PROGRESS

Promoting Green Deal Readiness in the Eastern Partnership Countries

On behalf of:

Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety

of the Federal Republic of Germany

IKI INTERNATIONAL CLIMATE INITIATIVE

Assessing the Capacity Needs of Farmers and Agribusiness Enterprises to Access Financing for Sustainable Agricultural Investments in the European Union Eastern Partnership Countries

Armenia Report

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TABLE OF CONTENTS

ABBREVIATIONS

AMD – Armenian Dram

BDF – Business Development Fund

CNA – Capacity Needs Assessment

DSIK – German Sparkassenstiftung for International Cooperation

EaP countries – Eastern Partnership countries

EBA – European Business Association

EU – European Union

EUR – Euro

FGD – Focus Group Discussions

GIZ – German Agency for International Cooperation

IEF – Institute for Economics and Forecasting

IKI – International Climate Initiative

JSC – Joint Stock Company

KII – Key Informant Interview

LLC – Limited Liability Company

OECD – Organisation for Economic Cooperation and Development

OJSC – Open Joint Stock Company

PCGF – Partial Credit Guarantee Fund

PROGRESS – Promoting Green Deal Readiness in the Eastern Partnership Countries

RECC – Regional Environmental Centre for Caucasus

UCO – Universal Credit Organization

INTRODUCTION TO CAPACITY NEEDS ASSESSMENT

This study, Assessing Capacity Needs of Farmers and Agribusiness Enterprises, was conducted within the framework of the project "Promoting Green Deal Readiness in Eastern Partnership Countries" (PROGRESS). The goal of the capacity needs assessment (CNA) is to examine the challenges and opportunities farmers and agribusiness owners face in Armenia, Azerbaijan, Georgia, and Ukraine in terms of accessing finance for sustainable agricultural development, with a particular focus on climate-resilient investment.

PROGRESS is a regional initiative covering the five EU Eastern Partnership (EaP) countries - Armenia, Azerbaijan, Georgia, Moldova, and Ukraine. The project supports these countries in achieving long-term mitigation, adaptation, and sustainable development consistent with the EU Green Deal objectives and the 1.5°C pathways of the Paris Agreement. A particular emphasis is placed on horticulture, alongside efforts to enhance the competitiveness and trade opportunities of the fruit and berries sectors from the EaP region in EU markets.

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In line with its overarching purpose, this capacity needs assessment pursues three key objectives which are 1) assessment of the financial knowledge and literacy levels amongst small farmers and agribusinesses; 2) identification of the gaps preventing above mentioned target group from accessing finance for climate-resilient investments; 3) provision of a basis for designing targeted capacity-building initiatives tailored to these groups.

By addressing these objectives, the assessment seeks to contribute to stronger, more sustainable agricultural systems in the Eastern Partnership region and to ensure that farmers and agribusiness entrepreneurs are better equipped to access finance, adapt to climate risks, and seize new market opportunities.

EXECUTIVE SUMMARY

The main goal of the assignment is to assess the capacity needs of farmers and agribusiness owners in EU Eastern Partnership countries (Armenia, Azerbaijan, Georgia, and Ukraine) in terms of access to finances for sustainable agricultural development. In accordance with the goal, the following objectives were outlined for the study:

- Assess the financial knowledge and literacy levels of small farmers and agribusinesses
- Identify gaps preventing them from accessing finance for climate-resilient investments
- Provide a basis for developing targeted capacity building for these target groups.

The target group of the study includes small and medium-sized farm and agribusiness enterprise owners, men and women, as well as representatives of financial institutions in each target country.

Across the four countries, the study involved 17 focus group discussions (FGDs) with 104 farmers and agribusiness owners, of whom 50 were women (48%). The FGDs were conducted online and included participants from more than 30 regions, ensuring a geographically diverse sample. Armenia contributed 4 FGDs with 27 participants, Azerbaijan - 4 with 30 participants, Georgia - 5 with 26 participants, and Ukraine 4 as well with 21 participants.

Moreover, 10 key informant interviews (KIIs) were carried out with financial institutions, which included major banks, microfinance institutions, and agricultural credit unions actively engaged in agricultural finance; in particular: 2 KIIs in Armenia with Farm Credit Armenia UCO (Universal Credit Organization) and ACBA Bank OJSC; 2 in Azerbaijan with Azerbaijan Micro-Finance Association (AMFA) and Unibank, 2 in Georgia with JSC TBC Bank and JSC Microbank Crystal, and 4 in Ukraine with JSC Creditwest Bank Ukraine, JSC Oschadbank, the Business Development Fund (BDF), and The Partial Credit Guarantee Fund in Agriculture (PCGF).

Participants represented a wide range of agricultural sectors, most prominently horticulture, vegetables, fruits, berries, nuts, beekeeping, animal husbandry, grain production, and small-scale processing. Across countries the majority were micro- and small-scale farmers employing between 1 and 10 workers, with annual turnover most commonly ranging from €1,500 to €10,000. A significant share of participants operated informally, while others were registered as individual entrepreneurs, LLCs, or cooperatives. Association membership varied by country but remained modest overall, with Ukraine showing the highest engagement.

The sample captured both female and male farmers, new entrants and experienced operators, as well as smallholders and medium-sized agribusinesses, providing a comprehensive picture of financial literacy levels, climate-awareness, and access-to-finance challenges across the region.

Despite differences in country contexts and the varying scope of issues explored in each assessment, farmers and agri-entrepreneurs across all four countries report broadly similar types of constraints that limit their ability to access finance, adopt climate-resilient practices, and expand their agricultural

activities; however, given the qualitative nature of the study, the severity of these challenges cannot be directly compared between countries.

Budgeting and record-keeping among smallholder farmers remain major cross-country gaps, as they tend to rely on informal and compliance-driven bookkeeping practices used mainly for preparing loan applications or grant proposals. As a result, their creditworthiness is often weak, creating significant barriers to access formal finance. In contrast, medium and more established farms typically employ professional accountants, use specialized accounting programs, maintain structured reporting systems, and rely on these insights to guide their farming activities.

Although awareness of state and donor programs is generally high, particularly in Georgia and Ukraine, farmers often rely on family members, acquaintances, or paid consultants to prepare grant proposals. Individuals with prior experience in such programs tend to achieve higher success rates, whereas those applying for the first time frequently lack the information and skills required to submit competitive applications.

In all four countries, farmers express satisfaction with subsidized state loan programs, which significantly reduce interest rates and make borrowing more accessible. Without these subsidies, interest rates become prohibitively high for many farmers, especially smallholders. Farmers also emphasize that bank lending practices are highly risk-averse, with procedures that do not sufficiently account for the long investment cycles typical of horticulture, beekeeping, and other agricultural sectors. As a result, newly established and small-scale farmers face the greatest obstacles in obtaining credit, while medium and larger farms with long-standing banking relationships experience fewer difficulties.

Gender-related barriers are recognized to varying degrees across the four countries, with notably lower acknowledgment in Azerbaijan. A common pattern nevertheless emerges while women often benefit from donor and state-funded grant programs targeting female entrepreneurship, they remain relatively disadvantaged in accessing bank loans. This disadvantage is shaped by cultural stereotypes, gender roles, lower levels of property ownership, and difficulties demonstrating financial stability. Some banks in the region offer specialized programs for women farmers and entrepreneurs, which helps to narrow the gender gap, although these initiatives vary in availability and effectiveness across countries.

Climate change is perceived across all four countries as an increasingly severe and unpredictable threat. Farmers report experiencing more frequent frost, drought, extreme heat, irregular rainfall, and emerging diseases and pests, all of which reduce yields and increase expenditures. The effects are described as worsening year by year, and farmers often feel unprepared and under-resourced to respond. While some medium-sized farms have adopted irrigation systems, renewable energy solutions, or other adaptive technologies, smallholders remain limited by high costs, low awareness, and lack of technical expertise. Awareness of climate-related financial products and subsidies is consistently low across all countries. In Ukraine, climate impacts are further exacerbated by wartime destruction, water scarcity following major infrastructure damage.

Financial institutions across the region are at varying stages of integrating climate-related considerations into their lending portfolios. Ukrainian banks, often supported by international donors, are the most

advanced in offering financing for irrigation, renewable energy, and energy-efficient machinery, reflecting both increased demand and stronger donor engagement. In Georgia, Armenia, and Azerbaijan, dedicated climate finance products are less developed, although banks occasionally integrate environmental assessments into subsidized loan programs.

Across all four countries, farmers express a strong interest in capacity-building initiatives, particularly those that are practical, hands-on, and tailored to their specific sector and region. Participants consistently emphasized the importance of learning through demonstration farms, peer exchange, and applied workshops rather than theoretical training. They also highlight the need for support with bookkeeping, budgeting, project proposal preparation, and understanding climate-smart technologies.

The recommendations developed across the four countries focus on improving farmers' financial literacy, strengthening practical training on climate-smart technologies, and expanding access to finances for women and smallholders. On the financial sector side, recommendations emphasize the need for more flexible collateral requirements, loan products that reflect long agricultural investment cycles, gender-responsive financing, and dedicated instruments for climate adaptation. While many recommendations are shared across all countries due to common structural challenges, several are tailored to specific contexts and aim to create a more resilient, inclusive, and climate-responsive agricultural finance ecosystem.

1. ASSESSMENT METHODOLOGY, CRITERIA, AND PROCESS IN ARMENIA

The study applied qualitative research methods to gather in-depth insights on access to finance for sustainable agriculture in Armenia.

Data collection and analysis

Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) were conducted. In total, 4 FGDs were held with 27 farmers and agribusiness entrepreneurs, exploring gaps and needs in sustainable agricultural development and assessing participants' openness to potential interventions. FGDs were organized online via Zoom and WhatsApp to accommodate participants' availability and included farmers and agribusiness entrepreneurs from various sectors, regions, ages, and gender, with women making up 48.1% of participants.

2 KIIs were conducted with representatives of local financial organizations (Farm Credit Armenia UCO and ACBA Bank), focusing on lending challenges, clients' financial literacy, and awareness of climate-related financing options.

Ethical considerations

Data collection followed high ethical standards to protect participants' rights and safety. Informed verbal consent was obtained before each FGD and KII, with clear explanations of the study's purpose, voluntary participation, the right to withdraw, and confidentiality. Data were securely stored, and findings are reported in aggregate form to prevent identification of individuals.

2. DEMOGRAPHIC CHARASTERICTICS OF FOCUS GROUP PARTICIPANTS[1]

The total number of focus group participants in Armenia amounted to 27 people, encompassing a variety of demographic groups and stakeholders involved in the country's agricultural sector. In terms of gender representation, focus groups achieved a relatively balanced participation, with representation of 13 female (48.1%) and 14 male (51.9%) farmers and agri-entrepreneurs (see Figure 1).

[1] Percentages presented in this chapter may not total exactly 100% due to rounding.

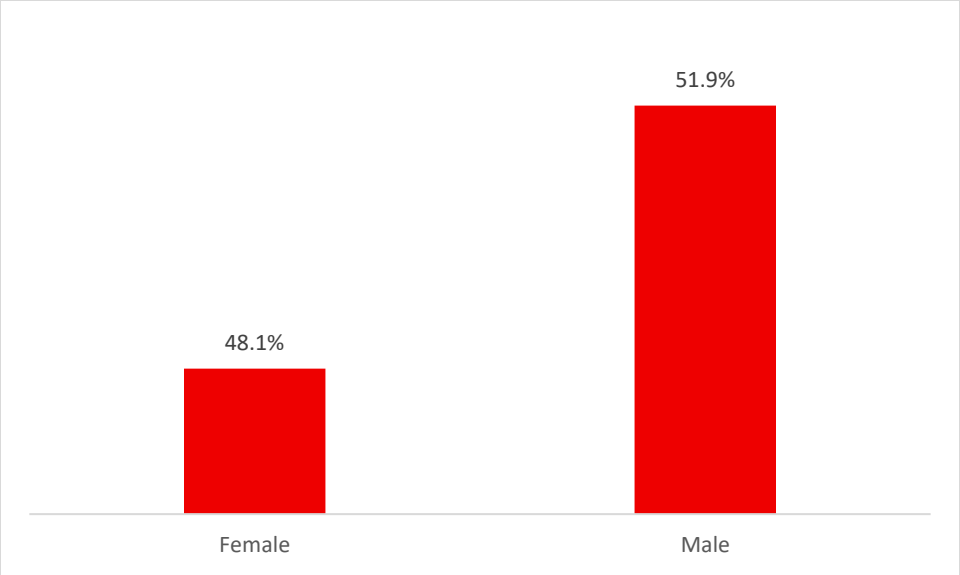

Figure 1: Gender distribution among FGD participants

The majority of focus group participants in Armenia were between 35 and 54 years old (66.6%), followed by 22.2% aged 25–34. A smaller share of participants were between 55 and 60 years old (7.4%), while only 3.7% were aged 61 and above (see Figure 2).

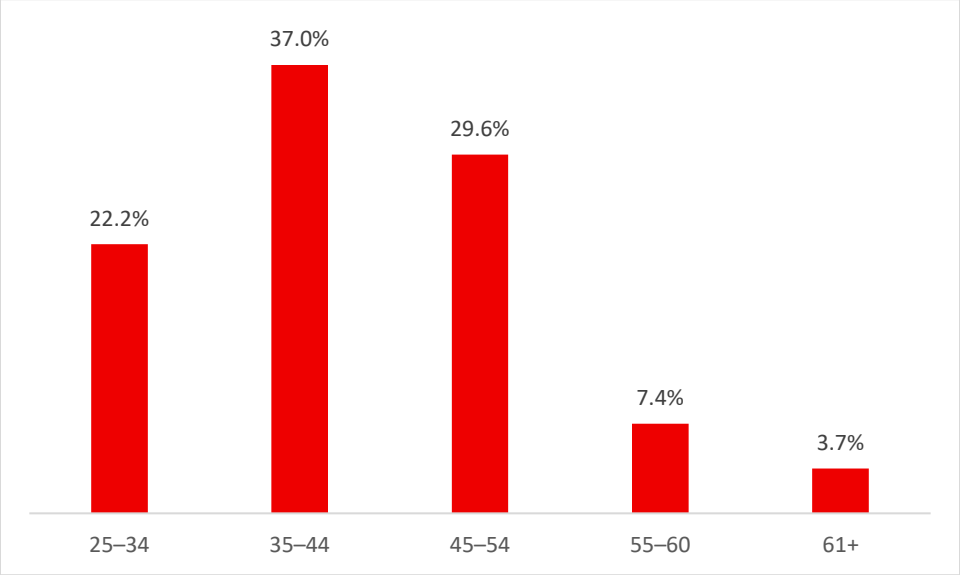

Figure 2: Distribution of age groups among participants

FGD participants represented 8 regions of Armenia and the capital city, with the highest concentration from Syunik (51.9%), followed by Yerevan and Gegharkunik (11.1% each), and Aragatsotn (7.4%) (see Figure 3).

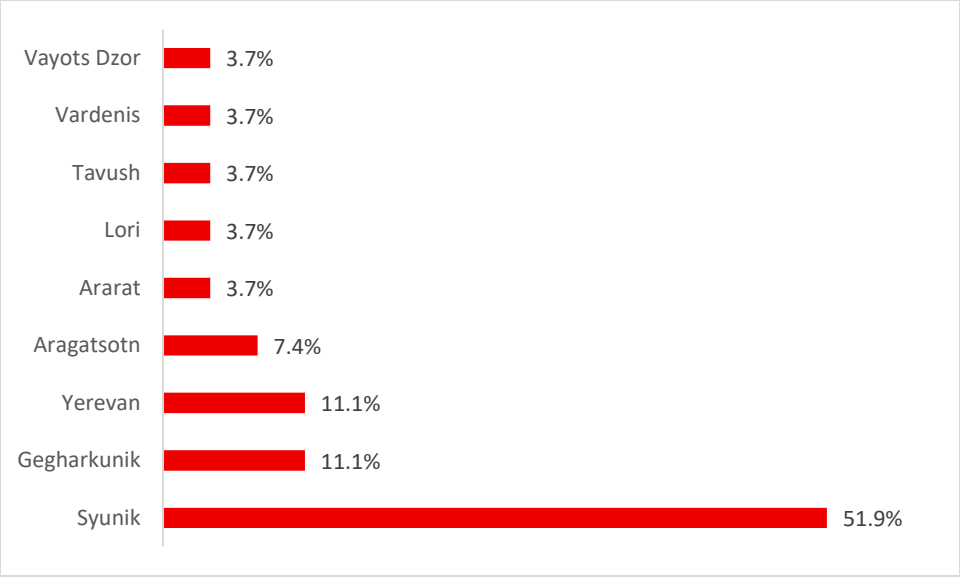

Figure 3: Regional distribution among FGD participants

FGD participants represented a diverse range of agricultural sectors, with the largest share engaged in horticulture-related activities which accounted for 62.9% of all participants. Other significant sectors included animal husbandry (22.2%) and beekeeping (7.4%) (see Figure 4).

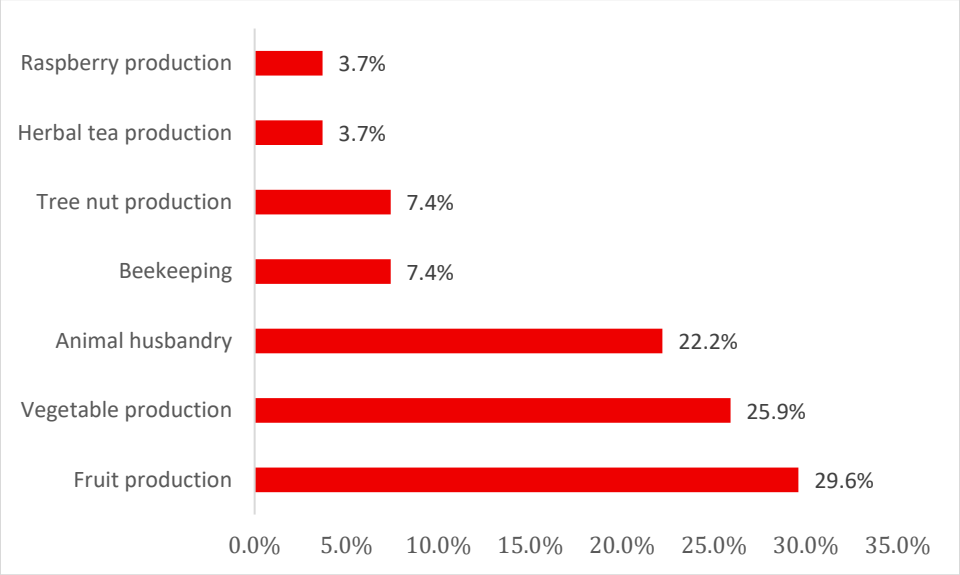

Figure 4: Sectoral distribution among FGD participants

In terms of legal status, the majority of FGD participants (70.4%) did not specify their registration type, which may suggest that they were operating informally within the sector. Among those who did, 14.8% operated as limited liability companies (LLCs), while 7.4% were registered as individual entrepreneurs and another 7.4% as private enterprises (see Figure 5).

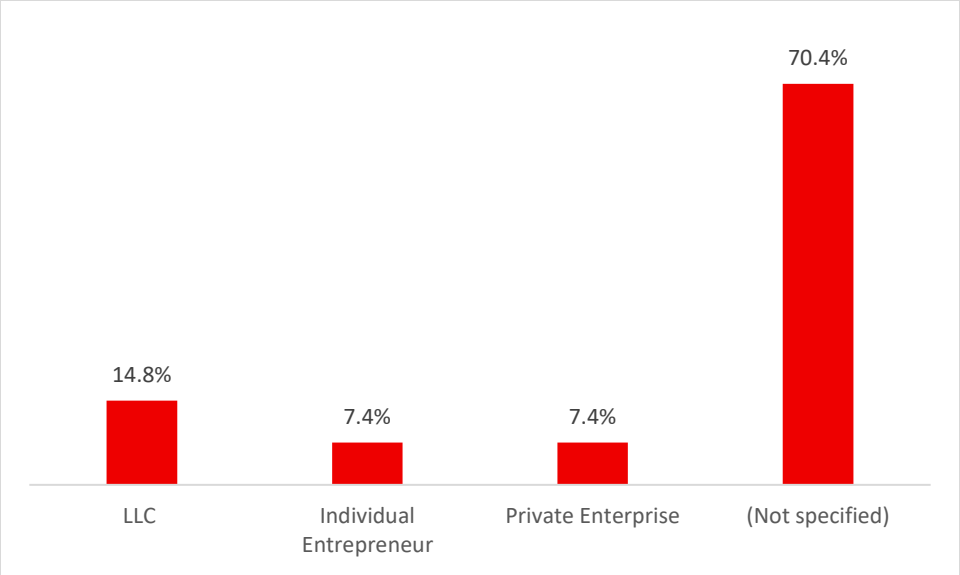

Figure 5: Distribution of FGD participants by legal status

Most of the participants (51.9%) reported employing 2–5 people, while 22.2% operated with 6–10 employees. A smaller share (18.5%) were single-person operations, and only 7.4% employed between 11 and 20 people (see Figure 6).

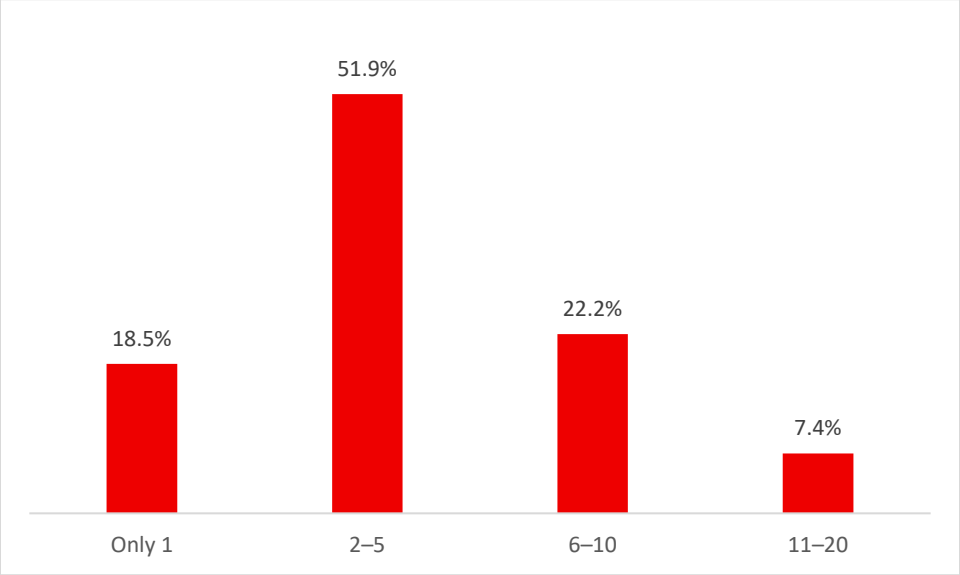

Figure 6: Distribution of the number of employees within farms and enterprises among FGD participants

Reported annual turnovers also varied across FGD participants. The largest share of participants (37.0%) were in the 1,500–10,000 EUR range. A smaller share (11.1%) earned above 35,000 EUR, while one-third (33.3%) did not specify their turnover (see Figure 7).

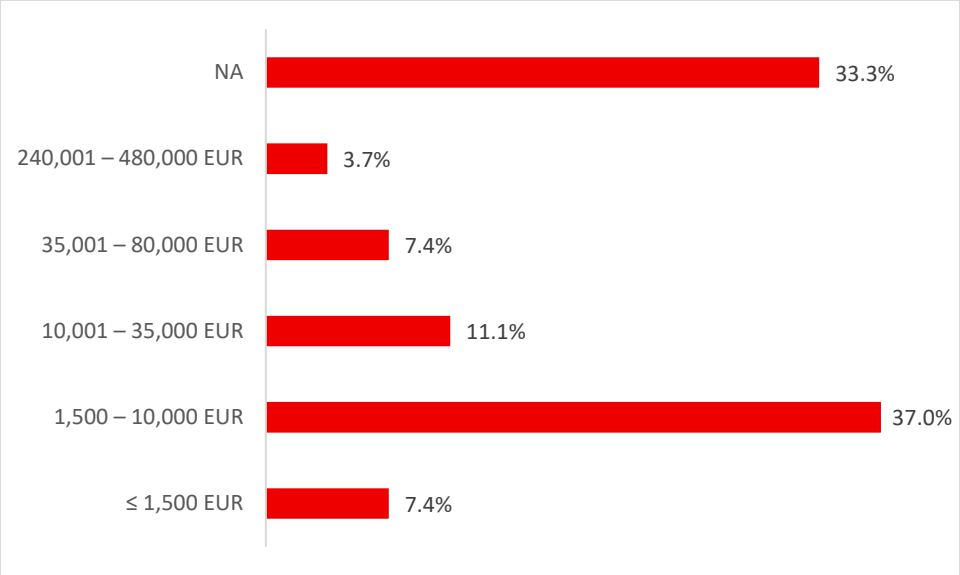

Figure 7: Distribution of annual turnover within farms and enterprises among FGD participants

A small share of FGD participants (15.4%) reported being members of associations or clusters, while the vast majority (73.1%) had no membership. An additional 11.5% were unsure about their affiliation, indicating limited formal networking or institutional engagement (see Figure 8).

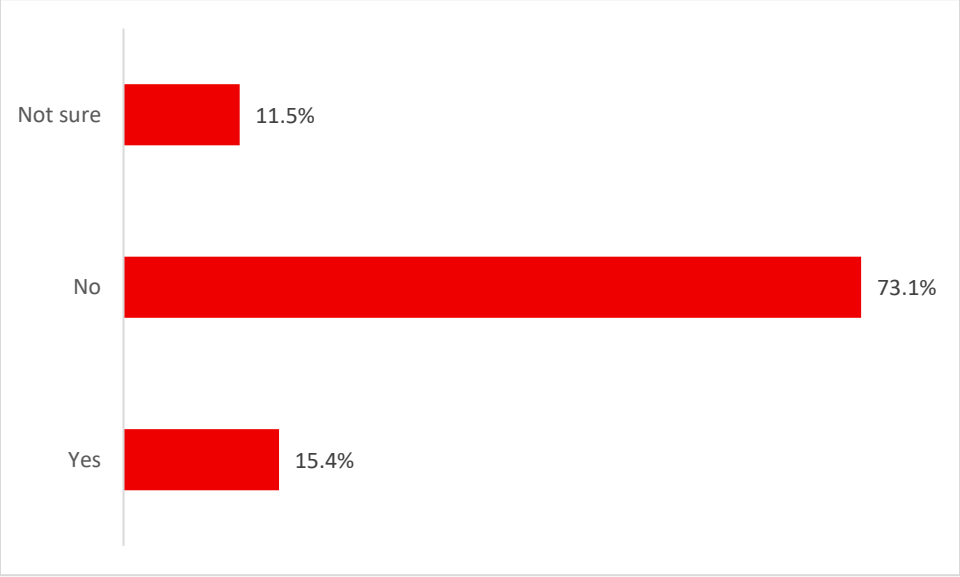

Figure 8: Distribution of association/cluster membership among FGD participants

3. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

3.1. FINDINGS

3.1.1. Financial Literacy

FGDs revealed that Farmers' approaches to financial record-keeping differ mainly by farm size and level of commercialization. Larger or more developed farms tend to keep a structured budget. During discussions, most of the farmers who mentioned that they keep records of their finances mentioned that they had received specialized training in bookkeeping. As a result, they can manage their financial records independently and do not require assistance from accountants. Smaller-scale and family-owned farm owner often rely on simple verbal tracking within the family, viewing written records as unnecessary given their low or irregular income.

"I don't make notes, but we count so that the income covers the expenditures. We think twice before making any purchase" (Livestock farming, Male)

"We manage and write down what we spend and what income we get. I do it all on my own. If it's a small farm, there's no issue. The problem comes when the business grows - then I would need an accountant. But for us, counting the income and expenses is not difficult at all." (Fruit production, Male)

The main reasons for not keeping detailed records among smallholder farmers include the very small scale of operations, subsistence-oriented production, and lack of training in bookkeeping. While some participants expressed interest in learning about budgeting or debt management, they noted that available training often focuses on broad business concepts rather than practical tools for day-to-day farm management.

KII with financial institutions confirmed these observations, noting that weak financial record-keeping is one of the most widespread gaps among farmers. Loan officers often find themselves needing to explain basic budgeting and accounting practices during the application process, as many clients are unable to present clear evidence of their income, expenditures, or creditworthiness. While some progress is visible among younger farmers, banks and microfinance organizations emphasized that the lack of systematic record-keeping continues to limit many farmers' ability to plan, manage risks, and access finance on more favorable terms.

"I think a lot of times we come across a problem called record keeping. Our clients don't have the habit of keeping their own records. In agriculture, they keep nothing, and even when we do explanatory meetings and tell them to take notes-to write things down and compare this year's work and income with last year's still don't. This is very important for farmers, and we also teach them that it's important for the bank when they apply for a loan. As a result, we're the ones keeping records for our clients. It's easy for us once they provide the information." (Farm Credit Armenia)

3.1.2. Access to Finance

It was observed from the FGDs that only a modest proportion of smallholder farmers were sufficiently informed about the existence of grant programs and subsidies to the extent that would enable their actual participation. In addition, some farmers noted that, although they were aware of such programs, they lacked confidence in their own knowledge and experience to engage effectively. Nevertheless, many participants expressed a clear willingness to participate in the future, provided that access to information and support mechanisms are strengthened.

"I have never received any support, but I really want to participate in grant programs and attend such seminars. Probably I just wasn't informed enough to take part before." (Vegetable Production, Female)

At the same time, more experienced or better-connected farmers reported having successfully applied to various programs. In doing so, they largely relied on their own capacities or support from family and friends. Farmers with prior training in proposal writing emphasized that such capacity-building was essential for effectively navigating the application process.

Most of the farmers who had participated in grant programs described their application experiences as relatively smooth. However, some highlighted delays and inefficiencies, particularly in state-funded programs - an experience that could discourage them from applying again in the future. A portion of participants also noted that grant programs and subsidies often remain concentrated within a narrow circle of beneficiaries who repeatedly receive opportunities, while others, particularly the most vulnerable - remain excluded.

"Community centers most often don't inform every villager about these opportunities. Usually, they have their 'favorites' who they call in such cases, and that's a very bad habit of our Armenians. These few people get the finances, and the rest of the villagers find out too late. I'm sure that if the real hard workers were better informed, they would do a much greater job." (Walnut production, Female)

In general, experiences with agricultural loans varied widely among farmers. A notable share of participants reported that they had never applied for loans, often explaining this by a preference to avoid debt and instead rely on personal income or savings to reinvest in their farms. Some associated financial independence with success, emphasizing that "successful people would not have debts." Farmers who avoided loans often highlighted cultural reservations toward borrowing, a desire to maintain stability, and in some cases, the use of savings as a buffer for emergencies.

"I have never taken a loan, and I don't like to be in debt. I don't even go to the market unless I have money." (Beekeeping, Female)

"We usually save part of the money, and if we ever need it, we use it. So, in case of an emergency, we have our own money." (Fruit Production, Male)

Among those who had taken loans, most described the process as clear, straightforward, and manageable. Farmers often applied independently or with the support of family members, and several reported positive experiences with 0% interest loans or state-supported schemes. Some stressed that prior training

or experience in managing finances and proposal writing made the process easier. Challenges were occasionally mentioned, including time-consuming procedures and inefficiencies in state-funded programs, yet these did not appear to constitute significant barriers for more experienced borrowers.

Bank representatives confirmed that eligibility for agricultural loans is assessed primarily on farmers' solvency, income, and credit history, with procedures designed to prevent over-indebtedness. Collateral-free loans are available for small and medium farmers, while larger loans undergo more detailed checks, including environmental and climate-related assessments. Insurance is not mandatory but is often encouraged to reduce risks, particularly when investing in new technologies. Overall, financial institutions described access as formally open, with challenges in the process of acquiring loans generally limited to the use of digital products rather than to the procedures themselves.

FGDs revealed that gender dynamics influence differences in how women and men farmers access financial resources. Most FGD participants agreed that male and female farmers and entrepreneurs generally have access to the same opportunities, with no significant differences in access to grant programs and subsidies. Some participants noted that women may even have more opportunities due to the existence of programs specifically designed for them.

"As far as I know, they give more opportunities to women. I was even told, 'Hey, let your wife participate, because it will be easier as she is a woman.' Which is great-it's very good to include women. When more women are in business, it will be better developed and work better." (Vegetable Production, Male)

In terms of experience with banks, most FGD participants noted that there was no difference between men and women in terms of accessing loans, as the procedures and eligibility criteria are the same for all applicants. However, a few farmers observed that men might have better chances of obtaining loans, as they are culturally often perceived as more trustworthy.

"I think there are still stereotypes about this. I've noticed they seem to have more confidence and trust in men. I know it's just a stereotype, but it still exists." (Vegetable production, Female)

In the KIIs with banks, representatives generally stated that they do not differentiate between male and female clients in their standard lending procedures, emphasizing equal treatment for all borrowers. However, both banks acknowledged that partnerships with international financial institutions often create incentives to prioritize women's access to finance. In such cases, dedicated funds or portfolio quotas require a share of loans to be directed toward women entrepreneurs or farms with significant female participation. While these mechanisms are externally driven rather than core products of the banks themselves, representatives noted that they provide an important stimulus for increasing women's opportunities in agricultural finance.

"We don't have a specific product or special approach just for women - we treat everyone equally. But some funds make financing easier for women, and we're always happy to support such projects. We've taken part in funds that specifically financed women, and even now, if there's money left in a fund, we try to use it to support women farmers. But this isn't a separate or specialized product - it's simply available in the form of a fund. (ACBA Bank)

When farmers were asked how programs could better support women's participation in finance and agriculture, participants highlighted usefulness of women-specific funds and initiatives, while others argued that support should not be differentiated by gender but instead target all hardworking farmers equally. At the same time, certain male participants endorsed traditional gender roles, expressing support for women's greater involvement primarily in less physically demanding spheres, which they viewed as more appropriate for women.

"I was at a few seminars and trainings, and I see that the main focus is actually on women. If we make one step and a woman makes half, they appreciate that more - of course, it's good. But there are also a few people who keep attending the same training many times, and the community leaders keep informing them, as if others have no interest. As for women, maybe they're still a bit shy to show their activities." (Vegetable production, Male)

3.1.3. Challenges in Financing Climate-Resilient Investments

Across FGDs, farmers consistently described climate change as a growing and severe challenge with tangible effects on production and income. Many highlighted recent and unprecedented patterns, including prolonged droughts, irregular rainfall, frost damage, and rising temperatures. These shifts have led to significant crop losses and even shortages of drinking water in some areas. Several participants emphasized that conditions have deteriorated over the last three to five years, pointing to a trend rather than isolated events.

"[..] Because of the changing climate, the trees didn't bloom, so we didn't get nectar. That affected not only the bees but also our farm animals to produce good-quality milk. This year, the milk smelled bad. [..] From May to August, our milk production is usually at its peak. Every year we would get around 20 liters of milk [per one cow], but this year the most we got was 15 liters. It hurt us financially because the [quantity of the] grass I was reaping." (Animal Husbandry, Male)

In terms of adaptation, responses varied. A few farmers reported reducing the amount of cultivated land, upgrading and adopting drip irrigation systems, greenhouse technologies (cooling systems, protective layers, etc.) or experimenting with preventive measures against pests and plant diseases. However, these efforts invariably required increased expenditures. A larger proportion of farmers, by contrast, lacked the knowledge and resources necessary to take action against the changing conditions.

In the KIIs with financial sector representatives it was also noted that that farmers' awareness of climate change and adaptation is still limited, especially among smallholder and family-owned farm owners, while larger businesses tend to be more informed and plan for risks. Farm Credit Armenia mainly raises awareness through its loan procedures: environmental filters, exclusion lists, and questionnaires for large loans, which serve as tools to sensitize clients to environmental considerations. ACBA emphasized that small farmers often underestimate climate risks, but knowledge is gradually increasing through government programs, success stories (drip irrigation and solar panels).

All the farmers and agri-entrepreneurs participating in the FGDs expressed strong interest and enthusiasm in attending capacity-building initiatives on climate change and adaptation strategies, as they believe these would equip them with the necessary skills to address future challenges.

"As far as I know, there is a strategy and some work being done on that, but I haven't participated in anything. I think I would like to learn more, because I know all this has a big impact on agriculture, and it's important to be literate in this sense, at least to some extent, at least as much as research has been done and as much information as there is" (Raspberry production, Female).

Participants unanimously agreed that, for a capacity-building program to be engaging, it should not be overly theoretical but instead place strong emphasis on practical application. Most of them already have experience with trainings that follow a "lecture" format. Because of this, they do not see value in attending similar types of trainings in the future and prefer one-on-one coaching or hands-on sessions conducted directly on the farms.

Some participants highlighted the value of attending online trainings from the comfort of their homes, while most emphasized a preference for in-person interaction. Another critical point raised was that capacity-building programs should be scheduled outside the active harvest season, to make it possible for farmers to attend. In this regard, evening hours and the winter season were considered particularly desirable. Participants also stressed that training programs should be adapted and tailored to the needs of farmers in each region, rather than being concentrated only in villages around the capital city.

FGD participants showed limited awareness of programs or subsidies aimed at mitigating climate risks or supporting the green economy. While a few recalled narrow initiatives, such as wheat seed subsidies or earlier support for solar panels, most had not encountered any climate-specific measures and viewed existing schemes as inaccessible or unreliable. However, among farmers operating as legal entities, there was a higher level of awareness and practical application of intensive gardening practices.

"Is there such a thing? About climate, I haven't heard anything from the government. What they say is different. They removed all the subsidies - before, they were giving support for solar panels. I knew about a program for intensive gardening, but it's such a risky project. I heard of it, but it's a huge risk. For example, the UN has some programs like that, I've heard of them, but nothing from the government." (Animal Husbandry, Male)

In contrast, both interviewed financial institutions engaged in climate-related financing, but Farm Credit Armenia is more focused on renewable energy and environmental safeguards, while ACBA Bank emphasizes climate risk reduction in agriculture. Farm Credit Armenia UCO has built a portfolio for solar panel loans (with insurance required) and supports drip irrigation through 0% government-subsidized loans, alongside environmental risk assessments linked to SDG 7 ("Affordable and clean energy") and SDG 8 ("Decent work and economic growth"). ACBA, meanwhile, provides loans for drip irrigation systems, hail protection nets, greenhouses, and intensive gardens, integrating regional climate risks into lending decisions and offering repayment flexibility after natural disasters. While Farm Credit Armenia positions itself around energy efficiency and awareness-raising, ACBA concentrates on government-supported programs and plans to expand tailored green products for small farmers. Interviewed financial institutions

expressed their utmost readiness to extend their programs in the area of climate change and green energy.

Beyond climate-specific challenges, farmers and agri-entrepreneurs participating in FGDs also identified several broader areas where additional support would strengthen their agricultural sustainability:

- Programs to assist displaced farmers in rebuilding their livelihoods after the war
- Support mechanisms to improve the realization and marketing of agricultural products
- Opportunities to learn about and adopt new technologies and innovations in agriculture
- Financial support programs to address the gap left by the closure of USAID programs.

3.1.4. Opportunities and Associated Needs (Comparative Analysis: Demand vs Supply)

Demand Side (Farmers and Agribusinesses)

- Farmers are interested in programs and subsidies that would help them better prepare for climate-related risks, but smallholder farmers often lack information about such opportunities or consider them insufficient.
- Smallholders struggle with bookkeeping and financial recordkeeping for their farms and agribusinesses, making it difficult to prove creditworthiness when applying for loans.
- Some farmers prefer not to engage with banks at all and choose to finance their agricultural activities through personal savings.
- Women farmers require additional support in accessing loans, as they continue to face cultural stereotypes and social barriers that limit their financial opportunities.

Supply Side (Financial Institutions[2])

- Banks conduct environmental assessments for larger clients, which can sometimes create barriers to accessing finance for smaller farmers.
- The Farm Credit Armenia UCO has developed a portfolio for green loans (with insurance requirements) and supports drip irrigation systems through 0% government-subsidized loans. It also finances hail protection nets, greenhouses, and intensive gardens, integrating regional climate risks into lending decisions and offering repayment flexibility after natural disasters.
- Banks provide special support programs through donor-funded initiatives, though dedicated programs for women are not always available.
- Bank officers assist farmers with loan applications and bookkeeping processes, helping them navigate financial documentation requirements and overall easing and smoothing the loan application process.

3.2. CONCLUSIONS

The capacity needs assessment revealed a consistent set of financial, institutional, and knowledge-related challenges faced by Armenian farmers and agribusinesses. The findings indicate that access to finance is not solely limited by formal procedures but also by limited financial literacy, cultural attitudes toward borrowing, and insufficient information on available support programs. Gender-related dynamics are

[2] The supply-side analysis reflects insights from the banks with which KIIs were conducted and does not represent a comprehensive assessment of the entire financial market in Armenia.

present but not dominant, while climate-related awareness remains low despite growing exposure to risks.

- Overall, financial record-keeping is weak. Smallholder and family-operated farms tend to rely on informal, verbal financial management practices due to limited bookkeeping skills and irregular income, while medium-sized, legally registered entities are more likely to use structured accounting systems and professional support.
- Awareness and participation in grant programs remain limited which could be driven by poor access to information and a widespread perception that opportunities circulate primarily within a small, well-connected network of farmers.
- Access to finance differs somewhat by gender: in grant programs, access is broadly perceived as equal, with women gaining advantages only in schemes that explicitly target them; in bank loans, procedures are formally gender neutral, but men are perceived to have better chances of obtaining loans due to cultural stereotypes.
- Attitudes toward gender-targeted programs were mixed: while some participants supported women-specific funds, others preferred equal access for all committed farmers regardless of gender.
- Loan procedures are described as clear and accessible, with collateral-free options available for smaller borrowers and climate risk assessments for larger loans. However, smallholders often avoid borrowing due to a cultural aversion to debt, while registered enterprises view loans more strategically as instruments for growth and modernization.
- Climate change is widely seen as an escalating threat - prolonged droughts, irregular rainfall, frost, and rising temperatures - already driving significant yield and income losses, compounded by growing water shortages.
- Awareness of climate adaptation programs among farmers remains low, as most are unfamiliar with existing government or donor initiatives supporting resilience or green technologies. However, this limited awareness is coupled with a strong willingness to participate in capacity-building initiatives on climate change and adaptation strategies.
- Financial institutions integrate climate considerations in different ways, with Farm Credit Armenia focusing on renewable energy, environmental safeguards, and awareness-raising, while ACBA prioritizes climate risk reduction in agriculture. Both institutions expressed strong readiness to expand financing for green and climate-related investments, including solar panels, drip irrigation systems, and protective infrastructure.
- Participants expressed a preference for practical, in-person trainings conducted on farms and scheduled during off-season periods, such as evenings or winter months. They also emphasized the need for region-specific and sector-tailored capacity-building programs.
- Additional support is needed for displaced farmers, marketing assistance, adoption of new technologies.

3.3. RECOMMENDATIONS

Based on the findings and conclusions of this assessment, the following actions are recommended to strengthen farmers' and agribusinesses' ability to access sustainable finance and build resilience to climate-related challenges. The recommendations are structured in two parts: those targeting the demand side, focusing on farmers and capacity-strengthening actors, and those addressing the supply side, which includes financial institutions providing agricultural finance.

Recommendations for supporting farmers' needs

- Strengthen dissemination and transparency of grant and subsidy programs, ensuring that information reaches to wider range of farmers across the whole country. Outreach should be adjusted to include informal and family-owned farmers who may lack access to digital or institutional channels.
- Improve efficiency and reliability of state-funded support programs by reducing delays and administrative burdens, which currently discourage farmer participation.
- Launch recovery programs for displaced farmers to rebuild agricultural livelihoods after the war.
- Expand financial literacy and record-keeping initiatives at the community level to address the widespread lack of systematic bookkeeping among smallholders. For legally registered and medium-sized entities, advanced modules on financial management could be introduced.
- Introduce additional climate change and agricultural support programs to fill the gap left by the closure of USAID-funded initiatives, ensuring continuity of assistance for farmers.
- Design capacity-building programs focused on practical, hands-on training in climate change adaptation and sustainable farming, delivered across different regions to raise farmers' awareness. Tailor curricula so that family-based farms focus on applied adaptation practices, while formal entities gain exposure to green finance instruments and sustainability standards.
- Conduct targeted training and information sessions to address misconceptions about borrowing, reduce cultural resistance to loans, and build farmers' trust in using credit as a productive investment tool.
- Support farmers in developing proposal-writing and project management skills to increase access to donors and government grant schemes.
- Provide specialized, in-depth training for local field experts and agronomists on climate change and adaptation strategies, enabling them to better support farmers in addressing everyday challenges.
- Provide targeted support for women farmers through grants and expand women's empowerment programs to raise awareness of gender-related issues.

Recommendations to strengthen capacity of financial institutions

- Partner with banks and government programs to co-finance climate-smart investments and improve farmers' access to insurance for new technologies.
- Partner with banks to increase women's access to finance through women-specific funds and loan programs.
- Partner with financial institutions to integrate climate adaptation and resilience components into their portfolios and develop new financial products that support climate-smart agriculture.

Implementing these recommendations would help create a more inclusive and climate-resilient agricultural finance ecosystem in Armenia, strengthening the capacity of both farmers and financial institutions to engage in sustainable investment practices.

4. COMPARATIVE ANALYSIS

4.1. INTRODUCTION

This comparative analysis examines the evolution of capacity needs among farmers and agribusinesses in Armenia drawing on two key assessments conducted in 2022 and 2025 by DSIK. Namely:

- Technical Needs Assessment among entrepreneurial households and micro-/smallholder farmers in the agricultural production and processing sector, 2022
- Assessing the Capacity Needs of Farmers and Agribusiness Enterprises to Access Financing for Sustainable Agricultural Investments, 2025.

Taken together, the two assessments show how Armenia's agricultural sector has shifted over a three-year period shaped by faster-moving climate impacts, geopolitical uncertainty, and evolving financial conditions.

The 2022 TNA provided wider, statistically grounded snapshot of the sector. It largely drew on surveys of producers and processors nationwide and highlighted several longstanding structural issues: limited access to finance, relatively weak record-keeping, limited entrepreneurial knowledge, gaps in modern agricultural knowledge, and fragmented market connections. While climate risks were considered at the time, they had not yet emerged as a primary concern for most farmers.

The 2025 assessment, however, takes a different approach - narrower in scope but richer in detail. Relying on focus group discussions and interviews with financial institutions, it captures more nuanced experiences and includes a more diverse mix of participants by gender and region.

Viewed together, the two studies depict a sector that is gradually but visibly changing. Many of the issues identified in 2022 remain largely present. At the same time, new stressors have become more

pronounced, particularly increasing climate variability, tightening water resources, and growing instability in border areas.

4.2. KEY COMPARATIVE FINDINGS

4.2.1. Financial Literacy, Record Keeping, and Management

Across both assessments, financial literacy and structured record-keeping remain consistent areas of weakness, particularly among micro and family-operated farms. In 2022, farmers tended to overestimate their financial competencies - expressing confidence in crop selection while demonstrating low capability in business planning and accounting. Stakeholders highlighted that this self-perception was inaccurate. Most farmers did not maintain written financial records, resulting in unreliable cost calculations, limited insight into profitability, and weak preparedness for accessing credit.

By 2025, the financial literacy gap had shifted from a purely technical issue to a broader behavioral and structural challenge. While larger and formally registered agribusinesses were more likely to keep proper accounts, smallholders continued to depend on verbal tracking, memory-based accounting, and informal decision-making. Banks confirmed that they frequently needed to reconstruct farmers' cash flows during loan applications - implying poor financial literacy directly impacting credit access.

Despite these persistent challenges, the 2025 assessment indicates growing awareness and demand for improvement. Farmers increasingly request training in bookkeeping, debt management, and financial planning, provided that the delivery is practical, hands-on, and tailored to real farming operations.

Key Insight: From 2022 to 2025, awareness improved - even though practices did not - showing that farmers now understand their financial gaps but still lack the systems to address them.

4.2.2. Access to Finance

Across both assessments, access to finance remained a central challenge, though the nature of the barrier changed over time. In 2022, financing constraints were predominantly structural - characterized by high collateral demands, restrictive lending criteria, low trust in insurance products, and limited understanding of available financial services. Farmers perceived credit as largely unattainable, while processors cited concerns around interest rates, taxation, and insufficient state support. These issues were compounded by external shocks, including COVID-19 and the 2020 conflict, which further restricted credit availability.

By 2025, the financial landscape had become more supportive. Banks introduced tailored green loans, subsidized irrigation finance, and integrated insurance products. Dedicated portfolios emerged for solar energy systems, drip irrigation, hail protection, and greenhouse technologies. Formal procedures were increasingly standardized, with financial institutions emphasizing nondiscrimination across gender and farm size.

Despite these systemic improvements, farmer behavior has become a more prominent constraint. Cultural aversion to debt persisted, many farmers favored self-financing, and awareness of grants and subsidies remained low - often confined to informal community networks. Additionally, digital literacy challenges surfaced, limiting farmers' ability to access modern financial services and online application processes.

Key Insight: The financial system improved, but behavioral and information gaps among farmers became the main barrier - shifting the bottleneck from lenders to farmers themselves.

4.2.3. Business and Entrepreneurial Knowledge

The 2022 assessment identified widespread gaps in entrepreneurial capabilities - covering marketing, business planning, supplier engagement, and customer management. Most farmers viewed these skills as secondary to production challenges, despite stakeholders emphasizing their importance as core bottlenecks. Processors demonstrated higher overall literacy but continued to struggle with branding, financial record keeping, and strategic planning.

By 2025, a more differentiated landscape emerged. Farmers increasingly acknowledged the value of business skills, particularly proposal writing and project management required for grant applications. While smallholders continued to face difficulties with foundational business tools, medium-sized enterprises showed notable improvements in competence and experience. Importantly, business skills were recognized as essential not only for profitability but also for navigating modern financing instruments, climate programs, and digital platforms. Marketing and product realization continued to lag, especially among displaced or newly established farmers who lacked market experience and networks.

Key Insight: Business skills shifted from a secondary concern to a core requirement for accessing finance, climate programs, and modern markets.

4.2.4. Climate Awareness, Risk Management, and Insurance

In 2022, farmers faced widespread climate hazards - hail, frost, and drought - but awareness of climate-smart practices, insurance, and adaptation measures was rather limited. Insurance uptake remained low, driven largely by mistrust. Climate adaptation training was generally deprioritized relative to agronomy and marketing needs.

By 2025, climate impacts had intensified and become more tangible. Farmers reported more frequent droughts, increasingly irregular precipitation, worsening water scarcity, declining yields, and broader environmental instability.

Although awareness of climate risks was high, familiarity with climate support schemes remained low, with most farmers unaware of government programs. However, willingness to learn has improved markedly, with strong interest in practical, on-farm demonstrations. During the same period, financial institutions strengthened their role by integrating climate risk filters and expanding dedicated green lending portfolios - an evolution absent in 2022.

Key Insight: Climate risks became more evident and severe, yet access to adaptation support remained limited - resulting in high awareness but low capacity to act.

4.2.5. Gender Dynamics and Financial Inclusion

In the 2022 dataset, approximately 90% of respondents were men, reflecting traditional gender roles in agriculture. Gender-related constraints were acknowledged but not examined in depth.

By 2025, a gender-balanced sample revealed more nuanced dynamics. While financial procedures are formally gender-neutral, cultural stereotypes continue to influence perceptions - banks and communities often view men as more reliable borrowers. Women also face reduced access to information networks and fewer opportunities to build skills in bookkeeping, proposal writing, and other business functions. Donor-funded, women-specific financing mechanisms have helped increase female participation, but these remain external incentives rather than embedded institutional practice. Women remain underrepresented in capital-intensive investments despite their equal involvement in daily farm operations.

At the same time, 2025 showed encouraging shifts: greater visibility of women entrepreneurs, rising demand for training, and more active female engagement in finance and climate-related discussions.

Key Insight: Gender gaps now stem less from formal rules and more from informal biases

4.2.6. Institutional and Ecosystem Support

The 2022 assessment highlighted significant ecosystem weaknesses, including limited state support, underdeveloped marketing channels, weak extension services, and limited training outreach outside central regions. It recommended substantial investment in advisory systems, post-harvest infrastructure, and irrigation modernization.

By 2025, several supply-side improvements had emerged. Banks expanded green financial products, climate screening became standard for larger loans, and donor support increased for horticulture and climate-smart technologies. However, new demand-side constraints also surfaced. The closure of major USAID programs created a gap in extension and technical advisory services. Many farmers - particularly

those displaced by conflict - lacked institutional support for recovery. Information asymmetries widened as local authorities often failed to communicate opportunities consistently or equitably.

Key Insight: Supply-side support expanded, but demand-side capacity declined - shifting the challenge from lack of services to farmers' reduced ability to access and use them effectively.

4.2.7. Training Needs and Learning Approaches

In 2022, training demands centered on production-focused topics such as crop selection, agronomy, post-harvest management, fertilizer use, and basic food safety. Business and financial literacy were recognized as needs but ranked below technical agronomy. Climate adaptation emerged as a topic of interest but was not yet a priority. Farmers preferred short, practical, onsite trainings - ideally held in winter - along with demonstration plots and peer-to-peer learning.

By 2025, training needs had become more diverse and strategically oriented. Climate adaptation and risk management rose higher on the agenda, alongside bookkeeping, financial management, and navigating green finance, grants, and subsidies. Farmers sought training in digital skills for interacting with financial institutions, proposal writing, climate-smart technologies (e.g., drip irrigation, solar, hail nets), and advanced business planning. Additional support was requested for displaced farmers and for gender-responsive capacity-building.

Delivery preferences also shifted. Farmers increasingly favored hands-on, farm-based coaching with region-specific and tailored content. Small-group or one-on-one sessions were strongly preferred over lecture-style formats, and evening or winter scheduling remained important.

Key Insight: Training needs shifted from basic production skills to finance, climate adaptation, and technology - reflecting farmers' growing need to navigate a more complex operating environment.

5. SUMMARY TABLE – TREND DEVELOPMENT ACROSS STUDIES

Dimension	2022	2025	Change
Financial Literacy	Overestimated skills; limited record-keeping; weak business planning	Greater awareness; demand for practical bookkeeping and financial management training	Progress in awareness, limited improvement in practice
Access to Finance	Structural barriers (collateral, trust, restrictive criteria); low awareness of products	Improved financial products; behavioral barriers (debt aversion, low information access, digital gaps)	Constraint shifted from system-level to farmer-level
Entrepreneurial Skills	Low prioritization; gaps in marketing, planning, branding	Recognized importance; need for proposal writing and project management capacity	Shift toward valuing business skills
Climate Awareness & Action	Low awareness; minimal insurance use; adaptation not prioritized	High awareness; impacts recognized; interest in practical adaptation	Notable rise in awareness, weak linkage to solutions
Gender Dynamics	Male-dominated sample; limited analysis	More balanced sample; informal biases persist; higher women's engagement	From invisible to visible, but structural gaps remain
Training Motivation & Preferences	Short, practical agronomy-focused sessions	High demand; climate, finance, and digital skills prioritized; hands-on coaching preferred	Stronger motivation and more complex training needs
Institutional Support & Ecosystem	Weak extension; limited outreach; need for investment	More green finance; donor support;	Supply-side improvements, demand-side weakening
Risk Preparedness	Minimal preparedness; reactive mindset	Improved awareness but limited action; lack of tools	Awareness up, readiness still low