



Ministry of Foreign Affairs

Moldovan-Dutch horticulture opportunities

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Moldovan-Dutch horticulture opportunities 2025



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Netherlands Enterprise Agency

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1 Introduction

1.1 Background and objectives

The Republic of Moldova (hereafter Moldova) prioritizes food security, a critical issue shaped by regional geopolitical developments and the consequences of climate change. In this context, horticulture is a key economic sector, contributing significantly to the country's Gross Domestic Product (GDP), providing substantial rural employment, and serving as a vital source of rural income. Over the years, Moldova's horticultural sector has experienced steady growth in both production volume and export sales of fruits and vegetables. However, several factors hinder the sector's potential for further expansion, including:

1. a lack of efficiency, economies of scale, and insufficient cooperation among agrifood producers;
2. inadequate irrigation, post-harvest, energy, and logistics infrastructure in rural areas;
3. limited adoption of modern technologies, risk mitigation tools, organic farming techniques, and essential inputs (e.g., certified seeds and fertilizers), particularly by smallholder farmers, due to restricted access to finance, insurance, and consulting services;
4. insufficient implementation of international food safety standards, limiting access to high-value markets;
5. limited dissemination of climate smart agriculture (CSA) practices and other mitigation measures to combat climate change risks;
6. restricted access to and awareness of international markets, partly due to a persistent orientation towards the Eurasian Economic Union (EEU);
7. weak marketing efforts by associations, producers, and exporters;
8. the absence of a cohesive branding, marketing, and investment attraction strategy, leading to low visibility.

Despite substantial engagement from international donors, sustainable growth among Moldovan farmers and businesses remains limited due to gaps in knowledge, equipment, and technology. To address these challenges, more targeted interventions and enhanced matchmaking opportunities are needed.

The Netherlands has the expertise and technological solutions to support Moldova in increasing productivity and improving quality across the horticultural value chain. Dutch innovations offer practical and effective solutions for enhancing climate resilience in both open field and greenhouse cultivation of fruits and vegetables. Moreover, the Netherlands' strong position in Europe's agro-commercial and logistics network provides significant opportunities for marketing Moldovan produce. Previous projects in Moldova have already fostered bilateral business relations and increased interest in Dutch solutions.

This scoping study, commissioned by the Netherlands Enterprise Agency (RVO), aims to:

- map the current state of the horticultural sector in Moldova, identify the specific needs and context of stakeholders in the sector and generate interest within the Dutch sector in the Moldovan market, based on concrete business and development opportunities;
- identify Moldovan farmers, businesses, and other stakeholders with potential for professionalization, scaling up, and internationalization, followed by informing them about how Dutch solutions can enhance their sustainability and profitability.

The study will serve as a catalyst for business engagement and collaboration, fostering economic growth, responsible production, and partnerships within Moldova's fruit and vegetable sector. Specifically, this project seeks to identify challenges and needs in Moldova's horticultural sector and frame them as opportunities for sectoral development while engaging Dutch stakeholders. In doing so, the project aims to establish a foundation from which Dutch businesses and organizations can assess their interests and strategies in Moldova's horticultural sector, and potentially the broader region.

More broadly, this initiative seeks to:

1. enhance Moldova's visibility within the Dutch horticulture sector and vice versa;
2. promote the adoption of modern, efficient, and climate-friendly technologies in Moldova's horticultural sector;
3. facilitate direct connections between Moldovan and Dutch stakeholders;
4. support informed decision-making among Dutch entities interested in doing business in Moldova;
5. provide a structured and strategic approach to encourage Dutch businesses and other stakeholders to engage in Moldova, despite its relatively small market, geopolitical challenges (including the war in Ukraine and Russian influence), and other potential concerns that may have limited Moldova's priority status among Dutch enterprises and investors.

1.2 Project team

The project was carried out by a team of Dutch and Moldovan experts:

- Jos Leeters (HollandDoor) - The Netherlands
- Coen Hubers (Deran Research) - The Netherlands
- Andrei Zbanca (Technical University of Moldova) - Republic of Moldova

Throughout the whole project, the following contact persons, representing the Dutch government, gave valuable support:

- Paul Lange - Private Sector Development coach for Moldova and Ethiopia, RVO, The Hague;
- Maaïke Keizer - Deputy Ambassador, Embassy of the Kingdom of The Netherlands (EKN), Chisinau;
- Valerian Moraru - Senior Economic Affairs officer, Embassy of the Kingdom of The Netherlands, Chisinau;
- Sophie Neve - Agricultural Counsellor for Romania, Bulgaria and Moldova, Bucharest;
- Ineke van de Weijgaert - Senior Policy Officer Romania, Bulgaria, Moldova, Hungary, Serbia, Montenegro, and Austria at the Ministry of Agriculture, Fisheries, Food Security and Nature (LVVN), The Hague.

1.3 Methodology

The project was conducted by desk research and field research in the Netherlands and Moldova in the period December 2024 - March 2025, falling apart in 2 phases:

- Inception phase;
 - situational analysis through desk research of the horticulture eco-system (cluster) in Moldova, including an inventory of the functioning and role of actors in research and education;
 - consulting existing knowledge and information and getting in touch with key stakeholders in the Moldovan fruit and vegetables industry;
 - considering all previous Dutch initiatives and their achievements in the horticulture sector in Moldova;
- Scoping phase, falling apart in 3 steps:
 - Needs assessment of the horticulture cluster in Moldova during a field research visit to Moldova from January 21 until January 27, 2025 for meeting with Moldovan stakeholders and completing and validating all information gaps;
 - Development of possible intervention strategies during and following the field research visit, by interacting with both Moldovan stakeholders as well as potential Dutch actors in the business and in the knowledge environment;
 - Identification of Moldovan and Dutch stakeholders willing to take an active role, including their specific tasks, roles and contributions, plus identification of one or more international actors willing to co-finance;

- Dissemination of the findings during a business event in Moldova, targeting horticultural sector stakeholders in order to make them aware of the opportunities and challenges of the fruit and vegetables sector in relation to possible (Dutch) solutions;
- Dissemination of the findings during a seminar event in the Netherlands, targeting Dutch horticultural sector stakeholders in order to make them aware of the opportunities and challenges of the Moldovan fruit and vegetables sector.

1.4 About the Netherlands Enterprise Agency

The Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland - RVO) helps entrepreneurs and organisations to invest, develop and expand their businesses and projects both in the Netherlands and abroad. The Netherlands Enterprise Agency is a government agency which is part of the Dutch Ministry of Economic Affairs. It supports entrepreneurs, NGOs, knowledge institutes, policymakers and organisations, by improving collaborations and strengthening positions through funding and networks.

① www.english.rvo.nl

1.5 List of abbreviations and acronyms

AA	Association Agreement
ACSA	National Association for Rural Development
ADMA	Agency for Development and Modernization of Agriculture in Moldova
AgTech	Agricultural Technology (or Agrotechnology)
AKIS	Agriculture Knowledge and Information System
AIPA	Agency for Intervention and Payment in Agriculture (under MAFI)
APEL	Association of Vegetable Producers and Exporters
B2B	Business to Business
BPO&SSC	Business Process Outsourcing / Shared Service Center Industries
CAP 23-27	Common Agricultural Policy of the EU 2023-2027
CCAR	Agricultural and Rural Advisory Center (under MAFI)
CEFTA	Central European Free Trade Agreement
CSA	Climate Smart Agriculture
CIS	Commonwealth of Independent States
CoSA	Center for Smart Agriculture
CSR	Corporate Social Responsibility
DCFTA	Deep and Comprehensive Free Trade Area
DGGF	Dutch Good Growth Fund (an RVO program)
DHI	Demonstration projects, Feasibility studies, Investment preparation projects (an RVO program)
EEU	Eurasian Economic Union (Russia, Belarus, Kazakhstan, Kyrgyzstan, Armenia)
EFTA	European Free Trade Association
EKN	Embassy of the Kingdom of The Netherlands
EQF	European Qualifications Framework
EU	European Union
FAO	Food and Agriculture Organisation (of the United Nations)
FTA	Fre Trade Agreement
G2G	Government-to-Government collaboration.
GAP	Good Agricultural Practices

GDP	Gross Domestic Production
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoM	Government of Moldova
GUAM	Organization for Democracy and Economic Development Georgia, Ukraine, Azerbaijan, and Moldova
Ha	Hectare (= 10,000 m ² ; = 0,01 km ²)
HACCP	Hazard Analysis of Critical Control Points (a hygiene-based quality management standard)
IC	Impact Cluster (an RVO program)
IPM	Integrated Pest Management
ITO	Information Technology Offshoring
ITC	International Trade Center
JICA	Japan International Cooperation Agency
K2K	Knowledge-to-Knowledge collaboration.
LVVN	Ministry of Agriculture, Fisheries, Food Security and Nature (Netherlands)
MAFI	Ministry of Agriculture and Food Industry (Moldova)
MAR	Market Access Requirements
MDL	Moldovan Leu (1 MDL equals around €0,05)
ME	Ministry of Environment (Moldova)
MOVCA	Moldova Organic Value Chain Alliance
MRL	Minimum Residue Level
NCCAP	National Climate Change Adaptation Programme
NFFM	National Federation of Farmers in Moldova
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PAP	Priority Action Plan (for enhanced implementation of the DCFTA)
PIB	Partners for International Business (an RVO program)
PSD	Private Sector Development
RCRA	Rural Competitiveness and Resilience Activity in Moldova (USAID-funded)
RVO	Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland)
SMEs	Small and Medium-sized Enterprises
SNDAR	National Strategy for Agricultural and Rural Development 2023 - 2030
TUM	Technical University of Moldova
TVET	Technical Vocational Education and Training
UK	United Kingdom
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WTO	World Trade Organization

2 Management summary

Moldova is a landlocked country in Eastern Europe, covering a total area of 33,843 km² with a population of 2.4 million. It is bordered to the west by Romania and to the north, east, and south by Ukraine. Since gaining independence in 1991 following the collapse of the Soviet Union, Moldova has been striving to diversify its international relations and trading partnerships. The Government of Moldova officially began EU accession negotiations in June 2024, aiming for accession by 2030. The Netherlands has maintained strong political relations with Moldova for many years. It is an important investor in the country and has a history of supporting programs for economic development, democracy, and the rule of law. During President Maia Sandu's visit to the Netherlands in September 2023, special attention was given to collaboration in the agri-food sector, particularly horticulture.

Agriculture and climate

Approximately 55% of Moldova's land is used for agriculture, with 86% dedicated to annual crops such as legumes, oil crops, and fodder crops (1,525,800 ha), as well as potatoes (22,900 ha) and vegetables (45,800 ha). The remaining 14% is used for perennial crops, including fruit orchards (135,400 ha) and vineyards (115,100 ha). While agriculture contributes only 7.5 - 8.0% to Moldova's GDP (as of 2022), it accounts for a significant share of employment (55% in 2022). The agricultural landscape consists of large-scale corporate enterprises, modern export-oriented businesses, and many small, family-owned farms.

Moldova's climate is semi-arid to warm, with annual rainfall ranging from 370 mm in the south to 550 mm in the north. Average temperatures range from -4.5°C in January to 22°C in July. However, the country remains vulnerable to climate change, facing increased droughts, rising temperatures, heavy rainfall, and other natural hazards. Moldova is actively working on adaptation and mitigation measures.

Horticulture

Moldova benefits from excellent soil quality, favorable climate conditions, relatively low labor costs, and proximity to markets in Europe, Eurasia, and the Middle East, making it well-positioned to expand its horticultural exports. The country already has a strong export presence in the fruit sector, which it aims to enhance through modernization across the entire value chain, with a focus on orchard management, postharvest handling, distribution, and trade. This progress is largely driven by well-established associations in the fruit sector. Vegetables are another important sub-sector in Moldova's horticulture industry. However, local production is insufficient to meet domestic demand, leading to high import levels. Increasing local vegetable production could improve food security and reduce reliance on imports.

Markets

For a long time, Russia and other Eastern European countries were the primary export destinations for Moldovan horticultural products. However, this is rapidly changing. The EU, the UK, the Middle East, and Asia are becoming increasingly important markets. Moldova is now the EU's largest supplier of plums and has significant growth potential for other fruit exports, particularly fresh table grapes, cherries, apricots, dried prunes, and fresh plums. Vegetable exports remain far lower in volume and value compared to fruit exports. However, the product range is becoming more diverse. While peas and beans were historically the main vegetable exports, Moldova is now exporting increasing quantities of onions, shallots, carrots, turnips, brassicas, and potatoes. Despite this progress, vegetable imports still far exceed exports. Many of these imported vegetables, including tomatoes, potatoes, capsicum, and cucumbers, could be locally grown under Moldova's suitable conditions.

An important trend in Moldova's domestic market is the growing demand for fresh fruits and vegetables. This shift is accompanied by a transition from wholesale and informal open markets to modern retail networks, which impose stricter food safety and logistical requirements on suppliers. The retail sector is expanding rapidly.

Obstacles and risks in the Moldovan horticulture sector

The horticulture sector faces several challenges and risks that hinder its development. The most significant ones include:

Pre- and postharvest phase

- small scale of production, limiting economies of scale;
- impact of climate change;
- lack of appropriate knowledge, inputs and technology for competitive productivity & quality and for better adaptation to climate change;
- difficult to ensure volumes and consistency of supply;
- low level of energy efficiency and use of renewable energy sources;
- inadequate postharvest technology and practices (storage, handling);
- non-competitive processing industry;
- limited reach of farmers' cooperatives and associations.

Market & market access

- absence of a large domestic market;
- insufficient market intelligence, market awareness and export management skills;
- slow customs procedures on the Moldovan-Romanian border, hindering truck transportation;
- inadequate logistics via waterways, due to moderate functioning of nearby ports in Giurgiulești, Odessa and Constanța;
- little visibility of Moldova as supplier in the export markets, except for fruits (and wine).

Business enabling environment

- geopolitical and macro-economic uncertainties and threats, related to the war in Ukraine, potential energy disruptions and consequences of the parliament elections in 2025;
- limited capacity and financial resources to support the private sector;
- dependency on international donors;
- insufficient (skilled and unskilled) labour force available and participating;
- limited access to finance and financial services;
- inadequate knowledge infrastructure;
- limited capacity to develop and innovate.

Moldovan - Dutch cooperation opportunities

Given the intrinsic potential of the Moldovan horticulture sector and its ambition to modernize, alongside the sector's current shortcomings, there are various opportunities for the Dutch private sector to initiate or expand collaboration in Moldova. Development needs differ between the fruit and vegetable sectors, but common themes across all subsectors include modernization, mechanization, smart farming, protected cultivation, and climate change resilience. The following potential areas for cooperation have been identified:

- seeds and planting materials for both vegetable and fruit crops;
- smart farming, water management, and integrated crop management;
- protected cultivation for both vegetable and fruit crops;
- postharvest handling and processing;
- marketing, trade, and distribution services.

Additionally, there are opportunities for the Dutch public sector to collaborate with public stakeholders in Moldova to strengthen the horticultural ecosystem. The following areas of cooperation have been identified:

- developing and implementing a joint research agenda for climate change adaptation and AgTech;
- introducing the triple-helix model (collaboration between government, industry, and academia);
- capacity building in education, research, and agricultural extension services;
- strengthening the vegetable growers' association APEL.

The Dutch government, through the Embassy in Chisinau, the Agricultural Counsellor in Bucharest, and implementing partners such as RVO and Invest International, can support Dutch businesses in entering or expanding their presence in Moldova's horticulture sector. The Moldovan government offers subsidy programs and incentives for both local and foreign businesses, including Dutch companies, through the Invest Moldova Agency. Furthermore, many international donors are actively involved in Moldova's horticulture sector and could potentially support or co-finance programs. However, funding options are under pressure due to the current geopolitical climate, with global budget cuts affecting development cooperation.

3 Moldova

3.1 Moldova in a nutshell

Moldova is a landlocked country in Eastern Europe with a total area of 33,843 km², of which 1.4% is water. The country is bordered in the west by Romania and in the north, east and south by Ukraine. Its population is 2,423,300 (est. January 2024 (*Wikipedia*)). More or less half of the population lives in the capital Chisinau (*Eurocities*).



Moldova was part of the Soviet Union since 1940 and became independent in 1991. For administrative purposes, the country is divided into 32 raions; 3 municipalities: Balti, Bender, Chisinau; 1 autonomous territorial unit: Gagauzia and 1 territorial unit: Stînga Nistrului (Transnistria).

The 32 raions and Balti municipality are divided in 3 development regions: North, Centre, and South. The northern part of the country belongs to the Podole highland and the southern part to the Black Sea lowland.

The average altitude is 147 meters above

sea level. The highest peak is 428 meters above sea level and 75% of the country lies below an altitude of 200 meters (*FAO, 2015*).



Gagauzia (officially 'Autonomous Territorial Unit of Gagauzia') is intended for the Gagauz people, a Turkish-speaking, primarily Orthodox Christian ethnic group. Transnistria (officially 'Pridnestrovian Moldavian Republic') is a landlocked state, internationally recognized as part of Moldova. It's officially designated by the Republic of Moldova as the Administrative-Territorial Units of the Left Bank of the Dniester River.

3.2 Moldova and the EU

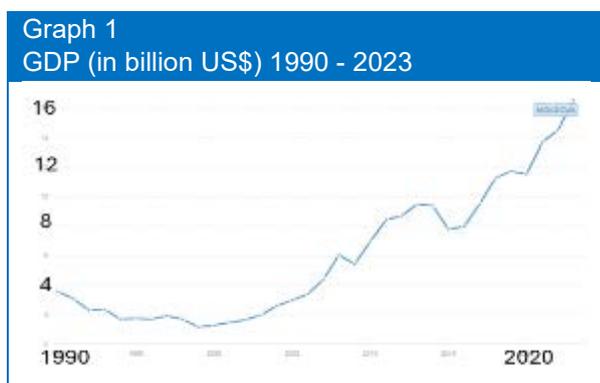
Moldova signed an Association Agreement with the European Union in June 2014, being in full effect since July 2016. Since September 2014 Moldova has benefitted from a Deep and Comprehensive Free Trade Agreement (DCFTA) with the EU. This preferential trade system allows Moldova to benefit from reduced or eliminated tariffs for its goods, an increased services market and better investment conditions. In the period 2014-2020, agri-food exports to EU countries increased by about 27%. Currently, the EU is the main trading partner of Moldova. By 2020, about 52% of agrifood exports were destined for EU markets.

As part of its solidarity with the region in the context of the Russian war in Ukraine, the EU has adopted a regulation which provided temporary full trade liberalisation for Moldovan agricultural products for one year in July 2022. The arrangement has been extended until July 2025. Furthermore, the so-called Priority Action Plan (PAP) for enhanced cooperation of the EU-Moldova DCFTA in 2023 - 2024 has laid down a set of concrete actions to accelerate and monitor the full implementation of the DCFTA, providing Moldova with further access to the EU Single Market (*EU relations with Moldova*). Moldova was officially granted candidate status by the EU on 22 June 2022. On 14 December 2023, the European Council decided to open accession negotiations. These negotiations officially began on 25 June 2024, simultaneously with those with Ukraine. As a result of the candidate status there is quite some effort and resources invested by the EU to enable Moldova to become EU member state, which will provide a major impetus to the Moldovan economy, including the agriculture sector. Moldova has set a target date of 2030 for EU accession.

3.3 Moldova and the Netherlands

The Netherlands has maintained good political relations with Moldova for many years. In April 2023 the Embassy of the Kingdom of the Netherlands in Chisinau opened its doors and activities, soon followed by a visit of President Maia Sandu to the Netherlands in September 2023. The Netherlands is an important investor in Moldova and has a tradition of supporting programs for the economic development as well as the development of democracy and the rule of law in the country. During the visit of President Maia Sandu, special attention was given to collaboration in the field of agri & food, especially horticulture.

3.4 Economy and perspectives



Source: <https://data.worldbank.org/indicator/>

Moldova's Gross Domestic Production (nominal) in 2024 had an estimated value of US\$ 18,062 billion and a per capita value of US\$ 7,368 (*Wikipedia*). The GDP Growth Rate averaged 0.64% from 1995 until 2024, reaching an all-time high of 9.90% in the first quarter of 2021 and a record low of -8.20% in the second quarter of 2020. According to expectations and economic models, in the long-term, Moldova's GDP Annual Growth Rate shows a positive trend: 3% growth in 2025 and 4.40% growth in 2026 (*Trading Economics*). The overall historic trend is reflected in Graph 1.

According to the World Bank, three key macroeconomic risks are (the potential intensification of) the war in Ukraine, additional energy disruptions, particularly the discontinuation of gas transit through Ukraine (in effect since early 2025), and headwinds from upcoming parliament elections in 2025. Moldova's medium-term prospects hinge on structural reforms and progress toward EU accession. Despite sustained economic growth over two decades, poverty remains pervasive, particularly in rural regions where access to services and viable economic opportunities is limited. Low labour force participation and employment rates impede a shift to employment-based poverty reduction, underscoring the urgency for structural reforms. Moldova faces structural challenges including low productivity growth, governance deficiencies, a large state footprint, limited competition, an imbalanced business environment, and tax distortions.

The EU is Moldova's biggest trade partner, with a total turnover of around €7.2 billion in 2023, accounting for 54% of its total trade in that year, followed by Ukraine (13%) and China (8%). Over 65% of Moldovan exports are destined for the EU market. Moldova's proportion of trade with Russia has fallen significantly and now represents less than 4% of Moldova's total trade.

The EU's exports to Moldova in 2023 amounted to €4.8 billion, a modest increase of about 2% from 2022. Key EU exports are machinery and appliances, products from the chemical or related industries, and transport equipment. The EU's imports from Moldova decreased slightly (-7%) from the high levels achieved in 2022, representing €2.4 billion in 2023. The EU's main imports from Moldova are machinery and appliances, mineral products, and products from the chemical or related industries (*World Bank*).

In its 2023 report "Creating Markets in Moldova - From a Remittances Driven Economy to Private Sector Led Sustainable Growth", ITC describes the need for improvements in three areas: 1st tackling energy dependence; 2nd climate change and sustainable production, and 3rd growth of exports. Priority sectors for these ambitions are 1st renewable energy; 2nd high value agribusiness, and 3rd information technology offshoring (ITO) and business process outsourcing / shared service center industries (BPO&SSC). These three sectors were identified as areas of the economy in which the private sector can contribute to enhance

productivity and economic diversification (and high-quality jobs as a result) and to foster a more open and inclusive society and a greener development path (*ITC, 2023*).

Moldova scores relatively high on the ‘Ease of Doing Business’ ranking of the World Bank: 48th on the overall list of 190 countries ¹. It is relatively easy to start a business and register a property. Cross border trade has also a good score. However, the country ranks a bit lower on enforcement of contracts and resolving an insolvency and very low on construction permits and getting electricity.

3.5 Agriculture

The contribution of the agriculture sector (including forestry and fisheries) to Moldova’s GDP in 2023 was 7.6% according to the World Bank. However, this share is decreasing over the years (Table 1). More macroeconomic figures are in Annex 2.

	2018	2019	2020	2021	2022	2023
GDP in million MDL	189,063	206,256	199,734	242,079	274,488	300,421
Agriculture, forestry, fisheries	19,184	20,957	18,708	25,628	22,273	22,890
% Agriculture, forestry, fisheries in GDP	10.1	10.2	9.4	10.6	8.1	7.6

Source: Statistical Office of the Republic of Moldova

The relatively low contribution to the nation’s GDP, is in contrast to a high percentage of the total country’s employment, notably 55% in 2022 (*Trading Economics*). The salary level of agricultural workers is among the lowest in the national economy. Low wages and poor working and living conditions in rural areas are the main causes of the low motivation of workers, especially among young specialists. The lack of a skilled and sufficient workforce is the result of this phenomenon. One of the fundamental policy tasks is to identify ways to increase average wages and strengthen the efforts of training and education programs (*MAFI, 2023 - SNDAR*).

The Moldovan agricultural landscape consists of two significant sub-sectors: large-scale corporate enterprises and individual operators, which include family-owned farms and smallholdings. The latter often engage in subsistence farming. On the other end, corporate agricultural entities focus on bulk commodities like cereals and sugar beets, utilizing mechanized farming to optimize output and cost-efficiency (*Invest Moldova - Agriculture in Moldova*).

As a result of agricultural reforms in 1992, agricultural lands were divided into many plots, with configurations and locations not suitable for competitive farming under market economy conditions. These small plots led to inefficient farming, focusing not on competitive, market-driven production, but on meeting their own needs. Currently we see some positive changes in the degree of fragmentation; the average size of cultivated areas is increasing slightly. According to the National Strategy for Agricultural and Rural Development 2023-2030 (*SNDAR*), the average area of a plot is 0.85 ha, with the central part of Moldova being the most fragmented, while the minimum plot area in Străseni district, nearby Chisinau, is 0.29 ha. Farms and farm households managing more than 10 ha cover about 75% of the agricultural land area. Consolidation of land on a lease basis is more popular and used more often than consolidation on a purchase basis (*MAFI, 2023 - SNDAR*).

Available land for agriculture covers 22,750 km², which is over 67% of the total area of the country. Out of this area, 18,465 km² (1,846,500 hectares) is under cultivation according to 2023 statistics (Table 2) This area of land under cultivation shows a slight growth (+3.2 % compared to 2019), which is largely due to arable crops under extensive cultivation, such as cereals and oil crops. The majority of the land is used for

¹ The Netherlands is on rank 42. The last update for Moldova was in 2019 (<https://archive.doingbusiness.org/en/rankings>)

annual crops (1,596,000 ha), of which 1,525,800 ha for cereals, leguminous crops, oil crops and fodder crops, 22,900 ha for potatoes and 45,800 ha for field vegetables (including melons). Perennial crops are on 250,500 ha, of which fruit orchards 135,400 ha and vineyards 115,100 ha. The total land under irrigation is 60 - 85,000 ha. ²

Moldova's geographical, climatic and cost competitive advantages with the potential to produce goods for international markets, include excellent soil quality, favourable climate conditions, relatively cheap labour force, and the proximity of markets in the European Union (EU), United Kingdom (UK), Eurasian Economic Union (EEU) and the Middle East. The country's horticultural potential particularly lies in fruit and vegetables. The relevance of fruit is grounded in the fact that Moldova has already a dynamic export position, which it strives to strengthen through modernization all over the value chain, with much emphasis on orchard management, postharvest, distribution and trade capacities. The relevance of vegetables stems from the fact that these are generally underproduced on the local market and largely imported. Increasing local vegetable production could improve food security and reduce reliance on imports.

Crops	2019	2020	2021	2022	2023	2019 > 2013
Total sown areas	1.519,2	1.537,6	1.557,5	1.580,5	1.596,0	+ 5.1 %
Cereals and leguminous crops	950,4	957,1	971,1	953,0	969,7	+ 2.0 %
Technical crops (incl. oil crops)	458,3	462,1	474,5	521,4	521,8	+ 13.9 %
Fodder plants	47,1	48,9	44,8	37,1	34,3	- 27.2 %
Potatoes	20,7	22,9	22,3	22,9	22,9	+ 10.6 %
Field vegetables	28,3	39,7	38	38,2	39,3	+ 38.9 %
Melons	7,6	6,1	6,2	7,0	6,5	- 14.5 %
Orchards, nut trees and fruit trees	143,2	141,7	139,0	138,0	135,4	- 5.4 %
Vineyards	126,0	121,2	117,5	116,5	115,1	- 8.7 %
Total agricultural land	1.788,4	1.800,5	1.814,0	1.835,0	1.846,5	+ 3.2 %

Source: Statistical Office of the Republic of Moldova

3.6 International relations

Apart from its ambition to become an EU member state, The Government of Moldova is strongly investing in other international relations in order to foster economic development. Moldova has Free Trade Agreements (FTAs) with:

- Commonwealth of Independent States (CIS) ³
- Turkey
- United Kingdom (UK) and Northern Ireland ⁴
- CEFTA zone (Central European Free Trade Agreement) ⁵
- Georgia, Ukraine, Azerbaijan Moldova (GUAM) ⁶
- Iceland, Liechtenstein, Norway and Switzerland (EFTA) ⁷

Furthermore, Moldova is member of the World Trade organisation (WTO).

² The area of land under irrigation is an estimation. Not everyone who irrigates has a formal permit.

³ Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Uzbekistan

⁴ Strategic Partnership, Trade and Cooperation Agreement (SPTC)

⁵ The current CEFTA organisation was established and was signed in December 2006 by Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Moldova, Montenegro, Romania, Serbia and UNMIK/Kosovo. Romania, Bulgaria and Croatia have withdrawn from CEFTA on their accession to the EU.

⁶ Organization for Democracy and Economic Development GUAM

⁷ European Free Trade Association

3.7 Climate (change)

The average annual precipitation is estimated at 450 mm, though climate change causes a downward trend. Two climatological zones can be distinguished:

- The semi-arid and warm zone of steppe in the south (45%). Average annual precipitation varies from 370 mm in the extreme south to 450 mm in the southern part of the Nistru (Dniester) valley, concentrated between May and October. Average temperatures vary from -3°C in January and 22°C in July.
- The moderately warm zone of forested steppe, covering the northern and central parts (55%). Average annual precipitation varies from 420 mm in the central part to 550 mm in the north, concentrated between May and October with the peak in June or July. Average temperatures vary between -4.5°C in January and 20.5°C in July (FAO, 2015).

The country remains vulnerable to the consequences of climate change, such as a higher frequency and severity of droughts and other natural hazards, thereby posing substantial risks to Moldova's agricultural sector and livelihoods (World Bank). In recent years, highly fertile soils have been subjected to increasingly intense degradation due to shrinking areas of protective forest strips, natural disasters, irrational use of land resources, disregard for basic scientific methods of cultivating agricultural crops and other factors, which has led to an essential decline in the productive capacity of soils (MAFI, 2023 - SNDAR).

According to the National Climate Change Adaptation Programme until 2030 (NCCAP), developed by the Ministry of Environment (ME), Moldova ranks as the most climate-vulnerable country in Europe. It is forecast that the impact of climate change on the country's social, environmental, and economic dimensions will intensify in the medium to long term, resulting in devastating effects on the agriculture sector, as well as the rural population. The main forecasts and concerns are:

- 13% decrease of precipitations, 16-20% decrease of surface water flows until 2030 and overall reduction in the availability of water resources;
- continuous increase of annual average temperature by 2°C between 2010 and 2040;
- increasing frequency of floods and at the same time increasing frequency of droughts (longer and more severe);
- significant decrease of agricultural productivity due to growing water scarcity for crops and impact of extreme events, such as hailstorms, late spring frosts, heat waves, floods and droughts, or changes in phytopathological pressure;
- seasonal change in peak energy consumption, affecting energy distribution and transmission infrastructure, as well as compromising the country's potential to reduce energy imports by harnessing renewable sources (solar, biomass, wind and geothermal);
- damage to transport infrastructure.

Furthermore, climate change will have direct impact on health (mortality, food- and waterborne diseases), and may result in direct or indirect victims of natural disasters (ME, 2024 - NCCAP).

4 Horticulture in Moldova

4.1 Macro level

4.1.1 Fruit sector

Moldova produced 630,000 tonnes of fruit (excluding nuts) in 2023, of which apples (298,000) and other pome fruits are the number one, followed by stone fruits (120,000 tons, of which 94,000 tons plums) and table grapes (59,000 tons). Since 2019, the production of fruit is more or less stable, with apples showing a decline, and stone fruit, berries and table grapes a steady increase. Moldova's fruit sector has experienced rapid developments and growth in recent years. This steadily continues, not least because of donor support. Producers are increasingly focusing on sustainability, investing in new varieties, advanced equipment, and innovative packaging solutions. Not to be underestimated: cooperation in the sector, driven by a few strong associations, has been a catalyst for international performance. Whereas Moldova was unknown in the European trade and retail sector of (fresh) fruits a decade ago, now it's being seen as a competitive supplier for several fruits in certain windows of the year.

In the slipstream of fresh fruit production and sales, adding value activities (freezing, drying, canning) is developing. The processing industry used to be large in Soviet times, but collapsed. See section 4.1.5 - processing industry. Nowadays, the sector is eager to build up again little by little.

4.1.2 Vegetable sector

Compared with the fruit sector, the vegetable value chain is less developed and is less capable to supply domestic retail and export channels, due to a lack of consistent volumes of produce with the right quality and adequate (logistical) service delivery. Only in the summertime local tomatoes reach domestic supermarket shelves and only onions and some root vegetables, such as carrot, beetroot and potato, end up in distribution channels in neighbouring (EU) countries. Generally speaking, Moldova is mostly depending on import for its vegetable consumption. However, new initiatives are promising, not least because the new association APEL has been established recently, striving to unite and professionalize the sector.

The total volume of vegetable production in 2023 amounted 103,000 tons, 33% more than in 2019. Onions (27,000 tons), potato (17,000 tons), and carrot (16,000 tons) are the largest, with tomato, often for the processing industry, being a large crop either. Onions, garlic, root vegetables (carrot, beetroot, turnip), tomato and melons show the highest increase compared to 2019. See more details in Annex 3.

Vegetables are produced either in the open field or in plastic tunnels. Plots sizes typically range between 0.5 to 5 ha. Under tunnels, the main vegetables are tomatoes, cucumbers and sweet peppers. The typical land size for plastic tunnels ranges from 50 to 500 m². Greenhouses of more than 1 hectare with modern equipment are rare.

Household backyard farms dominate the production under plastic tunnels, accounting for 80% of cucumbers and tomatoes' production, while they contribute to more than half of the open field production. Households and small farmers account for 80% of all vegetable production and 90% of potato production, which leaves only a small part of the domestic production available for the market. See Table 3.

Table 3
Share of potato and vegetable production by farm type (2021)

	Potato	All vegetables	Cabbage	Cucumber	Tomato	Onion
Enterprises	10.6	19.1	24.3	4.0	19.0	20.4
Small farmers (< 10 ha)	10.3	14.4	20.7	11.9	7.9	20.0
Households / backyard farms	79.1	66.5	55.0	84.1	73.1	59.6

Source: FAO (2023)

4.1.3 Organic cultivation

Organic cultivation is still in an early stage of development in Moldova. The Moldova Organic Value Chain Alliance (MOVCA) was founded in 2015 and supports the growth and success of organic agriculture in the country by empowering farmers and other stakeholders. The Law on Organic Production and Labelling of Organic Products is in place since 2023. There are no reliable figures of the current share of organic cultivation. Estimates range from 1.3% to 1.7% of the total agricultural production, which is less than in most of the European countries. Climate change, environmental pollution, inefficient use and abuse of natural resources and demand from the market, are factors that will likely stimulate a growth of organic cultivation methods (ICEADR, 2022). However, Invest Moldova (2024) reports that Moldova is emerging as a leader in organic agriculture in the Eastern Europe, Caucasus, and Central Asia region. Moldova started exporting organic products to the EU, with over 40,000 tons reported. As of 2022, Moldova features two national and twelve international certification bodies, reflecting a strong commitment to organic standards and government support for the development of organic farming (Invest Moldova, 2024).

4.1.4 Market structure and chain actors

The horticulture sector can be divided in export-oriented, high-value based chains (mainly fruit) and local value chains with generally lower value products (mainly vegetables), destined for the local market. Local chains are characterized by seasonality and small scale. Many farmers sell in open markets or sell to local cold storage operators where (basic) additional sorting and grading is done. Part of the produce is supplied to processing factories (dried, juices, frozen, jams etc.), although this processing industry is not well organized. Whereas the market share of open markets is still significant, the expansion of supermarkets and hypermarkets, often part of large chains, is ongoing. It is foreseen that informal open markets and small fresh produce shops will lose their market share to more organized market players.

Farmers

Moldova distinguishes three major categories of agricultural producers (FAO, 2019):

- enterprises: registered as legal entities that own and/or use agricultural land;
- peasant farms: legal form of agricultural activity carried out by individuals, commonly on less than 10 ha. They can be called private family farms with a commercial orientation, as they rely heavily on family labour. A significant number of them have a clearly commercial orientation, though they can be considered semi-subsistence in nature;
- rural households: agricultural operations on a small scale, primarily for meeting the own needs for food of the family members.

Both enterprises and peasant farms play an important role in the horticulture sector, whereas the role of enterprises becomes more and more dominant in high-value based chains. Especially in the fruit sector, the number of professionally managed enterprises shows an upward trend (few hundred), whereas the vegetables sector only has a few dozen of enterprises with the capacity to supply retail chains and export to high-end markets. Among the professionally managed businesses, we see a 'second generation' or sometimes even 'first generation' of young farmers, often academically trained in Moldova or abroad. Without the burden of the 'Soviet perspective', this ambitious new generation tends to extend and modernize their production and their supply chain in a strong pace. At the same time they are frontrunners and often founders of cooperatives, clusters and/or associations, clearly showcasing the ambition to modernize the sector.

Associations

Various sectorial associations unite stakeholders of horticultural sub-sectors, of which Moldova Fruct is the largest, strongest and best known nationally and internationally. Moldova Fruct has been established in 2006 with the help of USAID. With more than 250 members, Moldova Fruct includes the largest growers, processors, exporters, and service providers. The association represents the apple, apricot, cherry, peach, pear, plum, and table grapes sectors, as well as food processors. It provides a range of services to its members, including advocacy, training, technical assistance, market diversification, and export promotion.

Associations in the berries segment and nuts segment play additional and similar roles. In the vegetables sector, the association APEL is younger and less developed. It was also founded with help of USAID in 2024 in order to enhance consolidation and cooperation, as well as representing vegetable farmers in front of the state. APEL has currently 60 members (from 2 to 100 ha), divided in two groups: fresh vegetable growers (in open field and greenhouses) and root vegetable growers. Usually the latter ones (carrot, beetroot, but also potato and onion) are larger, more professional and have often export capacities.

The main associations are:

- Fruit Producers and Exporters Association of Moldova, aka Moldova Fruct <https://moldovafruct.md/en/>
- Berry Producers Association Bacifera
- Association Moldova's Berries
- Table Grapes Producers and Exporters Association (APESM)
- Association of Vegetable Producers and Exporters (APEL)
- Walnut Growers Association of Moldova <https://www.moldovanuts.com/>
- Processors Association Speranta-Con

Processing industry and postharvest activities

The agro-processing industry in Moldova (juice producers, canning, freezing, and drying) is not in a good shape. Many enterprises were created in Soviet times. They implemented some modernizations in recent years, but they did not invest in diversification and creating added value. According to the National Strategy for Agricultural and Rural Development 2023-2030 (SNDAR), the processing sector has been practically neglected in the past decades, resulting in more export of raw material for lower prices and a sharp increase of food imports for domestic consumption. Of the more than 38 large fruit and vegetable processing companies operating in 1998, less than 10 are currently active. The processing sector was one of the main providers of employment and its neglect can be considered one of the main causes of mass migration in the country (MAFI, 2024).

The processing industry consists of two core segments. There's a small group of large-scale processors that focus on exports, commanding roughly 80% of sector output and primarily processing apple juice, fruit and tomato paste, and canned fruits and vegetables. Six companies are in the lead (Orhei-Vit; AlfaNistru; Ecovit, Naturo Bravo, Basarabia-Agroexport and T.B. Fruit), delivering a diverse array of products across 25 countries, including CIS, USA, and EU. The second segment consists of numerous smaller firms catering to domestic needs. Including the aforementioned 6 key players, the processing sector includes:

- 13 fruit and vegetable juice producers;
- 27 companies for canned fruit and vegetables;
- 8 companies with quick freezing services;
- 98 companies with drying services.

Altogether, Moldova processes approximately 20% of all vegetables and 55% of all fruits, amounting to 300,000 - 350,000 tonnes annually, of which 6,000 - 8,000 tonnes dried fruits (mostly plums, but also apples, cherries, pears, etc.). The EU absorbs about 80% of Moldova's dried fruit exports; CIS countries accounting for the remaining 20% (Invest Moldova, 2024).

To a lesser extent, a weak position also counts for postharvest activities for fresh produce. There's a lack of storage facilities and sorting & packing services, available for producers who're not in the position to invest in these facilities themselves. However, this is especially the case in the vegetable sector. For many farmers of tomatoes, cucumbers, sweet peppers and other vegetables with a short shelf life, investing in postharvest facilities is not yet feasible, because the quality and quantity of their harvested products are too low for an acceptable investment. The fruit sector was able in the previous decade to invest in warehousing, cooling, cold transportation, grading and sorting units, often with help of international donors and the national Levada Moldovei investment scheme (MAFI, 2025). Spread over the country, enterprises in the fresh fruit industry have modern facilities to handle and prepare their apples, plums, cherries, grapes and berries for high-end

markets. Some of them also provide services for smaller producers. In total, 85 companies with sorting and packing services and 698 companies with warehouses are registered.

Retail

Moldova is in a transition from wholesale markets to retail networks with much stricter food safety and logistical conditions for suppliers of horticultural products. Retail chains develop quickly. Currently 33 active chain formulas, including Kaufland and Metro run near to 1,200 outlets in the country, of which the top 8 takes 345 outlets. Linella, part of the MoldRetail Group, has the largest distribution with over 200 outlets, including sub-brands. Over the past few years, Moldova shows a clear increase in the number of outlets, sales per outlet and overall market share of super- and hypermarkets. Thus, trade through agricultural

Branduri de retail și magazine		Lanțuri de benzinării
NR.1- 17	ALINA COSMETICS - 28	AVANTE - 6
METRO- 3	ALINA COSMETICS + EMA MARKET - 2	BEMOL - 41
KAUFLAND- 9	TOTO MARKET - 9	LUKOIL - 103
FOURCHETTE- 10	OCEAN FISH - 6	PETROM - 69
FOURCHETTE Gourmet- 1	FAMILY MARKET - 30	ROMPETROL - 78
BONUS - 4	MERCI GASTRONOME - 16	VENTO - 75
LOCAL - 60	SLAVENA - 2	
GREEN HILLS - 7	ZOLUSCA - 74	
VELMART - 4	AVOCADO - 13	
CASA CURATĂ - 114	ÎMPĂRĂȚIA CURĂȚENIEI - 45	
BRAVO - 2	BONITA - 23	
ROGOB - 59	PEGAS - 7	
SUPER LINELLA - 28	JARDI MARKET - 26	
LINELLA - 112	PRIMUL - 2	
EXPRESS LINELLA - 24	BEBE DISCOUNTER - 1	
LINELLA/FIDESCO PROXIMITY- 11	ALCOMARKET - 67	

33	5
branduri de retail	lanțuri de benzinării
1.188	
puncte de vânzare	

markets in small quantities, with little uniformity, makes place for trade in larger quantities, with homogeneity and strict quality requirements. Although retailers do not yet require similar GAP and food safety standards as in the EU, retailers are moving into that direction. Lab analyses reports, showing acceptable levels of pesticides and health certificates are more and more common.

Source: <https://modernbuyer.ro/category/republica-moldova/> retail map Moldova 2024

Retailers strive to source as much as possible in Moldova, but they face the following weaknesses with Moldovan suppliers:

- in general lack of awareness regarding demand, requirements and needs of retail;
- not reliable in following up contracts and arrangements; easily switching to alternative buyers when they offer little better prices;
- weak in sorting, grading and packaging (e.g. packaging materials are often banana boxes);
- weak in logistics (e.g. no suitable trucks for transport and no mindset to deliver just-in-time).

Retailers advise the sector to focus on more clustering and consolidation at farmer level and investments in harvesting and postharvest methods as well as investments in knowledge development all over the supply chain. This would contribute to less import. For various fruits, it already works almost year-round. For vegetables there's only a small (summer) window with adequate product delivery from Moldovan grounds.

#	Retail name	Turnover 2023 in million MDL	Market share %	Number of stores	Average sales per store in 1,000 MDL
1	Linella / MoldRetail Group	9.728	41,4 %	200	48.640
2	Metro	2.290	9,8 %	3	763.333
3	Kaufland	2.690	11,5 %	9	298.889
4	Local / Bonus	3.160	13,5 %	64	49.375
5	Walmart, Green Hills	1.160	4,9 %	11	105.455
6	Family market	783	3,3%	30	26.110
7	Fourchette	592	2,5 %	11	53.816
8	Nr. 1	3.084	13,1 %	17	181.398
Total of the top 8		23.487	100,0%	345	68.078
Increase compared to 2022 (%)		+ 15 %		+11 %	+3 %

Source: Statistical Office of the Republic of Moldova

Foodservice: horeca, catering companies and institutional food providers

Driven by global trends towards convenience food, health-consciousness and the rise of e-commerce platforms, the foodservice market in Moldova shows growth. Apart from the rising demand for organic and locally sourced products, and a shift towards organized foodservice (chains), more and more online and delivery services come into business. The COVID-19 pandemic has accelerated the adoption of digital platforms for food purchases (*Statistica*).

4.1.5 International trade

Whereas Russia and other Eastern European countries used to be the main export markets for its agricultural products for long time, Moldova has started to diversify its markets successfully since 2018. Back in that year, almost all Moldovan apples went to the Russian market. By 2023, this had dropped to half. In 2018, Moldova exported almost 70% of its apricots, cherries, peaches and plums to Russia. By 2023, it's only 18%. Sweet cherries, plums and table grapes are in the lead, but also apples are being exported to EU countries, the UK, India and other destinations in the Middle East and Asia. Currently, apples partly still go to the Russian market (through Transnistria), but almost all other produce has other destinations. Moldova has become EU's largest supplier of plums.⁸

This success was supported by donors (see section 4.4.2 and Annex 5), but the adaptability and eagerness of Moldovan businesses were the main factor. A combination of investments in new varieties, modernization of orchards, postharvest facilities, packaging, improved quality standards, and joint national promotion campaigns worked well. Moldovan enterprises do not hesitate when it comes to realizing compliance with market access requirements, such as GAP, food safety and social standards.

In its policy briefings about Moldova's fruit potential, the German Economic Team published in 2023 that Moldova has significant extra potential for increased fruit exports to the EU, the top 5 being fresh table grapes, fresh cherries, fresh apricots, dried prunes and fresh plums (*GET, 2023*).

Exports of fruits, nuts and vegetables

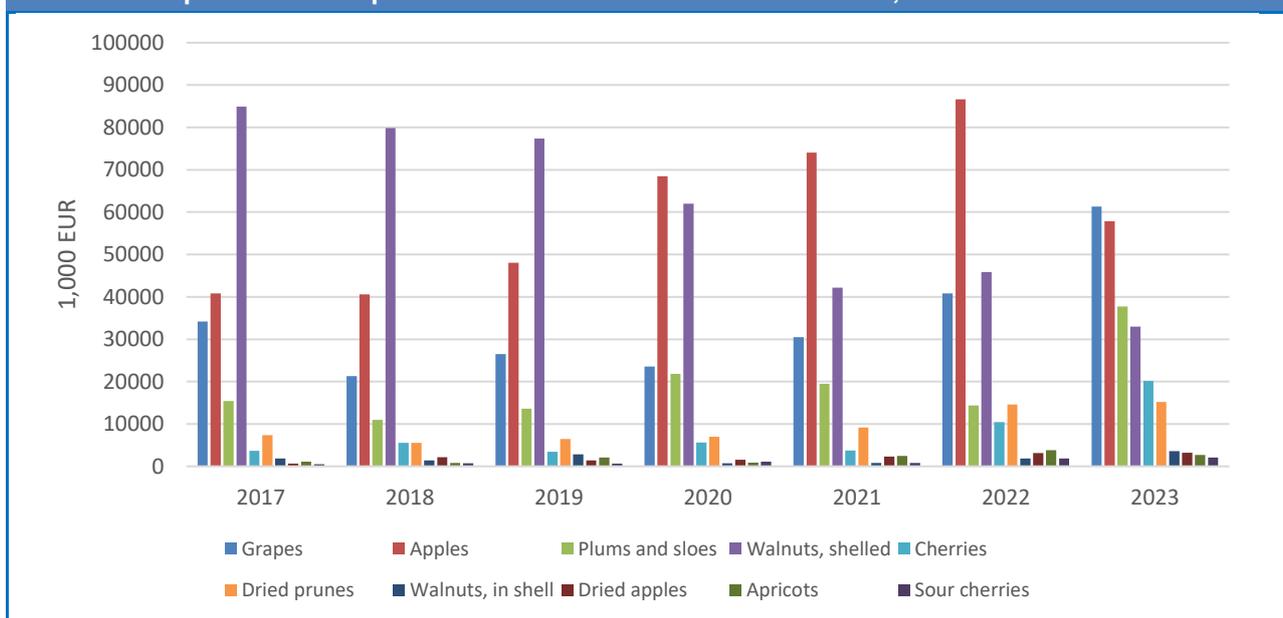
The total export value of edible fruits and nuts (HS08) shows a steady increase since 2018, reaching a value of 246 million EUR in 2023. The overall basket of fruits and nuts consists of a wider assortment than in the past, when mainly walnuts and apples were responsible for the country's export performance. Fresh apples are still the largest fruit export product of Moldova, although export figures of fresh grapes were higher in 2023. Fresh plums, fresh cherries and dried prunes are runners up. Fresh or dried walnuts used to be the number 1 in this category, but figures go down, leaving this category at rank 4 in 2023 (Table 5, Graph 2 and Graph 4).

Code	Product	2017	2018	2019	2020	2021	2022	2023
080610	Fresh grapes	34,191	21,274	26,499	23,541	30,497	4,781	61,282
080810	Fresh apples	40,827	40,561	48,035	68,491	74,063	86,657	57,885
080940	Fresh plums and sloes	15,434	10,946	13,594	21,856	19,468	14,391	37,731
080232	Fresh or dried walnuts, shelled	84,902	79,822	77,362	61,962	42,141	45,833	32,980
080929	Fresh cherries (excl. sour cherries)	3,688	5,528	3,398	5,613	3,746	10,411	20,179
081320	Dried prunes	7,335	5,543	6,424	6,973	9,129	14,573	15,217
080231	Fresh or dried walnuts, in shell	1,844	1,423	2,840	693	832	1,863	3,568
081330	Dried apples	640	2,147	1,376	1,570	2,325	3,101	3,228
080910	Fresh apricots	1,087	793	2,054	848	2,476	3,837	2,704
080921	Fresh sour cherries "Prunus cerasus"	506	707	619	1,091	772	1,881	2,085
08	All edible fruits and nuts	196,144	175,783	189,022	198,081	196,569	236,163	246,041

Source: Trademap (January 2025)

⁸ Some insightful publications are on <https://www.freshplaza.com/north-america/article/9671486/moldova-has-massive-export-potential/>
<https://www.fruitnet.com/fresh-produce-journal/moldova-looks-west/264626.article>
<https://www.fruitnet.com/eurofruit/russian-bans-driving-eastern-suppliers-to-west/261968.article>

Graph 2
Moldovan exports of the Top 10 edible fruits and nuts 2017-2023 in 1,000 EUR



Source: Trademap (January 2025)

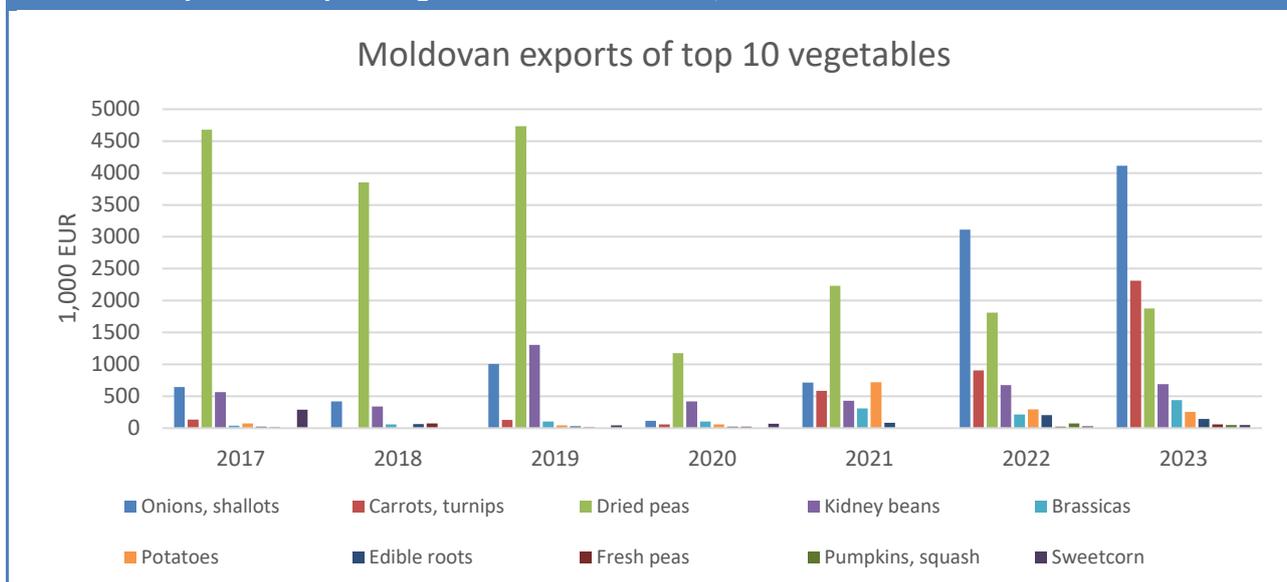
With respect to vegetables, the volume and value of exported products fluctuated over the last decade, but there is a clear increase since 2018. The volume and value are far below the level of fresh fruits exports, reaching just over 10 million EUR in 2023. There's a similar trend compared to the export of fruits and nuts: the assortment is more diverse than in the past, when mainly peas and beans were exported. Nowadays, onions, shallots, carrots, turnips, brassicas and potatoes are taking more and more share of the exports. See more details in Table 6, Graph 3 and Graph 5.

Table 6
Moldovan exports of fresh vegetables (HS07) 2017-2023 in 1,000 EUR - Top 10 and total

Code	Product	2017	2018	2019	2020	2021	2022	2023
070310	Onions, shallots	643	417	1,005	114	714	3,110	4,115
070610	Carrots, turnips	132	0	128	58	583	907	2,311
071310	Dried peas	4,680	3,852	4,734	1,175	2,229	1,809	1,876
071333	Kidney beans	567	341	1,303	420	427	674	691
070490	Brassicas	40	60	106	103	309	215	441
070190	Potatoes	75	0	43	57	718	294	252
070690	Edible roots	26	62	27	25	84	205	146
071021	Fresh peas	16	74	14	24	1	26	57
070993	Pumpkins, squash	0	0	0	0	4	76	51
071040	Sweetcorn	289	0	46	67	4	30	49
07	All vegetables	8,111	5,985	8,360	2,769	5,459	8,296	10,164

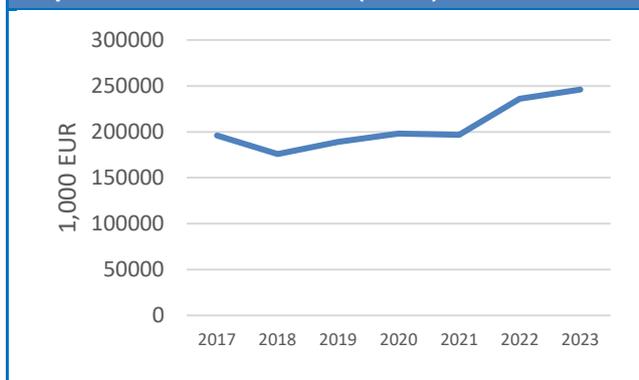
Source: Trademap (January 2025)

Graph 3
Moldovan exports of Top 10 vegetables 2017-2023 in 1,000 EUR

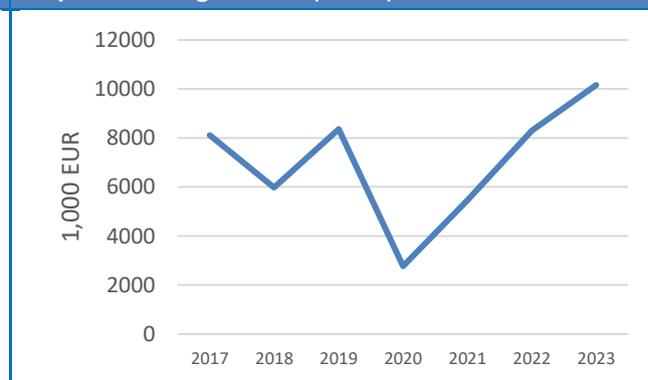


Source: Trademap (January 2025)

Graph 4
Exports of fruits and nuts (HS08) 2017-2023



Graph 5
Exports of vegetables (HS07) 2017-2023



Source: Trademap (January 2025)

Imports of fruits and vegetables

Import of fruits is on a lower level than exports, but figures show a steady increase over the years, reaching over 92 million EUR in 2023. Bananas, citrus (mandarins, lemons, oranges) and avocado are in the top. (Table 7 and Graph 6). Bananas and avocados are mainly imported from Latin American countries. Citrus mainly comes from Turkey and Greece. Imports of vegetables are more or less at the same level as imports of fruits and nuts, reaching over 82 million EUR in 2023. But imports of vegetables by far exceed the level of exports of vegetables, whereas most of these imported vegetables face suitable growing conditions in Moldova. Tomatoes, potatoes, capsicum and cucumbers are the largest in volume and value (Table 8 and Graph 7). The main countries of origin are Turkey, Greece, the Netherlands and Spain.

Table 7
Moldovan imports of edible fruits and nuts (HS08) 2017-2023 in 1,000 EUR - Top 10 and total

Code	Product	2017	2018	2019	2020	2021	2022	2023
080390	Bananas	9,304	10,489	12,590	14,187	15,310	16,587	19,762
080521	Mandarins	0	0	0	7,372	8,917	10,683	11,213
080440	Avocados	785	1,181	1,946	2,587	3,139	4,295	5,430
080550	Lemons	3,795	3,922	3,864	5,168	4,031	4,776	5,233
080510	Oranges	3,243	3,812	3,564	3,771	3,838	4,381	5,070
080232	Walnuts, shelled	3,633	6,872	8,417	6,308	10,437	12,572	4,706
080930	Peaches, nectarines	387	768	1,723	1,584	927	1,350	3,723
081070	Persimmons	2,036	1,532	1,817	2,151	1,850	2,057	2,639
081090	Tropical fruits	1,321	1,566	1,624	1,709	1,887	2,056	2,488
080540	Grapefruit, pomelos	1,358	1,735	2,421	2,562	2,582	2,213	2,486
08	All edible fruits and nuts	48,027	60,441	63,655	72,180	74,829	86,115	92,117

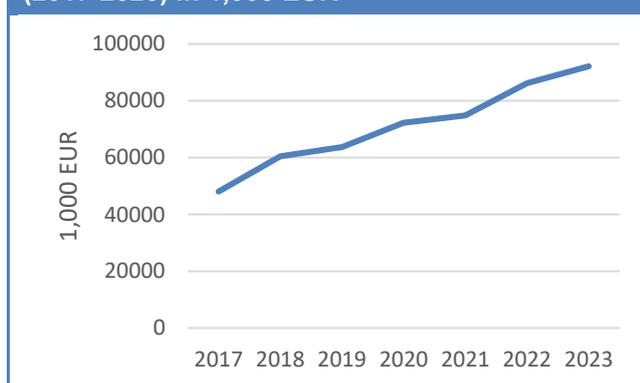
Source: Trademap (January 2025)

Table 8
Moldovan imports of vegetables (HS07) 2017-2023 in 1,000 EUR - Top 10 and total

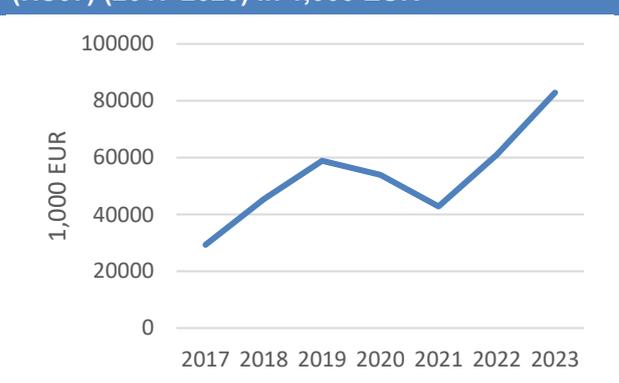
Code	Product	2017	2018	2019	2020	2021	2022	2023
070200	Tomatoes	7,202	9,921	13,776	16,181	12,118	15,981	20,247
070190	Potatoes	7,999	12,015	17,788	12,456	5,061	9,499	16,717
070960	Capsicum	2,829	3,528	4,580	3,858	4,659	6,347	8,264
070700	Cucumbers, gherkins	1,801	2,339	2,919	3,514	3,845	5,118	5,959
070310	Onions, shallots	366	3,379	5,160	2,759	948	1,789	4,879
070999	Others	917	1,729	1,946	1,936	2,117	2,294	3,148
070490	Brassicacae	1,227	1,752	2,345	1,275	1,934	3,450	2,791
070610	Carrots, turnips	929	2,524	1,467	1,848	308	1,307	2,203
070410	Cauliflower, broccoli	474	671	1,113	1,088	1,512	1,617	2,191
070993	Pumpkins, squash	640	636	876	879	1,017	1,200	1,599
07	All vegetables	29,295	45,350	58,897	53,881	42,793	61,012	82,855

Source: Trademap (January 2025)

Graph 6
Top 10 Moldovan imports of fruits (HS08) (2017-2023) in 1,000 EUR



Graph 7
Top 10 Moldovan imports of vegetables (HS07) (2017-2023) in 1,000 EUR



Source: Trademap (January 2025)

Cargo transport infrastructure

Although landlocked, Moldova has a port with access to seagoing vessels since 2006. The Port of Giurgiulești was built as result of a 2005 territorial exchange with Ukraine, where Moldova received a 430 meter bank of the Danube river, which gives access to European countries (*Wikipedia*). However, this port is not suitable for reefer containers, commonly used for the export of fruit and vegetables. Another option to reach the seas and oceans for markets in the Middle East, Asia and Europe, is the port of Odessa, located in Ukraine. The war in Ukraine makes it unavailable for the time being. Instead, the port of Constanța in Romania is used, but it has limited capacity, leading to waiting times up to two weeks for trucks to unload. Now even the ports of Rotterdam or Antwerp are considered by some Moldovan fruit exporters.

Most of the fresh produce leaves Moldova by truck. There's sufficient truck capacity available. Quite some exporters have started their business in transport and only later moved into trade. That's why many exporters have their own trucks, or have close lines with transporters. Almost the entire year, the truck fleet in Moldova is sufficient for fresh produce exports. Only during peak moments in the summer, additional capacity (outside of Moldova) must be organized. Generally speaking, cargo capacity from Moldova to European markets is not a limiting factor.

However, there are still imperfections. Some transporters developed their quality and services over the years, with their clients and destinations. Others do not meet client's requirements and expectations. Some businessmen mentioned that drivers are not always reliable, resulting in not on time deliveries, which is killing for supplying retail. Also data breach (drivers possess highly valuable/crucial information) is an issue.

Another, even more relevant problem has to do with customs procedures. Considering that fruits (especially stone fruits, grapes, berries, and to a lesser extent onions and root vegetables) have a short shelf life, any delay in transport increases the risk of quality losses or perishing and could even result in penalties by the retail clients. Traders report delays of up to two days, due to bureaucracy in the customs procedures on both the Moldovan and Romanian (European) sides. Since the start of the Russian war in Ukraine, this problem has worsened with increased traffic at the Moldovan-Romanian borders (*GET, 2023*).

4.2 Input suppliers

Moldova's horticultural sector is entirely dependent on imports of seeds, seedlings and other planting material as well as technical supplies, including fertilizers, agrochemicals, machinery and equipment. This affects its competitiveness due to exposure to the volatility of international prices. On the other hand, some local input suppliers are developing since the past few decades. Some transformed into well-managed operations with a wide distribution over the country and representing world-known international suppliers. They provide multi-products and, in some cases, additional advisory services (extension, training). Nevertheless, the import dependency still exists.

Nurseries, seedlings and seed providers

A modern nursery sector doesn't exist yet in the country, although first steps with tissue culture are being set. Seeds for the vegetables sector are mainly imported, with Dutch breeders being the market leader for high quality seeds. Small-scale producers often buy cheap alternatives of inferior quality and usually grow their own planting materials. In the fruit sector, young plants are often imported from southern European countries (Italy being the market leader), and also from the Netherlands and Germany. See Annex 4 for a list of the main domestic suppliers.

Technical supplies, machinery and equipment

The main Moldovan suppliers of other inputs (fertilizers, agrochemicals, equipment for irrigation, protected cultivation) as well as providers of tractors and other machineries are also listed in Annex 4.

4.3 Agriculture knowledge ecosystem

The system of agricultural research, education, advice and extension is not functioning at optimal capacity. The agri-food sector does not receive enough support that helps in developing and implementing applicable and payable solutions for their challenges. There is a mismatch between the focus of research and education and the needs of the sector. Research projects are too often formulated on the basis of the existing capacities of the scientific institutions and do not take into account the real needs of the sector (*MAFI, 2023 - SNDAR*).

The interest of students to follow any kind of agricultural and/or horticultural education is low. Although schools and universities are modernizing, often with the help of international donors, they still lag behind knowledge institutions in the rest of Europe when it comes to preparing students for the labour market. A disadvantage is the absence of education in English; students are not able to read English literature, retrieve information from the internet or communicate with English speaking experts. Furthermore, international student mobility out of as into Moldova is limited. Most of the curricula are in Romanian. Moreover, the trend of urbanization, which leaves rural youth to choose for a future in the city with more (non-agricultural) jobs, doesn't help the attraction for agriculture education. The way Moldovan education is financed by the number of students doesn't help either. The relatively small schools for agricultural education therefore receive less budget.

The extension services have collapsed since the fall of the Soviet Union and only in recent years have come to the attention of both public institutions and the private sector. There is a lack of qualified and certified people for knowledge dissemination and advisory services for the sector, especially for the frontrunner entrepreneurs.

Regarding research, the Ministry of Agriculture and Food Industry (MAFI) has recently merged several agricultural research institutions into two organizations. Nevertheless, concerns remain that research is not demand driven, that traditional, outdated views on research prevail and that the distribution of research funding is not allocated according to the real issues in the sector.

The institutions are aware of their shortcomings, but they have a long way to go. Many private sector stakeholders are not yet satisfied with their performance. Usually, they are forced to find other ways when new knowledge is required or innovative methods are on their agenda; either individually, or in clusters. Sometimes through donor organisations, but often through international technical suppliers, mostly from European countries or the USA, or by hiring international consultants.

4.3.1 Educational institutions

Agricultural education is paid by the Ministry of Education (institutions receive funding per student), whereas the Ministry of Agriculture and Food Industry is responsible for the curricula, educational plans and monitoring performance. All institutions, from vocational to academic, are faced with low student numbers, insufficient budgets and outdated facilities, even though several donors gave (and still give) support. Among them are USAID, World Bank, IFAD, EBI, GIZ (Germany), Helvetas (Switzerland), SIDA (Sweden) and Austrian Aid.

The agricultural education landscape consists of:

- 4 professional (secondary) schools with agricultural specializations: 2 - 3 years, level 3⁹;
- 6 colleges for professional specialists: 4 years bachelor, level 4;
- 2 Centers of Excellence, of which one for horticulture: 4 years bachelor, level 5;
- The Agriculture, Forestry and Environmental Sciences Faculty of the Technical University of Moldova: levels 6, 7 (MSc) and 8 (PhD).

The two key educational players for the horticulture sector are the Technical University of Moldova in Chisinau and the Centre of Excellence for Horticulture in Taul.

Technical University of Moldova

The State Agrarian University of Moldova (founded in 1933) merged with the Technical University of Moldova (TUM) in 2022. Agricultural activities fall under the Faculty 'Agriculture, Forestry and Environmental Sciences'¹⁰ with 3 departments: Agriculture and Environment (incl. agronomy, ecology); Horticulture and

⁹ levels are based on European standards, according to the European Qualifications Framework (EQF).

¹⁰ <https://fsasm.utm.md/>

Forestry; Livestock (incl. food systems, biotechnology). Early 2025, the Horticulture and Forestry department has 115 bachelor and master students, of which in the bachelor phase horticulture (14), wineries, agribusiness (20), plant protection (16), gardening, forestry (25-30). These numbers show a downward trend. It is estimated that 80% of the graduates stay within their family business or start their own business. Potential PhD students prefer a foreign position, the rest goes to the public sector or also abroad.

TUM has 570 ha land available for demonstration plots and research, of which 25 ha is dedicated for horticulture. Some projects have been installed (orchard, vineyard, berries, greenhouse), but TUM is searching for more funds. On site of the campus the Agrotek Arena is getting shape. It's an innovation platform with a focus on AgTech, entrepreneurship and facilities to host start-ups. USAID, the World Bank and the EIB contributed largely. The Arena is still under development, but already has up to date facilities: a 0.5 ha fruit orchard with various orchard systems and fruit crops and a 1,000 m² greenhouse with various cultivation systems and modern technology. In another location of TUM, the Center for Smart Agriculture (CoSA) ¹¹ has been established. It demonstrates advanced technologies in agriculture, such as drones and smart irrigation systems.

TUM has good connections with the industry and strives to have a larger role in applied research and knowledge dissemination. The innovation parks (Agrotek Arena and CoSA) can be the locomotives in implementing agricultural technologies suitable for the specific agro-climatic regions in the country. Therefore, TUM is eager to work with foreign universities, such as Wageningen University and Research in the Netherlands, although it is aware that its limitations in academic capabilities as well the absence of an English curriculum are hurdles.

Center of Excellence for Horticulture (CEHTA)

The Center of Excellence for Horticulture has a long tradition; the predecessors have been founded in 1963. In 2014, under the national reform of vocational education in the country, the government established 10 Centers of Excellence, of which CEHTA is one of two with a focus on horticulture. It was the start of a transformation. CEHTA currently has 26 professors, 20 supporting staff and 230 students (maximum capacity 1,600), the curriculum is focused on the fruit and vegetable sector with 4 specializations (starting in year 2): technology and digitalization; food safety; bookkeeping and accounting (most popular) and food processing technology. In better times, the school had an international focus, incl. Africa, and connections with 29 countries. That is not the case anymore. Nowadays only local students are enrolled.

Classrooms and study rooms are modern, with adequate equipment and IT-infrastructure, largely funded by donors (e.g. USAID, Liechtenstein, Austria). Newly developed curricula and new equipment go hand in hand. CEHTA has a digital platform, supported by donors and private sector companies, in particular SAS Agro ¹². CEHTA has the ambition to start with a drone class as well. In February 2025, the first new course with a focus on open field cultivation started. CEHTA is beneficiary of the EU-funded program FARMKEEN ¹³, focusing on work-based education. Aeres UAS in the Netherlands is one of the knowledge and skills suppliers. Outside facilities are part of the horticulture learning environment. These have been updated in recent years. For example, there's a modern orchard for demonstration and student projects. However, the greenhouse structure is still outdated, although with heating and ventilation.

CEHTA urgently needs more students and works hard on promotion and recruitment. Furthermore, CEHTA works on integration of entrepreneurship in its curricula and continuously strives to connect more and better with the industry. Recently, it introduced dual training (life-long learning): short, practical courses (mainly in

¹¹ Funded by USAID (Competitiveness and Rural Resilience Project (PCRR), and the Swiss Government-backed Opportunities through Technologies and Innovation in Moldova (OPTIM) project.

¹² <https://sasagro.com/>.

¹³ <https://www.crpe.ro/en/fostering-the-next-generation-of-farmers-in-the-republic-of-moldova-through-work-based-learning-in-agricultural-vet/>

the evening) for farmers and industry representatives. These programs generate additional income for the school.

4.3.2 Agricultural extension

Public extension services have been developed over the years, but due to limited funding, they are still poor. Sector stakeholders are not being served well. Although according to EU legislation, any candidate state must assist such services, the Moldovan state did not honour its obligation to sufficiently finance such services and rebuild the network that was eroded since the collapse of the Soviet Union.

In the period 2000 - 2017, the National Association for Rural Development (ACSA) was created and developed, financed by the World Bank. This extension network had 32 regional centres, 750 consultants of which 70 regional in districts and 680 local consultants in villages. Now this network is reduced to only regional consultants in 28 centres, often with poor facilities and capacities.

In 2024, the government established the Agricultural and Rural Advisory Center (CCAR). CCAR is part of MAFI and is a new attempt to rebuild the extension service network. Through an annual survey among farmers (first time in May 2024, 700 respondents) the key needs and topics are being determined. Last year CCAR reached 1,300 farmers with training by selected experts (ranging from 1-day events to multi-day programs). CCAR offers a Train-the-Trainer program for knowledge and skills development for its own staff. Furthermore, CCAR has a network with around 60 stakeholders in the horticulture sector, supporting the revitalization of extension services and harmonization of extension, training and innovation. CCAR is working on harmonization of its Agriculture Knowledge and Information System (AKIS) with EU politics and maintains an international network. Last but not least, CCAR coordinates all extension efforts by donors; FAO and GIZ are among the most active in this field.

FARM is a privately funded network that has 10 regional organizations. Although it has problems in attracting financing for projects, the network is self-managed and provides services on a commercial basis for informal groups of mainly small farmers and farmer groups.

In addition to CCAR, ACSA and FARM, the National Federation of Farmers of the Republic of Moldova (NFFM) also carries out extension services. It operates in 5 regional centres, mainly using the farmer field school approach. Although less competitive, it is quite representative among small farmers. NFFM is active in both livestock and crop production and has 7,000 members. In addition to extension, its services include lobbying, advocacy and the provision of microcredit, although not very successful.¹⁴

4.3.3 Agricultural research

In recent years Moldova's agricultural research has been reformed in two steps. This has been made possible with substantial donor support, in particular for infrastructure and hardware. The first reform in 2023 was the establishment of the National Seed Research and Production Center (out of two institutions) and the second reform in 2024 the merger of 5 institutions into the National Institute for Applied Research in Agri and Veterinary. Still, there is much room for improvement, both in infrastructure (in particular laboratories), but even more in the quality of the research. Although the reorganization has taken place, the institutions can still be characterized as 'old physical infrastructure' and 'old staff'. The reform is still ongoing, with a focus on attracting young people, improving working conditions and career perspectives, as well as digitalization.

¹⁴ In the past there's been a successful collaboration with Agriterra and several study visits to the Netherlands have been organized. NFFM is involved in the EU AgriFood Partnership Platform, which was launched in October 2023, aiming to stimulate EU-Moldovan cooperation and accelerating reforms in the agri-food sector of the Republic of Moldova.

4.4 Business enabling environment

4.4.1 Governmental strategy and programs

This section focuses on how the Government of Moldova, in particular the Ministry of Agriculture and Food Industry (MAFI) and its legislation, policies and supportive programs interact with the horticultural business, followed by a description of the roles of other influencers and supporters of the sector: financial institutions, certification bodies and international donors.

Ministry of Agriculture and Food Industry (MAFI)

MAFI's official mandate and mission are ensuring and promoting the sustainable development of the agro-industrial sector by increasing competitiveness, productivity, safety and food sufficiency in Moldova, in order to create the premises for permanent increase in welfare. The Minister is on top of the organisation that includes 5 state secretaries, a research institution, extension services (NCCAR), and various agencies, including AIPA (subsidies), ANSA (food safety), ANIF (irrigation), ANSI (soil).

National Strategy for Agricultural and Rural Development 2023 - 2030

The National Strategy for Agricultural and Rural Development 2023 - 2030 (SNDAR) of Moldova is the main strategic document of MAFI. The SNDAR vision is based on achieving synergy between the economic, environmental and social domains to solve the key barriers in the agricultural and rural sector, with the sustainable achievement of the following overall objectives:

1. strengthening the potential of the primary agricultural sector and promoting smart, sustainable and climate-resilient agricultural practices;
2. developing the food industry and diversifying markets;
3. supporting sustainable socio-economic development in rural areas;
4. ensuring the transposition of the EU acquis and its progressive implementation in the areas of agriculture, rural development and food safety.

Horticulture Law, Horticulture House, Agricultural Chambers

Ultimo 2024, the Cabinet of Ministers of Moldova approved the Horticulture Law, being the basis for a groundbreaking policy and institutional reform of the horticulture sector. A cornerstone of the law is the establishment of the Horticulture Office, designed to drive sustainable growth in the horticulture sector through public-private collaboration and the adoption of innovative production and post-harvest practices. The Horticulture Office builds on successful examples like the National Office of Vine and Wine, but also on the Dutch Horticulture Product Board (former Productschap). The Horticulture Office will focus on implementing public policy in the sector, based on sustainable development. It answers the strong call from the private sector, which has actively advocated for its creation. Not least because applied research and trade promotion of horticultural products on the domestic and export markets, belong to the key fields of the Horticulture Office.

Furthermore, the Parliament adopted a law on the organization and functioning of agricultural chambers, early March 2025. The chambers are organizations through which the dialogue between farmers and public authorities is organized, centrally and locally. At the same time, they are designed to provide farmers with access to necessary resources and information, including training and financing programs, facilitating the exchange of knowledge and experience among members. The Chambers of Agriculture will be organized into two tiers: ten regional Chambers of Agriculture and the National Chamber of Agriculture. The law on agricultural chambers will come into force on January 1, 2026.

The Horticulture Law, as well as the establishment of the Horticulture House and Agricultural Chambers have been initiated by the USAID funded RCRA project. Following the announcements in January 2025 that USAID would not be able to continue its programs, MAFI has declared that it will continue these processes.

EU AgriFood Partnership Platform

The AgriFood Partnership Platform was founded jointly by MAFI, ministers from seven EU members states¹⁵ and the European Commission (EC) in June 2022. Its mandate is to further strengthen the support for the development of sustainable agrifood systems in Moldova and foster its integration into the EU after Moldova became EU candidate country in June 2022.

The first AgriFood Partnership Platform took place in October 2023 in Chisinau and culminated with the signature of a joint declaration and collective commitment to support the EU accession pathway, with a special focus on agrifood systems. The second event has been organized in Berlin on the 18th of January, 2025. Although not a partner, the Netherlands has attended both meetings.

Moldova's roadmap towards EU membership in 2030

Moldova's strategic roadmap SNDAR outlines the country's commitment to aligning with European standards, focusing on sustainable development, economic growth, and environmental protection. The strategy includes specific objectives for the agricultural sector, such as enhancing competitiveness, improving food safety, and promoting organic farming. In February 2025, Ina Butucel, former director of the horticulture program in the USAID funded RCRA project, was appointed by the Government as Deputy Secretary General at MAFI, with the task to oversee Moldova's EU integration in the agricultural sector. This is a significant responsibility, especially considering that the integration process involves the implementation of approximately 10,000 legislative acts.

Subsidy programs (AIPA)

Currently, apart from international donors, the Agency for Intervention and Payment in Agriculture (AIPA), is in the lead of providing subsidies for horticultural stakeholders. AIPA falls under MAFI and was founded in 2010. The annual budget for 2025 is 1.7 billion MDL and can be stretched to max 2.0 billion (around € 100 million). AIPA is responsible for legislation and criteria regarding subsidies.

AIPA has 10 regional offices, with staffing from 3 to 7 persons. Apart from providing Moldovan subsidies, AIPA is an intermediary for other donors, especially the World Bank and the EU, which means that they channel financial donor streams and take the lead in coordination between donors when it comes to finance. Amongst other projects, AIPA was involved in the implementation of the MAC-P Project in 2015 - 2016, aimed at developing value chains in horticulture, funded by the World Bank and the Swedish government, and the ENPARD project in the period 2016 - 2019, funded by the EU.

AIPA had also a role in the implementation of the Livada Moldovei Investment Project (Fruit Garden of Moldova) in the period 2014 - 2023. Under Livada Moldovei nearly € 100 million was invested in the agrifood sector through investment subsidies and a credit-line, based on a loan, granted by the European Investment Bank (EIB). It was implemented by 5 commercial banks by means of loans on advantageous terms and VAT exemption. Many operators in the wine and fruit sector have benefited from this program.

For Moldovan businesses 5 different subsidy types are available:

- post investment subsidy (80% of the entire budget), up to 50% of investments for businesses and 62.5% for cooperatives;
- 'before-investment-subsidies (through the EU LEADER program); mainly used in vegetables (greenhouses and open field) and berries;
- direct payments (only for dairy and livestock);
- complementary payments, to compensate the (extra) costs of taking credits, organic production, avoiding deforestation, energy for pumping irrigation water and export promotion;
- fund for feasibility studies.

¹⁵ Austria, Estonia, Germany, Latvia, Lithuania, Poland, and Romania

Currently an intervention is taken place to align the subsidies into rules and regulations within the European Union. Farmers are not fully supporting this transition towards the Common Agricultural Policy of the EU (CAP). Especially small and medium sized farmers don not feel the urge to work transparently. On the other hand, farmers' associations are very active in adjusting subsidies e.g. in the field of climate and water. Farmers themselves are usually very eager in receiving subsidies from the state.

Invest Moldova

Invest Moldova ¹⁶ is an organization directly under the Prime Minister's office. It facilitates export development through activities such as Export Promotion, Country Brand Promotion and Trade Missions. In addition, Invest Moldova strives to attract foreign investors. Activities include Economic Events Management and Economic Diplomacy.

4.4.2 Chain influencers and supporters

Financial institutions

Access to capital is a serious bottleneck in the horticulture sector, particularly faced by small farmers. Bank loans are often not attractive to farmers, due to high interest rates. Several commercial banks and insurance companies are active within the agricultural sector, but none has a specific focus on agri and food. Against the background of uncertainties and risks that come with the war in Ukraine, the rise in energy prices, expensive logistics, expensive inputs, and the impact of climate change, commercial banks are even more hesitant in lending to the agricultural sector. A need for a dedicated agricultural bank, familiar with the sector and understanding the characteristics of the sector, is often heard. Rabobank was mentioned as an example by some Moldovan stakeholders. Given the inability of banks to organize a workable credit system, it is not rare for farmers to lend among each other in the case of acute liquidity needs.

There are 10 banking institutions, 145 microfinance companies and approximately 250 savings and loan associations. Six commercial banks are eligible for the implementation of various international credit lines such as IFAD, Livada Moldovei (financed by the EIB; finished, but additional funding is being discussed) and the Competitiveness Improvement Project (PAC II), financed by the World Bank and distributed through the Entrepreneurship Development Organization. These credit lines are more advantageous because the credits can be accessed for long periods of up to 8 years, while from the commercial banks' own sources the financing is maximum three years.

If commercial banks refuse to lend to farmers, these farmers automatically become clients of the non-banking sector where interest rates are 2 to 2.5 times higher. The paradox is that the non-banking sector also borrows from commercial banks, and it seems there is a mutual understanding of such cooperation and sharing of risks in lending.

Certification bodies

Thanks to active promotion by donor organisations, many Moldovan businesses in cultivation, processing and export, became acquainted with legal market access requirements, such as Minimum Residue Levels (MRLs) and HACCP, as well as non-legal standards. Among the latter are GLOBALG.A.P, food safety standards (such as ISO22000, BRC Food, IFS Food, IFS Broker, IFS Logistics) and social compliances (such as GRASP, SMETA). A Dutch trader experienced that Moldovan businesses are relatively eager and capable to implement such schemes. This is being supported by the presence of several well-functioning certification bodies in the country. Besides a number of others, the main players are:

- **SGS** <https://www.sgs.com/en-md/>; offering a wide range of tests and certification schemes for Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP);

¹⁶ <https://invest.gov.md/en/home-2/>

- **Control Union** <http://moldova.controlunion.com/ro>; offering schemes in food, feed, forestry, biomass, bioenergy, including organic production methods certification and social compliance;
- **CERES** (CERTification of Environmental Standards GmbH) <https://www.ceres-cert.de/ro/home>; a control and certification body in the field of organic food, organic and sustainable textiles, good agricultural practices, sustainability standards;
- **INTERNATIONAL CONFORMITY CERTIFICATION** <https://iso9001.md/contact/>; audit and certification company for management systems, processes and products.

International donors

International donors provide considerable support to Moldova, resulting in a rather strong donor dependence in the agro-food sector. Especially the Russian invasion in Ukraine has brought additional attention to the development of Moldova. Below is an overview of these donor programs. In Annex 5 are more details.

The United States Agency for International Development (USAID) has been implementing many projects over the previous decades, ranging from infrastructural works, sector development, government policies, up to hardware investments and technical assistance for value chain stakeholders. In the latest program RCRA (Rural Competitiveness and Resilience Activity in Moldova), implemented by Chemonics, the Netherlands was strongly involved. Since the announcement of the Trump Administration in January 2025 to end all USAID efforts worldwide, the program came to an end at a sudden.

The Japan International Cooperation Agency (JICA) runs a technical cooperation project for vegetable farmers in Moldova, in cooperation with the Agency for Development and Modernization of Agriculture in Moldova (ADMA) and the vegetable association APEL. Dutch actor HollandDoor is implementing this project.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has not been active in agriculture in Moldova since 2014. Now it's back with the program PROGRESS, a multilateral program, promoting green deal readiness in the Eastern Partnership countries (Armenia, Azerbaijan, Georgia, Moldova, Ukraine).

The Food and Agriculture Organisation of the United Nations (FAO) sees horticulture as the most potential sector in agriculture. FAO advises MAFI on strategy and implementation and is supporting (especially small) farmers and associations. Focus fields of engagement are climate change mitigation and adaptation.

The International Fund for Agricultural Development (IFAD) currently implements its 8th program in Moldova, with a focus on climate mitigation, infrastructure, financial support through credit lines in combination with grants (max. US\$ 500,000 per project) and technical assistance and coaching. The 9th program is under design and will focus on 4 value chains, including berries and vegetables (open field and protected).

The United Nations Development Programme (UNDP) is present in Moldova since 1992, covering two-thirds of the country's communities, including the Găgăuzia region and the left bank of the River Nistru. UNDP currently implements a project with funding from the Japanese Government that focuses on strengthening the country's agri-food security by improving climate and disaster risk management. Moreover, UNDP is currently involved as one of the implementers in an EU-funded program on establishing a modern agri-food market in Cahul (Găgăuzia region).

The EU Delegation has financed a number of projects over the years, of which Livada Moldovei (Fruit Garden of Moldova), the introduction of the LEADER approach in Moldova, and the ENPARD project are the most significant. Currently, the EU finances the establishment of a modern agri-food market in Cahul (Găgăuzia region). The project started end 2024 and will include a € 680,000 investment in a 4,675 m² commercial space, intended for both local producers and investors interested in business development in the region. Implementers are UNDP and UNICEF, with completion scheduled for the end of 2025.

The World Bank has financially supported the Moldovan agro-food sector during the last 20 years through three consecutive programs, all aiming to increase the competitiveness of the sector by focusing on important institutional development aspects as well as support to farmers and private sector stakeholders:

- Competitiveness Enhancement Project (PAC I); 2006 - 2013;
- Second Competitiveness Enhancement Project (PAC II); 2014 - 2022;
- Moldova MSME Competitiveness Project; 2022 - 2027

5 Obstacles and risks in the Moldovan horticulture sector

The horticulture sector in Moldova faces quite a few obstacles and risks that hinder its development. The main ones are summarized in this section under three themes: technology and practices in the pre-and postharvest phase; market & market access; business enabling environment.

Technology and practices in the pre- and postharvest phase

In the crop cultivation and the postharvest stage the main obstacles and risks are:

- small scale of production, limiting economies of scale;
- impact of climate change; occurrence of more and more natural hazards, especially severe droughts;
- lack of appropriate knowledge, inputs and technology for competitive productivity & quality and for better adaptation to climate change, in particular with respect to:
 - quality and prices of seeds, seedlings, planting material and technical supplies (fertilizers, agrochemicals, etc.);
 - integrated crop management and protection against pests, diseases, weeds;
 - water management and other Climate Smart Agriculture (CSA) measures;
- small share of protected cultivation, both in fruits and vegetables, causing risks of crop failures, especially due to climate change; furthermore, limiting options for extension of the harvest season;
- the largest (front-runner) businesses, already exporting, have difficulties to ensure volumes and consistency of their supply, partly due to insufficient cooperation within the chain, partly due to lack of technology to tackle climate change impact and technology to extend the harvest season;
- low level of energy efficiency and use of renewable energy sources, resulting in high costs of electricity and energy, partly due to high dependence on imports;
- inadequate postharvest technology and practices (storage, handling), especially in the vegetable sector;
- non-competitive processing industry, caused by lack of human resources, high costs of production and low visibility in the market; this means missing an additional market for fresh produce and missing the capacity to absorb market disruptions and price fluctuations in fresh sales;
- limited reach of farmers' cooperatives and associations; weak willingness and capacity to cooperate, resulting in poor producer - processor - exporter synergy, due to absence of value chain thinking and resulting in little consolidation of produce before distribution to the market;
- (still) little representation of the vegetable sector (lobby, advocacy, trade promotion); APEL just started in 2024;
- little awareness and practices to promote Corporate Social Responsibility (CSR) ¹⁷ across the value chain.

Market & market access

With respect to distribution in Moldova and performance in export markets, the main obstacles and risks are:

- absence of a large domestic market (both for fresh retail and processing);
- insufficient market intelligence, market awareness and export management skills, even in the best performing businesses (in the pome and stone fruit sector);
 - limited knowledge related to the entire range of existing international opportunities, demand and supply in and from various markets;
 - limited knowledge about market access requirements in high-end export markets regarding quantity, quality, packaging, food safety and certifications;
 - insufficient skills in export management and international marketing and sales;
 - only few producers have the relevant (GLOBALG.A.P, GMP / food safety and social compliance) certifications to access high-end markets; overall little experience and weak capacity to enter

¹⁷ The CSR Risk Checker of MVO Nederland <https://www.mvorisicochecker.nl/en> shows a total of 13 potential risks for SMEs active in the Moldovan fruit and vegetables sector, divided over the fields Fair Business Practices (incl. corruption, government bureaucracy); Human Rights and Ethics; Labour Rights and Environment.

and sustain in high-end (export) markets, often caused by 'old-school' orientation on markets in the Eurasian Economic Union (EEU);

- insufficient awareness, skills and infrastructure to supply modern domestic retail channels;
- slow customs procedures on the Moldovan-Romanian border, hindering truck transportation;
- inadequate logistics via waterways, due to moderate functioning of nearby ports in Giurgiulești, Odessa and Constanța;
- little visibility of Moldova as supplier in the export markets, except for fruits and wine.

Business enabling environment

With respect to political, regulatory and infrastructural conditions, the key obstacles and risks are:

- geopolitical and macro-economic uncertainties and threats, related to the war in Ukraine, potential energy disruptions and consequences of the parliament elections in 2025;
- limited capacity and financial resources at government level to support the private sector; over the years, a dependency on international donors has grown;
- insufficient (skilled and unskilled) labour force available and participating, especially in rural areas, due to urbanization within the country and migration;
- limited access to finance and financial services, especially for small farmers and SMEs; financial institutions are not offering workable credit systems, especially for acute liquidity needs;
- inadequate knowledge infrastructure: very little integration of education, extension and research, resulting in limited capacity to develop and innovate:
 - vocational and higher education institutions are faced with weak attractiveness of the sector, low student numbers, limited financial resources and insufficient linkages with the private sector;
 - research is 'old-school' and fragmented, has little connections with international partners and does not bring workable solutions for the private sector;
 - knowledge dissemination through extension and advisory services performs at a basic level; it insufficiently meets the needs and requirements of the sector. Frontrunners have no national sparring partners.

6 Cooperation opportunities in the Moldovan horticulture sector

This chapter presents opportunities, in which subsectors and how the Dutch horticulture sector can strengthen collaboration with Moldova. These are based on the intrinsic potential and ambition of the Moldovan sector to modernize and at the same time based on the observed obstacles and risks in the sector. We distinguish between commercial (private sector) opportunities and recommendations in section 6.1 and non-commercial opportunities (public sector and business enabling environment) in 6.2. Then we present specific collaboration opportunities, including examples of business cases with a clear context and specific needs of Moldovan farmers and businesses in 6.3. In section 6.4 we present potential (co-)financing and support options that could make all this possible.

6.1 Commercial (private sector) opportunities

Several Dutch investors, suppliers of seeds, seedlings, other inputs, as well as traders and importers already found their way to Moldova. In this section we indicate more B2B opportunities for Dutch horticulture stakeholders in the Moldovan horticulture sector, thereby including inputs and technology in the pre- and postharvest phase, but also services in the field of marketing, trade and distribution.

The development needs and opportunities vary across the fruit, nuts, and vegetable sectors. However, common themes across all subsectors include modernization, mechanization, smart farming, protected cultivation, and climate change resilience. The Dutch agricultural sector offers multiple solutions in these areas. The following fields hold the most potential for growth and collaboration:

- Seeds and planting materials;
- Smart farming, water management, integrated crop management;
- Protected cultivation;
- Postharvest and processing.

Seeds and planting materials for the vegetable sector

Both government policies and private sector initiatives emphasize the modernization of Moldova's vegetable sector, leading to a rising demand for high-quality seeds. This includes not only certified and hybrid seeds for traditional crops but also new crop types and varieties. Dutch seed companies are already active in Moldova, working with regional and local distributors. Some of the best-performing crops include: tomato (greenhouse), cucumber (greenhouse), lettuce (greenhouse), gherkin (for processing), carrot and beetroot (open field). Seed companies and their local representatives are investing in farmer education, demonstrating that high-quality seeds can lead to higher and more stable yields. Expanding adoption among farmers will require more demonstrations, knowledge sharing, and promotional efforts. Additionally, modernization in farming practices, such as improved water management, integrated pest management (IPM), and protected cultivation, should accompany these efforts.

Seedlings and young trees for the fruit and nut sectors

Moldova's fruit sector continues to expand, driving an increasing demand for high-quality planting materials. The import of seedlings for nuts, cherries, apples, plums, apricots, and berries from countries such as Italy, Belgium, Germany, and the Netherlands is expected to grow in the coming years. At the same time, local initiatives are emerging to produce tissue culture planting materials domestically. These efforts are partly in response to long customs procedures when importing from EU countries, with reported waiting times of up to 14 days, leading to quality deterioration. One Moldovan start-up is supplying seedlings directly to farmers as well as nurseries. By building partnerships and strengthening nursery networks, this company aims to capture a larger market share. This development also presents business opportunities: European (including Dutch) owners of licensed plant varieties may consider partnerships with Moldovan tissue culture operators to expand their reach and market presence.

Smart farming, water management, integrated crop management

In Moldova's open-field crop production, including fruit orchards and vegetable crops, both small and large producers are increasingly seeking smart technologies and modern practices. Forward-thinking entrepreneurs who adopt advanced technologies are eager to scale up and improve efficiency. Dutch companies and knowledge providers can play a key role in yield optimization and mitigating the impact of extreme weather conditions. Potential solutions include:

- improved soil management and land improvement methods;
- climate resilient (integrated, circular, regenerative) farming systems;
- integrated crop management and integrated pest management methods;
- data management systems and remote sensor technology at farm level, based on internet applications (artificial intelligence, meteo stations, drones);
- accessible water, soil and crop (lab) diagnosis and analysis technology;
- on-farm irrigation and drainage systems; water saving, water reuse and water harvesting methods;
- frost-protection technology;
- hail-protection technology.

Protected vegetables cultivation

Moldovan entrepreneurs in the vegetable industry, particularly those already operating foliage greenhouses, are eager to modernize and expand their operations. Drip irrigation in soil-based cultivation is becoming standard, alongside the use of high-quality seeds (from Dutch breeders), bumblebees for pollination, and advanced crop protection agents. Now, many farmers are looking to adopt more advanced, economically viable solutions, including: hydroponics, automation, fertigation, climate control (ventilation, heating, cooling) and energy management. Beyond simply adopting new technologies, these entrepreneurs seek expert guidance on economic feasibility, specifically, understanding return on investment and exploring financing options.

While the distinction between low-, mid-, and high-tech greenhouse solutions is sometimes unclear, Moldova's sector is predominantly mid-tech, particularly in foliage greenhouse production. Mid-tech greenhouses hold significant potential to improve sustainable vegetable production. The Dutch greenhouse sector offers a variety of solutions tailored to mid-tech operations (*Delphy, 2023*). Several Dutch suppliers specializing in greenhouse construction, substrates, and irrigation equipment are already active in the region. Establishing a local presence in Moldova would further strengthen market entry. Furthermore, the introduction of greenhouse demonstration sites would be a helpful way to showcase both the technical feasibility of innovative growing methods, as well as the financial benefits of such investments. Demonstration pilots can then pave the way for upscaling change, in particular when it goes together with long-term knowledge transfer programs and capacity building of local agronomists. Last but not least, demonstration sites may nudge early-adapter growers to invest themselves, thereby enhancing the chances of translating short-term projects into long-term successes (*Delphy, 2023*).

The transition to protected cultivation is supported by the government's strategic agenda and the establishment of vegetables association APEL also helps in this regard. Not least because of the possibilities to optimize water and fertilizer use, minimize chemical use, extend the production season and to be better prepared for the impact of climate change.

Protected fruit cultivation

Although the fruit sector has made huge steps forward in the last few decades, well established producers, serving export markets, have come to the point that they wish to lower the risks of crop failures and at the same time extend the harvest period. It would allow them to become more reliable suppliers for high-end markets. Protected cultivation techniques, such as coverage for rain and hail protection, or even semi-closed or fully closed greenhouses with the possibility to heat (for example with solar energy), would allow extension of the season with weeks or even months. The Dutch greenhouse industry has the technology and networks to satisfy this demand.

Postharvest and processing

Driven by the growing demand from the domestic retail sector and international markets, there is a lot of room for medium to large-scale initiatives in the field of crop collection, storage, value addition, such as sorting, grading, packaging and even processing. This applies to vegetable and fruit products with a relatively long shelf life (apples, pears, onions, carrots, beets, potatoes, etc.) and products with a short shelf life (grapes, berries, plums, apricots, tomatoes, cucumbers, peppers, etc.). Although the Moldovan market is highly price-sensitive, Dutch suppliers have opportunities to enter this business. Especially the best performing Moldovan entrepreneurs, with a long-term market strategy, are looking for high-end technologies, together with knowledge transfer. They are open to cooperation with Dutch technology suppliers, especially when this goes together with the use of renewable energy sources, resulting in lower energy costs.

Transportation and distribution services

Given the relatively low quality and service provided by carriers and the frequent inability to meet the logistics requirements of retail customers or their service providers, there is a demand for more advanced management of export logistics of perishable products. An integrated warehousing-distribution approach for road and water transport (a so-called hub concept) could start on a small scale and gradually expand and modernize, based on interest from the business. Based on a strong position in international distribution of perishable and non-perishable agrifood products, Dutch players can take a role in such a development.

6.2 Opportunities for the broader horticulture ecosystem / non-commercial opportunities

The Dutch Ministry of Agriculture, Fisheries, Food Security, and Nature (LVVN), the Embassy of the Kingdom of the Netherlands in Chisinau, and the Agricultural Counsellor for Moldova in Bucharest have already laid the groundwork for so-called Knowledge-to-Knowledge (K2K) and Government-to-Government (G2G) collaboration. This section explores future opportunities for support and cooperation, aiming to strengthen Moldova's horticulture sector while also serving the interests of the Dutch horticulture industry. These recommendations should be considered in the context of the current geopolitical landscape, where governments and donors are facing significant budget cuts. While the recommendations remain highly relevant, securing funding and/or co-financing for full implementation will be more challenging than in the past decade.

Develop and implement a joint research agenda for climate change adaptation and AgTech

Develop a research agenda for climate change adaptation for the entire horticulture sector, thereby building on the National Climate Change Adaptation Programme until 2030 (NCCAP), and introducing Dutch perspectives, capacities and technologies (AgTech¹⁸). The goal is to develop and make available applicable technology for climate smart solutions, IPM, mechanization and digitalization. Both in the fruit and vegetable sector. Ideally, such a multiyear trajectory shall be conducted in a joint effort of Dutch actors in research and education, backstopped by Dutch businesses, in cooperation with one or more Moldovan research and education institution(s) and businesses. In a public-private partnership, the partners can develop and implement applied research, improve and develop curricula, conduct trainings and exchange visits vice versa, leading to sustained cooperation and exchange in education and research. The existing Centers of Excellence (CEHTA and/or CoSA) with a stake in climate change adaptation and smart farming are logical stakeholders for this sustained operation.

Introduction of the triple helix model

Assist the Moldovan government in creating an institutional environment that ensures a fundamental improvement of the Moldovan knowledge eco-system. Due to little collaboration between the stakeholders in

¹⁸ Agricultural Technology (or Agrotechnology) is the application of technology to agriculture, horticulture, and aquaculture to help increase yield, efficiency, and profitability.

education, research and extension, currently there's limited capacity to develop and innovate and to tackle the challenges of the sector.

The Netherlands is famous for its triple helix organization ¹⁹ and has created mechanisms and organisations that allow successful integration of education, research and extension, serving the horticulture sector. By applying the Dutch triple helix model, Moldovan stakeholders in the knowledge ecosystem can be enabled to improve their services for the sector and better support SMEs. Apart from developing and introducing applicable technologies, in such a model, overarching sectoral challenges also can be addressed, such as:

- attractiveness of the sector for youth;
- availability of labour;
- access to finance;
- long-lasting international collaboration on institutional level.

At the Moldovan side, the involvement of the Centres of Excellence CEHTA and CoSA is indispensable.

Ideally, Dutch organisations commit themselves for a long-term cooperation, in which educational institutions and stakeholders with a role in the Dutch greenports go for a collective transition and a structural triple helix connection between Moldova and Dutch horticulture sector. Apart from supporting the Moldovan sector, such a commitment would be a learning experience for the Dutch stakeholders, which can be of use in other international developments as well.

Capacity building in education, research and extension

Strengthen the capacity of educational institutions and other stakeholders in the knowledge eco-system. Support them to improve the quality and impact of agricultural education, to strengthen research performance and promote innovation and knowledge transfer. Help them to make full use of information and communication technologies and ensure that innovative ideas can be translated into new services that generate entrepreneurial spirit, employment and income.

Dutch stakeholders in education and research have the capacity, in a multiyear collaboration, to strengthen the capacity of Moldovan stakeholders with activities such as:

- improvements in the curricula;
- promotion of education in English;
- ongoing digitalization;
- joint research projects;
- more intensive cooperation with the industry;
- international partnerships, including with the Netherlands.

Capacity building of vegetable association APEL

Provide technical assistance to the new vegetable association APEL, strengthening its capacity in its growth path towards a sustainable, financially self-sufficient organisation. APEL strives to be the organisation that can lead and unite the sector towards professionalization and towards the transformation from import dependency to export capabilities in vegetables. APEL's development ambition fully fits in the government strategy and the desire of the sector itself. However, the association is young and has an immature governance. It lacks technical and organizational capacities, service delivery to the sector and has a weak financial basis. The organization needs training and coaching and strives to reach a similar position as the strong associations in the fruit sector. The Netherlands has the capacity to provide such support. Apart from training and coaching, study tours and exposure visits to the Netherlands for learning and inspiration can be part of it. In particular for governance themes (service delivery of cooperatives, producer organisations, associations, horizontal and vertical cooperation in the chain, connections with education and research), but also for technical themes (cultivation, greenhouses, climate smart solutions, postharvest, etc.).

¹⁹ The triple helix refers to a set of interactions between academia (universities), the industry and the government, to foster economic and social development. It's often seen in knowledge economies and knowledge societies.

6.3 Moldova - Netherlands collaboration options

In this section we illustrate a few specific business opportunities for the Dutch horticulture sector and a few possible interventions, in which the Dutch government, the agricultural counsellor for Moldova in Bucharest and the Embassy of the Netherlands in Chisinau, can collaborate to strengthen the horticulture sector in Moldova while at the same time serving the commercial interest of the Dutch horticulture industry.

Seeds and planting materials

Tissue culture startup / scale up

A Chisinau based Italian-Moldovan company started 4 years ago with the production of seedlings based on tissue culture. The initiative comes from the observations that local seedling supply in the fruit sector is weak, whereas import from European countries goes with quality issues, in particular due to lengthy customs procedures. The main current activity is production and distribution of in vitro seedlings for supply to nurseries and farmers. Hazelnuts are the main product, followed by cherries, apples, walnuts, plums, apricots, blueberries, and ornamental plants (incl. Orchids). Licenses have been obtained from various international breeders, e.g. hazelnut (Oregon), cherry (Gisela; Germany), but there're also connections in Belgium and Netherlands. The company has a wide international network in academia and businesses and is running a national platform with 150 nurseries for knowledge exchange. Since the start, the location is in the premises of the State University of Moldova, operating a tissue culture room, rooting room and two greenhouses. A second location will soon open in the Center of Smart Agriculture (CoSA) in the Technical University of Moldova (TUM). The company already purchases inputs in the Netherlands, is in touch with breeders, and sees more business opportunities in the near future.



Protected cultivation

Greenhouse vegetables on substrate / hydroponics



Greenhouse cultivation of vegetables still represents a small share of the Moldovan vegetable production. A vast amount of products produced in greenhouses e.g. tomatoes, sweet pepper and cucumbers are imported. Local production volumes don't meet local demand most months of the year. Often there are quality and value chain constraints as well. In a 2025 training and demonstration project, the Japan International Cooperation Agency (JICA), in cooperation with the Agency for Development and Modernization of Agriculture in Moldova (ADMA) and the Association of Vegetable Producers and Exporters (APEL) introduce and demonstrate

substrate farming on a small scale. This project, implemented on two frontrunner greenhouse farms, can be the trigger for upscaling cultivation of vegetables in modern greenhouses and thereby improving production quantities and quality. Dutch suppliers have good opportunities to be part of it, either individually or in clusters and either on their own or within one of the available support programs of the Dutch government (see section 6.4).

Ultra-early tables grapes under protection, with solar

A table grapes grower and exporter in Costesti has a strong position in retail channels in Poland and Romania. He invested in modern orchards (pergola system) on 50 ha with rain and hail protection. He harvests up to 50 tons of (seeded) tables grapes per ha. But he is not able to fill the 3-months gap from March till May, because of unsuitable weather in the early spring. He strives to work with earlier and later varieties (including seedless). But he needs more protection and the possibility to heat,



combined with solar energy. That's why is thinking about a greenhouse construction. He is highly interested to develop this concept for ultra-early table grapes in greenhouses and sees the best options in the Netherlands. Dutch suppliers in this business may enter into this opportunity individually or in a cluster, on their own or within one of the available support programs of the Dutch government (see section 6.4).

Postharvest and processing

Postharvest handling and storage of vegetables

As part of its 2025 training and demonstration project, the Japan International Cooperation Agency (JICA) is collaborating with leading producers and exporters of root vegetables, including onions, potatoes, beetroot, and carrots, in Moldova's south-east region. Many of these producers handle large volumes and have strong export positions, particularly in Romania, as well as established relationships with local retail channels. Initial investments in cold storage, including storage in boxes or loose on concrete floors, have been made. Some producers have also implemented conveyors, washing, grading, sorting, and packing lines (both bulk and consumer packaging). Despite these advancements, they continue to struggle with significant postharvest



losses. The most pressing challenge remains proper temperature and humidity control during storage. On their wish-list are more best practices and technology, for example:

- drying, dehumidification, ventilation;
- optimal internal logistics;
- efficient stacking of boxes;
- monitoring and analyzing storage climate;
- more efficient sorting, grading and packaging (such as flow-pack);
- solar energy.

Dutch suppliers are active in this field yet, but there're ample opportunities to develop more business, individually or in a cluster, on their own or within one of the available support programs of the Dutch government (see section 6.4).

Vegan burgers

A large-scale producer of walnuts, located in Inesti, with processing capacity for drying walnuts is actively trying to diversify its markets. The company already developed a liquor based on walnuts and developed several valorisation lines of rest streams (pellets for energy and ingredients for pharmacy, cosmetics and the chemical industry from the shells). The company also runs a distribution and sales operation for fresh, green walnuts through shops and home delivery.

While still expanding its production, the enterprise now looks into the market for alternative protein (meat-replacers), e.g. producing walnut-based vegan burgers. The company looks for supply chain partners to further develop this product-market combination and entrance to retail channels.



Public sector support

Joint B2B efforts in smart farming, smart water management, integrated crop management

Given the complex challenges in agricultural production, integrated solutions cannot come from a single actor alone. Instead, Dutch businesses can maximize impact by forming clusters, working together in long-term collaborations with Moldovan stakeholders. By committing to multiyear partnerships, Dutch companies

have the opportunity to drive significant improvements in reaching higher yields in open field crop production (fruit orchards and vegetables crops), and tackling problems related to climate change. With a focus on technology for climate smart solutions, IPM, mechanization and digitalization. Such an approach by a cluster of Dutch horticulture businesses, aiming to develop the market in Moldova, can typically be done in partnership with the Dutch government through a Partners for International Business (PIB) or Impact Cluster program. The additional value of such an approach is the chance to address and tackle problems that are not easy to solve by the private sector alone, such as trade barriers, research and knowledge agendas and legislation. Typical activities can include: demonstration, exchange, trade missions, study visits, training and diplomacy. This joint B2B approach would support Dutch businesses already active in Moldova, helping them scale up. At the same time, it would create new market entry pathways for Dutch companies not yet familiar with Moldova's potential.



Joint research and development agendas towards a higher-level knowledge eco-system

We have seen a number of examples in which educational institutions, campuses, research organisations, farmers, farmer organisations or sector organisations in Moldova are in need for new approaches. But they miss funding and an effective organisation. The typical Dutch triple helix approach (also called the Golden Triangle or Golden Diamond), the Dutch greenport model and the Top Sector policy of the Dutch government can help in creating a framework for horticulture collaboration in which innovation is anchored.

A cluster of Dutch actors in research and education, stakeholders in the Dutch greenports, with support of Dutch businesses, are equipped to develop and implement joint research agendas in various themes. Partnering with the key Moldovan players in research and education, including the Centers of Excellence CEHTA and CoSA, priorities are applicable technology and methods for climate smart solutions, IPM, mechanization, digitalization, marketing and sales. But the agenda may develop over time, as there's not one point in time when an educational institution, a research institution or a Centre of Excellence is ready. The organisation and the governance should allow incremental change, based on new insights or new relationships with partners. The capacity to innovate and re-design itself whenever circumstances ask for it, is a crucial element of a well-functioning knowledge eco-system.

Ideally, Dutch educational institutions and stakeholders with a role in the Dutch greenports commit themselves for a long-term cooperation and a collective transition to a structural (triple helix) connection between Moldova and the Dutch horticulture sector. Such a public-private partnership would have a minimum duration of 3 to 4 years and should contain project activities that include developing and implementing applied research, improving and developing curricula, student- and staff exchange and institutional capacity building. Temporary co-funding may come from an RVO instrument, the Topsector T&U, or any international donor.

Governance and service delivery of vegetables association APEL

APEL lacks technical and organizational capacities, adequate service delivery to the sector and has a weak financial basis. Several private and/or public organizations in the Netherlands have the capacity to provide training and coaching towards a mature organisation. This would benefit the entire vegetable sector in Moldova, and thus would bring more business opportunities for the Dutch horticulture industry. Apart from capacity building and training, collaboration activities may include study tours and exposure visits to the Netherlands for learning and inspiration, both in the field of governance (such as organisation structure, service delivery, cooperation in the chain, connections with education and research) but also for technical themes (cultivation, greenhouses, climate smart solutions, postharvest, etc.). Funding of such a trajectory could be a combination of Dutch government support, co-financed by international donors (e.g. building further on the current efforts of JICA) and private sector companies, both in the Netherlands and Moldova.



6.4 Options for (co)financing and support

Dutch government (co)funding instruments

The Embassy of the Kingdom of The Netherlands in Chisinau and the Agricultural Counsellor for Romania, Bulgaria and Moldova in Bucharest can support Dutch businesses to become engaged in the horticulture sector in Moldova. They can provide market intelligence, information about business climate, policies, Moldova's regulatory framework and they can identify potential local partners. Additionally, the Dutch government, through implementing partners such as RVO and Invest International, offers subsidies and funding instruments that enable (particularly) Dutch companies to do business in Moldova, often with cooperation with local partners as a requirement. In this section we list these options.

Impact Cluster

The Impact Cluster subsidy is meant for entrepreneurs in the Netherlands who want to work in a developing country with other companies and at least one local partner. Participants in such a cluster want to invest in the sustainable development in their sector in the target country, because they see commercial opportunities for themselves. Knowledge institutions, trade organisations and NGOs can also participate in a cluster.

① <https://english.rvo.nl/subsidies-financing/impact-clusters-ic>

Partners for International Business

The Partners for International Business (PIB) program (not a subsidy!) allows Dutch businesses to enter into a public-private partnership to realise their international trade ambitions. In collaboration with the Dutch government, a cluster of companies and knowledge institutions develops a 2-year or 3-year action plan with strategic activities that address all key obstacles that should be tackled for doing business. Apart from market entry itself, the cluster and the Dutch government may also work on themes such as trade barriers, knowledge transfer to local governments and businesses or restrictive local laws.

① <https://english.rvo.nl/subsidies-financing/pib>

Pre-PPS

A Pre-PPS is an option to initiate multi-year public-private partnerships, in case businesses do not yet recognize the opportunities or challenge in full. A Pre-PPS can be used as an initial step in preparation for a multi-year public-private approach within the framework of an Impact Cluster and/or PIB program. Within a Pre-PPS, typical activities include market studies, fact finding missions and workshops.

DHI subsidy for demonstration projects, feasibility studies and investment preparation projects

Dutch businesses can apply for the DHI subsidy scheme for demonstration projects, feasibility studies and investment preparation projects (DHI) in case they have an innovative idea for a project abroad, intend to invest in a foreign company, or want to convince possible customers of the potential of their technology.

Moldova is one of the DHI countries.

DHI consists of 3 modules:

- Demonstration projects: presentation of technology, capital goods or services in a target country;
- Feasibility studies: assessment of the profitability of a foreign investment in a product or service;
- Investment preparation projects: assessment of the technical and commercial profitability of an investment.

① <https://english.rvo.nl/subsidies-financing/dhi>

Subsidy Program for Responsible Business

The Subsidy Program for Responsible Business (SPVO), previously called Social Sustainability Fund (SSF), is eligible for companies active in the Netherlands, aiming to address social risks in their international value chain. The program can help if companies want to work on a living income or wages for local producers and suppliers, or if they want to improve the working conditions or address the risks of child labour in their supply chain.

① <https://english.rvo.nl/subsidies-financing/subsidy-programme-responsible-business-spvo>

Dutch Good Growth Fund

Dutch entrepreneurs interested in emerging markets or developing countries can make use of the Dutch Good Growth Fund (DGGF) if there's a need for support to finance the plans. The Dutch government provides loans, participations, guarantees, export credit insurance and export finance (with a repayment obligation) through the DGGF. The fund is set up by the Dutch Ministry of Foreign Affairs to help Dutch entrepreneurs realise their international ambitions in emerging markets and developing countries (DGGF countries). The fund supports investment, import, export and investment funds.

① <https://english.dggf.nl/>

Invest International

Dutch and Dutch-linked businesses looking to expand into foreign markets turn to Invest International when struggling to secure the financing and other financing options aren't available. The fund is available for start-ups and for mature businesses at every stage of a project or business cycle. Invest International also collaborates with governments to address local infrastructure needs, connecting those needs with Dutch knowledge and expertise.

① www.investinternational.nl

Groenpact

Groenpact is a joint effort of Dutch green education institutions, the business community, civil society organizations and governmental organizations, including the Ministry of Agriculture, Fisheries, Food Security and Nature (LVVN). Food security, climate change and the loss of biodiversity are major challenges of our times. Addressing these challenges takes a strong cooperation across regions, countries, and sectors. The network organization Groenpact aims to make an important contribution in this respect.

① <https://www.groenpact.nl/international-about-groenpact>

Topsector Horticulture and Starting Materials

The Research and Innovation Agenda (RIA) of the Top Sector for Horticulture & Starting Materials outlines the strategic agenda of the business community, government and academic and research institutions in the coming years. This agenda is one of six RIAs being drawn up as part of the mission-driven research and innovation policy of the Netherlands. The Horticulture & Starting Materials, Agri & Food, and Water & Maritime top sectors have drawn up this RIA jointly, in consultation with various Ministries, regions and a wide range of stakeholders, including the business community, research institutes and NGOs.

① <https://topsectortu.nl/en/>

Moldovan (co-)financing option

Invest Moldova

Invest Moldova strives to attract foreign investments, from establishing new facilities to expanding or modernizing existing ones, with an emphasis on tangible and intangible assets that contribute to long-term economic development of Moldova. Agrifood is one of its strategic sectors. In its 'Regional State Aid Scheme for Investments 2024 - 2028 Invest Moldova describes the support package: direct financial support through grants, combined with tax exemptions, adding up to a total maximum aid up to 60% of the investment for large and medium sized enterprises and 75% for small enterprises. The minimum investment must be in the range of € 500,000.

① <https://invest.gov.md/en/home-2/>

Options for cofinancing from and/or cooperation with international donors

See a description of the scope of several international donors in section 4.4.2 and Annex 5.

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Annex 2 Macroeconomic data 2018-2023

GDP, million MDL										
Indicators	2018	2019	2020	2021	2022	2023				
GDP	189.063	206.256	199.734	242.079	274.488	300.421				
Agriculture, forestry, fisheries	19.184	20.957	18.708	25.628	22.273	22.890				
% agriculture in GDP	10,1	10,2	9,4	10,6	8,1	7,6				
Volume indices of GDP and agriculture, % to previous year										
Indicators	2015	2016	2017	2018	2019	2020	2021	2022	2023	
GDP	99,3	104,6	104,2	104,1	103,6	91,7	113,9	95,4	100,7	
Agriculture, forestry, fisheries	86,7	118,4	104,9	95,1	100,2	70,6	150,3	76,5	131,9	
Employment, 1,000 persons										
Indicators	2015	2016	2017	2018	2019	2020	2021	2022	2023	
All economic activities	847,0	832,1	800,2	794,1	872,4	834,2	843,4	862,3	886,9	
Agriculture, forestry, fisheries	196,2	201,8	180,8	194,2	182,8	175,9	181,2	179,3	185,3	
% employment in agriculture in total	23,2	24,3	22,6	24,5	21,0	21,1	21,5	20,8	20,9	
Consumer price index, %, previous year = 100										
Indicators	2010	2015	2016	2017	2018	2019	2020	2021	2022	2023
Consumer price index	107,4	109,7	106,4	106,6	103,1	104,8	103,8	105,1	128,7	113,4
Food products	105,7	109,8	107,4	107,9	105,4	107,6	107,4	107,0	131,9	113,2
Non-food products	107,3	111,8	106,3	104,5	102,7	104,2	100,9	106,0	120,3	108,1

Source: Statistical Office of the Republic of Moldova

Annex 3 Production data

Yield (tons) annual potato and vegetable crops		2019	2023	2019>2013
Potatoes		21.250	17.266	-19%
Field vegetables		55.997	85.633	53%
of which	Cabbage	6.114	7.792	27%
	Cucumber	4.428	2.929	-34%
	Tomato	6.157	10.693	74%
	Beetroot	2.468	3.109	26%
	Carrot	9.140	16.269	78%
	Onion	13.350	27.703	108%
	Garlic	46	103	123%
	Green peas	3.545	2.425	-32%
	Pumpkin	826	392	-53%
	Sweet pepper	1.654	2.285	38%
	Eggplant	954	1.208	27%
	Melons and gourds	4.862	7.840	61%
	Other vegetables	209	165	-21%
Grand total potatoes and vegetables		77.248	102.899	33%

Source: Statistica Moldovei <https://statbank.statistica.md/PxWeb/pxweb/en/>

Yield (tons) perennial fruit and nut crops		2019	2023	2019>2013
Fruit and berries		440.591	425.405	-3%
of which	pome fruits	341.123	298.040	-13%
	apple	340.693	297.299	-13%
	pear	197	628	219%
	quince	233	113	-52%
	stone fruits	91.249	119.783	31%
	sour cherries	2.782	4.452	60%
	sweet cherries	7.797	13.380	72%
	apricot	9.090	4.333	-52%
	peach & nectarine	6.607	3.449	-48%
	plum	64.975	94.058	45%
	fruit bushes	1.886	2.383	26%
	berries	1.707	1.973	16%
	raspberries	177	297	68%
	strawberries	1.486	1.365	-8%
	currants	44	311	607%
Grapes		186.672	204.386	9%
	table grapes	43.363	58.559	35%
	wine grapes	143.309	145.827	2%
Nuts		6.333	5.199	-18%
Grand total perennial fruits and nuts		633.596	634.990	0%

Source: Statistica Moldovei <https://statbank.statistica.md/PxWeb/pxweb/en/>

Annex 4 Input suppliers

Main suppliers of inputs in the horticulture sector		
Name	Products (and/or brands)	Contact information, incl. website
Vadalex Agro	Seeds, fertilizers (BASF, Syngenta)	Stăuceni, strada Alexei Mateevici 81/2 https://vadalex.mod.contact
Diazteh	Bayer, Adama, Corteva	MD-3700 or. Strășeni, șos.Chişinăului 10A https://diaztech.md/
Agrostoc	Bayer, Adama, Corteva, L.Gobbi, Nufarm, Azotera, Compo Expert	Str. Ismail, 81/1 etaj. 5, Chişinău, MD2001 https://agrostoc.md/
Bioprotect	Seeds, fertilizers (BASF, Syngenta)	Or. Stăuceni, drum M2, km 10, nr.9 https://bioprotect.md/contacte/
Agrimatco Service	Seeds, fertilizers, agrochemicals, irrigation	R1 km 13,64 s. Cojuşna r. Strășeni, MD- 3715 https://solis.md/ro/
Expert Agroteh	Seeds, fertilizers, agrochemicals, irrigation	Str. A. Puşkin 60/3, Chisinau https://expert-agroteh.md/seminte-de-legume/
Irrigata Crop Service	Seeds (Rijk Zwaan), fertilizers, agrochemicals, irrigation	Constantin Tanase, of. 203-204, Chisinau https://www.facebook.com/Irrigata.md/
Diolsem	Seeds, fertilizers (BASF, Syngenta)	com. Grătieşti, M5 km. 260,96 https://diolsem.md/ro
Eco Center	Pheromones	MD-2005, Moara Rosie 5E str. Chisinau https://www.ecocenter.md/

Source: authors (based on own network and internet sources)

Main suppliers of tractors and agricultural machinery for horticulture		
Name	Products (and/or brands)	Contact information, incl. website
Ozonteh Impex	Ferrari, Farmatrac, Leus LS	mun. Straseneni, șos. Chişinău, 69 E58 http://www.tehnicaagricola.md/index.php?l=ro
VitalitiFruct Grup	Antonio Carraro	Calea Orheiului 119, Chişinău https://vitalitifruct.md/
Agropiese TGR	Lovol, MTZ Belarus, Hattat	mun.Chisinau, str.Munceşti, 271/7
Agrimatco Service	Solis	R1 km 13,64 s. Cojuşna r. Strășeni, MD- 3715 https://solis.md/ro/
Vadalex Agro	New Holland	Stăuceni, strada Alexei Mateevici 81/2 https://vadalex.mod.contact
Diazteh	Fendt, Valtra	MD-3700 OR. STRĂŞENI, ŞOS.CHIŞINĂULUI 10A https://diaztech.md/
Carvidone Service	Kubota	str. Bugeac 29/1 Or. Ceadir-Lunga
Agroprofi	Case	M2 Stauceni, MD-4839 https://agroprofi.md/case-ih/
Carraro Agritalia	Carraro	mun. Chisinau, Muncesti, 271/7
Basadoro Agroteh	McCornic, Landini	Criuleni, Magdacesti, str. Calea Orheiului 1, MD 4829 https://www.basadoro.md/ro/stiri/item/265-tractoare-masini-si-utilaje-agricole
G.P.S.S Group	Mini tehnica	MD-3733, Chisinau s. Truseni https://agroteh.md/ro/sadovyy_instrument/traktory/minitraktory/

Source: authors (based on own network and internet sources)

Annex 5 International donors

USAID

The United States Agency for International Development (USAID) offers civilian foreign aid and development assistance. However, the Trump administration ended all activities worldwide by the end of January 2025. USAID has conducted several projects in the agricultural sector in Moldova over the past decades, ranging from infrastructural works, sector development, government policies, up to hardware investments and technical assistance for value chain stakeholders. Among numerous other themes, some key activities of the consecutive USAID programs have been:

- rehabilitation of the national water irrigation systems;
- implementation of Integrated Pest Management (IPM) practices;
- supporting value chain stakeholders with compliance to market access requirements (e.g. GAP certification);
- development of cold chain logistics and mechanization in (post) harvest handling;
- digitalization of the market and trade procedures;
- establishment of sectorial associations and guiding them in export development.

In the latest program RCRA (Rural Competitiveness and Resilience Activity in Moldova), implemented by Chemonics, the Netherlands was strongly involved. RCRA has been a drive force in the modernization of both export oriented fruit value chains and the more local focused vegetable value chains. Among others the Moldova Fruit association has been established by USAID, back in 2006, and more recently (2024) the vegetable association APEL was given birth. More recently, USAID was heavily involved in the realization of the Horticulture Office.

JICA

The Japan International Cooperation Agency (JICA) delivers the bulk of Official Development Assistance (ODA) on behalf of the Government of Japan. In Moldova it has established the Agency for Agricultural Development and Modernization (ADMA), which is the channel for providing (Japanese) equipment and machineries for agriculture by means of attractive loans. In general, JICA implements projects to improve the competitiveness and productivity of agriculture and the food processing sector, including diversification, promotion of cleaner energy and environmentally-friendly development.

Currently (from early till late 2025), JICA runs the Technical Cooperation Project for Vegetable Farmers in Moldova, supporting:

- 15 fresh garden vegetable farmers (open field and protected) in the Noi Hasnașeni, Dorochia Region (tomato, cucumber, sweet pepper), with a focus on cultivation practices;
- 8 root vegetable farmers in the Gura Bîcului, Anenii Noi Region & Răscăieți, Ștefan Vodă Region (potato, carrot, beetroot onion), with a focus on postharvest practices.

The project is being implemented in close cooperation with ADMA and APEL, whereas the training and advisory services are provided by HollandDoor. An important part of the project is establishing demonstration plots for fresh vegetables and for root vegetables, in order to showcase (financially) feasible improvements, leading to higher productivity, quality and income for the farmers.

GIZ

The German International Cooperation Society, or Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), is the main German development agency. It provides services in the field of international development cooperation and international education work. GIZ wasn't active in the agriculture sector in Moldova since 2014. Now with the program PROGRESS, it is back. PROGRESS (until 2028) is a multilateral program, promoting green deal readiness in the Eastern Partnership countries (Armenia, Azerbaijan, Georgia, Moldova, Ukraine). It has 5 components: (1) policy, (2) business activities, (3) community activation, (4) green finance, (5) knowledge sharing and regional exchange. Besides GIZ, other funding partners are the

Organisation for Economic Co-operation and Development (OECD), the European Business Association (EBA), Regional Environmental Centre for the Caucasus (REC) and the World Bank. In the implementation phase, GIZ works with Moldova Fruct, the association of nut growers and MAFI (CCAR). PROGRESS focuses on climate change adaptation in the production phase (not the entire value chain) of 2 selected commodities: stone fruits and nuts (esp. walnuts).

Apart from PROGRESS, GIZ expressed interest in having other (agri-related) themes in the near future.

FAO

The Food and Agriculture Organisation of the United Nations (FAO) in Moldova has 3 priorities:

1. support of the Government of Moldova (GoM), esp. MAFI;
2. support of small/rural farmers;
3. sustainable management of natural resources.

Horticulture is seen by the FAO as the most potential sector. FAO is both advising MAFI on strategy and implementation and is supporting farmers and value chain associations. There are no capacities and/or resources to support the bigger companies. The focus is on working with small farmers, especially in grapes, soft fruit and vegetables, in particular on climate change mitigation and adaptation.

Over the past three years FAO has provided input to farmers, against the threats caused by severe draughts. This program has been funded by the Swiss emergency program for agriculture. Currently FAO is working on a new 4-year program (in proposal phase): from 'emergency to development', with more focus on technical assistance and capacity building through Farmer Field Schools (in vegetables, cereals and livestock). The main foreseen components will be:

- support to MAFI (legal framework for climate change adaptation and mitigation);
- introduction and implementation of climate smart tools;
- introduction and implementation of digital systems.

FAO states: "In fact, Moldova doesn't have an extension system. There's CCAR, ACSA, there's FARM, there're donor programs, but altogether it's chaotic." FAO tries to connect with education and research, but these connections are very weak.

IFAD

The International Fund for Agricultural Development (IFAD) is a United Nations institution that works to address poverty and hunger in rural areas of developing countries. It is the only multilateral development organization that focuses solely on rural economies and food security. IFAD currently implements its 8th program in Moldova, with a focus on climate mitigation, infrastructure, financial support through credit lines in combination with grants (max. US\$ 500,000 per project), technical assistance and coaching. The 9th program is currently under design and will focus on 4 value chains, including berries and vegetables (open field and protected). The aimed start of the program is April 2026, with a duration of 6 to 7 years and an expected size of over US\$ 20 million. The higher goal is to create business-driven models; support will include financial instruments and support to associations.

UNDP

The United Nations Development Programme (UNDP) is present in Moldova since 1992, covering two-thirds of the country's communities, including Găgăuzia and the left bank of the River Nistru. In response to the multidimensional crises affecting the country, such as climate change and economic challenges, UNDP implements the "Enhancing human security in Moldova through agri-food resilience to intensifying external and climate shocks" project. This initiative focuses on strengthening the country's agri-food security by improving climate and disaster risk management. It is funded by the Government of Japan and has a duration from 2024 till 2025. Key activities include upgrading agro-meteorological and hydrological monitoring systems, which provide farmers with accurate data to make informed decisions, thereby enhancing agricultural productivity and resilience. UNDP is currently involved as well as one of the

implementers of an EU-funded program on establishing a modern agri-food market in Cahul (Găgăuzia region).

EU Delegation

One of the significant EU-backed initiatives has been the Livada Moldovei program (Fruit Garden of Moldova), implemented in the period 2014 - 2023 and worth nearly €100 million. The project provided low-interest financing to producers and processors, facilitating investments in modern equipment, infrastructure, and technology. The investments have led to diversification into stone fruits, vegetables, hazelnuts, berries, beekeeping, fruit drying, and agro-tourism. Another significant long-term program has been the introduction of the LEADER approach in Moldova, a community-led local development strategy aimed at boosting local economic growth, particularly for micro and small businesses in rural areas. Since 2016, the EU has supported this approach, which was transformed into a national programme in 2022, covering more than half of Moldova's territory. Between 2022 and 2023, seven Local Action Groups (LAGs) received funding totaling 8.8 million EURO to support socio-cultural initiatives and local entrepreneurs, including those in the horticultural sector. In the period 2016 - 2019 the ENPARD project has been implemented, focusing on institutional support and technical assistance for the Ministry of Agriculture and Food Industry (MAFI). Currently, the EU finances the establishment of a modern agri-food market in Cahul (Găgăuzia region). The project started end 2024 and will include a € 680,000 investment in a 4,675 m² commercial space, intended for both local producers and investors interested in business development in the region. Implementers are UNDP and UNICEF, with completion scheduled for the end of 2025.

World Bank

The World Bank has financially supported the Moldovan agro-food sector during the last 20 years through three consecutive programs, all aiming to increase the competitiveness of the sector by focusing on important institutional development aspects as well as support to farmers and private sector stakeholders.

Competitiveness Enhancement Project (PAC I)

- duration: 2006 - 2013:
- focus: enhance competitiveness of enterprises through improvements in the business environment, enhance access to finance and make adequate standards, testing and quality improvement services available;
- credit line and grant US\$ 33.8 million.

Second Competitiveness Enhancement Project (PAC II):

- duration: 2014 - 2022
- focus: increase export competitiveness of enterprises and decrease the regulatory burdens;
- credit line and grant US\$ 33.8 million.

Moldova MSME Competitiveness Project:

- duration: 2022 - 2027
- focus: reduce the regulatory burden, increase access to finance, increase export competitiveness of enterprises, and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.
- loan US\$ 18.67 million
- credit line US\$ 31.43 million

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