Title: Agricultural Policy, Program Underperformance, and Food Security in Azerbaijan: Structural Constraints in a Post-Oil Economy

Author: Dr. Gubad Ibadoghlu,

Senior Policy Analyst at Economic Research Center (ERC), Baku, Azerbaijan

Email: legal@ercenter.eu

Abstract

This article examines the structural challenges facing Azerbaijan's agrarian sector and their implications for food security in the context of a hydrocarbon-dependent, post-oil economy. Drawing on official statistics from the State Statistical Committee and program documents from the Ministry of Agriculture, the study evaluates the outcomes of major state programs in cotton, tobacco, rice, tea, sericulture, viticulture, and sugar beet production over the period 2012–2024. The analysis reveals substantial underperformance relative to planned targets, with implementation rates for key programs ranging from only 3.9 percent in sericulture to 61.4 percent in cotton. These shortfalls reflect persistent weaknesses in planning, inter-agency coordination, monitoring and evaluation, and private-sector participation.

Complementing the program assessment, the article analyzes food self-sufficiency ratios for 2020–2024 across livestock, crop, and processed food categories. The findings demonstrate a dual structure: while Azerbaijan achieves high and often surplus production in horticultural and export-oriented commodities (e.g., vegetables, fruits, nuts, and pomegranates), self-sufficiency in strategic staples such as wheat, grains, rice, and vegetable oils remains low and volatile. Livestock and processed food segments exhibit moderate but stagnant self-sufficiency, constrained by technological gaps, import-dependent inputs, and limited value-chain integration.

Overall, the evidence indicates that state-led expansion strategies have not translated into broad-based productivity gains, robust food security, or resilient rural development. The article concludes that a shift from politically driven, target-based interventions toward a coherent, market-oriented, and evidence-based policy framework is essential if agriculture is to become a dynamic driver of non-oil diversification and long-term food security in Azerbaijan.

Keywords: Azerbaijan; agriculture; state programs; food self-sufficiency; structural reform; import dependence; non-oil diversification; rural development; agro-food value chains

Introduction

Agriculture has long occupied a central place in Azerbaijan's economy, particularly as a source of rural employment, livelihoods, and non-oil output. Under Soviet rule, the agrarian sector was a key pillar of the republic's economic structure, supported by centrally planned input provision, guaranteed procurement, and large-scale collective farms. Following the restoration of independence, land reform and the privatization of agricultural assets were intended to lay the foundations for a market-oriented rural economy.

However, the subsequent oil boom period fundamentally reshaped the structure and incentives of Azerbaijan's development model. Rapid growth in hydrocarbon revenues and the expansion of state-led investment redirected financial, human, and institutional resources away from agriculture. Insufficient long-term investment, deteriorating rural infrastructure, water scarcity, exchange-rate volatility, and increasing production costs compounded the sector's vulnerabilities. During the post–oil boom phase, these pressures were further reinforced by the consolidation of monopolistic structures in agricultural production and trade—particularly through agro-parks and large vertically integrated holdings—and by an increasingly interventionist system of state support.

In response to growing concerns over diversification and food security, the government adopted a series of commodity-specific state programs targeting cotton, tobacco, rice, tea, silkworm farming, viticulture, and sugar beet production, as well as broader regional development programs. These initiatives promised not only to revive traditional subsectors but also to enhance self-sufficiency, generate rural employment, and expand non-oil exports. Yet, despite sizeable budgetary allocations and extensive policy attention, empirical outcomes have been mixed and, in many cases, well below officially declared targets.

At the same time, Azerbaijan's food security performance remains fragile and uneven across commodity groups. While horticulture and agro-industrial exports have expanded—leveraging the country's favorable agro-climatic conditions and comparative advantage in fruits and vegetables—self-sufficiency in key staples such as wheat, grains, rice, and vegetable oils has stagnated or declined. Livestock production and processed foods maintain moderate self-sufficiency levels but exhibit limited technological upgrading and strong dependence on imported inputs.

This article pursues two interrelated objectives. First, it provides a systematic assessment of the implementation and outcomes of major agrarian state programs, comparing planned targets with realized results across key subsectors. Second, it examines food self-sufficiency ratios for 2020–2024 in livestock, plant, and processed food products in order to identify structural patterns in Azerbaijan's food-security profile. The analysis draws on official data from the State Statistical Committee, food balance sheets, and sectoral program documents from the Ministry of Agriculture, complemented by the author's own calculations.

By integrating program-level evaluation with food-balance analysis, the study contributes to a more nuanced understanding of why Azerbaijan's agriculture—despite its strategic importance and favorable natural conditions—has not yet become a robust engine of non-oil growth, rural development, and sustainable food security. It argues that the core constraints are not merely technical or climatic but institutional and structural, rooted in the design and implementation of state interventions themselves.

Agriculture in a Resource-Dependent Economy: Context and Legacy

Agriculture has historically been one of the principal sectors of the non-oil and gas economy in Soviet Azerbaijan, serving as a major source of employment and rural livelihood. Following the restoration of independence, the implementation of land reform represented a critical step toward transitioning this sector to a market-oriented economic system. However, during the oil boom period, the reallocation of resources from the commercial to the non-commercial sector, coupled with inadequate investment, underdeveloped infrastructure, water scarcity, currency devaluation, and rising production costs, collectively constrained agricultural development.

In the post–oil boom period, the consolidation of monopolistic tendencies in agricultural production and exports—particularly through the establishment of agro-parks—alongside extensive state intervention via various support programs, further undermined the competitiveness of agricultural products. The limited effectiveness, weak accountability, and lack of transparency in the implementation of state programs for agricultural development have also contributed to the sector's current stagnation.

Although total agricultural output increased by 1.5 percent in 2023—comprising a 1.7 percent rise in livestock production and a 1.1 percent increase in crop production—the growth trajectory slowed considerably in 2025. During the first nine months of 2025, compared with the same period of the previous year, total agricultural output and livestock production rose by only 0.1 percent, while crop production declined by 0.7 percent[1].

Empirical evidence from this and previous studies underscores that agriculture continues to hold substantial strategic importance for Azerbaijan's economy. The country's favorable agro-climatic conditions and long-standing agricultural traditions provide a comparative advantage that, if effectively leveraged through institutional reform, technological modernization, and increased investment, could significantly enhance non-oil growth, rural employment, and export potential. Agriculture remains one of the most viable sectors for advancing the diversification of Azerbaijan's hydrocarbon-dependent economy.

In the post–oil boom context, the government has introduced a series of policy initiatives aimed at revitalizing agricultural production and fostering the commercialization of selected crop

[1] https://www.stat.gov.az/news/macroeconomy.php?page=1&lang=az

commodities. Nevertheless, despite these efforts, the sector's contribution to broader economic diversification remains limited due to persistent structural inefficiencies, weak value-chain integration, and uneven regional development.

At the same time, agriculture plays a vital role in shaping the composition of Azerbaijan's non-oil exports. In 2024, exports of agricultural products increased by 2.8 percent, reaching USD 789.4 million, while exports of agro-industrial products rose sharply by 57.3 percent to USD 316.1 million. Combined, the total export of agricultural and agro-industrial products grew by 14.1 percent, amounting to USD 1.11 billion, which accounted for 32.6 percent of total non-oil and gas exports. Within this structure, agricultural products alone constituted 23.2 percent of non-oil exports, with fruit and vegetable products representing the largest share[2].

[2] "Export Review" of the Center for Analysis of Economic Reforms and Communication, 2025 January, https://ereforms.gov.az/files/review/pdf/az/71f2a76ca8b765e7a3bc995111e7265d.pdf

State Intervention and Program Design in the Agrarian Sector

Despite substantial state support and multiple sectoral programs, agricultural outcomes over the past decade have remained underwhelming. Programs targeting cotton, tobacco, rice, and sericulture have largely fallen short of their objectives, revealing inefficiencies in planning, implementation, and monitoring. The evaluation below synthesizes official data to assess the effectiveness and progress of key agrarian programs.

Tobacco Growing

The *State Program on the Development of Tobacco Growing in the Republic of Azerbaijan for 2017–2021*[3], adopted on August 10, 2017, aimed to expand the cultivated area to 6,000 hectares and increase tobacco production to 12,000 tons by 2021, with an average yield of 20 quintals per hectare. However, after five years of implementation, these targets were not achieved. In 2021, tobacco was cultivated on only 3,100 hectares—48.3 percent below the planned area—and production amounted to 6.4 thousand tons, 46.7 percent below the target. By 2024, production reached just 6.5 thousand tons, reflecting persistent stagnation and limited productivity growth.

Cotton Growing

The *State Program on the Development of Cotton Growing in the Republic of Azerbaijan for 2017–2022*[4], adopted on July 13, 2017, projected an increase in raw cotton production to 500 thousand tons by 2022. According to the State Statistics Committee, actual production amounted to 321.8 thousand tons in 2022—35.6 percent below the target. By 2024, cotton production had further declined to 307 thousand tons, underscoring difficulties in sustaining output despite significant state support and mechanization initiatives.

Tea Growing

The *State Program on the Development of Tea Growing in the Republic of Azerbaijan for 2018–2027*[5], approved on February 12, 2018, aimed to expand the cultivated area to 3,000 hectares and achieve a green tea leaf harvest of 8.5 thousand tons by 2027. Progress has been slow: within the first four years, the cultivated area increased only to 1.06 thousand hectares before declining to

---

[3] State Program for the development of tobacco farming in the Republic of Azerbaijan for 2017-2021, https://e-qanun.az/framework/36324

[4] State Program for the development of cotton cultivation in the Republic of Azerbaijan for 2017-2022, https://e-qanun.az/framework/36050

[5] https://e-qanun.az/framework/37902

996 hectares in 2021. In 2022, green tea leaf production amounted to 1.0 thousand tons—15 percent less than the previous year. By 2024, production stood at 1.1 thousand tons, approximately 8.5 times lower than the 2027 target.

Rice Growing

The *State Program on the Development of Rice Growing in the Republic of Azerbaijan for 2018–2025*[6], adopted on February 9, 2018, sought to revitalize rice cultivation, enhance self-sufficiency, and reduce import dependence. The program set a target of 10,000 hectares of cultivated area, a yield of 40 quintals per hectare, and total production of 40,000 tons by 2025. However, after seven years of implementation, rice cultivation declined by 37.2 percent and production by 12.2 percent. Rice imports increased by 26 percent in volume and 84.1 percent in value, leading to a 14.2 percent drop in self-sufficiency. In 2024, domestic rice production totaled only 19.6 thousand tons—down from 22.2 thousand tons in 2000—while imports surged from 17.8 thousand to 64.3 thousand tons, a 3.6-fold increase.

Silkworm Farming

The *State Program on the Development of Silkworm Farming and Sericulture in the Republic of Azerbaijan for 2018–2025*[7], adopted on November 27, 2017, set a target of increasing wet cocoon production to 6.0 thousand tons by 2025. Despite substantial financial allocations, the results have been limited. Early measures—such as importing silkworm seeds and 4.5 million mulberry seedlings from the People's Republic of China, providing them free of charge to producers, and establishing 150 hectares of intensive-type mulberry plantations—produced short-lived success. Cocoon production peaked at 643.7 tons in 2019 but subsequently declined by 30.6 percent in 2020, by 22.7 percent in 2021, and by 2.68 times overall by 2024, when production totaled only 239.4 tons. This steep decline suggests structural weaknesses in production sustainability, market organization, and incentive mechanisms.

Viticulture

The *State Program on the Development of Viticulture in the Republic of Azerbaijan for 2012–2020*[8], adopted on December 15, 2011, aimed to achieve self-sufficiency in grape and wine

---

[6] https://e-qanun.az/framework/37848

[7] State Program for 2018-2025 on the development of silkworm farming and sericulture in the Republic of Azerbaijan, https://e-qanun.az/framework/37032

[8] The State Program on the Development of Viticulture in the Republic of Azerbaijan for 2012–2020, https://e-qanun.az/framework/22694

production, create rural employment, and strengthen related industries. Although vineyard expansion and raw material supply improved modestly, the program's overall outcomes were mixed. Persistent reliance on outdated production techniques, limited modernization of processing facilities, and market concentration constrained the sector's productivity and broader socio-economic impact.

Sugar Beet Production

The *State Program for the Socio-Economic Development of the Regions of the Republic of Azerbaijan (2019–2023)*[9] included objectives to expand sugar beet cultivation and establish processing infrastructure in several districts, including Agjabedi, Agdash, Barda, Kurdamir, Goranboy, Agstafa, Fuzuli, Tovuz, Shamkir, Samukh, and Yevlakh. Nevertheless, production outcomes deteriorated. In 2017, prior to the program's adoption, sugar beet output stood at 410 thousand tons—187.9 thousand tons higher than in 2022. This represents a 45.8 percent decline in five years. By 2024, production fell further to 289.1 thousand tons, reflecting the continued weakness of this subsector despite policy attention.

[9] State Program for the Socio-Economic Development of the Regions of the Republic of Azerbaijan (2019–2023), https://e-qanun.az/framework/41320

Outcomes of Commodity-Specific State Programs

The summarized results of the assessment are presented in Table 1, which provides a comparative overview of the planned targets and actual outcomes of the principal state programs implemented in Azerbaijan's agrarian sector.

Table 1. Summary of Program Implementation

State Program	Targeted Indicator	Result Indicator	Implementation (%)
Development of Cotton Production (2017–2022)	500,000 tons by 2022	307,000 tons in 2024	61.4
Development of Tobacco Growing (2017–2021)	12,000 tons by 2021	6,478.3 tons in 2024	54.0
Development of Sericulture and Silk Production (2018–2025)	6,000 tons by 2025	239.4 tons in 2024	3.9
Development of Rice Growing (2018–2025)	40,000 tons by 2025	19,600 tons in 2024	49.0
Development of Tea Growing (2018–2027)	8.5 thousand tons by 2027	1.1 thousand tons in 2024	12.9

Source: Author's calculations based on data from the Ministry of Agriculture of the Republic of Azerbaijan.

Across these key sub-sectors, the evidence indicates that most state programs have failed to meet their planned quantitative and qualitative targets. Common challenges include weak inter-agency coordination, limited private sector engagement, inadequate infrastructure investment, and the absence of robust monitoring and evaluation mechanisms. In many instances, performance shortfalls reflect overly ambitious planning that exceeded institutional and financial capacities. For Azerbaijan's agricultural policy to achieve its intended outcomes, a more coherent, data-driven, and market-oriented approach is essential. Future strategies should prioritize productivity enhancement, competitiveness, and sustainability rather than short-term expansion targets. Strengthening rural infrastructure, improving irrigation and logistics systems, enhancing producer cooperatives, and fostering innovation and research in agri-technologies are critical to revitalizing growth. A systematic shift toward evidence-based policy design and transparent

performance evaluation will be necessary for realizing the agricultural sector's full potential as a driver of non-oil economic diversification.

Overall, the assessment demonstrates that state programs in Azerbaijan's agrarian sector have yielded limited results relative to their planned objectives. While government support has expanded production capacity in certain subsectors, most initiatives have underperformed due to structural inefficiencies, weak institutional coordination, and limited private sector participation. Sustained progress will depend on shifting from target-based planning toward policies that prioritize productivity, technological modernization, and market competitiveness. Strengthening governance and accountability mechanisms remains essential for transforming agriculture into a dynamic driver of non-oil economic diversification and sustainable rural development.

Food Self-Sufficiency and Structural Vulnerabilities

The challenges identified in the implementation of state programs are further reflected in Azerbaijan's food self-sufficiency performance. Despite substantial public investment and policy initiatives, agricultural output growth has not translated into consistent improvements in national food security. Persistent productivity gaps and import dependence for key commodities indicate that structural inefficiencies continue to constrain the sector's contribution to sustainable food supply.

Despite targeted interventions, Azerbaijan's food security remains fragile and uneven across commodity groups. Periodic improvements in production have not ensured sustained self-sufficiency, and the country continues to depend on imports for several essential food products. Self-sufficiency levels for both livestock and plant-based commodities fluctuate considerably from year to year, reflecting the agricultural sector's exposure to climatic risks, input shortages, and policy inefficiencies.

Table 2. Food Self-Sufficiency — Livestock Products (2020–2024, %)

Product	2020	2021	2022	2023	2024
All types of meat and meat products	84.5	86.4	86.0	85.3	83.4
Beef and beef products	87.4	91.9	93.0	88.4	88.5
Mutton and goat meat and products	97.3	98.2	97.0	94.9	96.5
Poultry meat and products	79.0	79.6	78.5	81.7	76.6
Milk and dairy products	83.5	84.8	83.3	84.0	83.9
Eggs	100.0	99.1	100.5	102.2	103.7
Fish and fish products	81.7	78.2	76.7	75.4	77.3

As shown in Table 2, livestock-related self-sufficiency ratios remained broadly stable over the five-year period, though with a modest downward drift. Aggregate meat self-sufficiency declined from 84.5% in 2020 to 83.4% in 2024, suggesting stagnation rather than expansion. Within this category, beef and mutton products maintained relatively high ratios (above 88%), reflecting Azerbaijan's established smallholder livestock systems and strong domestic demand. However, poultry meat—a crucial source of affordable protein—registered a steady decline from 79.0% to

76.6%, underscoring dependence on imported feed, breeding stock, and input costs sensitive to exchange rate fluctuations.

Dairy production also remained largely unchanged (around 83–84%), indicating limited modernization of the dairy value chain and persistent productivity constraints in small-scale farms. In contrast, egg production exceeded self-sufficiency (reaching 103.7% in 2024), reflecting efficient domestic production systems and export potential within the regional market. Fish and aquaculture products continued to underperform, with self-sufficiency falling from 81.7% to 77.3%, largely due to ecological pressures, underinvestment, and a weak regulatory framework for aquaculture development.

Overall, livestock indicators suggest that while Azerbaijan sustains a moderate level of domestic supply for animal-based foods, the sector lacks dynamic growth and technological advancement, leaving it vulnerable to feed price volatility and climate-induced risks.

Table 3. Food Self-Sufficiency — Plant Products (2020–2024, %)

Product	2020	2021	2022	2023	2024
Total grains (excluding paddy)	68.1	73.7	69.0	70.5	68.4
Wheat	57.1	61.5	56.7	60.4	56.1
Leguminous	60.3	56.4	61.5	62.8	65.1
Potato	90.6	88.8	89.0	89.8	88.8
Vegetables (all kinds)	110.4	106.6	106.8	107.2	105.8
Tomato	131.0	121.1	119.8	118.9	119.7
Market garden crops	100.8	102.6	103.2	103.2	101.7
Fruit and berries	116.3	122.9	123.9	135.5	128.5
Walnut and hazelnut	138.0	136.5	137.0	139.7	126.1
Pomegranate	112.0	127.8	125.9	132.8	135.1
Grape	95.8	94.4	94.8	93.9	89.4

The data in Table 3 highlight pronounced disparities between staple crops and high-value horticultural products. Grain and wheat self-sufficiency remained critically low, fluctuating between 56–73% and trending downward after 2021. In 2024, wheat self-sufficiency stood at

56.1%, the lowest level in the five-year period, illustrating persistent reliance on imports from major grain-exporting countries. These results signal that cereal production has not benefited proportionally from government investment programs, with yield stagnation, water scarcity, and input inefficiencies limiting domestic competitiveness.

Conversely, fruit and vegetable production consistently exceeded domestic demand. Self-sufficiency levels for vegetables (≈106%), tomatoes (≈120%), and fruits and berries (≈128%) confirm Azerbaijan's comparative advantage in labor-intensive horticultural production, which benefits from favorable climatic conditions and export-oriented cultivation practices. Tree crops such as walnuts, hazelnuts, and pomegranates displayed strong performance, with self-sufficiency ratios exceeding 125–135%, positioning these commodities as important drivers of non-oil export diversification.

By contrast, the grape sector experienced a gradual decline from 95.8% in 2020 to 89.4% in 2024, suggesting that despite the state's viticulture programs, production has not kept pace with processing capacity or export ambitions. The duality between high-performing horticultural exports and underperforming staples underscores an imbalance between economic and food security priorities: export competitiveness has improved, but domestic resilience in basic crops remains weak.

Table 4. Food Self-Sufficiency — Processed Foods (2020–2024, %)

Product	2020	2021	2022	2023	2024
Brown rice	14.2	17.7	17.6	20.4	22.3
Flour (all kinds)	95.4	95.0	93.3	90.4	93.7
Vegetable oils	34.8	73.2	66.7	54.9	55.6
Butter	62.7	66.7	62.0	64.7	69.8
Cheese (all kinds)	88.1	86.3	87.9	86.4	85.0
Sugar	68.4	100.7	103.9	84.4	93.0
Tea	45.5	89.5	91.1	89.5	87.1
Salt	111.4	104.8	117.2	101.6	121.2
Unsweetened mineral and aerated waters	95.9	97.2	94.8	96.6	97.2

Source for Tables 2–4: State Statistical Committee of Azerbaijan (SSCA), Food Balances of Azerbaijan, 2025.

Table 4 reveals an uneven pattern of self-sufficiency in processed food categories, indicating progress in some segments but ongoing reliance on imports for critical goods. Brown rice, despite modest gains (from 14.2% to 22.3%), remains the most import-dependent staple, confirming the limited success of the 2018–2025 Rice Development Program. Vegetable oil self-sufficiency showed significant volatility—spiking to 73.2% in 2021 but declining to 55.6% in 2024—reflecting global price shocks and domestic processing bottlenecks.

Among animal-based processed products, butter and cheese maintained moderate self-sufficiency (≈65–85%), with minor fluctuations linked to milk supply and import substitution policies. Sugar exhibited a cyclical trend: surging above 100% in 2021–2022 before falling back to 93% in 2024, likely influenced by external supply disruptions and exchange rate adjustments.

The most notable improvement occurred in tea, where self-sufficiency nearly doubled from 45.5% in 2020 to 87.1% in 2024, attributable to the expansion of domestic tea processing under the 2018–2027 Tea Development Program. Salt production consistently exceeded national demand, demonstrating sustained capacity and potential for regional exports.

While Azerbaijan achieved high self-sufficiency in products such as flour, sugar, salt, and bottled water, the overall processed food segment remains exposed to external shocks due to input import dependence and limited technological integration in domestic processing industries.

An analysis of Azerbaijan's food self-sufficiency data for 2020–2024 reveals considerable variation across commodity groups, underscoring the dual structure of the country's agricultural system. Strong performance in horticultural and perishable products contrasts sharply with persistent import dependence in key staples and processed foods. While short-term improvements are observable in some categories, long-term stability remains fragile, exposing structural inefficiencies and vulnerability to external shocks.

While the government's development policy seeks to achieve higher levels of productivity in crops, some of them have been dropped from the agenda. This lack of consistency disrupts long-term productivity gains and does not allow for efficient resource allocation in the agricultural sector[10].

[10] Niftiyev, I.; Ibadoghlu, G. Longitudinal Principal Component and Cluster Analysis of Azerbaijan's Agricultural Productivity in Crop Commodities. *Commodities* 2023, *2*, 147-167. https://doi.org/10.3390/commodities2020009

Trend analysis across livestock, crop, and processed food segments identifies three overarching structural patterns:

- **Resilient yet stagnant livestock production** — Moderate self-sufficiency has been maintained, but technological stagnation and dependence on imported feed continue to constrain growth.
- **Horticultural dominance versus staple fragility** — Export-oriented fruit and vegetable production outperforms other subsectors, while cereals and grains lag behind, heightening food security risks.
- **Incomplete industrial upgrading** — the processed food sector shows partial progress in import substitution, yet oilseeds, dairy, and rice remain persistently vulnerable.

Collectively, these trends indicate that Azerbaijan's agricultural system is more commercially diversified than nutritionally secure. The country's comparative advantage in export-oriented crops has not translated into structural food resilience. Bridging this gap requires rebalancing investment toward staple crop productivity, enhancing agro-processing efficiency, and building integrated value chains that link primary production with domestic consumption and export markets.

From 2020 to 2024, overall food self-sufficiency remained moderate but exhibited a widening divide between export-oriented horticulture and import-dependent staples. Continued asymmetries reflect systemic weaknesses—low input efficiency, limited innovation, and weak institutional coordination—that undermine food security and rural stability. Persistent import dependence on wheat, vegetable oils, butter, and tea highlights exposure to external price volatility and supply chain disruptions. Conversely, export surpluses in vegetables, fruits, nuts, and pomegranates partly offset these imbalances but do little to improve nutritional sovereignty. The evidence points to a dual performance pattern: labor-intensive horticulture achieves high self-sufficiency and export capacity, while productivity in cereals and livestock—vital for national food security—remains weak. This imbalance underscores the need for policies that align production incentives, resource allocation, and market mechanisms with food security priorities.

In conclusion, despite measurable gains in agricultural output and exports, Azerbaijan's agrarian sector continues to face deep-seated structural challenges related to productivity, competitiveness, and institutional efficiency. Sustained progress will depend on shifting from

expansion-oriented policies toward strategies emphasizing efficiency, resilience, and value addition. Strengthening governance, promoting technological modernization, and improving access to finance and export markets are essential for transforming agriculture into a resilient driver of inclusive, non-oil economic growth and long-term food security.

Conclusion

The analysis of Azerbaijan's agrarian sector over the past decade reveals a clear and persistent pattern: state programs have generally failed to deliver on their quantitative and qualitative objectives**,** and food-security outcomes remain fragile despite increased public support. Across major subsectors—cotton, tobacco, rice, tea, sericulture, viticulture, and sugar beet—implementation rates are low, and outcome indicators fall substantially short of planned targets. The dramatic underperformance of sericulture, the stagnation in tobacco and tea, and the decline in rice and sugar beet production illustrate the limits of a policy model that relies heavily on administrative directives, subsidies, and politically driven targets without adequately addressing underlying structural and governance constraints.

Food self-sufficiency data for 2020–2024 further underscore the dual nature of Azerbaijan's agricultural system. On the one hand, horticultural and high-value crops (vegetables, fruits, nuts, pomegranates) exhibit high and often surplus self-sufficiency, supporting export growth and demonstrating the country's comparative advantage in labor-intensive, climate-favored production. On the other hand, strategic staples such as wheat, grains, rice, and vegetable oils continue to rely heavily on imports, leaving Azerbaijan exposed to external price shocks, supply-chain disruptions, and geopolitical risks. Livestock and processed food segments maintain moderate self-sufficiency, but technological stagnation, dependence on imported feed and inputs, and weak value-chain integration limit their contribution to long-term resilience.

Taken together, these findings suggest that Azerbaijan's agricultural policy has been more expansion-oriented than productivity-oriented, emphasizing area and tonnage targets rather than efficiency, innovation, and value addition. Weak inter-agency coordination, limited private-sector participation, inadequate rural infrastructure, and the absence of robust monitoring and evaluation systems have all contributed to the underperformance of state programs. At the same time, inconsistencies in food-security outcomes point to misaligned incentives: resources are often directed toward politically salient or export-oriented crops, while staples crucial for domestic food security receive insufficient, fragmented, or poorly designed support.

Without such a shift—from target-driven and state-dominated interventions to market-oriented, institutionally grounded, and evidence-based strategies—Azerbaijan's agrarian sector is likely to

remain structurally constrained. The current model delivers partial commercial success in export-oriented niches but falls short of ensuring robust, inclusive, and resilient food systems. Addressing these structural challenges is therefore essential not only for rural welfare and food security but also for the broader goal of reducing hydrocarbon dependence and building a more balanced, diversified national economy**.**