village of Harmancık.²⁴ While the pattern I observed cannot be generalised, it is part of the regionally varied labour relations in the small-scale production of market food throughout Turkey (Atasoy, 2017; Aydın, 2002; 2010; Benlisoy, 2022; Gürel, 2011; Keyder & Yenal, 2011).

The main challenge faced by unregistered small-scale farmers is not how to produce enough food to sell, but finding ways to sell it. This depends on farmers' abilities in persuasive communication with their consumers to generate trust in their farming and food. Atasoy (2017: Ch.5) describes this form of trust-building as 'participatory certification by consumers for non-standard local food'. It is not a formally organised certification process, but a form of 'quality assurance' that communicates quality in culturally specific ways, signalling valuations based on the 'taste and smell' of place and local food cultures. There is always some degree of

²³ <https://veri.sgk.gov.tr/> (accessed 25 October 2023).

²⁴ For an analysis of the disinclination of farmers' spouses and local village women to work in open-field agriculture in some of the villages of Güdül in Ankara, see: Atasoy (2023a).

uncertainty regarding their use of agro-industrial inputs. However, for the small-scale farmers I interviewed, informally diffused trust in the quality and marketability of their food is at least as valuable, if not more so, than formal rules of codification. Farmers have turned their exclusion from the standardised agri-food system into an asset through personal ties nurtured with consumers over the years in various neighbourhoods across Ankara. The farmers are well-known as vendors who commute by their pick-up trucks across various urban neighbourhoods on different days of the week. They are well-established in selling their food in village squares and pazars, and through personal connections with various urban communities.²⁵

The resilience of these farmers lies *in* their positioning within a market economy based on the use of both natural village resources and industrial inputs, and reliance on their own and family labour – along with culturally mobilised support networks and personally cultivated trust-based connections with consumers in informal markets. It is through such positioning within the market-economic domain that farmers consider their adaptive responses to structural constraints.

Conclusion

This paper has explored the state-led development of commercial agriculture in Turkey, a process directed towards increasing market-based and export-oriented earnings through an industrial model. Publicly available official sources and data gathered from pre-pandemic fieldwork and interviews have been presented to make sense of this agricultural remaking. The most significant outcomes include: an increased cost/price squeeze, supermarket-led standardisation of food, displacement of non-standard farming and food crops, marginalisation and exclusion of small-scale traditional farmers, growing food insecurity for the poor, and racialisation and exploitation of farmworkers within segmented labour markets. These conditions rest on the state-sanctioned consolidation of social hierarchies between medium/large-scale commercial farmers and small-scale peasant-like producers. The neoliberal, developmentalist expansion of an industrial model in agriculture has produced a state of 'enclosure' for small-scale farmers and their farming practices, excluding them through planned change.

The Covid-19 pandemic and climate change constitute the current world-historical conjuncture of capitalism. It is within this conjuncture that new opportunities arise for the government in Turkey (and throughout the world) to restructure agri-food, particularly through a high-tech precision-agriculture trajectory that intersects with agro-industrialisation. A relatively quick, conjunctural need to respond to potential disruptions in agriculture and food security thus underpins more enduring, longer-term restructuring projects. Although it is currently an understudied research subject, this restructuring can only magnify existing structural conditions of exploitation and marginalisation, while simultaneously deepening market-oriented economic growth for boosting market/export earnings.

Small-scale farmers are not silent when it comes to the conditions that produce their marginalisation and exclusion from industrial agriculture; they are engaged in efforts to counter the conditions of marginalisation, both relationally and culturally, while also creating viable niches in which to informally sell their food. Preliminary findings suggest that, based on mixed-farming practices, use of both natural village resources and industrial inputs, and reliance on their own family labour and village support, as well as personally established connections with consumers, these farmers adapt to the structural constraints of an agro-industrialisation process that excludes them and their non-standard food. These efforts produce effects which sustain their continuing presence in agriculture through an expanding economic sphere of informalisation. Small-scale farmers do not treat their actions within the informal sphere as the survival response of a vulnerable and desolate group; rather, the 'informal' is implicated precisely *in* the historical practices of small-scale farming as it intersects with standardised agriculture. Thus, the resilience of small-scale farmers is situated *within* the very processes of agro-industrial standardisation, leading me to conclude that the resolve of small-scale farmers is

²⁵ For a similar observation in the town of Güdül in Ankara, see: Atasoy (2023a).



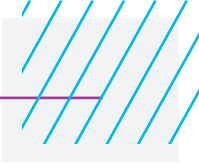
not to be discounted.

Although additional research is required to confirm these findings, small-scale farmers' flexibly organised farming and marketing practices appear to underpin their ability to withstand the hardships arising from state-led agricultural restructuring along an industrial model. Farmers' co-existence with industrial standardisation, their selective incorporation of industrial elements, and their adoption of some new technologies raises concerning questions about the prospects and future viability of small-scale farming. In the long run, the children of small-scale traditional farmers may not be successful in developing creative ways to remain viable; they may ultimately be forced to withdraw from farming. In the foreseeable future, however, small-scale producers and sellers of food in Turkey are likely to demonstrate continued adaptability and resilience in the face of rapid and profound socio-cultural, political, and economic transformation.

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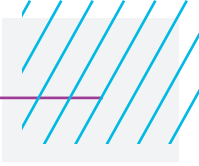
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