

Thematic Report on Farm to Fork (Food Systems) for Armenia

Part of the Green Agenda for Armenia, Georgia,
Moldova and Ukraine project

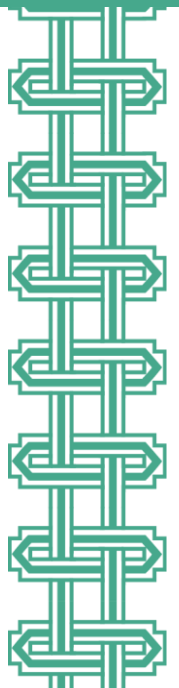
May 2024

Authored by:

Emma Anakhasyan, F2F National Expert, Armenia

Mark Driscoll, F2F Team Lead

Ieva Galkyte, F2F Thematic Coordinator





DISCLAIMER:

This thematic report was developed under the ***Green Agenda for Armenia, Georgia, Moldova, and Ukraine project***, which is funded by the Swedish International Development Cooperation Agency (Sida) and led by the Stockholm Environment Institute (SEI). It is issued as a technical working document to provide sector-specific insights as part of a broader effort under the Green Agenda.

The findings, interpretations, and conclusions expressed in this report are those of the authors and do not necessarily reflect the official policy or position of Sida, SEI, or any other project partners or stakeholders.

The report is based on information available up to Spring 2024. For the latest data and analysis, please refer to the national green transition assessment report for Armenia.



Table of contents

Abbreviations.....	4
Introduction	7
1. Current state and trends	9
1.1. The profile of the thematic area	9
1.2. Key Statistics and trends of the thematic area.....	18
2. F2F stakeholder mapping.....	22
3. F2F gap assessment.....	31
3.1. Policy and Legal Framework.....	32
3.1.1. Strategic and planning documents, goals, and targets.....	32
3.1.2. Compliance of national legal framework to international obligations/conventions and European Union approximation	43
3.1.3. Summary of gaps/bottlenecks and needs	44
3.2. Instruments for policy implementation.....	48
3.2.1. Regulatory and economic instruments	48
3.2.2. Funding and financing	55
3.2.3. Summary of gaps/bottlenecks and needs	60
3.3. Institutional/governance capacity	63
3.3.1. Existing institutional set-up	63
3.3.2. Capacity assessment of existing institutional set-up	64
3.4. Non-governmental actor capacity.....	68
3.4.1. Technical and infrastructure capacity – current capacities and future needs	68
3.4.2. Green skills and awareness	69
3.4.3. Stakeholder capacity	71
3.4.4. Summary of gaps/bottlenecks and needs	73
4. Crosscutting areas within thematic reports.....	75
4.1 Transitional Finance.....	75
4.2 A Just Transition.....	82
4.2.1 Current Employment in the Sector	82
4.2.2 Gender inequality issues	83
4.2.3 Endangered jobs due to the green transition.....	84
4.2.4 Potential of new jobs in the sector due to the green transition in the agri-food system	



4.2.5 Training programs specifically created to build green transition capacity.....	86
4.2.6 Funding to specifically address the just transition challenges across the agri- food sector.....	87
5. Summary and conclusions	88
5.1 Current state of the green transition	88
5.2 Summary of the gap assessment	93
References	106
Annexes.....	117
Annex 1. Mapping the strategic national documents as well as relevant thematic objectives and targets	117
Annex 2. European Union approximation assessment template.....	119
Annex 3. Stakeholder meetings held as part of the Quality Assurance Process	128

Abbreviations

ADA	Austrian Development Agency
AFD	Agence Française de Développement
AGREEN Sea Basin	Cross-Border Alliance for Climate-Smart and Green Agriculture in The Black
AI	Artificial Intelligence
AMD	Armenian Dram
ANAU	Armenian National Agrarian University
ASC	Aquaculture Stewardship Council
AUA	American University of Armenia
CARD	Center for Agribusiness and Rural Development
CBA	Central Bank of Armenia
CEPA Agreement	Armenia– European Union Comprehensive and Enhanced Partnership
CIS	Commonwealth of Independent States
CJSC	Close Joint Stock Company
CPI	Consumer Price Index
CSA	Climate Smart Agriculture
DRS	Deposit Refund System
EAEU	Eurasian Economic Unit
EBRD	European Bank for Reconstruction and Development
EECCA	Eastern Europe, Caucasus and Central Asia region
EGD	European Green Deal



EIA	Environmental Impact Assessment
EUR	Euro
EU-GAIA	EU Green Agriculture Initiative in Armenia
F2F	Farm to Fork
FAO	Food and Agriculture Organization
FCA	Farm Credit Armenia
FDI	Foreign Direct Investments
FIs	Financial Institutions
FMP	Financial Market Participants
FOB	Free on Board
GDP	Gross Domestic Product
GHG	Green House Gas(es)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HACCP	Hazard Analysis and Critical Control Points
HFSS	High in Fat, Salt, and Sugar
ICARE	International Center for Agribusiness Research and Education
IFAD	International Fund for Agricultural Development
IFIs	International Financial Institutions
INDC	Intended Nationally Determined Contributions
IPM	Integrated Pest Management
ISO	International Organization for Standardization
LLC	Limited Liability Company
LTD	Limited
MDBs	Multilateral Development Banks
MFA	Ministry of Foreign Affairs



mln	million
MSC	Marine Stewardship Council
MoE	Ministry of Economy
MTAI	Ministry of Territorial Administration and Infrastructure
MW	One Million Watts
NAP	National Adaptation Plan
NCDs	Non-Communicable Diseases
NDCs	Nationally Determined Contributions
NGFS	Network for Greening the Financial System
PROGRESS	Promoting Green Deal Readiness in the Eastern Partnership Countries
RECP	Resource Efficient and Cleaner Production
RED-NEO	Rural Economic Development – New Economic Opportunities
SMEs	Small and Medium Enterprises
SNCO	State Non-Commercial Organization
SDGs	Sustainable Development Goals
TAIEX	Technical Assistance and Information Exchange
T-GREEN	Transforming Graduate Education for Green and Sustainable Future
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USD	United States dollars
VNR	Voluntary National Review
WFP	World Food Programme
WHO	World Health Organisation
WHAH	World Organisation for Animal Health



Introduction

The Farm to Fork (F2F) sectoral assessment report for Armenia is the first key deliverable within the project “Green Agenda for Georgia, Ukraine, Moldova, and Armenia” (GA GUMA). The project aims to assist target countries in achieving climate neutrality goals through a green transition. It comprehensively assesses Armenia's environment, climate, and energy landscape, identifying institutional, legal, policy, and implementation challenges across different sectors. This sectoral assessment can serve as a substantial ground basis for a country-specific roadmap for a transition towards a more prosperous and resilient economy.

As part of Work Package 1, Comprehensive Green Transition Assessment, this report focuses on **the F2F (food systems¹) thematic area**. It evaluates Armenia's readiness for the transition to sustainable food systems², examining policy planning capacities, implementation levels, institutional collaboration, and stakeholder inclusion.

The scope of the F2F thematic area is primarily based on the EU Farm to Fork Strategy, which is integral to the European Green Deal. This strategy aims to make food systems fair, healthy, and environmentally friendly, aligning with the Green Deal's climate and environmental objectives.



The F2F Strategy seeks to expedite the transition to a sustainable food system that should:

- Have a neutral or positive environmental impact
- Help mitigate climate change and adapt to its impacts
- Reverse the loss of biodiversity



- Ensure food security, nutrition, and public health, providing access to sufficient, safe, nutritious, and sustainable food for all
- Preserve the affordability of food while generating fairer economic returns, fostering competitiveness in the European Union supply sector, and promoting fair trade

The different areas covered by the European Union F2F strategy are:

- Building the food chain that works for consumers, producers, the climate, and the environment
 - Ensure sustainable food production
 - Ensure food security
 - Stimulate sustainable food processing, wholesale, retail, hospitality, and food service practices
 - Promoting sustainable food consumption and facilitating the shift to healthy, sustainable diets
 - Reduce food loss and waste
 - Combating food fraud along the food supply chain
- Enabling the transition
 - Research, innovation, technology, and investments
 - Advisory services, data and knowledge sharing, and skills

Given the stated objectives and thematic subareas, the report thoroughly assesses Armenia's current situation in the F2F sector.

¹ **Food Systems** embrace the entire range of actors, and their interlinked value-adding activities involved in the production, harvesting, processing, distribution, consumption, and disposal (loss and waste) of food products that originate from agriculture (incl. livestock), fisheries (wild caught and farmed), and food industries, and the broader economic, societal, and natural environments in which they are embedded. (Adapted from [Scientific group of the UN Food Systems Summit, 2021](#))

² **A sustainable food system** contributes to food security and nutrition for all so that the economic, social, cultural, and environmental bases to generate food security and nutrition for future generations are safeguarded ([Scientific group of the UN Food Systems Summit, 2021](#)).



1. Current state and trends

1.1. The profile of the thematic area

The European Green Deal (EGD) is a comprehensive strategy of the European Union, aligning with the objectives outlined in the Paris Agreement. It encompasses many initiatives and policy measures to transform the European Union into a climate-neutral and environmentally sustainable economy by 2050. It encompasses various sectors, including energy, transport, F2F, and industry, aiming for economic growth with more efficient use of resources and less environmental degradation.

There is no up-to-date estimate of Armenia's agricultural or food systems-related greenhouse gas emissions (GHGs). However, according to 2017 data, agriculture was the second most significant contributor to GHG emissions with 18,5% after energy (66,7%)³. According to the Republic of Armenia's Long-term low greenhouse gas emission development strategy (until 2050)⁴, the second largest source of methane emissions in Armenia is the agriculture sector, with 35.0%, where the emissions are caused by cattle enteric fermentation. In addition, most nitrous oxide emissions (91%) are from the agriculture sector, mainly due to nitrogen fertiliser management and direct and indirect emissions from managed soils.

With the ratification of the Paris Agreement in February 2017, Armenia's Intended Nationally Determined Contributions (INDC) transitioned into its Nationally Determined Contribution (NDC) from 2015 to 2050. In its 2015 INDC, Armenia committed to implementing economy-wide mitigation measures to achieve per capita net emissions of 2.07 tCO₂eq by the year 2050. Different sectors are covered in the 2021 NDC, including agriculture (Enteric Fermentation, Direct and Indirect N₂O Emissions from managed soils).⁵ Notably, Armenia has shown its commitment to fostering sustainable food systems for climate and health by signing onto the COP28 UAE Declaration on sustainable agriculture, resilient food systems, and climate action⁶, as well as the COP28 UAE Declaration on climate and health⁷ in December 2023. The National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2025⁸ serve as a

³<https://unfccc.int> (accessed 25th April 2025)

⁴https://unfccc.int/sites/default/files/resource/UNDP%20LT_LEDS_ARMENIA.pdf (accessed 25th April 2025)

⁵ Government of the Republic of Armenia. Government Decision on 22 April 2021 N 610 - L "On Approval of the Nationally Determined Contribution 2021-2030 of the Republic of Armenia to the Paris Agreement. [Online]. Available at: <https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20of%20Republic%20of%20Armenia%20%202021-2030.pdf> [Accessed 24 January 2024]. [Accessed 24 January 2024].

⁶<https://www.cop28.com/en/food-and-agriculture> (accessed 25th April 2025)

⁷<https://www.cop28.com/en/cop28-uae-declaration-on-climate-and-health> (accessed 25th April 2025)

⁸ Government of Armenia. (2021) *National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2025*. Available at: https://unfccc.int/sites/default/files/resource/NAP_Armenia.pdf [Accessed 8 December 2023].



comprehensive roadmap, strategically guiding the integration of adaptation measures and implementing the National Adaptation Plan (NAP) within sector policies. The first set of actions encompasses cross-sectoral interventions, strategically crafted to enhance the country's institutional capacity. Simultaneously, the second set consists of specific adaptation measures tailored to six priority sectors: water, agriculture, energy, settlements, health, and tourism. Specifically related to the F2F, a draft of the RA Government Decision on the climate change adaptation concept and action plan for the agriculture sector will be developed. According to an assessment by the UN Environment Programme, incorporating diets and addressing food loss and waste within national climate plans presents a significant opportunity for policymakers to enhance food systems' mitigation and adaptation contributions by up to 25% (UNEP, 2020⁹).

According to the 2022 land balance, agricultural lands account for about 68.7%¹⁰ of the total land area, arable lands make up 442.73 thousand ha, of which only 155.89 thousand ha are irrigated.¹¹

Primary agriculture is one of the important sectors of Armenia's economy. As the third largest sector of the Armenian economy, it is a significant contributor to the national gross domestic product (GDP). Gross agricultural output (plant and livestock production and fisheries) accounted for 926,368 million (mln)¹² Armenian Dram (AMD) in 2018, and it increased to 1,083,823 mln¹³ AMD in 2022.

The Armenian agricultural sector is shifting to a more market-oriented economy, focusing on enhancing operational efficiency, product competitiveness, and expanding production range. Certain food businesses actively participate in domestic and global food markets, making investments to increase production capacity. Food-producing companies exist within the following key sectors in Armenia: Fruit and vegetable processing; dried fruits and spices production; grape production; milk and meat processing; slaughterhouses; fish production; bread baking; confectionary and pasta production; mineral, drinking water

⁹ UNEP. (2020) *Enhancing NDCs for Food Systems recommendations decision – makers*. [Online]. United Nations Environment Programme. Available at: https://www.fint.awsassets.panda.org/downloads/wwf_ndc_food_final_low_res.pdf [Accessed 12 January 2024]. [Accessed 12 January 2024].

¹⁰ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: General Description*. <https://www.armstat.am/file/doc/99541043.pdf> [Online]. Available at: <https://www.armstat.am/file/doc/99541043.pdf> [Accessed 16 November 2023].

¹¹ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Agriculture*. <https://www.armstat.am/file/doc/99541043.pdf> [Online]. Available at: <https://www.armstat.am/file/doc/99541108.pdf> [Accessed: 16 November 2023].

¹² Statistical Committee of the Republic of Armenia. *Socio-Economic Situation of RA, January-December 2018*. [Online]. Available at: https://www.armstat.am/file/article/sv_12_18a_122.pdf [Accessed: 16 November 2023].

¹³ Statistical Committee of the Republic of Armenia. *Socio-Economic Situation of RA, January-December 2022*. [Online]. Available at: https://www.armstat.am/file/article/sv_12_22a_122.pdf [Accessed: 16 November 2023].



and non-alcoholic beverage production; beer production; and coffee processing and packaging.

Table 1. Volume of the manufactured food and beverages

Years	Amounts, mln. AMD (Percent)	
	Food	Beverage
2018	524 804.4 (38.8%)	152 917.1 (11.3%)
2019	547 764.1 (37.6%)	185 386.9 (12.7%)
2020	548 654.9 (38.7%)	169 024.3 (11.9%)
2021	593 001.7 (38.8%)	205 578.2 (13.5%)
2022	709 905.3 (37.7%)	220 716.5 (11.7%)

Source: Statistical Committee, 2023¹⁴.

Armenia boasts approximately 166 registered fish farming enterprises, with a significant majority, approximately 82%, concentrated in the Armavir and Ararat marzes. The combined water area occupied by these enterprises covers 2,886 hectares. Notably, nearly 83% of this area is situated within the bounds of Ararat Marz, while approximately 16% lies in Armavir Marz (Ministry of Economy¹⁵).

An assessment of dietary intakes in Armenia highlighted a decline in the consumption of various food products, including staples like bread, potatoes, fruits, cheese, butter, and oil.¹⁶ Despite an increase in household income, the reduced consumption of these products is attributed to a rise in the Consumer Price Index (CPI). The consumption of animal-derived foods has remained steady. In 2019, Armenians exhibited lower energy and macronutrient intake compared to the averages from previous surveys. The population shows variations in macronutrient intake, with energy and carbohydrate levels falling below the World Health Organisation (WHO)/Food and Agriculture Organisation (FAO) and Customs Union Technical Regulation recommendations. In contrast, total fat

¹⁴ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Industry*. <https://www.armstat.am/file/doc/99541043.pdf> [Online]: Available at: <https://armstat.am/file/doc/99541098.pdf> [Accessed 17 November 2023].

¹⁵ Ministry of Economy Armenia. Fish Farming. Available at: [Ministry of Economy of the Republic of Armenia | Home \(mineconomy.am\)](https://mineconomy.am/). [Accessed 25 November 2023].

¹⁶ Stepanyan S., Pipoyan D., Beglaryan M. and Merendino N. (2022) *Assessing Dietary Intakes from Household Budget Survey in Armenia, 2008–2019* [Online]. PubMed Central, published online 14 September 2022. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498088/> [Accessed 24 December 2023].



intake aligns with the highest WHO/FAO recommendations, and protein intake surpasses their recommended thresholds. The estimated total energy intake falls below the required levels throughout the studied period. Notably, more than 50% of Armenians' total energy protein and carbohydrate intake is derived from cereals and bakery products, indicating a lack of dietary diversity.

The agri-food sector in Armenia faces some significant challenges including: low level productivity and efficiency as a result of poor and unsustainable management; excessive land fragmentation due to land privatisation in early 1990s; agricultural losses due to climate change impact (drought, frost, hail, less water flow, etc.); domestic market orientation; poorly developed infrastructure; low-scale application of innovative technologies; low levels of food security and safety; soil degradation and salinisation, demolished irrigation systems and water unavailability; unsustainable management of pastures, overexploitation of groundwater because of fisheries, etc.

Approximately 30% of households in Armenia were food insecure. Specifically, rural areas experience a higher prevalence of food insecurity, with 34% of families affected. Other urban areas also have a significant level of 31%. In contrast, the capital city, Yerevan, has a lower food insecurity rate of 24%¹⁷. A total of 25.6% of adult women (aged 18 years and older) and 19.4% of adult men are currently grappling with obesity. Notably, Armenia's obesity prevalence surpasses the regional average, standing at 10.3% for women and 7.5% for men¹⁸. The prevalence of overweight among children younger than 5 in Armenia declined from 15.6% in 2010 to 11.5% in 2022, but it remained higher than the global level (5.5% in 2010 and 5.6% in 2022)¹⁹. The findings highlight the need for policy interventions to promote healthy diets within the population.

Since 2019, the European Union funded EU4Environment Programme has supported Armenia in its efforts to embrace the trajectory of green transition. In 2021, the Ministers of Environment from the Eastern Partnership countries acknowledged the European Green Deal as a guiding standard for shaping their national policy initiatives. A green economy action plan, concept and strategy have been subsequently developed in

¹⁷ WFP. (2023) *Fifth Food Security and Vulnerability Assessment in Armenia, December 2022 – January 2023*. [Online]. Available at: <https://docs.wfp.org/api/documents/WFP-0000151180/download/?ga=2.248936903.1734944632.1706442824-341257857.1700418359> [https://www.wfp.org/countries/armenia] Accessed 28 January 2024].

¹⁸ Global Nutrition Report, (2022). [Online]. Available at: <https://globalnutritionreport.org/resources/nutrition-profiles/asia/western-asia/armenia/?country-search=Armenia> [Accessed 19 November 2023].

¹⁹ FAO. (2023) *Europe and Central Asia: Regional Overview of Food Security and Nutrition 2023 – Statistics and trends*. Budapest. [Online]. Available at: <https://doi.org/10.4060/cc8608en> [Accessed 28 January 2024].



Armenia. Several projects, initiated by the Government of Armenia, address some F2F objectives, including:

- The Resource Efficient and Cleaner Production (RECP) as a demonstration project (2013-2017) conducted by "RozFood", a small processing company from Lori Marz. A monitoring assessment (2021) revealed that the company benefited from nearly EUR 13,800 savings per year; 14.3% less electricity consumption; a 26% drop in natural gas use; a 29% drop in water use; and emissions reduction of 77 tons of CO₂-eq/year (EU4Environment Programme, 2022)²⁰. There are other interesting success stories of the implementation of the RECP in the F2F field, which are well described on the website of the EU4Environment²¹.
- In 2020, the "European Union Green Agriculture Initiative in Armenia" (EU-GAIA) project was established. Funded by the European Union and co-financed and implemented by the Austrian Development Agency (ADA), the project goals are to support the development of sustainable, inclusive, innovative, and market-oriented agribusiness, particularly in the northern Marzes of Armenia: Lori, Tavush, and Shirak²².
- In 2022, in collaboration with international partners, the Government of Armenia initiated a high-level GREEN Armenia (Growth and Recovery to Empower, Equip, and Nurture Armenia) policy dialogue to champion a sustainable green recovery and growth strategy. This comprehensive approach seeks to generate employment, address poverty and inequalities, preserve nature, and fortify the country's resilience²³.

There are significant opportunities for the agri-food sector in Armenia. For example, the greenhouse crop production sector in Armenia stands out as an economically promising area, marked by substantial production and export growth potential, making it an appealing prospect for investors. This sector has consistently demonstrated high growth rates and profitability. Armenia's food processing sector is also experiencing rapid

²⁰ EU4Environment Programme. (2022) *Towards a Green Economy with EU4Environment in Armenia: Achievements in 2021-2022*. [Online]. Available at: <https://www.eu4environment.org/app/uploads/2022/08/Armenia-profile-2022.pdf> [Accessed: 15 December 2023].

²¹ EU4Environment. Success Stories of the Armenian SMEs using the RECP methodology. Last update 22 February 2022. [Online]: Available at <https://www.eu4environment.org/success-stories-of-the-armenian-smes-using-recp-methodology/> [Accessed 1 March 2024].

²² UNDP. *European Union Green Agriculture Initiative in Armenia (EU-GAIA)*. [Online]. Available at: <https://www.undp.org/armenia/projects/eu-green-agriculture-initiative-armenia-eu-gaia> [<https://www.wfp.org/countries/armenia> Accessed 28 November 2023].

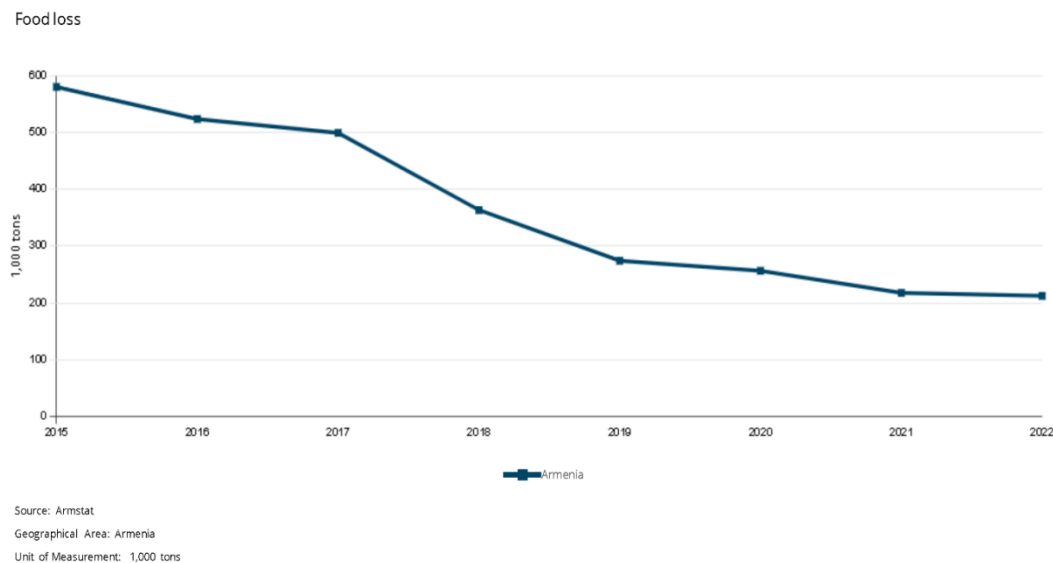
²³ Government of the Republic of Armenia. (2022) *Official News: The first policy dialogue of "GREEN Armenia" joint platform took place*. [Online]. Government of Armenia, published online 27 June 2022. Available at: <https://www.gov.am/en/news/item/10142/> [Accessed 12 November 2023].



growth. Whilst this can come with challenges (more highly processed foods with high levels of fats, sugars and salts), it also offers significant export market growth, driven by healthy and environmentally friendly ‘green products’, using, for example, organic ingredients and manufacturing technologies using low carbon sources of energy.

Figure 1 shows the trend for food loss and waste. Food loss is the sum of losses of all product groups/product types included in the RA National Food Balance, which is a comprehensive picture of the pattern of a country's food supply and utilisation, reflecting the commodity movement from production to end-use. Food loss was about 600,000 tons in 2015, decreasing to about 200,000 tons in 2022.

Figure 1. Food loss in Armenia (2015-2022), in thousand tons, Armstat²⁴



The primary indicators gathered during the preliminary sectoral assessment are in Table 2 below.

Table 2. Primary indicators related to the F2F sector

Relevant Statistics/Indicators	2018	2019	2020	2021	2022	Comments
Food/Agriculture is an essential part of the economy						

²⁴ Statistical Committee of the Republic of Armenia. *Sustainable Development Goals: Indicator 12.3.1.a Food Loss*. [Online]. Available at: <https://sdg.armstat.am/12-3-1-a/> [Accessed 02 February 2024].



Agri-food and fisheries sector contribution to GDP (%) (agri-food and fisheries together) ²⁵		13.9 ²⁶	11.5 ²⁷	11.4 ²⁸	11.4 ²⁹	10.4 ³⁰	Forest is presented separately from 2018 to 2020. The proportion of forest within the agriculture sector was 0.15% in 2021 and 0.20% in 2022. Despite being categorised under agriculture, the figures for the forest sector remain notably small.
Numbers employed	In agriculture, a thousand people	272.6 (143.8 men, 128.8 women) ³¹	235.9 (121.6 men, 114.3 women) ³²	229.6 (130.7 men, 98.9 women) ³³	237.4 (129 men, 108.5 women) ³⁴	250.1 (137.9 men, 112.2 women) ³⁵	

²⁵ Note we do not include non-food commodities in our definition of agriculture e.g., forest products etc.

²⁶ Statistical Committee of the Republic of Armenia. (2021) *Statistical Yearbook of Armenia: System of National Accounts*. [Online]. Available at: <https://armstat.am/file/doc/99526988.pdf> [<https://www.wfp.org/countries/armenia>] [Accessed 12 November 2023].

²⁷ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: System of National Accounts*. [Online]. Available at: <https://armstat.am/file/doc/99541093.pdf> [Accessed 12 November 2023].

²⁸ *ibid*

²⁹ *ibid*

³⁰ *ibid*

³¹ Statistical Committee of the Republic of Armenia. (2020) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_2_2020_1.pdf [Accessed 12 November 2023].

³² Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2021_1.pdf [Accessed 12 November 2023].

³³ *ibid*

³⁴ Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_3_2023_1.pdf [Accessed 12 November 2023].

³⁵ *ibid*



	Own-use production of food staff/population participation rate in %	481.8 / 21.9 % ³⁶	486.7 / 22.1 % ³⁷	498.8 / 22.7 % ³⁸	484.9 / 21 % ³⁹	487.1 / 21.9 % ⁴⁰	
	Manufacturing food products, thousand people	16.2 ⁴¹	20.9 ⁴²	21.4 ⁴³	20.8 ⁴⁴	18.9 ⁴⁵	
	Manufacturing of beverages, thousand people	6.9 ⁴⁶	7.5 ⁴⁷	7.5 ⁴⁸	7.6 ⁴⁹	7.5 ⁵⁰	
Countries' land use							
	Utilised agricultural area in thousand ha / %	242.3 ⁵¹ / 11.9	227.9 ⁵² / 11.2	222.7 ⁵³ / 10.9	227.2 ⁵⁴ / 11.1	212.2 ⁵⁵ / 10.4	As of 1 July 2022, agricultural land of Armenia is equal to 68.7% of

³⁶ Statistical Committee of the Republic of Armenia. (2020) *Statistical Yearbook of Armenia: Labour Market*. [Online]. Available at: <https://www.armstat.am/file/doc/99521073.pdf> [Accessed 13 November 2023].

³⁷ ibid

³⁸ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Labour Market*. [Online]. Available at: <https://www.armstat.am/file/doc/99541258.pdf> [Accessed 13 November 2023].

³⁹ ibid

⁴⁰ ibid

⁴¹ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Industry*. [Online]: Available at: <https://armstat.am/file/doc/99541098.pdf> [Accessed 17 November 2023].

⁴² ibid

⁴³ ibid

⁴⁴ ibid

⁴⁵ ibid

⁴⁶ ibid

⁴⁷ ibid

⁴⁸ ibid

⁴⁹ ibid

⁵⁰ ibid

⁵¹ Statistical Committee of the Republic of Armenia. (2022): *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_4_2022_3.pdf [Accessed 12 November 2023].

⁵² ibid

⁵³ ibid

⁵⁴ ibid

⁵⁵ ibid



						the country (2043 thousand ha ⁵⁶).
Percentage of food produced that is exported (financial value) In FOB (free on board) prices	697.0 mln. USD ⁵⁷ / 28.9%	799.5 mln. USD ⁵⁸ / 30.2%	777.5 mln. USD ⁵⁹ / 30.6%	918.8 mln. USD ⁶⁰ / 30.5%	1281.7 mln. USD ⁶¹ / 23.9%	
Percentage of food imported (financial value) In the FOB price	805.1 mln. USD ⁶² / 19.1%	870.1 mln. USD ⁶³ / 18.6%	837.6 mln. USD ⁶⁴ / 21.7%	964.6 mln. USD ⁶⁵ / 21.3%	1366.6 mln. USD ⁶⁶ / 18.4%	

Armenia's export and import profile reflects the country's participation in international trade, showcasing its strengths in certain sectors and reliance on imports for various goods. The trade dynamics reveal that while Armenia excels in certain sectors like alcoholic beverages, mineral water, and specific agricultural products (fruit, cheese and eggs), it relies on imports to meet the demand for essential food items (wheat, flour, rice, macaroni, sugar, vegetable oil, meat, milk, butter, cheese, vegetables and fruits). The significant increase in food exports and imports in Armenia can pose challenges to food security. In 2019, the country's self-sufficiency rates were 26% for wheat, 6.5% for maize, 56% for pork, 22% for poultry, and 2% for vegetable oil⁶⁷.

⁵⁶ Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: General Description*. [Online]: Available at: <https://www.armstat.am/file/doc/99541043.pdf> [Accessed 16 November 2023].

⁵⁷ Statistical Committee of the Republic of Armenia. (2022): *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2022_1.pdf [Accessed 12 November 2023].

⁵⁸ ibid

⁵⁹ ibid

⁶⁰ ibid

⁶¹ ibid

⁶² ibid

⁶³ ibid

⁶⁴ ibid

⁶⁵ ibid

⁶⁶ ibid

⁶⁷ Fang, C. and Gurinović, M. (2023) *Sustainable and nutrition-sensitive food systems for healthy diets and prevention of malnutrition in Europe and Central Asia*. [Online]. Budapest, FAO. Available at: <https://doi.org/10.4060/cc3907en> [Accessed: 28 December 2023].



1.2. Key Statistics and trends of the thematic area

The project team collected additional data to compensate for the lack of observations. The Statistical Committee of the Republic of Armenia collected much of the data. Overall, the data availability and accessibility for the section were limited.

The development of organic agriculture in Armenia began in the early 2000s. However, specific statistics on the extent of organic agriculture are challenging to obtain. While estimates suggest that organic agriculture covers less than 1% of Armenian land, precise data is not readily available. Organic production includes beekeeping, collection of wild species, plant growing and organic products (organic juices, nectars, concentrates, herbal teas, dried fruits, and bread).

According to the report,⁶⁸ there has been an upward trend in the consumption of vegetables, fruits, pulses, sugar, and other sweeteners from 1992 to 2017 in Armenia, which exceeded the average consumption of these products in both the European Union and Central Asia. Fish has the lowest consumption at 30.5 grams per capita per day as of 2017. Interestingly, meat consumption is lower than in the European Union and Central Asia.

Table 3 below provides supplementary statistical indicators relevant to the matters described above.

Table 3 Additional Relevant Statistics to the F2F Thematic Area

Relevant Statistics/Indicators	2018	2019	2020	2021	2022	Comments
GHGs and Land use						
Agricultural-related GHG emissions ⁶⁹ / (Gg CO2 eq.)	N/A	N/A	N/A	N/A	N/A	The available data are: 1,989.2 in 1990; 1,462.3 in 2010; 2,295.7 in 2016 (UNFCCC, 2020) ⁷⁰

⁶⁸ ibid

⁶⁹ Note GHG emissions from food system are often annotated as GHG equivalents (GHGEs) and emissions include carbon dioxide, methane and nitrous oxides

⁷⁰ UNFCCC. (2020) *Fourth National Communication on Climate Change* [Online]. United Nations Development Programme Armenia, Yerevan. Available at: https://unfccc.int/sites/default/files/resource/NC4_Armenia_.pdf [Accessed 12 December 2023].



Food Systems GHG emissions (where available)		N/A	N/A	N/A	N/A	N/A	No information could be found
Percentage area of land under organic production		<1 %	<1 %	<1 %	<1 %	<1 %	Figures based on expert opinion, as data is unavailable.
Environmental Impact							
Fertiliser imports in tons/year by type	Fertilizer mixtures in packs of <10kg	3833	4749	4970	4732	3960	Data is extracted from the External Trade Database, according to the Commodity Nomenclature at the 4-digit level of the Statistical Committee. ⁷¹
	Mineral or chemical fertilisers, potassic	927	764	850	715	805	
	Mineral or chemical fertilisers, phosphatic	3	137	14	20	27	
	Mineral or chemical fertilisers, nitrogenous	86105	69340	73304	52646	47611	
	Fertiliser of an animal or vegetative origin	170	199	261	323	213	
Pesticides import volumes, tons/year		2445	1816	2561	2539	2475	Data is extracted from the External Trade Database According to the

⁷¹ Statistical Committee of the Republic of Armenia. External trade database According to the Commodity Nomenclature at 4-digit level. [Online]. Available at: <https://armstat.am/en/?nid=148&thid%5B%5D=3101&thid%5B%5D=3102&thid%5B%5D=3103&thid%5B%5D=3104&thid%5B%5D=3105&years%5B%5D=2022&years%5B%5D=2021&years%5B%5D=2020&years%5B%5D=2019&years%5B%5D=2018&submit=Search> [Accessed 2 February 2024].



						Commodity Nomenclature at 4-digit level of the Statistical Committee ⁷² .
Water Quality 1 – Number of Nitrate pollution incidents ⁷³ .	7742 samples/32 (0.4%) ⁷⁴			4577 samples/0 (0%) ⁷⁵		Armenia Summary report 5 th cycle, Protocol on Water and Health, 2022.
Water Quality 2 – Number of pesticide pollution incidents.	N/A	N/A	N/A	N/A	N/A	No information could be found
Farmed fish production in thousand tons	17.2 ⁷⁶	18.3 ⁷⁷	19.1 ⁷⁸	19.7 ⁷⁹	25 ⁸⁰	
Food loss (thousand tons/year)	363 ⁸¹	273.8 ⁸²	256.1 ⁸³	217.2 ⁸⁴	211.9 ⁸⁵	
Sustainable Food Consumption / Health and Food security						
Meat Consumption (kg/year per capita)						

⁷² Statistical Committee of the Republic of Armenia. External trade database According to the Commodity Nomenclature at 4-digit level. [Online]. Available at: <https://armstat.am/en/?nid=148&thid%5B%5D=3101&thid%5B%5D=3102&thid%5B%5D=3103&thid%5B%5D=3104&thid%5B%5D=3105&years%5B%5D=2022&years%5B%5D=2021&years%5B%5D=2020&years%5B%5D=2019&years%5B%5D=2018&submit=Search> [Accessed 2 February 2024].

⁷³ Nitrates Directive and Drinking Water Directive limit of 50 mg/l.

⁷⁴ UNECE. (2022) *Fifth Reporting Exercise Under the Protocol on Water and Health (November 2021-April 2022): Armenia*. [Online]. United Nations Economic Commission of Europe. Available at: https://unece.org/sites/default/files/2022-04/Armenia_summary_report_5th_cycle_18Apr22_ENG.pdf [Accessed 12 November 2023].

⁷⁵ ibid

⁷⁶ Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_1_2021_3..pdf [Accessed 12 November 2023].

⁷⁷ ibid

⁷⁸ ibid

⁷⁹ Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2023_3.pdf [Accessed 12 November 2023].

⁸⁰ ibid

⁸¹ Statistical Committee of the Republic of Armenia. *Sustainable Development Goals: Indicator 12.3.1.a Food Loss*. [Online]. Available at: <https://sdg.armstat.am/12-3-1-a/> [Accessed 02 February 2024].

⁸² ibid

⁸³ ibid

⁸⁴ ibid

⁸⁵ ibid



Beef	27.4 ⁸⁶	26.8 ⁹⁰	27.9 ⁹⁴	26.7 ⁹⁸	27 ¹⁰²	
Mutton and goat meat	2.8 ⁸⁷	3.3 ⁹¹	3.8 ⁹⁵	3.8 ⁹⁹	4 ¹⁰³	
Pork	10.2 ⁸⁸	10.4 ⁹²	2.4 ⁹⁶	10.5	11.7	
Poultry meat	16.7 ⁸⁹	19.7 ⁹³	18.9 ⁹⁷	100	104	
				19.5	19.9	
				101	105	
Extreme (food) poverty line/ USD	51.4	49.4	48.7	52.6	68.7	
	106	107	108	109	110	
Number of people who are obese and overweight	N/A	N/A	N/A	N/A	25.6% adult women and 19.4% adult	(Global Nutrition Report, 2022).

⁸⁶ Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2021_1.pdf [Accessed 12 November 2023].

⁸⁷ ibid

⁸⁸ ibid

⁸⁹ ibid

⁹⁰ Statistical Committee of the Republic of Armenia. (2022) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2022_3.pdf [Accessed 12 November 2023].

⁹¹ ibid

⁹² ibid

⁹³ ibid

⁹⁴ ibid

⁹⁵ ibid

⁹⁶ ibid

⁹⁷ ibid

⁹⁸ ibid

⁹⁹ ibid

¹⁰⁰ ibid

¹⁰¹ ibid

¹⁰² Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2023_3.pdf [Accessed 12 November 2023].

¹⁰³ ibid

¹⁰⁴ ibid

¹⁰⁵ ibid

¹⁰⁶ Statistical Committee of the Republic of Armenia. (2019) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2019_5.pdf [Accessed 12 November 2023].

¹⁰⁷ Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2021_5.pdf [Accessed 12 November 2023].

¹⁰⁸ ibid

¹⁰⁹ Statistical Committee of the Republic of Armenia. (2022) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2022_5.pdf [Accessed 12 November 2023].

¹¹⁰ Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2023_5.pdf [Accessed 12 November 2023].



					men 111	
--	--	--	--	--	------------	--

2. F2F stakeholder mapping

The F2F area encompasses diverse stakeholders, including the public and private sectors, producer groups, academia, civil society organisations, consumer/citizen groups, international organisations and other entities. Collaboration among these actors is essential for the success and effectiveness of food systems and sustainability initiatives. There is a need to work with actors from other supporting or accompanying sectors that are crucial for the green transition. These sectors include, for example, environment, health, economy, and social protection. Such a multidisciplinary approach to F2F is crucial as the key issues in agriculture and food systems arise from the excessive silos dividing the areas and respective institutions.

1. Public sector/Polymakers

The first group of key stakeholders for the green transition consists of policy and decision-makers. Government agencies are responsible for creating and implementing policies that support sustainable agriculture, food safety, and nutrition. They may also regulate and monitor food production and distribution. Several ministries are strategically important in terms of driving the transition in the F2F area and are outlined below:

The **Ministry of Economy of the Republic of Armenia** (MoE) is a key state authority in the agricultural and fishery sectors. As stipulated by the Republic of Armenia Law "On the structure and functioning of the Government," the MoE is responsible for formulating and executing policies. The MoE develops and implements agrarian, agriculture and agri-food sector development policies, including policies on crop production, animal husbandry, agricultural product processing, veterinary, phytosanitary, food safety, research and extension, agricultural production, monitoring of agricultural land use, improvement of ameliorative conditions and preservation of land, and implementation of Government policy in the areas of public support.

According to the MoE Charter¹¹², the main functions concerning agriculture include:

¹¹¹ Global Nutrition Report, (2022). [Online]. Available at: <https://globalnutritionreport.org/resources/nutrition-profiles/asia/western-asia/armenia/?country-search=Armenia> [Accessed 19 November 2023].

¹¹² Government of the Republic of Armenia. *Government Decision N-658 as of 1 June 2019 "On Approval of the Charter of the RA Ministry of Economy"*. [Online]. Available at: <http://www.irek.am/views/act.aspx?aid=99862> [Accessed 19 November 2023].



- Formulation and implementation of a unified agrarian policy of the Government on the development of agriculture and agri-food processing industry, veterinary, phytosanitary, food safety sectors, agricultural research and extension, and monitoring of agricultural lands.
- Supporting the introduction of modern technologies and innovations in agriculture.
- Promoting high-value and large-scale industrial agriculture.
- Promoting organic agriculture in Armenia.
- Developing agri-food systems and increasing the food security level of the country.
- Supporting the development of agricultural cooperation.
- Ensuring food safety and quality of the food.
- Developing veterinary and phytosanitary sectors.

The MoE oversees several organisations entrusted with delivering diverse public-interest services within the agricultural domain, including:

- "Center for Agricultural Research and Certification" State Non-commercial organisation (SNCO),
- "Center for Agricultural Services" SNCO that provides animal identification, veterinary, phytosanitary, and agrochemical services.
- "Agriculture Scientific Center" Close Joint Stock Company (CJSC),
- "Scientific Center of Vegetable, Melon and Industrial Crops" CJSC
- "Scientific center for risk assessment and analysis in the food safety area" CJCS,
- "Gyumri Breeding Station" CJSC,
- Vine and Wine Foundation of Armenia.

The **Ministry of Environment of the Republic of Armenia** is a central body of executive power that elaborates and implements the state policy in the field of environmental protection and rational use of natural resources, prevention or reduction of harmful effects on the atmosphere, water, soil, fauna and flora, addressing climate change issues (both in terms of mitigation and adaptation), and the management of hazardous chemicals and waste.

The **Ministry of Territorial Administration and Infrastructures of the Republic of Armenia** (MTAI) plays a pivotal role in the planning, oversight, and coordinating regional development policies, including those related to energy, communal waste, transport, and water sectors. Additionally, the MTAI is crucial in ensuring the resilience and functionality of essential public and business-related infrastructure.



The **Ministry of Health of the Republic of Armenia** performs the following functions to implement its goals and objectives: organisation of medical care; development of health policy; safeguarding public health, which includes addressing dietary issues; public awareness and health; development of educational projects; collection, analysis, and evaluation of information about the health system and the condition of the population, etc.

The **Food Safety Inspectorate under the Government of the Republic of Armenia** implements assessments of food products' conformity with food safety standards, regulates the administration of veterinary and sanitary services, ensures control, and imposes sanctions.

The **Republican Veterinary-Sanitary and Phytosanitary Laboratory Services Center** SNCO of the Food Safety Inspectorate implements laboratory analysis of animal diseases, raw materials of animal origin, food products, and plant quarantine organisms, diseases, and weeds in Armenia. The SNCO operates three laboratories in Yerevan, specializing in veterinary, food safety, and phytosanitary testing. Additionally, it manages Regional Centers and Border Control Points.

The extension system in Armenia consists of multiple service providers: public, private, and non-government development institutions, including the Agriculture University, Research Centres, government institutions, national and international organisations, input suppliers, etc.

The health and labour Inspection body of the Republic of Armenia focuses on ensuring the sanitary and epidemiological safety of the population, including food safety. Identifying infectious diseases, poisonings, or common diseases in humans and animals attributed to food-related factors involves promptly informing the Food Safety Inspectorate. This collaborative effort aims to pinpoint the causes and conditions leading to their occurrence and spread. It also entails organising and implementing necessary anti-epidemic measures to address and mitigate these health concerns.

2. Research and academia

Educational and research institutions contribute by conducting studies, providing scientific insights, and training agriculture, health, nutrition, and sustainability professionals. The leading institutions are highlighted below:



The **Armenian National Agrarian University** (ANAU) is the only higher educational institution in Armenia that prepares professional specialists in the agrarian field. The mission of the University is to prepare agro-technologically oriented professionals capable of developing the country's agro-food system with their professional skills and cooperation with the beneficiaries of that sphere (ANAU). The University has five faculties (Faculty of Agronomy, Faculty of Food Technologies, Faculty of Agrarian Engineering, and Faculty of Veterinary Medicine and Animal Husbandry), covering the whole F2F chain. The Faculty of Food Technologies covers processing and food safety. The professors and students are also involved in policy formulation, capacity building, consultancy and advisory services.

The **American University of Armenia** (AUA) Acopian Center for the Environment promotes protecting and restoring the natural environment through research, education, and community outreach. The Centre implements research projects on the green economy, circular economy, environmental policy, and more. It also offers a course on Sustainable Food Systems.

Yerevan State Medical University and its Faculty of Public Health offer the Master of Public Health Program. The program covers diverse topics, including epidemiology and environmental health.

Several **agricultural research centres** operate in Armenia. Research and scientific work on agriculture, food processing, food security and safety are carried out by the following organisations and Scientific Centers of the MoE and ANAU:

Ministry of Economy of the RA:

- "Scientific Center for risk assessment and analysis in the food safety area" CJSC;
- "Centre for Agricultural Research and Certification" SNCO;
- "Agriculture Scientific Centre" CJSC;
- "Scientific Centre of Vegetable, Melon and Industrial Crops" CJSC;
- "Gyumri Breeding Station" CJSC.

ANAU has three research centres and three scientific centres:

- Research Centre of Genetics, Selection and Feeding of Agricultural Animals¹¹³

¹¹³ <https://anau.am/en/gitutyun/hetazotakan-kentronner/laboratory-for-genetics-selection-and-feeding-of-agricultural-animals/> (accessed 25th April 2025)



- Research Centre of Veterinary Medicine and Veterinary Sanitary Expertise¹¹⁴
- Agrarian Policy and Economics Research Centre¹¹⁵
- Scientific Centre of Soil Science, Melioration and Agro-chemistry after H. Petrosyan, a branch of ANAU:
- Agrobiotechnology Scientific Centre, a branch of ANAU
- Voskehat Educational and Research Centre of Enology, a branch of ANAU

In addition, the **International Centre for Agribusiness Research and Education (ICARE)** also links academic research abilities and industry experience to provide partner organisations and students with high-quality resources and expertise. ICARE research expertise covers topics ranging from agricultural finance and farmer financial literacy to mitigating climate change's impact on farming activities. The industry and academia experts involved with ICARE ensure outstanding project implementation and in-depth knowledge and expertise.

3. Private sector

Companies involved in food production, processing, distribution, and retail have a critical role in ensuring the sustainability and safety of food supply chains. They may also drive innovation in food technologies and practices.

Several private sector companies exist, including private consulting companies, brandy and wine-making companies, input suppliers, seed, fertilisers, pesticides, veterinary medicines, greenhouse infrastructure providers, nurseries, planting material importers, etc.

Importers and sellers of agricultural input supply (seeds, seedlings, pesticides, agrochemicals, fertilisers), agricultural machinery, and equipment also provide consultancy to their clients on the proper use of agricultural inputs (e.g., Natali Agro, ArtAgro LTD, Hrashk Aygi, Arokhch Aygi, Agroinput, and others).

ECOGLOBE Limited Liability Company (LLC) is an internationally recognised organic certification and inspection body founded in 2002. It is pioneering in Armenia and other countries of the Commonwealth of Independent States (CIS) and Eastern Europe,

¹¹⁴ <https://anau.am/gitutyun/laboratory-of-veterinary-medicine-and-veterinary-sanitary-expertise/> (accessed 25th April 2025)

¹¹⁵ <https://anau.am/en/gitutyun/hetazotakan-kentronner/agrarian-policy-and-economics-research-center/> (accessed April 2025)



Caucasus, and Central Asia (EECCA) region with emerging markets. It is an organic certification body compliant with the International Organisation for Standardisation's (ISO) Guide 17065 and EN 45011.

"Shen" NGO is a pioneer organization in introducing organic agricultural practices in Armenia, aiming to create a new sustainable and environmentally friendly income source for Armenian rural households.

There are about 1600 well-established, successful agro-business companies in Armenia. These encompass various sectors such as fruit and vegetable processing, dried fruit and spice processing, grape processing, milk processing, meat processing and slaughtering, fish processing, bread baking, confectionery production, mineral and drinking water production, non-alcoholic beverage production, and alcoholic beverage production. These products are for sale in the domestic and overseas markets (Ministry of Economy)¹¹⁶ A few examples of such companies are Ararat Brandy, Yerevan Brewery, Bari Samaratsi LLC (a meat processing company), Dustr Marianna LLC (a dairy processing company), Atenk LTD (a meat processing company), Grand Candy LLC (which produces confectionery products), Sagati LLC (a fish processing company), etc.

There are several leading **supermarket chains** in Armenia, such as:

- SAS: The SAS Group is one of the leading retailers in Armenia and the whole Caucasian Region. The company has already entered Bulgaria, Georgia, and the USA markets.
- Yerevan City: The supermarket chain is the largest in Armenia.
- Carrefour Armenia: The Carrefour hypermarket opened in Armenia in 2015.

There are several leading **Restaurants** in Armenia, including:

- Yeremyan Projects unites the restaurant brands well-known by the residents of Yerevan and the guests of the Capital into one brand. Burgery, Italian Casa Nostra, Smoking Chef steak house, Livingston haute cuisine restaurant, Tavern Yerevan Riverside, Tavern Yerevan, and Yerevan Shaurma fast-food chain are among them.
- Founded in 1998, Tumanyan Shaurma is a prominent fast-food chain in Armenia. It has implemented Hazard Analysis and Critical Control Points (HACCP) quality standards, ensuring a rigorous system for monitoring and controlling the safety of food production and storage throughout its network.

¹¹⁶ Ministry of Economy of the Republic of Armenia. *Agro-processing*. [Online]. Available at: <https://www.mineconomy.am/en/page/1327> [Accessed 19 November 2023].



- "Pizza Tashir" stands out as a leading chain of pizzerias. The inaugural "Tashir Pizza" in Armenia debuted in 2004, and since then, the brand has flourished, currently boasting thirty-one pizzerias across the country.

4. Civil Society organizations

CSOs and advocacy groups often work to raise awareness, promote sustainable practices, and hold stakeholders accountable. They may also engage in community development and support initiatives that align with F2F goals.

The leading sector player is the **Center for Agribusiness and Rural Development (CARD) Foundation**. Through its two affiliated, for-profit organizations, CARD provides integrated services to farmers and agribusinesses based on a "one-stop shop" model. CARD AgroService provides agricultural services, including consultancy services, products, and equipment, to farmers and agribusinesses. The universal credit organisation CARD AgroCredit provides beneficiaries with agricultural and agribusiness financial services.

The **Organic Agriculture Development Association** was founded in 2018 within the Organic Agriculture Support Initiative project framework. The project's goal was to support farmers and agribusinesses in shifting to organic agriculture, increasing agricultural production, capturing new international markets, and providing bioproducts to local markets.

The **National Association of Consumers** was established in 1997. The Association performs quality control for various products, including food and consumer goods. Its role is crucial in ensuring that products entering or leaving the Republic of Armenia (RA) meet specified safety, quality, and suitability standards.

The **Confederation of Trade Unions of Armenia** has a long history since the 20th century. It has 18 republican branches, including the Republican Branch Union of Trade Union Organisations of Agroindustrial Workers. The effectiveness of the Confederation of Trade Unions of Armenia saw improvement following the approval of the new Labour Code in 2004. This legislation comprehensively regulates collective and individual labour relations, delineating the rights and obligations of both parties involved. The code also outlines the responsibilities of employers and employees, emphasizing the importance of ensuring the safety and health of workers in the workplace.

The **Union of Manufacturers and Businessmen of Armenia**, established in 1996, is a notable non-profit, non-governmental organisation. It plays a crucial role in unifying



leading businesspeople involved in various economic entities within Armenia. UMBA's core activities reflect a commitment to advancing economic interests and fostering collaboration among local manufacturers.

The Association of Pedigree Sheep Breeders was founded in Armenia in 2023. The association's strategic framework was crafted in collaboration with the ICARE Foundation's coordination efforts and received support from the EU-GAIA program.

Established in 2018, the **Armenian Restaurants Association** serves as a unifying platform for companies and professionals within the public food service industry in Armenia. The association is dedicated to various key objectives, including safeguarding the rights of restaurant companies, tackling critical industry issues, fostering the development of the sphere in Armenia, positioning the country as a premier culinary tourism destination, studying and implementing global trends in the restaurant industry, and facilitating cooperation and the exchange of experiences with international partners.

5. Consumer organizations

These organisations represent individuals who have a role as consumers and/or citizens in making informed choices that support sustainable and healthy food options. Their preferences and behaviours can influence market demand and production practices.

According to the Ministry of Economy, the country has about 499 agricultural and consumer cooperatives operating within the agricultural sector. Among these, 82 (16.4%) are specifically agricultural cooperatives, while 417 (83.6%) are designated as consumer cooperatives¹¹⁷.

6. International Organisations

Armenia benefits from technical and financial support from various **international organizations**, demonstrating a collaborative effort toward achieving development goals. The collaboration between Armenia and these international partners, such as FAO, World Food Programme (WFP), ADA, European Union, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and others, enhances the effectiveness and impact of initiatives aimed at smoothing the country's transition towards a green economy and improving its socio-economic conditions and overall well-being of its citizens. The cooperation projects are described throughout this report.

¹¹⁷ Ministry of Economy of the Republic of Armenia. *Agricultural cooperation*. [Online]. Available at: <https://mineconomy.am/en/page/1331> [Accessed 24 November 2023].



The WFP Armenia has strategically invested in climate-sensitive and economically sustainable food systems. These initiatives aim to diversify the food systems, promote value chains, and enhance entrepreneurship skills among small farmers. The overarching goal is to increase income levels and improve livelihoods, significantly addressing the challenge of food insecurity.

In the following section, we highlight those groups of stakeholders which could potentially block or champion the transition to sustainable food systems, as outlined under the European Union F2F strategy:

Potential blockers of a green transition

Some of the larger chemical input, food traders, food manufacturing and food retail companies may worry that transitioning to more sustainable practices could impact their profitability. They may be worried about changes in employment patterns, and companies may be concerned about potential job losses during the transition. Some companies may have significant investments in existing infrastructure that supports traditional, less sustainable practices, and thus may be concerned about stranded assets. Companies may be uncertain about the regulatory environment during and after the transition. Industries may also fear a loss of competitiveness if they transition to more sustainable practices while their competitors do not. Some organisations may lack awareness, or a complete understanding of the benefits and opportunities associated with such a transition.

Furthermore, stakeholders involved in importing and distributing **pesticides and fertilisers may resist a green transition, especially if it involves changes that impact** their established practices or economic interests. Small and medium-sized **markets, supermarkets, hypermarkets, and beverage companies** might also resist a just transition if it involves changes to their packaging practices, particularly if they have been using non-environmentally friendly materials, based on plastic, for example. Some businesses, such as restaurants and food processing companies, may resist a just transition, especially if it involves changes in how they manage organic waste. Livestock producers may fear that facilitating a shift towards healthier and more sustainable dietary patterns involving more plant-based food may threaten their livelihoods.

Addressing the concerns of these stakeholders during a just transition involves fostering dialogue, providing incentives for adopting environmentally friendly alternatives, and ensuring a supportive regulatory framework. Collaboration between government agencies, industry stakeholders, and environmental organisations is crucial to navigating



these challenges and achieving a more sustainable and ecologically responsible agricultural and environmental sector.

Below we list a few activities that can address challenges and incentivise stakeholder collaboration more generally:

- Provide training programs and resources to help these organisations understand the practical advantages of adopting sustainable practices.
- Establish or enhance communication channels between businesses and the government, ensuring that there are dialogue and information exchange platforms.
- Encourage the formation of industry associations or networks to facilitate ongoing communication and collaboration among stakeholders.
- Develop and implement policies that encourage sustainable practices. This could include tax benefits, subsidies, or grants for organisations adopting environmentally friendly approaches.
- Foster public-private partnerships to jointly address sustainability challenges. Collaboration between businesses, government, and civil society can drive more comprehensive and practical solutions.
- Establish support mechanisms to assist businesses during challenging times, ensuring they can maintain sustainable operations.
- Support capacity-building initiatives for businesses to enhance their ability to integrate sustainable practices into their operations.
- Benefits in terms of export market access (political guarantee of further integration in the Common Market under the condition of the introduction of European Union compliant regulations, subject to the Common Agriculture Policy)
- Grants/other types of funding for organisations that reduce their GHG emissions.

3. F2F gap assessment

This section provides an overview of the main gaps between the current food-related environmental and climate policy plans and those proposed in the European Union F2F strategy, as well as any institutional and sectoral capacity limitations.



3.1. Policy and Legal Framework

3.1.1. Strategic and planning documents, goals, and targets

The Republic of Armenia has been actively fostering collaboration with the European Union by negotiating the Association Agreement. This strategic partnership is anticipated to bring about economies of scale, expanded markets, increased foreign direct Investment (FDI), and a transformative shift towards establishing more democratic government institutions. The decision to sign the Association Agreement in 2013 was perceived as a move aligned with Armenia's best interests.

In 2014, Armenia made a dramatic policy shift to join the Eurasian Economic Union (EAEU). Armenia became a member of the EAEU in 2015. The EAEU provides free movement of goods, services, capital, and labour and pursues a coordinated, harmonised, and single policy in the economic sectors determined by the Treaty and international treaties within the EAEU.

Although Armenia became a member of EAEU, the European Union and Armenia continued their negotiations to reach a new partnership agreement. The Armenia–European Union Comprehensive and Enhanced Partnership Agreement (CEPA) signifies a central partnership between the European Union and Armenia. The Agreement was signed in November 2017 and entered into force on 1 March 2021. This agreement elevates bilateral relations to a comprehensive level, specifically regulating cooperation in political and economic sectors and fostering enhanced trade relations. The CEPA serves as a framework for long-term integration and fortifying ties between the European Union and Armenia. A significant aspect of this agreement is its commitment to gradually align Armenian laws and regulations with the European Union acquis, reflecting a shared commitment to convergence and cooperation. Chapter 10 Article 70 of the CEPA Agreement states that “The Parties shall cooperate to promote agricultural and rural development, in particular through progressive convergence of policies and legislation” (CEPA, 2018)¹¹⁸.

To successfully execute the Agreement, the Interagency Commission, responsible for coordinating the CEPA, devised a comprehensive roadmap outlining over three hundred measures across diverse sectors such as education, science, health, social protection,

¹¹⁸ *Comprehensive and Enhanced Partnership Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Armenia, of the other part.* (2018) [Online]. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22018A0126\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22018A0126(01)) [Accessed 12 January 2024].



infrastructure, economy, environment, agriculture and more. This roadmap received approval from the Prime Minister on 1 June 2021 (Ministry of Foreign Affairs).

In addition to the CEPA, several other agreements were concluded with the European Union in 2021-2022, including the “The agreement between Armenia and the European Union on the participation of the Republic of Armenia in the “Horizon Europe,” Research and Innovation Framework Programme, signed on 12 November 2021, and entered into force on 10 February 2022. This programme addresses climate change, aims to support the delivery of F2F goals, contributes to the attainment of the UN's Sustainable Development Goals (SDGs), and enhances the European Union's competitiveness and growth. By fostering collaboration, the programme reinforces the influence of research and innovation, specifically focusing on accelerating the transition to sustainable, safe, healthy, and inclusive food systems from F2F, ensuring food and nutrition security for all and delivering co-benefits for the environment, health, society and economy.

1. National Strategies:

Below, we set out the most relevant national strategies to the F2F theme:

The **Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030**¹¹⁹ outlines the key priorities of agricultural policy in Armenia, defines the scope of priority issues, as well as the Action Plan for the implementation of the Strategy for 2023-2026. The Action Plan of the Strategy was aimed at increasing agricultural production, developing of rural areas and increasing Armenia's competitiveness in the global economy. The Strategy prioritises seven strategic directions for Armenia's agriculture sector: (1) Increasing agricultural sector competitiveness and enhancing efficiency (2) Ensuring food safety (3) Developing local markets and increase export possibilities (4) Improving food security and nutrition (5) Developing institutional and human capacity (6) Supporting sustainable rural development (7) Promoting digital agriculture and technology innovation. The last point is interconnected and supports the delivery of the first six strategic directions. The Strategy also recognises the importance of addressing the development of institutional and human capacity and cooperation with other ministries and agencies. The government continues its support access to subsidised credit, with a focus on the development of value chains and the enhancement of the productivity and efficiency of farming, livestock sector development, consolidation of agricultural lands, the establishment of greenhouses, the

¹¹⁹ Ministry of Economy of the Republic of Armenia. *The Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030*. [Online]. Available at: <https://mineconomy.am/en/page/1467> [Accessed 24 November 2023].



establishment of drip irrigation with sizes less than 3 ha, and the development of intensive orchards, etc.

Before the 2018 revolution, Armenia had taken several measures to incorporate the **2030 Agenda** and SDGs, many of which are relevant to the F2F theme, into its planning documents and institutional structures. However, following the revolution and subsequent changes in government, specific actions related to SDG integration were temporarily halted. The government developed a comprehensive **Armenia Transformation Strategy 2020-2050** (ATS) and the 2030 Action Plan, centred around 16 mega-goals and aligned with the SDGs. In the absence of a National SDG Framework, the ATS has provided an opportunity to align the government's long-term vision, sectoral strategies, policies, and budgets, thereby expediting the implementation of the SDGs (UN Armenia 2021-2025)¹²⁰.

Some of the actions implemented by the Government of Armenia to achieve SDG goals and relevant to F2F, were reported in the Voluntary National Review Report (VNR) (2020)¹²¹.

Table 4: Government actions SDGs relevant to F2F, VNR

SDG 1. End poverty in all its forms everywhere	The Government has implemented Assistance programmes for livestock farming targeted at non-competitive individuals in the labour market.
SDG 2. End hunger, achieve food security, improve nutrition and promote sustainable agriculture	Launching a programme subsidising interest rates for loans supporting economic entities in pedigree stockbreeding demonstrates a government initiative to stimulate and support the livestock farming sector. The RA Government and the UN WFP stepped up their cooperation in the School Feeding Programme, Food Value Chains, and resilience to shocks hampering access to food and nutrition security. The FAO project "Grape Genetic Resources Conservation and Sustainable Use in

¹²⁰ United Nations Sustainable Development Cooperation Framework for Armenia 2021-2025. [Online]. Available at: https://unece.org/sites/default/files/2021-05/Armenia_UNSDCF_2021-2025.pdf [Accessed 30 November 2023].

¹²¹ Republic of Armenia. (2020) *Republic of Armenia: Sustainable Development Goals: Voluntary National Review*. [Online]. Available at: https://sustainabledevelopment.un.org/content/documents/26318Armenia_VNRFINAL.pdf [Accessed 7 December 2023].



	<p>Armenia" is commendable for its focus on preserving and utilizing the genetic diversity of local grape varieties. The government has disseminated a proposed bill on genetically modified organisms to uphold the genetic diversity of seeds, cultivated plants, farmed and domesticated animals, and their associated wild species. Additionally, scientific centres have established genetic banks.</p> <p>To preserve the genetic resources of fauna, "RA cattle-breeding development programme for 2019-2024"; "State assistance programme for sheep-breeding and goat breeding in the Republic of Armenia for 2019-2023" are implemented; and "Programme for preservation and improvement of genetic fund of livestock breeds in Eastern Europe".</p> <p>The UNDP project, "Integrated Support to Rural Development: Building Resilient Communities," assisted the local population by promoting self-employment in the agricultural sector. This involved creating innovative models for alternative income-generating opportunities and enhancing livelihoods.</p>
SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy for all	<p>The Government adopted the National Programme 2021-2030 on Energy Saving and Renewable Energy. In addition, the Government supports the Masdar Armenia Programme investment project on a two-stage construction of 2 solar photovoltaic stations with a total capacity of 400 MW. The chosen site for the plant boasts abundant solar radiation, rendering the land unsuitable for traditional agricultural purposes. Spanning over five hundred hectares, this solar project harnesses the</p>



	high solar potential and contributes to job creation, generating both direct and indirect employment opportunities ¹²² , including in the F2F area.
--	--

The **2014-2025 Strategic Programme of Prospective Development**¹²³ is the main strategic document for socio-economic development and the basis of medium-term, sectoral, and other programme documents to be developed. The programme is based on the following four priorities: expansion of employment, human capital development, improvement of the social protection system, and Institutional modernisation of the management system. The Development Strategy for agriculture aims to progressively diminish reliance on significant agricultural imports and foster growth by enhancing the productivity of new agricultural jobs.

The National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2025¹²⁴ serves as a comprehensive roadmap, strategically guiding the integration of adaptation measures and implementing the NAP within sector policies, regional and local development frameworks, and corresponding financial planning processes. It is a crucial reference point, facilitating the convergence and coordination of diverse adaptation planning initiatives across various sectors. The overarching goal is to ensure a cohesive and harmonised approach to adaptation, fostering resilience at multiple levels of governance and planning. Armenia's NAP 2021-2025 consists of two sets of implementable measures: cross-sectoral interventions and adaptation measures specific to six priority sectors, including agriculture. The planned measures include developing the draft RA Government Decision on approval of the climate change adaptation concept and action plan for the agriculture, water, energy, and healthcare sectors and submission to the office of the RA Prime Minister. In addition, guidelines on climate change risk consideration in crop production planning and implementation for agricultural extensions will be developed following the respective trainings. Later, several measures of the NAP aimed at enhancing adaptation in the agricultural sector were integrated in the 2023-2026 Action Plan for the implementation of the Strategy of the Main Directions Ensuring

¹²² MASDAR. AYG-1 Solar Photovoltaic Plant. [Online]. Available at: <https://masdar.ae/en/renewables/our-projects/ayg-1-solar-photovoltaic-plant> [Accessed 4 February 2024].

¹²³ The Government of the Republic of Armenia. *Republic of Armenia 2014-2025 Strategic Programme of Prospective Development*. [Online]. Available at: <https://www.gov.am/en/prsp/> [Accessed 24 November 2023].

¹²⁴ Government of the Republic of Armenia. (2021) *National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2025*. Available at: https://unfccc.int/sites/default/files/resource/NAP_Armenia.pdf [Accessed 8 December 2023].



Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030.

The **2021-2026 Government Program**¹²⁵ emphasises Sustainable Development and the Green Economy, focusing on decarbonising the economy and gradually replacing fossil fuels. In the agriculture sector, the Government's policy is aimed at various strategic objectives, such as: Intensification of agriculture, enhancing productivity, judicious use of land resources, efficient and economical utilisation of water resources, elevating the level of food safety protection, fostering the development of animal husbandry and plant breeding, integrating modern technologies, facilitating the sale of manufactured products, and promoting the export of agricultural goods. Furthermore, the policy seeks to elevate the income levels of entities engaged in the agricultural value chain. This includes supporting rural economies, cooperatives, and individuals processing agricultural products.

The adoption of the **2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia**¹²⁶ in March 2023 reflects a comprehensive approach to enhancing food safety and security in the country. The main objectives outlined in the strategy demonstrate a commitment to strengthening various aspects of the food security system. Key elements of the plan include: Legislative improvement; laboratory capacity strengthening; institutional capacity building; public participation and awareness; internalisation of the Armenia agri-food system; mandating the implementation of sanitary and phytosanitary measures in alignment with international standards set by organisations such as the World Health Organization, World Animal Health Organization, International Plant Protection Convention, and Codex Alimentarius; and decision-making based on scientifically based risk assessment. The strategy partially addresses several issues pertinent to F2F. This includes enhancing the legislative framework of the food safety sector, and there are plans to establish an inter-sectoral working group. This group will comprise specialists, experts, and lawyers from the fields of food safety,

The RA Law “**On Food Safety**” adopted on 21 June 2014 (as amended 08 February 2023)¹²⁷. The law governs safety relationships at various stages of the food supply chain. This

¹²⁵ The Government of the Republic of Armenia. *Programme of the Government of the Republic of Armenia 2021-2026: Annex to Decision of the Government of the Republic of Armenia 1363-N of 18 August*. [Online]. Available at: <https://www.gov.am/files/docs/4737.pdf> [Accessed 25 November 2023].

¹²⁶ Ministry of the Economy of the Republic of Armenia. (2020) *Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030*. [Online]. Ministry of Economy. Available at: <https://mineconomy.am/en/page/1467> [Accessed 25 November 2023].

¹²⁷ ARLIS. RA Law “On Food Safety”. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180741> [Accessed 26 November 2023].



includes import, export, manufacturing, processing, packaging, labelling, transportation, storage, and the introduction of food, materials in contact with food, food additives, and activities related to trading and mass catering. The comprehensive coverage of these stages indicates a holistic approach to ensuring food safety from production to consumption, highlighting the importance of regulatory measures across the entire food industry spectrum.

2. Armenian legislation

Below, we set out various pieces of legislation that are relevant to the F2F:

Food safety:

- The RA Law "On Food Safety" adopted on 21 June 2014 (as amended on 08 February 2023)¹²⁸;
- The RA Law "On State Control over Food Safety" was adopted on 21 June 2014¹²⁹;
- Decision of the Government of the Republic of Armenia on 20 January 2011 N 34-N "On Approval of the Technical Regulation of Hygienic Requirements of Food"¹³⁰;
- Decision of the Government of the Republic of Armenia on 28 June 2007 N 885-N "On Approval of the Requirements submitted to the Technology Instruction"¹³¹;
- Technical regulations regulating food safety are divided into two groups: technical regulations that apply to all types of food products and technical regulations that are sectoral and apply to certain types of food products.

Phytosanitary:

- RA Law on Phytosanitary, No. HO-140-N, adopted by the National Parliament on 21.06.2014 (as amended 04.03.2020)¹³²;

¹²⁸ *ibid*

¹²⁹ ARLIS. RA Law "On State Control over Food Safety". [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180737> [Accessed 26 November 2023].

¹³⁰ ARLIS. Decision of the Government of the Republic of Armenia on 20 January 2011 N 34-N "On Approval of the Technical Regulation of Hygienic Requirements of Food. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/higiena_voroshum_1656660529.pdf [Accessed 26 November 2023].

¹³¹ ARLIS. Decision of the Government of the Republic of Armenia on 28 June 2007 N 885-N "On Approval of the Requirements submitted to the Technology Instruction. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/885-voroshum_1656660728.pdf [Accessed 26 November 2023].

¹³² ARLIS. RA Law "On Phytosanitary". [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180288> [Accessed 26 November 2023].



- RA LAW on Organic Agriculture, adopted by the National Parliament on April 8, 2008 (last update 17 January 2023)¹³³;
- Decision of the Government of the Republic of Armenia No. 293-N on “Approval of the list according to the requirements of the List of Chemical Substances and Pesticides Prohibited in the Republic of Armenia Subject to the Regulation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade of the UN”, adopted on 17 March 2005 (last modified on 08 September 2016)¹³⁴;
- Decision of the Government of the Republic of Armenia No. 444-N “On Determining the Allowable Maximum Residue Level of Pesticides, Antibiotics, and Other Pollutants in Honey”, adopted on 22 April 2010¹³⁵;
- Decision of the Government of Armenia No. 1904-N “On Determining the Maximum Residue Level of Pesticides and Nitrates in Foods of Animal and Plant Origin”, adopted on 14 December 2006 (last modified on 03 October 2013)¹³⁶;
- Decision of the Government of Armenia No. 1192-N “On Approval of the Procedure for Conducting Tests of Pesticides and Agrochemicals and the Forms of Conclusions on the Import and Export of Pesticides and Agrochemicals”, adopted on 15 October 2015 (last modified on 14 January 2021)¹³⁷;
- Decision of the Government of Armenia No. 1195-N “On Approval of Technical Regulation on Production, Packaging and Circulation of Pesticides and Agrochemicals”, adopted on 15 October 2015 (last modified on 14 January 2021)¹³⁸;

¹³³ ARLIS. RA Law “On Organic Agriculture”. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=75260> [Accessed 26 November 2023].

¹³⁴ Food Safety Inspectorate. Decision of the Government of the Republic of Armenia No. 293-N “On Approval of the list according to the requirements of the List of Chemical Substances and Pesticides Prohibited in the Republic of Armenia Subject to the Regulation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade of the UN”. [Online]. Food Safety Inspectorate. Available at: <https://snund.am/hy/page/phytosanitary/102> [Accessed 26 November 2023].

¹³⁵ IRTEK. Decision of the Government of the Republic of Armenia No. 444-N “On Determining the Allowable Maximum Residue Level of Pesticides, Antibiotics, and Other Pollutants in Honey”. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=53275> [Accessed 26 November 2023].

¹³⁶ IRTEK. Decision of the Government of Armenia No. 1904-N “On Determining the Maximum Residue Level of Pesticides and Nitrates in Foods of Animal and Plant Origin”. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=37782> [Accessed 26 November 2023].

¹³⁷ IRTEK. Decision of the Government of Armenia No. 1192-N “On Approval of the Procedure for Conducting Tests of Pesticides and Agrochemicals and the Forms of Conclusions on the Import and Export of Pesticides and Agrochemicals”. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=82414> [Accessed 26 November 2023].

¹³⁸ IRTEK. Decision of the Government of Armenia No. 1195-N “On Approval of Technical Regulation on Production, Packaging and Circulation of Pesticides and Agrochemicals”. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=82379> [Accessed 26 November 2023].



- Decision of the Government of Armenia No. 195-N “On Approval of the Rules on the Use of Unsuitable Pesticides”, adopted on 17 February 2011¹³⁹;
- Decision of the Government of Armenia No. 1266-N “On Approval of the of Countries whose Pesticide and Hygienic Assessment Test Results are Acceptable for Registration of Pesticides and Agrochemicals in the Republic of Armenia”, adopted on 29 October 2015¹⁴⁰;
- Decision of the Government of Armenia No. 1117-N “On Approval of the Procedure for State Registration, Re-Registration and De-Registration of Pesticides and Agrochemicals” adopted on 21 July 2022¹⁴¹;
- Decision of the Government of Armenia No. 1104-N “On Approval of the Composition and Order of Activity of the Pesticides and Agrochemicals Registration Committee”, adopted on 21 July 2022¹⁴²;
- Decree of the Minister of Health of the Republic of Armenia No.790-N “On Approval of Sanitary Rules and Norms for Storage, Transportation, Usage and Sale of Pesticides”, adopted on 30 August 2005 (last modified on 12 May 2021)¹⁴³;
- Decree of the Head of the Food Safety Inspectorate of the Republic of Armenia No. 426-A “On Approval of the List of Pesticides and Agrochemicals Permitted for Use in the Republic of Armenia”, adopted on 17 March 2020 (last modified on 16 January 2023)¹⁴⁴;

Veterinary

¹³⁹ IRTEK. *Decision of the Government of Armenia No. 195-N “On Approval of the Rules on the Use of Unsuitable Pesticides”*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=58657> [Accessed 26 November 2023].

¹⁴⁰ IRTEK. *Decision of the Government of Armenia No. 1266-N “On Approval of the of Countries whose Pesticide and Hygienic Assessment Test Results are Acceptable for Registration of Pesticides and Agrochemicals in the Republic of Armenia”*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=82560> [Accessed 26 November 2023].

¹⁴¹ IRTEK. *Decision of the Government of Armenia No. 1117-N “On Approval of the Procedure for State Registration, Re-Registration and De-Registration of Pesticides and Agrochemicals”*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=117063> [Accessed: 26 November 2023].

¹⁴² IRTEK. *Decision of the Government of Armenia No. 1104-N “On Approval of the Composition and Order of Activity of the Pesticides and Agrochemicals Registration Committee”*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=117059> [Accessed 26 November 2023].

¹⁴³ IRTEK. *Decree of the Minister of Health of the Republic of Armenia No. 790-N “On Approval of Sanitary Rules and Norms for Storage, Transportation, Usage and Sale of Pesticides”*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=31683> [Accessed 26 November 2023].

¹⁴⁴ IRTEK. *Decree of the Head of the Food Safety Inspectorate of the Republic of Armenia No. 426-A “On Approval of the List of Pesticides and Agrochemicals Permitted for Use in the Republic of Armenia”*. [Online]. Legal Information Center JSC. Available at: https://snund.am/public/storage/uploads/426-%D4%B1_1674712778.pdf [Accessed 26 November 2023].



- The Law of the Republic of Armenia "On Veterinary" was adopted on 21 June 2014 (as amended 12 September 2023)¹⁴⁵;
- The Law of the Republic of Armenia "On Fodder" was adopted on 21 June 2014¹⁴⁶;

Fisheries

- Governmental Decision No. 1667-N "On Validating the Regulation on Restoration, Preservation and Reproduction of Fish Stocks and Crayfish (crustaceans) and Total Allowable Catch Thereof in Sevan Lake", 21 November 2019¹⁴⁷.
- Governmental Decision No. 473-N "On implementation of Economic Activities for the Restoration of Sevan Lake Ecosystem", 21 April 2016¹⁴⁸.
- Governmental Decision No. 488-N "On Validating the Regulation on Small Hydropower Plants", 08 April 2021¹⁴⁹.
- Governmental Decision No. 488-N "On Validating the Regulation on Refusal of Authorization for Water Use on Small Hydropower Plants for Waterbodies which are Overloaded by 40% with Spawning Grounds of Endangered Fish Species", 08 April 2021¹⁵⁰.
- Governmental Decision No. 1237-N "On the Approval of Common Sanitary and Hygiene Requirements for the Products Subject to Sanitary Control (supervision), Requirements for the Safety of Food and Nutrition Value, List of Products Defined by Common Sanitary Requirements, Sanitary Requirements for Canned Products, Indicators of Parasitic Safety for Fish, Crayfish, Fillets, Amphibious, Reptiles and the Products of Their Processing", 30 October 2014¹⁵¹.

Other

¹⁴⁵ ARLIS. RA Law "On Veterinary". [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=166253> [Accessed 26 November 2023].

¹⁴⁶ ARLIS. RA Law "On Fodder". [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%AF%D5%A5%D6%80%D5%AB-%D5%B4%D5%A1%D5%BD%D5%AB%D5%B6_1677050349.pdf [Accessed 26 November 2023].

¹⁴⁷ FAO/IEA Database. Armenia - Fisheries. [Online]. Food and Agriculture Organization of the United Nations: FAO/IEA Database. Available at: <https://www.fao.org/faolex/country-profiles/general-profile/see-more/en/?iso3=ARM&countryname=Armenia&area=Fisheries&link=aHR0cDovL2Zhb2xleC5mYW8ub3JnL2NnaS1iaW4veG1sLmV4ZT9kYXRhYmFzZT1mYW9sZXgmYW1wO3NlYXJjaF90eXBIPXF1ZXJ5JmFtcDt0YWJsZT1hbGwmYW1wO3F1ZXJ5PUFSRUe6RkkgQU5EIEITTzpBUk0gQU5EIFQ6QUxMIEFORCBSRVBFQUxFRDpOIEFORCBTVVBFUIM6TiBOT1QgUk86WSBBTkQgWiooTCBSIE0pIE5PVCBaOlAmYW1wO3NvcnRfbmFtZT1Ac3ByZkZJJmFtcDtsYW5nPXhtbGYmYW1wO2ZvcmlhdF9uYW1IPUBYU0hPUlQmYW1wO3BhZ2VfaGVhZGVyPUVYTUxIJmFtcDtwYWdlX2Zvb3Rlcj1FWWE1MRg==> [Accessed 2 December 2023].

¹⁴⁸ ibid

¹⁴⁹ ibid

¹⁵⁰ ibid

¹⁵¹ ibid



- RA Law “On Provision of Sanitary-Epidemiological Security of the Population of the Republic of Armenia”, adopted on 16 November 1992¹⁵².
- RA Law “On the Protection of Consumer Rights”, adopted 26 June 2001¹⁵³.
- RA Law “On the Organisation and Conduct of Inspections in the Republic of Armenia”, adopted 17 May 2000¹⁵⁴.
- RA Law “On Trade and Services”, 24 November 2004¹⁵⁵.
- RA Law “On Waste” adopted 24 November 2004 (last modified on 7 June 2018). The law also refers to the production and consumption of waste (raw materials, products, food residues, etc.), generated during production or consumption¹⁵⁶.
- RA Law “On Communal Waste and Sanitary Cleaning” adopted 23 June 2011¹⁵⁷.

A collaborative partnership programme with the European Union facilitated the integration of organic legislation into the Armenian government's official agenda. This significant development materialised with the enactment of the 2008 Law of the Republic of Armenia on Organic Agriculture, which officially came into force in May 2009.

The Government of Armenia (Ministry of Health, Food Safety Inspectorate, etc.) has also initiated measures to mitigate the burden of Non-Communicable Diseases (NCDs). Specifically, there are considerations for implementing taxes on sugar-based carbonated beverages and regulations on salt, including the introduction of maximum limits in certain foods. However, it is noteworthy that, as of now, no additional actions, such as food price policies, have been formally adopted to promote healthy diets actively.

¹⁵² FAO/WHO Database. Law “On Provision of Sanitary-Epidemiological Security of the Population of the Republic of Armenia”. [Online]. Food and Agriculture Organization of the United Nations: FAO/WHO Database. Available at: <https://faolex.fao.org/docs/pdf/arm47094E.pdf> [Accessed 2 December 2023].

¹⁵³ ARLIS. RA Law “On the Protection of Consumer Rights”. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%BD%D5%BA%D5%A1%D5%BC%D5%B8%D5%B2%D5%B6%D5%A5%D6%80_1696251452.pdf [Accessed 26 November 2023].

¹⁵⁴ ARLIS. RA Law “On the Law Organization and Conduct of Inspections in the Republic of Armenia”. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%BD%D5%BF%D5%B8%D6%82%D5%A3%D5%B8%D6%82%D5%B4_1696251495.pdf [Accessed 26 November 2023].

¹⁵⁵ ARLIS. RA Law “On Trade and Services”. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%A1%D5%BC%D6%87%D5%BF%D5%B8%D6%82%D6%80_1696251538.pdf [Accessed 26 November 2023].

¹⁵⁶ ARLIS. RA Law “On Waste”. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=1722> [Accessed 26 November 2023].

¹⁵⁷ ARLIS. RA Law “On Communal Waste and Sanitary Cleaning”. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=69863> [Accessed 26 November 2023].



Annexe 1 contains a detailed table of the priority strategic documents, together with relevant thematic objectives and targets across the F2F thematic area.

3.1.2. Compliance of national legal framework to international obligations/conventions and European Union approximation

There are numerous strategies, conventions and legislative frameworks in the European Union which are relevant to the F2F theme, and the three most important groups of strategic documents that are relevant to F2F include:

1. Common Agricultural Policy (CAP) Strategic Plans | The primary goal of CAP Strategic Plans is to reform the European Union's agricultural policy to make it more sustainable, resilient, and environmentally friendly. These plans aim to support farmers in adopting practices that enhance environmental care, climate action, and resource efficiency. The role in the green transition is pivotal, as CAP Strategic Plans shape agricultural practices toward greater sustainability, aligning them with broader European Union environmental objectives¹⁵⁸.

2. The European Union F2F Strategy | The Farm-to-Fork Strategy focuses on creating a more sustainable and resilient food system from production to consumption. Goals include reducing the use of pesticides and antibiotics, promoting organic farming, and improving the overall environmental footprint of the food supply chain. This strategy plays a crucial role in the green transition by fostering a sustainable and low-impact approach to food production and consumption, addressing both environmental and health concerns¹⁵⁹.

3. Legislative Framework for Sustainable Food Systems | The Legislative Framework for Sustainable Food Systems (which at the time of writing still has not been published) aims to establish comprehensive regulations that promote sustainability across the entire food supply chain. Goals include reducing food waste, promoting healthy diets, and ensuring fair and sustainable practices from F2F. This framework is instrumental in the green transition by providing a legislative backbone for sustainable food production, distribution, and consumption, contributing to the overall environmental and social objectives of the European Union¹⁶⁰.

¹⁵⁸ [https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans_en#:~:text=CAP%20Strategic%20Plans%20contribute%20to,economic%20fabric%20of%20rural%20areas.\(accessed](https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans_en#:~:text=CAP%20Strategic%20Plans%20contribute%20to,economic%20fabric%20of%20rural%20areas.(accessed) 25th April 2025)

¹⁵⁹ *ibid*

¹⁶⁰ https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy/legislative-framework_en (accessed 25th April 2025)



In addition, the agri-food sector in Armenia is guided by the following international agreements and national strategies:

Armenia attained full membership in the **World Trade Organization** (WTO) in 2003 and has actively joined various WTO agreements, such as the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Trade-Related Aspects of Intellectual Property Rights, the Agreement on Technical Barriers to Trade, and the Agreement on Agriculture. Consequently, national legislation is obligated to align with international standards.

Armenia's ratification of international conventions, such as the **International Plant Protection Convention**, demonstrates its commitment to global cooperation in plant health and protection. The Convention is an international treaty to prevent the spread and introduction of pests that could harm plants, crops, and ecosystems.

In annexe 2, we have listed the most relevant pieces of Armenian legislation/national laws and their approximation to F2F related European Union legislation.

3.1.3. Summary of gaps/bottlenecks and needs

While Armenia's environmental regulatory framework is comprehensive, periodic reviews are beneficial to ensure its continued effectiveness and alignment with evolving challenges and international standards. Regular assessments can help identify areas for improvement, address emerging environmental issues, and incorporate the latest scientific and technological advancements.

The CEPA agreement between the European Union and Armenia entered into force in 2021. A significant aspect of this agreement is its commitment to gradually align Armenian laws and regulations with the European Union acquis, reflecting a shared commitment to convergence and cooperation. It's worth noting, however, that the agricultural component of the agreement is limited. Furthermore, strategies for green agriculture need to be developed.

Policies and action plans addressing food security and nutrition tend to emphasise agriculture, focusing on ensuring food availability and self-sufficiency. However, notable gaps persist, particularly in addressing issues related to food accessibility and utilisation.

While efforts may have been made to address certain aspects of food safety, challenges persist in ensuring that the nutritional content of food products aligns with health standards and contributes to disease prevention. To safeguard public health effectively, it



is essential to consider avoiding contaminants and pathogens and promoting a balanced and nutritious diet. Addressing this nutritional dimension is crucial for achieving a comprehensive and robust food safety system.

Summary of gaps

Are all the thematic areas relevant to F2F subtopics covered by national strategic documents?

- 1) The CEPA agreement between the European Union and Armenia entered force in 2021. A significant aspect of this agreement is its commitment to gradually align Armenian laws and regulations with the European Union acquis, reflecting a shared commitment to convergence and cooperation. It's worth noting, however, that the agricultural component of the agreement is relatively limited.
- 2) The Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030 outlines the key priorities of agricultural policy in Armenia, defines the scope of priority issues, and includes the Action Plan for implementing the Strategy for 2020-2022.
- 3) Adopting the 2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia shows a commitment to addressing food security challenges and partially aligns with the objectives of the F2F approach.
- 4) While some efforts have been made to address certain aspects of food safety, challenges persist in ensuring that the nutritional content of food products aligns with health standards and contributes to disease prevention. To safeguard public health effectively, it is essential to consider not only the avoidance of contaminants and pathogens but also the promotion of a balanced and nutritious diet.
- 5) Sustainable food production, processing, and consumption, food loss and waste, and aquaculture are key dimensions of the F2F strategy that have not been adequately addressed in the existing strategies and action plans.
- 6) A lack of well-defined and cohesive policies concerning land and water resources. Agriculture, while crucial for food production and economic development, can adversely affect biodiversity due to practices such as deforestation, habitat destruction, pesticide use, and monoculture.
- 7) There is no strategy for ensuring and promoting healthy and sustainable diets.
- 8) There is no strategy for sustainable fisheries.



- 9) There is no policy addressing food loss and waste.
- 10) The European Union directives on animal welfare are not fully transposed into Armenian legislation and are not included in the CEPA Agreement.
- 11) Even though a law on Organic Farming exists, farmers have no incentives to adopt it.

Have the related sector-specific international agreements been honored? What are the key issues?

- 1) Reforms that align with international agreements are required in almost all areas of F2F.
- 2) Armenia has agreements with following organisations in the F2F area: WB (agriculture), FAO (animal health, plant protection, food safety, quality and security, nutrition security, and poverty alleviation), European Bank for Reconstruction and Development (EBRD) (water infrastructure), International Fund for Agricultural Development (IFAD) (agriculture), Codex Alimentarius Commission (food standards, health and fair trade), International Organization of Vine and Wine (OIV) (grape and wine production), etc.¹⁶¹
- 3) As an example, a project entitled "Waste Management Policy in Armenia" (2022-2026)¹⁶², funded by Sweden, aims to assist the Ministry of Environment in the implementation of an expanded producer responsibility (EPR) system based on European Union best practices.

Are the current strategic objectives and targets in the thematic area aligned with the European Union F2F strategy? How much do they differ?

- 1) Aligning reforms with European Union Directives, including the F2F strategy, is essential for ensuring that the agricultural sector follows internationally recognised standards and best practices. However, the agricultural component of the CEPA agreement is limited.
- 2) The F2F strategy, as part of the European Green Deal, emphasises sustainability and environmental considerations throughout the food supply chain. By incorporating these principles into national agricultural reforms, the country will advance towards fulfilling

¹⁶¹ Ministry of Economy of the Republic of Armenia. *International Cooperation*. [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/93> [Accessed 4 February 2024].

¹⁶² Ministry of Environment of the Republic of Armenia. Information Platform: *The 4-year program "Waste management policy in Armenia" has been launched*. [Online]. Ministry of Environment of the Republic of Armenia. Posted: 31 October 2022. Available at: <http://www.mnp.am/en/news/4-year-program-waste-management-policy> [Accessed 27 November 2023].



the European Union accession requirements and contribute to the broader goals of sustainable agriculture, improved food safety, and environmental stewardship. This alignment can enhance the agricultural sector's competitiveness while promoting responsible and resilient practices.

3) The strategic objectives and targets of the F2F strategy are partially incorporated into Armenian legislation under different laws and regulations.

Has the relevant European Union legal framework been transposed in a suitable way relative to the European Union F2F strategy? What are the most significant issues?

1) Insufficient funding poses a significant constraint, hindering the effective implementation of the F2F strategy. Adequate financial resources are essential to support the necessary changes in agricultural practices, promote sustainable food systems, and address environmental and health considerations outlined in the strategy. The policies related to food consumption of the European Union Strategy need to be reviewed and strengthened.

2) A lack of human capacity is another major challenge. Implementing the F2F strategy requires a skilled workforce to navigate complex regulatory frameworks, monitor compliance, and drive the necessary transformations in the agriculture and food sectors.

Are there ongoing discussions on transposing the European Union acquis to align it with national and European Union F2F goals? How far are they?

1) In 2022, in collaboration with the World Bank, the European Union, and the United Nations Development Programme, the Armenian Government initiated the "Growth and Recovery for the Strengthening, Upgrading, and Prosperity of Armenia" platform. This platform supports Armenia's efforts towards sustainable development, green recovery, and overall economic growth.

2) The primary objective of the GREEN Armenia platform is to consolidate and streamline policies and investment initiatives, facilitating Armenia's transition to a green economy.

3) Adopting the 2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia signals a commitment to addressing food security challenges and partially aligns with the objectives of the F2F approach.



3.2. Instruments for policy implementation

This section describes the implementation of policies in Armenia and analyses whether they are enough to achieve the ambitions of the F2F national policy and international agreements. Our analysis assesses the appropriateness of the policy mix (appropriateness of existing and planned regulatory and economic instruments as well as funding mechanisms) for reaching the ambition of the European Union F2F strategy in Armenia.

3.2.1. Regulatory and economic instruments

Overall, based on this assessment, the provisions of the European Union's F2F strategy are not fully implemented in the Armenian policy framework and reflect a gap between the strategy and the current state of agricultural policies in Armenia.

While the "Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030" and the "2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia" delineates crucial priorities for a F2F policy, it is acknowledged that financial resources are indispensable for the effective implementation of the strategy's goals. Armenia faces challenges in securing the necessary finances to drive progress in the F2F sector. Addressing this financial gap may involve exploring diverse funding sources, engaging in partnerships, seeking international assistance, and devising innovative financing mechanisms to ensure the successful execution of the outlined strategies and the sustained development across the F2F sector.

The F2F sector encounters significant challenges stemming from legislative gaps, which create issues that directly impact the effectiveness of inspectors in conducting their controls. These include the absence of an early response system, which allows for potential delays in addressing emerging concerns. The market witnesses the sale of unregistered, expired, and non-compliant pesticides and agrochemicals, posing risks to consumers and the environment. Illegal sales of such products further compound the problem.

Issues arise regarding food conformity assessment during production or processing, especially when standardisation documents are not applied. The lack of clear legal regulations for the mobile trade of food products, beverages, juice, ice cream, etc., adds to



the regulatory ambiguity. Additionally, there is a gap in defining the requirements for the operation of veterinary pharmacies.¹⁶³

The key regulatory documents that act as pillars of the European Union F2F strategy can be divided into nine broad categories: Regulation of agriculture and fisheries, water quality, fertiliser use, food safety and food fraud, food labelling, animal welfare, food security, food waste, and general sustainability. The list below includes the general description of each group, highlighting the status of their transposition to the Armenian legislature for each of them:

Regulation on agriculture and fisheries: The Government primarily focuses on the economic aspects of agriculture, including developing digital agriculture, increasing productivity, promoting knowledge-based agriculture, supporting research, and continuously carrying out accurate and internationally traceable measurements. The approximation of European Union regulations on agriculture and fisheries is not included in the CEPA Agreement. Acknowledging adverse effects from fish farming, particularly over-extraction and over-wasting of groundwater in Ararat Valley, highlights the importance of sustainable water management in agricultural practices. The planned implementation of online water metering systems in the 2021-2026 Government Action Plan is a positive step toward addressing these challenges.

Regulation on water quality: Introducing management systems for effective use and increase of the quality of water resources is planned in the 2021-2026 Government Action Plan. The absence of a clear strategy on water management impedes pragmatic achievements to improve environmental sustainability, public health, and economic development. It is planned to develop a national water strategy for drinking and irrigation water and water resources. The two European Union Directives, namely the Water Framework Directive and the Directive on Protection of Waters against Pollution Caused by Nitrates from Agricultural Sources, will be approximated by 2029.

Regulation of fertilizer and pesticide use: The regulation of pesticides and fertilisers, as per the Law on Phytosanitary and other relevant legal acts, listed in section 3.1.1, is a critical aspect of ensuring food safety and environmental protection. However, the observation that the list of allowed pesticides includes those not permitted in the USA and

¹⁶³ Food Safety Inspectorate under the Government of the Republic of Armenia. Annual Reports: Annual Activity Plan for 2024. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/en/page/annual-reports/146> [Accessed 4 February 2024].



European Union raises concerns about potential discrepancies in regulatory standards. Currently, the approximation of European Union regulations on pesticide and fertilizer use is not included within the CEPA Agreement.

Regulation of food safety and security and food labelling and fraud: While Armenia has adopted a law and strategy introducing basic principles and requirements for the safety and quality of food products, the implementation of European Union norms on food safety and labelling is partial. The absence of direct correspondence in Armenian legislation for the Green Claims Directive and the special code of conduct on Responsible Food Business and Marketing Practices suggests a gap in the regulatory framework related to environmental claims and responsible marketing in the food industry.

The introduction of international food safety standards and strengthening state oversight over food safety in Armenia are critical measures with far-reaching implications. The approach must be multifaceted, contributing to the protection of consumer rights, enhancing competitiveness, and expanding food trade both locally and internationally.

Regulation on Animal Welfare: The European Union directives on animal welfare are not fully transposed into Armenian legislation or included in the CEPA Agreement. However, the aim of national legislation (listed in section 3.1.1) is to provide a legal foundation for safeguarding the welfare of animals. The Food Safety Inspectorate in its 2024 Annual Activity Plan included measures, such as development of a comprehensive plan for the prevention and elimination of brucellosis and murrain disease; monitoring of residues of veterinary drugs in food products produced in Armenia and imported into Armenia; proper implementation of state control in slaughterhouses to ensure the sale of slaughterhouse products.¹⁶⁴

Regulation of Food Waste: The European Union regulations have not yet been incorporated into Armenian legislation. Armenia's legislation on waste system management and the RA Law "On Communal Waste and Sanitary Cleaning" include the 2021-2023 Strategy and its Action Plan. In addressing biowaste, which constitutes a sizable portion of generated waste (around 30-60%), the Strategy introduces tools for its management. These tools encompass biogas production, windrow composting, pyrolysis, and other approaches. As part of the Armenia - CEPA Agreement, there is a commitment

¹⁶⁴

ibid



to adopting waste management principles based on the “5 Rs” - reduce, reuse, recycle, recover and residual.¹⁶⁵

Regulation of the general sustainability: The European Union regulations have not been fully incorporated into Armenian legislation and are not covered by the CEPA Agreement.

Regulation on organic farming: The Organic Farming Law is almost fully in compliance with European Union legislation. However, the current Organic Law's absence of clarity regarding the designated authority for enforcement in the organic agriculture sector poses a significant challenge. Without a clear definition of the responsible government body, which entity is tasked with enforcing the Organic Law, conducting market surveillance activities, and ensuring compliance with the regulations becomes unclear.

Regulations relating to diets/nutrition/dietary guidelines: The Ministry of Health initiated and developed a draft government decision on the prevention of the consequences of iodine deficiency, considering that Armenia is an endemic country. The Government Decision on 29 March 2004 N 353-N “On Approval of the National Programme for Control and Prevention of the Consequences of Dietary Iodine Deficiency in the Nutrition of the Population of the Republic of Armenia” (last amendment 21 December 2006) was adopted. The government decision permits the use of non-iodised salt in food processing, but this has not been addressed so far¹⁶⁶.

The Food Safety Inspectorate posts dietary information for consumers on its website¹⁶⁷. Given Armenia's membership in the EAEU, the regulation of food the Technical Regulation of the Customs Union governs labelling “Food products in terms of their labelling” (TR CU 022/2011)¹⁶⁸. It is important to note that in addition to adhering to the EAEU regulations, Armenia has national food safety legislation. The local law on food safety in Armenia includes general requirements for food labelling. There is no legal requirement to

¹⁶⁵ ARLIS. *Government Decision on 1 April 2021 N 464 - L “On Approval of the Communal Waste Strategy and Program of Measures for 2021-2023 ensuring the Implementation of the Strategy”*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/DocumentView.aspx?DocID=151384> [Accessed 24 January 2024].

¹⁶⁶ ARLIS. *The Government Decision on 29 March 2004 N 353-N “On Approval of the National Programme for Control and Prevention of the Consequences of Dietary Iodine Deficiency in the Nutrition of the Population of the Republic of Armenia”*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentView.aspx?docid=33968> [Accessed 4 February 2024].

¹⁶⁷ Food Safety Inspectorate under the Government of the Republic of Armenia. *Useful Information*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/hy/page/useful-information/164?page=2> [Accessed 4 February 2024].

¹⁶⁸ Food Safety Inspectorate under the Government of the Republic of Armenia. *Legislation*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/hy/page/food-safety/71> [Accessed 4 February 2024].



emphasise organic origin and product information on the label. The recent legislative changes granted the Food Safety Inspectorate the authority to penalise fake labelling.

However, efforts pertaining to policy measures for controlling the marketing of high-fat, salt-and-sugar (HFSS) foods to children have been limited. While overarching laws governing marketing regulations exist, they lack specific provisions addressing restrictions on advertising food products to children. Specifically, Armenia's Law on Advertising, enacted in 1996, primarily focuses on establishing standards and principles for advertising practices (FAO, 2023)¹⁶⁹.

While the government has initiated assistance programmes (listed below), it is recognised that these steps alone are insufficient to address the issues relevant across the agri-food sector comprehensively. Additional measures and strategies may be required to tackle the multifaceted challenges faced by the industry effectively. This could involve further policy adjustments, increased investments, enhanced coordination with stakeholders, and the development of more targeted and comprehensive programmes to ensure a more impactful and sustainable transformation of the agricultural sector. Currently, state support programmes are:

Livestock

- Industrial crayfish development project, 2024-2026
- Support for investment projects in the livestock sector, 2023
- Sheep and goat breeding, 2019-2023
- Construction or reconstruction of small and medium-sized "smart" cattle houses and state assistance for their technology
- Beef cattle breeding development programme, 2019-2024.

Horticulture and farming

- A pilot project on agrarian land reform, 2023
- Reimbursement of irrigation water fee in case of the introduction of drip and rain irrigation systems on land areas up to 3 ha
- Support programme for the consolidation of rural lands, 2023-2025
- Development of Intensive horticulture, introduction of modern technologies and stimulation of the production of non-traditional high-quality crops, 2021-2023.

¹⁶⁹ Fang, C., Gurinović, M., eds. (2023). *Sustainable and nutrition-sensitive food systems for healthy diets and prevention of malnutrition in Europe and Central Asia*. [Online]. Food and Agriculture Organisation of the United Nations, Budapest. Available at: <https://doi.org/10.4060/cc3907en> [Accessed 1 February 2024].



- Implement a pilot project to introduce an insurance system in agriculture.

Loan subsidization and leasing

- Greenhouse facilities development programme 2023- 2026
- Procurement of agricultural raw materials, 2023
- Leasing of agricultural machinery
- Leasing of financial lending of agri-food equipment.

Below is a summary of the most relevant regulatory, economic, and voluntary instruments and their corresponding levels of application in Armenia.

Table 5. Regulatory, economic and voluntary instruments

Type of instrument	Name of the instrument and brief description	Statutory requirement	Responsible party/target group	Level of its application
Regulatory	"Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030" ¹⁷⁰	Government Decision	Ministry of Economy / Farmers, food producers, agri-food chain players	Ongoing
Regulatory	2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia ¹⁷¹	Government Decision	Ministry of Economy / Farmers, food producers, agri-food	Ongoing

¹⁷⁰ Ministry of the Economy of the Republic of Armenia. (2020) *Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030* [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/1467> [Accessed 25 November 2023].

¹⁷¹ Government of the Republic of Armenia. *Decision of the Government of the Republic of Armenia No. 1083-L "On Strategy on the Development of the Food Security System in the Republic of Armenia"*. [Online]. Available at: https://www.e-gov.am/u_files/file/decrees/kar/GVC4-C2D2-66AC-4391/1083.1.pdf [Accessed 26 November 2023].



			chain players	
Regulatory	Before 2018, Armenia embraced the 2030 Agenda and SDGs in its planning, but later, SDG-related actions paused. The Government then introduced the ATS 2020-2050 and 2030 Action Plan, aligning with 16 mega-goals and SDGs (UN Armenia 2021-2025) ¹⁷² .	Government Decision	All ministries / agribusinesses, whole thematic area of F2F	Development stage
Economic	State assistance programmes are listed above. There is also mobile tool "Irazekum" that sends messages about the news on programmes ¹⁷³ .	The platform for awareness of state support programs was created by the Public Relations and Information Center of the RA Prime Minister's Office.	Ministry of Economy / Farmers, food producers, agri-food chain players	Ongoing
	Supply of primary agricultural products and goods produced in Armenia is exempted from VAT	Tax Code ¹⁷⁴	Farmers	Ongoing

¹⁷² United Nations Sustainable Development Cooperation Framework for Armenia 2021-2025. [Online]. Available at: https://unece.org/sites/default/files/2021-05/Armenia_UNSDCF_2021-2025.pdf [Accessed 30 November 2023].

¹⁷³ State Support Programs: Awareness Platform. [Online]. Available at: <https://irazekum.am/> [Accessed 25 January 2024].

¹⁷⁴ ARLIS. Tax Code of the Republic of Armenia, adopted on 4 October 2016. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/DocumentView.aspx?docid=145780> [Accessed 4 February 2024].



Voluntary	Food Labeling		Agribusinesses	Ongoing
Voluntary	Compliance with European Union standards, ISO		Agribusinesses	Ongoing
Voluntary	Training, workshops		Projects /Farmers, SMEs	Ongoing

3.2.2. Funding and financing

Both external and domestic financing initiatives face challenges in Armenia¹⁷⁵. Due to the reduced significance of inward FDI, there has been an increased dependence on external non-FDI liabilities. Access to finance, especially for small and medium enterprises (SMEs), is notably limited, often requiring these businesses to rely on internal resources and retained earnings. This constraint poses challenges for the growth and development of SMEs in the F2F area (the whole value chain, including farmers transitioning organic/agroecology), as they may face difficulties in securing external funding for investments, expansion, and operational needs. Improving the financial ecosystem for SMEs, such as enhancing access to credit, promoting financial inclusion, and supporting alternative financing mechanisms, becomes crucial to fostering entrepreneurship, innovation, and economic development.

Key contributors to funding programs in the agricultural sector include the Armenian Government, the European Commission, the United States Agency for International Development (USAID), GIZ, among others. Table 6 below highlights some of those programs funded by international partners. The Government allocates funds to agrarian companies through diverse subsidy programs detailed in section 3.2.1. However, the current funding may fall short of the country's needs.

Consequently, Armenia needs to explore opportunities to access European Union funds and leverage financial mechanisms to implement sustainable initiatives and projects that will deliver F2F. Policy priorities in Armenia should be strategically designed to address and eliminate the primary constraints hindering increased access to finance.

¹⁷⁵ Atamanchuk M. and Tokuoka K. (2023) *Supporting Sustainable Financing and Access to Finance in Armenia* (working paper). [Online]. International Monetary Fund. Available at: <https://www.imf.org/en/Publications/WP/Issues/2023/01/13/Supporting-Sustainable-Financing-and-Access-to-Finance-in-Armenia-521315> [Accessed 3 December 2023].



Armenia's green transformation encounters several obstacles, primarily stemming from the country's heavy reliance on imported hydrocarbons (e.g., chemical fertilisers and pesticides, food manufacturing, etc.). Armenia heavily depends on hydrocarbons for various purposes, including food distribution and transportation, fossil fuel-based electricity generation, and residential and industrial applications. This increases the cost of the whole F2F chain.

Using renewable energy will help Armenia diversify its energy sources, strengthen energy security, reduce its energy dependence on Russia, and, of course, protect nature by reducing emissions. Here, Armenia is receiving the European Union's assistance in policy, expertise and small projects. Still, foreign investments are needed to transform the energy sector, as the green transition is quite expensive. Moreover, the cost of renewable energy is much higher than the status quo. The electricity and hot water generated can be used during food processing. Many agribusinesses (e.g. "Yerevan City" supermarket installed solar panels on supermarket roofs) and farmers install solar panels to have alternative energy sources.

The transition to a low-carbon renewable energy source across the agri-food sector involves significant expenses, and the cost of electricity generated from renewable sources can be higher than that from conventional methods. Investments can play a key role in supporting Armenia's ambitious goals, fostering renewable energy development across F2F infrastructure, and making sustainable practices economically viable. This collaboration contributes to Armenia's energy resilience and aligns with broader global efforts to combat climate change and promote sustainable development.

Armenia's current Value-Added Tax (VAT) system is generally structured according to the principles outlined in the European Union VAT Directive.

Table 6 - Projects implemented by international donors over the last three years

Donor	Title of the project	Objective	Period	Amount
FAO	Creating enabling environments for enhanced climate	The project contributed to mainstreaming climate change adaptation processes in agriculture and food systems through enhancing resilient seed systems and promoting	15-Apr-2020 - 14-Apr-2022	405,000 USD



	resilience in agriculture ¹⁷⁶	quality seeds of climate-tolerant varieties (SDG 13).		
	Establishment of land management instruments and an institutional framework to address land abandonment ¹⁷⁷	The project's goal is to support the establishment of a new Land Agency and provide initial assistance to operationalise the proposed framework for mediating leases.	01 Nov 2019 - 30 Oct 2021	279,000 USD
	Strengthening food safety and animal health capacities in risk assessment and management ¹⁷⁸	The project supported in improved safety and quality of the food produced and consumed in Armenia and increased competitiveness in international trade.	01 May 2019 - 30 Apr 2021	315,000 USD
	Strategies for Food Loss and Waste Reduction ¹⁷⁹	The project's goal was to enhance the reduction of FLW in the programme implementation areas, resulting in a reduction of the national contribution to climate change, and a mitigation of the pressure on national food systems for increased production.	01 Aug 2018 - 31 Jul 2021	320,000 USD Location: Regional Europe (Armenia, Albania, Moldova, North Macedonia)

¹⁷⁶ FAO. *Ongoing Projects in Armenia*. [Online]. Food and Agriculture Organisation of the United Nations. Available at: <https://www.fao.org/armenia/programmes-and-projects/project-list/en/> [Accessed 3 December 2023].

¹⁷⁷ ibid

¹⁷⁸ ibid

¹⁷⁹ ibid



Russian Federation (FAO)	Developing Capacity for Strengthening Food Security and Nutrition in Selected Countries of the Caucasus and Central Asia ¹⁸⁰	Increase capacity in the countries of the region to establish an enabling environment for the food security of the most vulnerable populations	01 May 2016 - 30 Jun 2021	2,000,000 USD Location: Regional (Armenia, Kyrgyz Republic, Republic of Tajikistan)
European Union, ADA	EU-GAIA ¹⁸¹	Promote green agriculture and increase the added value of local products to contribute to the overall, balanced, and inclusive development of Armenia's northern regions.	October 2019 – March 2023	European Union, € 9,7 million and ADA € 2 million
European Union	EU4Climate ¹⁸²	The overall objective is to contribute to climate change mitigation and adaptation and develop towards a low-emissions and climate-resilient economy.	December 2018 – December 2023	€ 8 million Location: EaP Countries: Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, and Ukraine
European Union	EU4Environment – Water Resources and Environmental Data ¹⁸³	Support a more sustainable use of freshwater resources through improved water policies and practices and help reduce the adverse	January 2022 – June 2024	€ 12 million Location: EaP Countries: Armenia, Azerbaijan,

¹⁸⁰

ibid

¹⁸¹

UNDP. *European Union Green Agriculture Initiative in Armenia (EU-GAIA)*. [Online]. Available at:

<https://www.undp.org/armenia/projects/eu-green-agriculture-initiative-armenia-eu-gaia> [Accessed 28 November 2023].

¹⁸²

European Union for Armenia. *EU4Climate*. [Online]. Available at: <https://eu4armenia.eu/projects/eu-project-page/?id=300>

[Accessed 28 November 2023].

¹⁸³

EU4Environment: Water and Data Eastern Partner Countries. [Online]. Available at:

<https://www.eu4waterdata.eu/en/about/programme-description.html> [Accessed 28 December 2023].



		<p>impact of human activities on water quality and ecosystems.</p> <p>Extend and improve the use of sound environmental data by the partner countries and ensure greater availability of policy-relevant data for decision-makers and citizens.</p>		Belarus, Georgia, the Republic of Moldova, and Ukraine
USAID	Rural Economic Development - New Economic Opportunities (RED-NEO) ¹⁸⁴	To promote inclusive, sustainable economic growth and economic security in targeted areas.	March 2019 – December 2026	Appr USD 7.5 million
GIZ	Promoting Green Deal Readiness in the Eastern Partnership Countries (PROGRESS) ¹⁸⁵	The project's strategy is to provide support that demonstrates to farmers and businesses the economic benefits of investing in climate-oriented, resilient, and green solutions. Along the selected value chains, the project involves energy-intensive industries (e.g., processing of jams, dried fruits, etc.) that have a financial incentive to switch	October 2023- April 2028	PROGRESS funding is 20 Mio EUR for Armenia, Georgia, Azerbaijan, Moldova, Ukraine, of which 17 Mio. EUR from EU and 2,58 Mio. EUR from BMUV. It is

¹⁸⁴ U.S. Embassy in Armenia. *USAID Launches Rural Economic Development - New Economic Opportunities Programme*. [Online]. Available at: <https://am.usembassy.gov/new-economic-opportunities/> [Accessed 28 December 2023].

¹⁸⁵ IKI. *Promoting Green Deal Readiness in the Eastern Partnership Countries (ProGress)*. [Online]. Internationale Klimaschutzinitiative. Available at: <https://www.international-climate-initiative.com/en/project/promoting-green-deal-readiness-in-the-eastern-partnership-countries-progress-22-i-496-nus-g-green-deal-readiness/> 777 [Accessed 4 February 2024].



		to energy-efficient technology or alternative energy sources.		GIZ/OECD implemented.
European Union	Technical Assistance and Information Exchange (TAIEX) tool ¹⁸⁶	TAIEX is an instrument of the European Commission that supports public administrations regarding the approximation, application, and enforcement of European Union legislation and the sharing of European Union best practices.	Continues	

Establishing and developing a comprehensive food safety system, including sanitary and phytosanitary measures, involves allocating funds from the State Budget for plant protection, veterinary care, and food safety programmes. Despite allocations in previous years, the currently earmarked funds remain inadequate to establish a fully operational food safety system that aligns with the standards set by the International Union (Republic of Armenia and Food Systems Summit Dialogues, 2021)¹⁸⁷. According to the same report, the existing structure of the Food Safety Inspection Body poses limitations on implementing food safety system reforms. A thorough review of the structure and functions is imperative for addressing these constraints.

There is no comprehensive assessment report that will introduce the required funding across the F2F area, including moving towards organic/agroecological farming (improving soil health), sustainable fisheries, reductions in pesticides/fertilisers use, reductions in food waste, food security, healthy and sustainable diets, and dealing with food fraud.

3.2.3. Summary of gaps/bottlenecks and needs

Despite the regulations covering key policy and legal areas of the European Union's F2F Strategy, significant work is still required to transpose European legislation into the Armenian legal framework. In addition, the existing policies are unlikely to provide

¹⁸⁶ Ministry of Economy of the Republic of Armenia. TAIEX. [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/777> [Accessed 4 February 2024].

¹⁸⁷ Republic of Armenia and Food Systems Summit Dialogues. (2021) *National Pathway for Food Systems Transformation in Support of the 2030 Agenda*. [Online]. Available at: https://summitdialogues.org/wp-content/uploads/2021/09/Armenia_National-Pathway_2021_En.pdf [Accessed 23 November 2023].



sufficient legal support for measurable environmental improvements in the country. Another critical aspect highlighted is the lack of a comprehensive assessment of the required funding and the actual funding available for the transition to F2F system.

The status of aligning Armenian laws with the CEPA reveals a complex and multifaceted process, with an acknowledgement of existing gaps, particularly in implementing the F2F strategy. A comprehensive evaluation is needed to identify misalignments in Armenia's agricultural policies with the European Union F2F principles, addressing deficiencies through regulatory updates or new introductions. Notably, the lack of effective regulatory and economic tools poses a challenge in achieving tangible enhancements of the F2F goals. This evaluation should highlight areas where F2F elements can be incorporated, emphasizing the necessity for specific economic instruments. Furthermore, addressing gaps in existing policies requires developing economic tools aligned with the European Union F2F strategy and revising state-subsidised loan programs to integrate sustainability criteria.

Summary of gaps

Are all key policy and legal areas covered with appropriate regulatory and economic instruments to ensure compliance with European Union F2F strategy?

- 1) While some progress has been made in approximating legislation, it is acknowledged that not all fields are covered, such as food processing and consumption. The process of aligning Armenian laws and regulations with the provisions of the CEPA is likely to be complex and multifaceted, involving ongoing efforts to address various legal and regulatory aspects.
- 2) The current organic law lacks clarity regarding the designated authority for enforcing organic agriculture, which poses a significant challenge regarding monitoring and compliance.
- 2) There are some gaps in specific areas of the F2F where there is a misalignment or gaps in implementation. It is essential to evaluate the extent to which Armenia's agricultural policies align with the key principles and objectives of the European Union F2F strategy, and to address them.
- 3) The evaluation will show the gaps where some elements of F2F will be incorporated by updating existing regulations or introducing new ones.

Are the regulatory and economic instruments sufficient to ensure they lead to tangible and measurable environmental improvements (achieving F2F goals)?



- 1) There is a deficiency in regulatory and economic tools to guarantee tangible and effective enhancements in line with the European Union F2F Strategy.
- 2) Addressing the potential gap in the effectiveness of existing policies related to the F2F goals in Armenia and enhancing environmental outcomes involves developing and implementing specific economic instruments aligned with the European Union F2F strategy.
- 3) Reviewing and revising state-subsidised loan programs to incorporate sustainability criteria from the F2F strategy can contribute to more sustainable agricultural practices.
- 4) Armenia has limited experience with land consolidation approaches to increasing land parcel size, which is one reason for unsustainable agriculture.
- 5) There is a lack of extension services to transfer knowledge and facilitate farm enlargement.

Are the regulatory and economic instruments efficient, considering their ability to reduce emissions or promote sustainability while minimising economic distortions and administrative costs?

- 1) The existing regulations are not evenly distributed between the environmental protection areas. For instance, the regulatory framework regarding chemical waste and waste management is more complete than that regarding communal waste. Even in more regulated areas, more government attention is needed as some laws must be adapted to European norms, e.g., water resources management.
- 2) The existing legislation on fisheries and their sustainable management is weakly addressed, resulting in overexploitation of the groundwater.
- 3) The ongoing expansion in the renewable energy sector is predominantly fueled by installing solar PV and hydropower plants. While these advancements are commendable for their positive impact on reducing greenhouse gas emissions and facilitating the modernisation of the energy system, the escalating reliance on hydropower raises concerns about potential environmental degradation risks.
- 4) Establishing a monitoring and evaluation system is required to assess the effectiveness of regulatory and economic instruments. This system will assess the impact of agricultural policies on the F2F strategy's goals.

Are the agri-food system funding and financing instruments realistic relative to the sectoral goals related to the European Union F2F strategy?

- 1) The Government is subsidising some projects listed in section 3.2.1. Additional coordinated funding from donor organisations or countries is essential to attain the F2F goals.
- 2) Technical support will also boost progress.



3) Providing capacity-building programs and training to farmers, agricultural businesses, and relevant stakeholders will promote awareness and understanding of the F2F principles.

4) The existing grant and funding programs (national and international) within the agri-food sector in Armenia primarily focus on primary agriculture and food processing, with limited attention to consumption levers, such as dietary change, food labelling and food waste.

Is funding the F2F-related goals important to the national government, or does most of the funding come from outside donors?

1) The Government is implementing some projects, but the available funds do not cover the whole value chain, across F2F.

2) Most funding comes from the European Union, GIZ, ADA, USAID, WB, etc.

3.3. Institutional/governance capacity

Overall, the institutional and governance capacity of key stakeholders from the public sector in Armenia can be rated as medium. Long-term green transition considerations related to F2F are not fully integrated into policies, plans, programs, and projects. Still, the institutions have mechanisms to ensure that decision-making, policy development, and planning follow long-term objectives.

3.3.1. Existing institutional set-up

Under the F2F framework, the sector is overseen and managed by the following authorities (See Section 2.0):

- The Ministry of Economy and its seven departments in the field of agriculture function as a central body of executive authority tasked with formulating the government's economic policy within its designated areas. This Ministry is responsible for both executing and evaluating the outcomes of economic policies.
- The Ministry of Environment, its Bioresources Management Agency, and the National Institute of Standards. It serves as a central executive authority responsible for formulating and executing state policies related to environmental protection and the sustainable utilisation of natural resources.
- The Ministry of Health oversees the development and implementation of public health policies.
- The Ministry of Territorial Administration and Infrastructures coordinates the regional development policies.



- The government's Food Safety Inspectorate evaluates food products' compliance with relevant standards. It also oversees the administration of veterinary and sanitary services, enforces control measures, and imposes sanctions on behalf of the Republic of Armenia.
- The Health and Labour Inspection Body under the Government performs supervisory and other functions as mandated by law. Additionally, it applies sanctions in healthcare and labour law, including ensuring the health and safety of employees, all conducted on behalf of the Republic of Armenia.
- State Revenue Committee under the Government: functions as a tax and customs authority, established under the laws of the Republic of Armenia, specifically the laws "On Tax Service," "On Customs Regulations," and "On Customs Service."

3.3.2. Capacity assessment of existing institutional set-up

The general assessment of institutional readiness for each aspect is provided in the list below:

Long-Term Planning- Ministries and Parliamentary Committees may initiate the development of laws, long-term strategic planning, and documents related to their specific field, including EGD and F2F initiatives.

The extent of the mandates and authority—The Parliament of the Republic of Armenia implements the legislative power, supervises the executive power, adopts the State Budget, and performs other functions prescribed by the Constitution. The Minister is responsible for independently developing and implementing the government's policy in the specific field of activity entrusted to their Ministry. This involves crafting strategies, initiatives, and plans that align with the government's goals and priorities.

Resource Allocation - The Government implements a single state policy on financial, economic, credit and tax matters. Armenia is a small country with a limited budget. For almost 30 years it's been under blockade by Turkey and Azerbaijan, and has been involved several times in war with Azerbaijan. The Ministry of Environment and the Ministry of Economy allocate limited resources towards EGD topics and F2F. Other governmental bodies also have financial and human resources for solving environmental issues, but their scope is more limited.



Interagency Coordination—All institutions cooperate with other governmental bodies, and the Ministry of Economy is involved in the majority of EGD topics. In some instances, the inter-sectoral Steering Committee and working groups may be established upon a Minister's decision or within the framework of the Programmes.

Compliance and Enforcement - The Ministry of Environment, the Ministry of Economy, and the Food Safety Inspectorate have the largest capacity to enforce compliance with Green Deal and F2F policies and regulations.

Data collection, Monitoring, and Reporting -The Ministry of Environment collects data on environmental topics. The Ministry of Economy and the Food Safety Inspectorate are responsible for collecting data on issues more relevant to the F2F sector. The Statistical Committee collects and analyses all data.

Capacity Building—All governmental bodies must frequently update their knowledge about changes within the country or global policy changes.

Stakeholder Engagement, Awareness, and Communication—All public institutions communicate/consult with the public during events such as meetings, conferences, press conferences, etc.

Transparency and Accountability—All public institutions post information on their websites, but in some cases, the information is outdated or not comprehensive. In some cases, only financial reports are posted, but not activity reports. Very often, the websites are not user-friendly, and it isn't easy to search for information. For example, the Statistical Committee has a vast database, but the search engine often does not work.

The F2F Strategy is a comparatively new concept in Armenia, and there is currently limited stakeholder engagement, awareness, and communication on F2F within the country.

Each institution is accountable for the various components of the F2F initiative and has its roles and responsibilities outlined by law. However, reforms are necessary to amend legislation, upgrade institutional structures and enhance institutional capacities, specify roles and responsibilities, and adjust norms and standards to align with European Union regulations.

The soil, plant, water, and pesticide test labs in Armenia are inadequate, not fully operational, and lack certification. Insufficient funds are allocated for monitoring



pesticides and residues, posing a challenge to ensuring food safety and protecting consumer health. The limited resources also hamper the enforcement of pesticide regulations. However, on a positive note, Armenia registers and provides the public with an annual update of its list of pesticides allowed for import and use.

3.3.3. Summary of gaps/bottlenecks and needs

Even though most of the outlined institutions have the regulatory capacity to implement specific reforms, they often lack the financial or human resources to implement EGD monitoring and reporting practices at the necessary level. Furthermore, some institutions lack experience conducting capacity-building initiatives, stakeholder engagement, awareness, and communication activities.

In the agri-food sector, existing roles and responsibilities are recognised but lack clarity, necessitating further definition and precision. Challenges arise from the dispersion of F2F initiative authorities across different ministries, with mandates that, while clear, may require additional considerations for effective alignment with European Union goals. Institutional and human capacity is notably deficient at the thematic area's national, regional, and local levels.

Strengthening capacity is essential for state control structures. This focuses on improving data collection, monitoring, and reporting systems, especially in traceability principles such as producer registration and animal numbering. Timely updates on ministry websites are crucial for accuracy and relevance, yet some data may not be available or accessible to the public. Stakeholder engagement and communication activities within institutions show deficiencies, and inter-sectoral collaboration appears weak.

Addressing these challenges involves strengthening partnerships and coordination among various sectors to create a more integrated approach. This approach aims to enhance synergy and maximise the impact of efforts related to the F2F strategy.

Summary of gaps
Are the roles and responsibilities in the agri-food area established in the institutions from the perspective of the European Union's F2F strategy?
1) While roles and responsibilities in the agri-food sector are currently defined, there is a recognised need for further clarification and precision.



2. One challenge is that the authorities responsible for the F2F initiative are spread across different ministries.

Have the proper institutions been given a clear mandate sufficient to reach the European Union's F2F-related goals set up in the thematic area?

- 1) The institutions have been given a mandate, which, while clear, may be only partially sufficient to reach the European Union F2F-related goals set up in the thematic area.
- 2) Additional considerations and adjustments may be necessary to enhance the mandate's effectiveness and ensure comprehensive alignment with the objectives of the F2F strategy.

Do the relevant institutions have enough (human) resources to manage the European Union F2F related requirements?

- 1) The thematic area faces a notable deficiency in institutional and human capacity across all levels (national, regional and local).
- 2) There is a need to develop laboratory network creation mechanisms.

Do the relevant institutions have transparent and sufficient data collection, monitoring, and reporting systems?

- 1) The relevant institutions have data collection, monitoring, and reporting systems. However, there are insufficient instruments to follow the principle of traceability, in particular, the producer register and animal numbering and registration system, veterinary monitoring of animals and animal products, and control of drug residues.
- 2) In some cases, timely updates and posting of information on ministries' websites are needed to ensure accuracy and relevance.
- 3) Sometimes, data does not exist or is not accessible to the public on the ministries' websites.

Do the relevant institutions have sufficient stakeholder engagement and communication activities in place?

- 1) There appears to be a deficiency in stakeholder engagement and communication activities within the relevant institutions, across all ministries.
- 2) Additionally, there is a weakness in inter-sectoral collaboration.
- 3) Strengthening partnerships and coordination among various sectors can lead to a more comprehensive and integrated approach, fostering synergy and maximising the impact of efforts related to the F2F strategy.



3.4. Non-governmental actor capacity

The sections below provide a detailed capacity assessment of technical, infrastructure, and stakeholder capacities, as well as information on the current skill level of non-government actors.

3.4.1. Technical and infrastructure capacity – current capacities and future needs

The Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030 emphasises that a technology-focused modernisation approach involves investing in the digitalisation of the agricultural sector, mechanisation and automation, drip irrigation, greenhouse facilities, the introduction of smart barns, and the development of post-harvest infrastructure such as cold chains and modern storage systems.

Additionally, donor organisations are contributing to projects related to sustainable processing, food production, and technology-focused endeavours. For example, the USAID RED-NEO Programme¹⁸⁸ is designed to bring about sustainable system changes. The project encourages the implementation of Integrated Pest Management (IPM) approaches and supports SMEs in upgrading their production capacities and increasing growth.

Financial investments are required to transition to new technologies.

Climate Smart Agriculture (CSA) practices in the Republic of Armenia encompass a range of approaches, including organic production, greenhouses, intensive orchards and farms. Additionally, various agricultural productions integrate one or more elements of CSA, such as drip irrigation, the use of cover crops and mulching, anti-hail systems, and the intensification of production (AGREEN).¹⁸⁹ According to the study, Armenian farmers are open-minded, and CSA practices are popular among them. However, there are obstacles to broadly implementing CSA, such as a lack of legislation, CSA-related education, branding, and consumer awareness.

¹⁸⁸ AWHHE. *Rural Economic Development - New Economic Opportunities Programme*. [Online]. Armenian Women for Health and Healthy Environment NGO. Available at: <https://awhhe.am/2019-2022-rural-economic-development-new-economic-opportunities-program/> [Accessed 28 December 2023].

¹⁸⁹ AGREEN. *Feasibility Study Climate-Smart Agriculture in the Black Sea Basin Region of Armenia*. [Online]. Cross-Border Alliance for Climate-Smart and Green Agriculture in The Black Sea Basin. Available at: [https://blacksea-cbc.net/wp-content/uploads/2022/02/BSB1135-AGREEN - Feasibility-study-of-the-state-of-art-and-potential-of-climate-smart-agriculture-in-Armenia-EN.pdf](https://blacksea-cbc.net/wp-content/uploads/2022/02/BSB1135-AGREEN-F-Feasibility-study-of-the-state-of-art-and-potential-of-climate-smart-agriculture-in-Armenia-EN.pdf) [Accessed 15 January 2024].



According to the 2024 Annual Activity Plan of the Food Safety Inspectorate, several food safety issues have been identified. These include food insecurity in Armenia, which stems from several factors, including limited access to healthy diets, low education levels, ingrained dietary habits, and low awareness of healthy lifestyles. Traditional Armenian dishes often contain high levels of salt (salty cheese, sausages, pickled vegetables, and other canned food, including meats, fish, etc.), contributing to excessive sodium intake among adults. Additionally, the Armenian diet tends to be high in fat, with no national policies regulating industrially produced trans fats. The country adopts no food-based national guidelines. Despite ongoing health system reforms, the Government of Armenia is beginning to address these issues by considering measures such as taxes on sugary beverages and regulations on salt content in certain foods. However, further actions, such as food price policies, are yet to be adopted to promote healthier dietary habits.¹⁹⁰

The production and sale of fraudulent food products, food items with labelling violations, and the absence of Hazard Analysis and Critical Control Points (HACCP) implementation during production is another issue. Additionally, there is a lack of awareness among producers regarding HACCP laws, especially among SMEs¹⁹¹.

Improving diagnostic and laboratory capacities is critical to enhancing the food safety system, emphasising the establishment of reference laboratories within the food safety sector. These reference laboratories play a pivotal role in ensuring food safety and monitoring both infectious and non-infectious diseases in domestic animals, with a specific focus on diagnosing diseases identified by the WOAHA (World Organisation for Animal Health).

3.4.2. Green skills and awareness

In 2021, the Armenian Government reaffirmed its dedication to a green recovery and growth strategy by incorporating green economy and sustainable development priorities into its newly outlined five-year programme from 2021 to 2026.

Green skills are essential for mitigating environmental impacts and facilitating a green transition to achieve a more sustainable, climate-resilient, and efficient agri-food sector. These skills are instrumental in fostering a transition to climate-smart practices whilst supporting the principles of environmental sustainability and ensuring favourable working conditions. However, according to the data of the Statistical Committee, among 71,732

¹⁹⁰ Fang, C. and Gurinović, M. (2023) *Sustainable and nutrition-sensitive food systems for healthy diets and prevention of malnutrition in Europe and Central Asia*. [Online]. Budapest, FAO. Available at: <https://doi.org/10.4060/cc3907en> [Accessed 28 December 2023].

¹⁹¹ Food Safety Inspectorate under the Government of the Republic of Armenia. *Annual Reports: Annual Activity Plan for 2024*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/en/page/annual-reports/146> [Accessed 4 February 2024].



students¹⁹² in 2022, just 406 students¹⁹³ were enrolled in environmental sciences, 275¹⁹⁴ agricultural sciences and 309¹⁹⁵ veterinaries. The number of students in agricultural sciences decreased by 3 times compared to 2018. In 2022, the number of graduates (total 1,898¹⁹⁶) from the vocational institutions in the same professions is too low.¹⁹⁷ Interest in the agricultural and environmental sciences is very low, which can result in a shortage of professionals in the field.

ANAU is implementing a 3-year Erasmus programme entitled “Development of Aquaculture and Fisheries Education for Green Deal in Armenia and Ukraine: From Education to Ecology.” The project's primary activities include developing master's degree study programs and all necessary supporting materials, setting up laboratories, and providing training for teaching and non-teaching staff¹⁹⁸.

The AUA Acopian Center for the Environment launched the implementation of the Green Economy Online Training for Armenia, a project funded by the EU4Environment programme and implemented by the United Nations Environment Programme (UNEP). The “Introduction to Green Economy” online course, developed by UNEP and the UN Institute for Training and Research (UNITAR) aimed at civil servants, environment managers, researchers, and others interested. The European Union funded EU4Environment programme (2019-2023) is designed to stimulate the uptake of innovative products and technologies and raise awareness about the benefits of environmental action.¹⁹⁹

Within the framework of the EU4Climate Programme, the Study on Mitigation Opportunities and Mainstreaming in Agriculture for Armenia was carried out. The study objective was to evaluate the potential for reducing greenhouse gas emissions in the agricultural sector. This assessment was conducted with the specific aim of contributing to the development of a Long-Term Low Emission Development Strategy for Armenia. The

¹⁹² Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Education and Culture*. [Online]: Available at: <https://www.armstat.am/file/doc/99541063.pdf> [Accessed 7 February 2024].

¹⁹³ *ibid*

¹⁹⁴ *ibid*

¹⁹⁵ *ibid*

¹⁹⁶ *ibid*

¹⁹⁷ *ibid*

¹⁹⁸ ANAU. *Development of Aquaculture and Fisheries Education for Green Deal in Armenia and Ukraine: From Education to Ecology*. Armenian National Agrarian University. [Online]: Available at: <https://isec.am/en/development-of-aquaculture-and-fisheries-education-for-green-dea> [Accessed 7 February 2024].

¹⁹⁹ AUA. *Green Economy Online Training for Armenia*. American University of Armenia. [Online]: Available at: <https://newsroom.aua.am/2023/04/17/green-economy-online-training-for-armenia/> [Accessed 27 January 2024].



study focuses on identifying key sources of greenhouse gas emissions within the agricultural sector and formulating recommendations for policies and measures.²⁰⁰

The National University of Architecture and Construction is implementing a 3-year Program “Transforming Graduate Education for a Green and Sustainable Future” (T-GREEN). The T-GREEN project aims to reform graduate education in Armenia to align with the goals of the EGD. It seeks to transition from traditional to forward-thinking, green, and interdisciplinary curricula while promoting student mobility and collaborative degree implementation schemes. It aims to integrate the SDGs related to environmental issues into policies and educational content.²⁰¹ Various workshops on green transitions have been organised, including training sessions on Sustainable Public Procurement and Eco-labelling.

These are the first steps in education on the green transition in Armenia. There is little specific education related to the F2F area. In the future, education will need to play a critical role in advancing the F2F agenda by building awareness, training future professionals, promoting innovation, engaging stakeholders, empowering consumers, and fostering lifelong learning. By investing in education, Armenia can cultivate a knowledgeable, skilled, and empowered workforce that drives progress towards a more sustainable and resilient agricultural and food system.

3.4.3. Stakeholder capacity

This section provides an overview of the current technical and infrastructure capabilities related to agri-food systems in Armenia, assessing whether they are sufficient to support the EGD and F2F ambitions. Section 2 describes the main actors across the F2F area, and we have used these groups as the basis for our stakeholder capacity assessment.

The green transition encompasses a broad spectrum of economic, social, and political aspects, necessitating the involvement of numerous governmental, public, private, and academic institutions. Among the governmental institutions analysed, the Ministry of Environment, the Ministry of Economy, and the Food Safety Inspectorate are notably prominent in driving the green transition. Moreover, academia and CSOs also play significant roles in meeting the requirements of the EGD.

²⁰⁰ EU4Climate. *EU4Climate Assesses Potential for Reducing GHG Emissions from Armenia’s Agricultural Sector for Low Carbon Development*. [Online]: Available at: <https://eu4climate.eu/2021/07/26/eu4climate-assesses-potential-for-reducing-ghg-emissions-from-armenias-agricultural-sector-for-low-carbon-development/> [Accessed 27 January 2024].

²⁰¹ ERASMUS. *Transforming Graduate Education for Green and Sustainable Future. National Erasmus+ Office in Armenia*. [Online]: Available at: <https://erasmusplus.am/course/t-green/> [Accessed 7 February 2024].



There are well-established, successful agri-business companies in Armenia. These encompass various sectors such as fruit and vegetable processing, dried fruit and spice processing, grape processing, milk processing, meat processing and slaughtering, fish processing, bread baking, confectionery production, mineral and drinking water production, non-alcoholic beverage production, and alcoholic beverage production.

Table 7. Key stakeholders for the facilitation of the green transition in Armenia

Type of actor	Name	Reasoning
Academia	Armenian National Agrarian University, Yerevan State Medical University, American University of Armenia, ICARE, Research centres, etc.	These educational and research institutions play a vital role by conducting studies, offering scientific insights, and training professionals in fields pertinent to agriculture, nutrition, and sustainability. Academia is often disconnected from the needs and priorities of stakeholders, businesses, and policymakers.
Private Sector	Companies engaged in food production, processing, distribution, and retail	These companies play a pivotal role in guaranteeing the sustainability and safety of food supply chains. They can also propel innovation in food technologies and practices. One key gap is the lack of transparency in supply chains, particularly regarding sourcing and production practices.
Private Sector	Several leading supermarket chains exist in Armenia, such as SAS, Yerevan City, Tsiran, and Carrefour Armenia.	Supermarkets play a significant role in the green transition by influencing consumer behaviour, supply chains, and industry practices. For example, one of Yerevan City supermarket's branches has solar panels on the roof. While some supermarkets have implemented initiatives to reduce waste, such as food donation programs or plastic bag bans, there is still room for improvement in reducing overall waste generation and increasing recycling and composting rates.
Private Sector	ECOGLOBE LLC	It is an internationally recognised organic certification and inspection body compliant with ISO Guide 17065 and EN 45011.



CSOs	National Association of Consumers, Confederation of Trade Unions of Armenia, Union of Manufacturers and Businessmen of Armenia, Association of Pedigree Sheep Breeders, Armenian Restaurants Association, agricultural and consumer cooperatives and consumers	CSOs and advocacy groups often work to raise awareness, promote sustainable practices, and hold stakeholders accountable. They may also engage in community development and support initiatives that align with F2F goals. CSOs operate with limited resources and capacity, which constrain their ability to engage in promoting and implementing the green transition effectively.
CSOs	Organic Agriculture Development Association	The Association supports farmers and agribusinesses in shifting to organic agriculture, increasing agricultural production, capturing new international markets, and providing bioproducts to local markets. Through its initiatives, the association seeks to promote sustainable farming practices and foster economic growth and environmental well-being.

3.4.4. Summary of gaps/bottlenecks and needs

The 2020-2030 Strategy for Economic Development in the Agricultural Sector emphasises a technology-focused modernisation approach, mainly through digital investment. The "GREEN Armenia" Policy Dialogue initiated with the European Union in 2022 requires further discussions for technical and infrastructure development, emphasising successful green transition implementation.

Advancing the agriculture sector involves additional investments in human capital, necessitating a comprehensive reform of educational and vocational training systems. The goal is to actively engage youth, enhance farmer skills, and train the next generation of agronomists, agricultural technologists, and entrepreneurs. Challenges persist in attracting qualified specialists due to low salary levels, and efforts are needed to address nutritional awareness, dietary practices, and the reluctance of young specialists to return to rural areas after pursuing education in urban centres. Financial constraints and limited



technical capacity within the agri-food system present significant challenges to supporting an inclusive transition.

Summary of gaps

Does the thematic area have sufficient technical and infrastructure capabilities to reach related national and EGD (F2F) goals?

- 1) The Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030 emphasises a technology-focused modernisation approach, including investing in the digitalisation of the agricultural sector.
- 2) Strengthening policy requirements in sustainable public procurement is essential.
- 3) Encourage the adoption of ecolabeling, which encompasses providing comprehensive information regarding the environmental impact of products and services throughout their lifecycle.
- 4) Expanding training and awareness-raising tools involves identifying priority goods and services for Sustainable Public Procurement (SPP) pilot tenders. This process includes developing sustainability criteria tailored explicitly to these identified priority items.
- 5) Promoting and encouraging the transition to organic agriculture is necessary.
- 6) Promoting and encouraging the implementation of IPM approaches.
- 7) Strengthening policy requirements and technical capabilities of consumption shifts, including healthy and sustainable diets.

Are the discussions related to technical and infrastructure development focusing on making changes required for the green transition?

While the "GREEN Armenia" Policy Dialogue initially commenced with the European Union in 2022, subsequent discussions are needed regarding technical and infrastructure development, emphasising the implementation of necessary changes for a successful green transition.

Are there enough skilled workers to support the green transition across the agri-food system, and does the government have plans and measures to support the development of green skills?



- 1) Advancing the agriculture sector necessitates additional investments in human capital across various segments and levels of the agricultural market. This involves a comprehensive reform of the educational and vocational training systems to actively involve youth, enhance farmers' skills, and train the next generation of Armenian agronomists, agricultural technologists, and entrepreneurs.
- 2) The state agencies overseeing the sector continue to face challenges in attracting qualified specialists, primarily because of the low salary levels.
- 3) Young specialists from rural areas who pursue education in the capital city often choose not to return to their villages.

Is the sector aware of the changes it needs to take to reach the green transition-related goals and the challenges it needs to overcome?

- 1) There is an immediate imperative to raise awareness of nutritional requirements and address prevalent dietary practices, such as irregular meal intake and breakfast omission.

Do the key stakeholders across the agri-food system have the capacity and resources needed to implement and support an inclusive transition?

- 2) Financial constraints and limited technical capacity within the agri-food system pose significant challenges in implementing and supporting an inclusive transition.

4. Crosscutting areas within thematic reports

4.1 Transitional Finance

Central banks and financial organisations worldwide are actively addressing emerging trends in sustainable finance, focusing on considering climate-related risks within Financial Market Participants (FMPs). The Network for Greening the Financial System (NGFS) has been established as a coalition comprising central banks and supervisors globally. The primary objective of NGFS is to facilitate the transition toward a more sustainable global financial system. Notably, the Central Bank of the Republic of Armenia (CBA) is a member of NGFS, actively engaging in collaborative efforts and exchanging



knowledge and best practices. The CBA is committed to integrating climate and environmental risk considerations into financial decision-making processes (CBA, 2023)²⁰².

Armenia is committed to the green transformation of its economy. In line with national policies and international treaty obligations, Armenia's efforts to transition to a green economy involve strategic investments and comprehensive reforms. Key domains are: (1) Resource efficiency and clean production; (2) Sustainable planning, management, use and reuse of drinking and irrigation water resources; (3) Development of sustainable and efficient agriculture and forestry; (4) Energy saving and improvement of energy efficiency; (5) Development of power sector and green transition to low-carbon energy development; (6) Waste management (Solid Waste and Wastewater); (7) Transition to Smart and Green multi-model transportation; (8) Sustainable, energy efficient urban development; and Service sector, innovative solutions, big data, data storage (CBA, 2023)²⁰³. Some of these domains are related to the F2F area, such as drinking water quality, sustainable agriculture, waste management, etc.

According to one report²⁰⁴ Armenia would require a minimum investment of USD 5.7 billion to reach its climate action targets by 2030. Most of these investments, totaling around USD 4.7 billion, are earmarked for mitigation activities. These financial commitments are essential for Armenia to meet its climate action targets by 2030.

Building a robust market for sustainable F2F investments in Armenia necessitates the development of sufficient scale, liquidity, transparency, and diversification. These elements are crucial to attract both domestic and international investors, fostering the financing of a comprehensive range of private and public-sector initiatives aligned with the SDGs and Nationally Determined Contributions (NDCs) (CBA, 2023)²⁰⁵.

Sustainable financing in Armenia has predominantly relied on special programmes initiated by IFIs and donor organisations. According to UNDP reports, a mere 3.2% of the Armenian State Budget was allocated to climate-related endeavours from 2017 to 2019. Commercial investments (FIs) have heavily leaned on support from IFIs, facilitated

²⁰² Central Bank of Armenia. (2023) National Sustainable Finance Roadmap of Armenia. [Online]. Available at: https://www.cba.am/EN/pmessagesannouncements/National_Sustainable_Finance_Roadmap_06.10.2023.pdf [Accessed: 30 November 2023].

²⁰³ ibid

²⁰⁴ Kato T. and Neuweg I. (2021) *An Assessment of Investment Needs for Climate Action in Armenia up to 2030*. [Online]. Organisation for Economic Cooperation and Development. Available at: <https://www.eu4environment.org/app/uploads/2021/04/Report-Assessment-of-Investment-Needs-for-Climate-Action-in-Armenia-up-to-2030.pdf> [Accessed: 28 December 2023].

²⁰⁵ Central Bank of Armenia. (2023) National Sustainable Finance Roadmap of Armenia. [Online]. Available at: https://www.cba.am/EN/pmessagesannouncements/National_Sustainable_Finance_Roadmap_06.10.2023.pdf [Accessed: 30 November 2023].



through various programmes, often complemented by technical assistance. These facilities typically come as concessional support.

IFIS have provided most adaptation finance through grants, while concessional loans, blended financing, and other instruments have been directed towards mitigation activities. Armenia has established substantial connections with the global sustainable finance community, engaging with key organisations such as IFIs, Multilateral Development Banks (MDBs), and networks like the Sustainable Banking and Finance Network. However, most of the fund's projects are not directly linked to the goals of the F2F strategy.

Transitional finance in Armenia spans various topics within the agri-food sector. This includes financing initiatives to facilitate the transition toward sustainable agricultural practices, such as startup funding for organic farming, Integrated Pest Management (IPM) promotion, greenhouses, drip irrigation, and intensive orchards. Additionally, support for SMEs in the agri-food sector is provided through various mechanisms, including loans, grants, and technical assistance. Furthermore, transitional finance extends to investments in post-harvest infrastructure and logistics, encompassing projects related to cold storage, equipment, transportation infrastructure, and more.

Several state support programmes and state-subsidised loans provided by the government (listed in section 3.2) support the livestock sector, horticulture and farming, and leasing for agri-food equipment. However, since no sustainability criteria have been implemented within the loan and project designs, their attribution to F2F-related activities and projects is challenging.

To foster inclusive growth, USAID programmes aim to develop new sustainable value chains, create employment opportunities, and improve access to markets and finance. Initiatives promoting agriculture, agribusiness, and cultural and natural tourism play a key role in advancing rural economic opportunities across the country.

Approximately 82% of the loan portfolio is dedicated to diverse agricultural sectors. Farm Credit Armenia (FCA) channels its financing toward primary agricultural activities, encompassing crop cultivation, livestock breeding, and supporting food production and processing initiatives. Despite its relatively modest size, the cooperative, while unable to



substantially influence the country's overall food security, still represents a noteworthy 6-7% of Armenia's total agriculture loan portfolio.²⁰⁶

VAT exemption on primary agricultural products and goods produced in Armenia can contribute to the growth and development of the farming sector, improve food security and support rural livelihoods. However, more policy actions are needed to increase the effectiveness of the support and equitable distribution of benefits across the agricultural value chain. To sum up, although the elements of transitional finance are present within Armenian F2F-related sectors, the overall level of performance is low. The following list of initiatives could be applied to ensure further improvement in the area:

- **Support transition to feasible, sustainable agriculture practices:** The F2F Strategy encourages the adoption of sustainable farming practices, most of which have not yet found popularity in Armenia. Transitional finance could support farmers transitioning from conventional to sustainable agriculture by providing financial mechanisms for investments in new practices, technologies, and infrastructure.
- **Provide additional investment in sustainable supply chains:** Transitional finance can be utilised to support the development of sustainable supply chains within the agriculture and food sector, which is especially relevant in Armenian food security. This includes investments in logistics, transportation, and storage facilities that contribute to reducing the environmental impact of the supply chain.
- **Reduce pesticide use and promote organic farming:** The strategy promotes pesticide reduction and encourages organic farming practices. Transitional finance could support farmers in the transition to organic methods by providing financial incentives and support for the certification process.
- **Integrate the circular economy initiatives in agriculture and food production practices:** The F2F Strategy emphasizes the importance of circular economy models. Transitional finance can be directed towards initiatives that promote circularity in agriculture, such as investments in waste reduction, recycling, and the reuse of agricultural by-products.

²⁰⁶ PROPARGO Group AFD. Farm Credit Armenia, a Finance Cooperative for Food Security. [Online]. Available at: [Farm Credit Armenia, a finance cooperative for food security | Proparco - Groupe Agence Française de Développement](#) . [Accessed: 30 November 2023].



- **Introduce additional support for climate-resilient agriculture:** Promoting climate-resilient agriculture is crucial to the strategy's goals. Transitional finance can support investments in technologies and practices that enhance agricultural systems' resilience to climate change impacts.
- **Introduce a healthy and sustainable diet strategy:** The strategy should address the various factors contributing to unhealthy traditional dietary habits, prioritise interventions to promote access to nutritious foods, and educate the population about healthy and sustainable eating.

Table 8. Notable F2F funding and financing policies and initiatives

Name of the instrument	Description including segment/target groups and the measure it covers	Budget allocation, if any	Level of adoption	Reference or link to follow up
Loan FCA is an agricultural credit cooperative	FCA supports its clients, comprising members, owners, participants, and beneficiaries of the cooperative. It achieves this by offering accessible financial services to specific groups, contributing to the country's sustainable development, and playing a pivotal role in ensuring food security.	The cooperative represents 6-7% of Armenia's agriculture loan portfolio.		http://www.fca.am/en/news.html?page=2
Loan The "Agricultural Sector	The program's overarching goal is to enhance the profitability and efficiency of financing for private farmers	KfW, a German development bank, has contributed a total loan of EUR 30 million	Ongoing	https://www.gaf.am/en/sectors-of-lending/agriculture-finance.html



Support" loan program operates under the financial cooperation between the Republic of Armenia and the Federal Republic of Germany.	and SMEs involved in agriculture. This collaborative effort aims to strengthen the agricultural sector by facilitating sustainable financial mechanisms and providing the necessary expertise to support the growth and success of farmers and SMEs in the agricultural business.	to implement the program. In addition, the Government of Armenia has provided USD 5.5 million as co-financing support to bolster the program's initiatives.		
Grant European Union Grant for 6 countries (EU4Environment)	A partnership for green development in Armenia project (2019-2022) By bringing together environmental and economic actors, EU4Environment helps deliver policy and legislative changes, make planning and investment greener, stimulate the uptake of innovative technologies, adopt new business models, and create green jobs, among other things.	20 million Euro for 6 countries	Accomplished	https://www.oecd.org/countries/armenia/Country-profile-Armenia-2019-2020.pdf



Funded by the UK Government's Good Governance Fund, with the support of the EBRD	<p>Green Growth for SMEs in Armenia project</p> <p>The overall goal of the project is to increase the competitiveness of Armenian SMEs by identifying opportunities for greener growth, better managing environmental risks, and supporting Armenia's natural capital and environment.</p>		Accomplished	<p>https://www.mineconomy.am/en/news/2466</p> <p>https://icarmenia.am/en/news/Green%20Growth%20for%20SMEs%20in%20Armenia:%20recommended%20business%20models</p>
Grant for 6 countries EU4Environment Programme	Green Economy in Eastern Partner Countries Project (2019-2021)			<p>https://www.eu4environment.org/app/uploads/2021/10/Towards-a-green-economy-in-the-Eastern-Partner-countries-web.pdf</p>

A review of the state budget laws from 2022 to 2024 indicates that the government is starting to increase the funding of agriculture and related sectors under the Farm to Fork thematic area. However, comprehensive information (reports) on the progress of planned programs is not available. Within the agriculture sector, irrigation schemes and infrastructure get considerable funding from the state budget and donor resources. However, it is unclear what share of those funds is used for climate adaptation activities. In general, finances do not cover the entire food chain of the Farm to Fork thematic area: food production, transport, distribution, marketing, and consumption.



4.2 A Just Transition

Overall, the key aspects of the just transition theme that should be highlighted in the Farm-to-Fork thematic area should include equal employment opportunities, the inclusion of underrepresented groups in the workforce, and the provision of training and funding to support the just transition.

4.2.1 Current Employment in the Sector

According to the Statistical Committee of the Republic of Armenia, 22% (250.1 thousand)²⁰⁷ of the total workforce (1,134.8 thousand, employed between the ages of 15 and 70), 1,134.8 thousand were in the agricultural sector (including forestry and fishing).²⁰⁸ Males comprised about 55% (137.9 thousand workers)²⁰⁹ of the workforce in the sector, and females - about 45% (112.2 thousand workers)²¹⁰.

Informal employment comprised 35% of the workforce, and informal workers in agriculture comprised 62% of all informal workers in Armenia.

In terms of types of area, 51% (238.5 thousand)²¹¹ of citizens in rural areas worked in agriculture, while for urban inhabitants, the share of workers in the sector was only 2%²¹². The unemployment rate is 13%²¹³ in the country, from the total labour force²¹⁴.

Figure 2. Main Groups of the Employed Population in 2022, Statistical Committee 2022.

²⁰⁷ Statistical Committee. (2023) *Labor Market in Armenia: Employment*. [Online]. Available at: https://www.armstat.am/file/article/lab_market_2023_4.2.pdf (Accessed 27 January 2024).

²⁰⁸ ibid

²⁰⁹ ibid

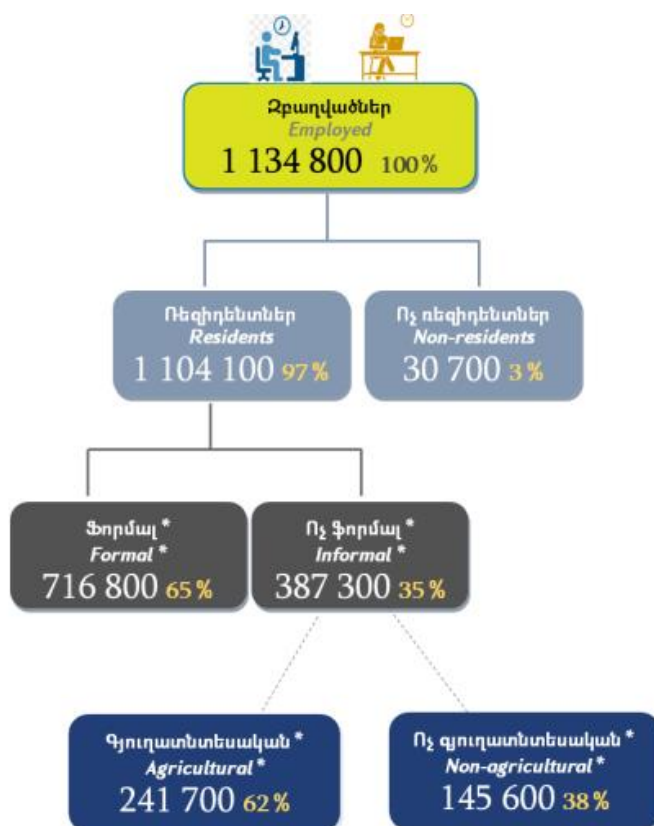
²¹⁰ ibid

²¹¹ ibid

²¹² ibid

²¹³ ibid

²¹⁴ ibid



4.2.2 Gender inequality issues

Article 30 of the Constitution of the Republic of Armenia states that women and men have equal rights.²¹⁵ Despite the government's sustained efforts over the past two decades to address gender inequalities, a discernible gap persists between legislative measures and their effective implementation. Women find themselves disproportionately represented in informal employment, unpaid roles within family farming, and domestic activities. Particularly in rural areas, women contend with lower social status relative to men and confront enduring gender stereotypes. The existing disparities underscore the ongoing challenges in achieving comprehensive gender equality (FAO, 2017)²¹⁶.

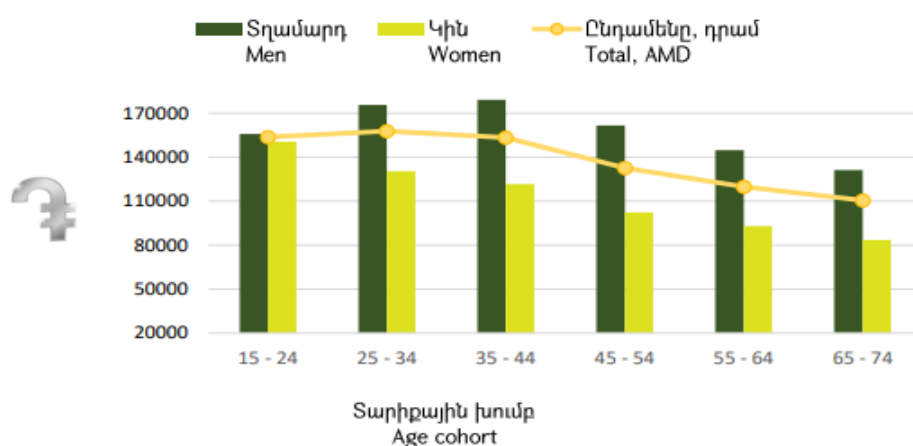
²¹⁵ President of the Republic of Armenia. (2015) *Constitution of the Republic of Armenia*. [Online]. Available at: <https://www.president.am/en/constitution-2015/> (Accessed 27 January 2024).

²¹⁶ FAO. (2017) *Gender, Agriculture and Rural Development in Armenia: Country Gender Assessment Series*. [Online]. Food and Agriculture Organisation of the United Nations. Available at: <https://www.fao.org/3/i6737en/i6737en.pdf> (Accessed 27 January 2024).



The presence of strong gender segregation in the labour market contributes to a significant gender pay gap (see Figure 3)²¹⁷. Furthermore, the number of managerial positions occupied by men is 2.2 times higher than those occupied by women. Among family workers contributing to the workforce, the share of women is twice as high as that of men.²¹⁸

Figure 3. Mean Monthly Net Wages by Age Groups and Gender in Armenia, Statistical Committee 2023



4.2.3 Endangered jobs due to the green transition

Implementing artificial intelligence (AI) in sustainable farming offers significant benefits, but challenges exist. While AI solutions prove cost-effective in the medium-to-long term, the initial investment can be prohibitively expensive, posing a challenge for many financially struggling farms, mainly small-scale farmers and those in developing countries.

The adoption of AI may currently be impractical for these farmers. Additionally, the integration of AI could endanger professions such as analysts and system administrators. As the agri-food transport infrastructure becomes more intricate, with modular cargo deliveries and increased flows, managing these processes becomes increasingly complex

²¹⁷ Statistical Committee. (2023) *Labor Market in Armenia: Incomes*. [Online]. Available at: [Lab Market 2023 6 \(armstat.am\)](https://armstat.am/lab_market_2023_6) [Accessed 27 January 2024].

²¹⁸ Statistical Committee of the Republic of Armenia. (2021) *Women and Men in Armenia*. [Online]. Available at: [gender_2021.pdf \(armstat.am\)](https://armstat.am/gender_2021.pdf) [Accessed 27 January 2024].



for human control. In the future, it is anticipated that AI will replace existing logisticians-dispatchers in handling these operations.

Another technological advancement, autonomous vehicles, has the potential to significantly impact agricultural employment structures. These vehicles may eliminate the need for drivers in tractors, trucks, and other types of vehicles. Although introducing autonomous vehicles in Armenia is likely to be a long-term perspective, the current workforce could eventually face the risk of unemployment.

While some innovative livestock farming technologies can bring benefits, including increased efficiency, improved animal welfare, and reduced environmental impact, these advancements can potentially impact jobs in the sector.

Moving towards healthier and sustainable dietary patterns, which include a higher consumption of plant-based products and lower consumption of some types of meat, such as red meat, could threaten the livelihoods of livestock producers due to reduced demand. Workers in the meat supply chain could also be impacted.

4.2.4 Potential of new jobs in the sector due to the green transition in the agri-food system

One way to facilitate the green transformation of agriculture is through the digitalisation of various processes in the sector. AI-powered predictive analytics is already making inroads into agribusinesses, enabling farmers to gather and process more data in less time. AI can also analyse market demand, forecast prices, and determine optimal times for sowing and harvesting.

AI in agriculture extends to exploring soil health, monitoring weather conditions, and recommending the application of fertilizers and pesticides. Farm management software enhances production and profitability, allowing farmers to make informed decisions at every stage of the crop cultivation process.

As farmers transition from conventional to organic farming methods, they often need additional labour for tasks such as manual weed control, crop rotation, composting, and pest management. Organic farming practices typically require more hands-on labour and attention to detail, which can create employment opportunities for farm workers.



The integration of digital technologies is expected to generate new jobs, centred around these emerging technologies. Agro cybernetics is anticipated to be crucial in setting up and maintaining smart farms, implementing new automation methods, and overseeing technological processes. The use of drones, already commonplace in large agricultural businesses abroad, is slowly being adopted by farmers for field monitoring. Companies like SkyAgro LLC in Armenia utilise drones for precision agriculture, crop dusting, and monitoring services, contributing to sustainable and efficient crop management. As intelligent agricultural machinery develops, even conventional tractor drivers may need to learn how to operate drones for planting, irrigation, and harvesting tasks.

In addition to digital technology-based professions, new occupations such as city farmer, agronomist-geneticist, and biohacker are expected soon. As the agriculture sector evolves, existing professions like agro engineers, ecologists, and zootechnicians are anticipated to gain popularity among Armenian companies.

As society moves towards healthier and more sustainable diets, farmers with arable land may profit from new market opportunities to satisfy an increasing demand for more plant-based food. Jobs in plant-based and novel alternative sectors, including research and innovation, are also expected to grow. Raising demand for plant-based food, including meat alternatives, could create new business opportunities for companies. A shift towards healthier and more sustainable lifestyles can bring other socio-economic benefits, such as lower public healthcare costs.

4.2.5 Training programs specifically created to build green transition capacity

International organisations occasionally launch training programmes to develop agricultural SMEs, organic production, and inclusive skills in the industry.

The Green Economy in Eastern Partner Countries (EU4Environment) is an example of a project that provided training to support a green transition in Armenia. The key achievements of the project were: Armenians participation in the online introductory green economy training course; 9 civil servants took part in a moderated in-depth online course on green economy; development of the draft guidelines on the application of Environmental Impact Assessment (EIA); an economic analysis of a deposit refund system model which was developed in consultation with stakeholders; RECP assessments and training programmes; awareness on eco-labeling; training workshops on Gender Sensitization in Greening the National Industry; and an assessment of investment needs for climate action up to 2030, etc.



Under the auspices of the EU-GAIA Initiative in Armenia, the ANAU organised the 1st Green Agri Conference Armenia, dedicated to advancing sustainable development and action-oriented research in green agriculture.²¹⁹ Furthermore, under the “Women Leading in Rural Entrepreneurship in Armenia” component of the USAID-funded RED-NEO Programme, more than 2,300 rural women were trained in IPM, sustainable agriculture, aquaponics, greenhouse management, etc.

4.2.6 Funding to specifically address the just transition challenges across the agri-food sector

Despite the many funding opportunities within Armenia's agricultural sector, only a few support the just green transition. These projects are funded mainly by the European Union. One example is the Green Growth for SMEs in Armenia project. The project aims to increase Armenian SMEs' competitiveness by identifying opportunities for greener growth, better managing environmental risks, and supporting Armenia's natural capital and environment. The project addresses 10 growth sectors, including F2F (IC Armenia)²²⁰.

Overall, Armenia's progress in the just transition within the F2F thematic area has been insufficient. Apart from preparing new specialists, providing requalification and training for people already employed in the sector is also essential. The current gender structure is far from equal, as women are more heavily represented in the professions that provide lower incomes, which contributes to the broader gender pay gap.

Despite the increase in the number of educational and funding opportunities over the last years, there are still only a few programmes that support the green transition. In addition to providing general knowledge about the green transition and training in best green agricultural practices, digital education is also essential, as many workers are older people who may lack knowledge of digital technologies.

²¹⁹ ANAU. The First Green Agri Conference Armenia. Armenian National Agrarian University. [Online]. Available at: [IMPACT AIM ANAU AgriTech INCUBATOR - Home](#) [Accessed 12 February 2024].

²²⁰ Investment Council Armenia. *Green growth for SMEs in Armenia: Recommended business models*. [Online]. Investment Council Armenia. Last updated: 31 August 2022. Available at: <https://icarmenia.am/en/news/Green%20Growth%20for%20SMEs%20in%20Armenia:%20recommended%20business%20models> [Accessed 27 January 2024].



Overall, the following F2F practices can be considered to improve the progress in the F2F-related sectors in terms of the just transition standards:

1. **Limit targeted support to small and local farmers:** If the strategy includes measures to support small and local farmers, it can contribute to a more just transition by enhancing their accessibility to resources.
2. **Providing needed training and financial support to farmers** who wish to transition to more sustainable agricultural practices and/or production of more sustainable and healthy food.
3. **Support activities to reduce food waste:** Efforts to reduce food waste can positively affect affordability, as more efficient resource use may reduce costs and potentially make food more accessible.
4. **Allocate more financing towards research, innovation, and technological accessibility:** The strategy may involve innovations across the Farm to Fork sector. Ensuring that these innovations are accessible to agribusinesses, including farmers of all sizes, and can contribute to a just transition. Public investment is also needed for research and innovation into plant-based and novel alternatives.
5. **Promote sustainable and healthy diets:** Increasing awareness of and accessibility to healthy and sustainable diets can help shift towards more sustainable agricultural production, thereby contributing to the country's climate goals.
6. **Wider raising awareness campaign on just transition in the F2F is:** Expanding awareness campaigns on the concept of a just transition within the F2F framework can ensure equitable and inclusive sustainable development.

5. Summary and conclusions

5.1 Current state of the green transition

Primary agriculture is a vital sector for Armenia's economy, ranking as the third largest contributor to the country's Gross Domestic Product (GDP). It is also key to improving livelihoods, as 22% of the total workforce works in the agricultural sector. Agriculture accounts for about 68.7% of the country's land area. While estimates suggest that organic agriculture covers less than 1% of Armenian land, precise data is not readily available.

As the third largest sector of the Armenian economy, agriculture is a significant contributor to GDP, accounting for 1,083,823 million AMD in 2022. Key agricultural products include wheat, barley, potatoes, vegetables and grapes. In 2019, the country's



self-sufficiency rates were 26% for wheat, 6.5% for maize, 56% for pork, 22% for poultry, and 2% for vegetable oil. The Armenian agricultural sector is shifting to a more market-oriented economy, focusing on enhancing operational efficiency, the competitiveness of products, and expanding the range of agricultural production.

Armenia has a concerning level of food insecurity, with approximately 30% of households food insecure nationwide, with rural areas affected the most. In terms of health and nutrition, a total of 25.6% of adult women (aged 18 years and older) and 19.4% of adult men are currently grappling with obesity, which surpasses the regional average. Existing data indicate a lack of dietary diversity, with protein intake surpassing recommended thresholds. The current meat consumption level (27kg/year) exceeds the recommended 15,6 kg of meat per year (300 grams per week) by the EAT-Lancet Commission.

From 1992 to 2017, Armenia's consumption of vegetables, fruits, and pulses increased, exceeding the European Union and Central Asia average. Meat consumption has remained steady over the last few years.

Armenia's agri-food sector is battling with significant challenges, including low level productivity and efficiency as a result of poor and unsustainable management; excessive land fragmentation due to land privatisation in early 90s; agricultural losses due to climate change impact (drought, frost, hail, less water flow, etc.); domestic market orientation; poorly developed infrastructure; low-scale application of innovative technologies; low levels of food security and safety; soil degradation and salinisation, demolished irrigation systems and water unavailability; unsustainable management of pastures, overexploitation of groundwater because of fisheries, etc.

However, there are also significant opportunities. For example, the greenhouse crop production and food processing sectors, both of which show export growth potential, can benefit from low-carbon technologies/sources of energy and could use organic ingredients.

No recent estimate of Armenia's agricultural or food systems-related GHG emissions exists. However, according to 2017 data, agriculture was the second most significant contributor to GHG emissions with 18,5% after energy. (66,7%) ([UNFCCC](#)). According to the Republic of Armenia's Long-term low greenhouse gas emission development strategy (until 2050), the second largest source of methane emissions in Armenia is the agriculture sector, with 35.0%, where the emissions are caused by cattle enteric fermentation. In



addition, most nitrous oxide emissions (91%) are from the agriculture sector, mainly due to nitrogen fertiliser management and direct and indirect emissions from managed soils.

In its Nationally Determined Contribution 2021-2030, Armenia committed to implementing economy-wide mitigation measures to achieve per capita net emissions of 2.07 tco₂eq by the year 2050. Different sectors are covered in the INDC, including agriculture (Enteric Fermentation, Direct and Indirect N₂O Emissions from managed soils). In addition, the National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2024 serve as a comprehensive roadmap, guiding the integration of adaptation measures and implementing the National Adaptation Plan (NAP), including specific F2F policies.

The country imports almost all its chemical fertilizers and pesticides. From 2018 to 2022, the imports of nitrogenous fertilisers significantly decreased, and those of animal or vegetative origin slightly increased. The imports of pesticides remained the same over the same period.

There are significant data gaps across the Armenian food system. For example, no data exists for several indicator sets related to antimicrobial sales, reductions of ammonia and nitrates, food waste and loss, or animal welfare, all of which are pertinent to the EU F2F strategy.



Table 9. EGD objectives/targets and status/progress in the F2F thematic area (see annex 3 for all the themes tables)

Farm to Fork		
<ul style="list-style-type: none"> • Halve per capita food waste at retail and consumer levels, and reduce food losses along production land supply chains, including poor-harvest losses, by 2030. • Reduction targets for ammonia and nitrates (National Emissions Ceilings Directive; The Nitrates Directive) • By 2030, a reduction by 50% of the sales of antimicrobials for farmed animals and in aquaculture (indicative) • By 2030, reduce losses of nutrients from fertilisers by 50%, resulting in the reduction of the use of fertilisers by at least 20% (indicative) • At least 25% of agricultural land is under organic farming management, and the uptake of agro-ecological practices is significantly increased (indicative) • Reduce by 50% the overall use of – and risk from – chemical pesticides (indicative) 	<p>Area under organic farming (% of utilised agricultural area in km²) Source: Eurostat EU 2021= 9.9%</p> <p>Pesticide use - Eurostat recently published EU-level data on the sales of plant protection products (here) with detailed indicators:</p> <ul style="list-style-type: none"> • Pesticide sales (aei_fm_salpest09) • Pesticide use in agriculture (aei_pest) • Harmonised risk indicator 1 for pesticides by categorisation of active substances (aei_hri) • Pesticide sales by categorisation of active substances (aei_pestsal_) <p>Use of Fertilisers – Consumption of inorganic fertilizers Source: Eurostat</p> <p>See the Moldova indicator example here</p> <p>To consider Animal Welfare indicators (not yet available at the EU level)</p>	<p>Food loss and waste:</p> <p>Food loss has decreased from 600 to 200 thousand tons between 2015 and 2022.</p> <p>There is no indicator of the level of food waste.</p> <p>No targets for food loss and waste have been identified.</p> <p>Reduction of ammonia and nitrates:</p> <p>No indicators or targets have been found.</p> <p>Sales of antimicrobials:</p> <p>No indicators or targets have been found.</p> <p>Reduction of the usage of fertilizer:</p> <p>The expert did not identify targets and indicators on pesticide use. However, Armenia imports almost all its chemical fertilizers. In 2022, the import of nitrogenous fertilizer was 47611 tons, nearly two times less than in 2018.</p> <p>Area of land under organic farming:</p> <p>According to the expert opinion, the land area under organic production is less than 1 %. The Action Plan 2023-2026 for the implementation of the Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia envisages expanding the area under organic production, but the exact indicator is not mentioned.</p> <p>Animal welfare:</p>



		<p>The Food Safety Inspectorate's 2024 Annual Activity Plan included measures such as developing a comprehensive plan for the prevention and elimination of brucellosis and murrain disease, monitoring the residues of veterinary drugs in food products produced in Armenia and imported into Armenia, and properly implementing state control in slaughterhouses to ensure the sale of slaughterhouse products.</p> <p>Reduction of the use of pesticides:</p> <p>The expert identified no targets or indicators on pesticide use. However, Armenia imports almost all its pesticides. In 2022, imports were equal to 2475 tons, which has not increased much since 2018.</p> <p>In addition, there is a substantial gap in many other indicators for other areas covered by the F2F strategy: for example, agriculture and food systems-related GHG, the quantity of fish sourced from sustainable fisheries sources (%), including imports, and the water quality indicator.</p>
--	--	--



Armenia

5.2 Summary of the gap assessment

Overall, Armenia has achieved some progress in pursuing a green transition in the farm-to-fork area, but the remaining gaps are substantial. The Government, and especially the Ministry of Economy and the Ministry of Environment, have made significant efforts to transpose as much as possible the EU legal framework, but there is still a lot to be done to make the changes understandable for government agencies, farmers, food producers, and other stakeholders.

The CEPA agreement between the European Union and Armenia entered into force in 2021, laying a strong foundation for aligning Armenian laws and regulations with the European Acquis. However, the agricultural aspect of the agreement, including the F2F area, is limited. Armenia's membership in the Eurasian Economic Union (EAEU) is likely complicating closer cooperation between the European Union and Armenia.

The Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030 outlines the key priorities of agricultural policy in Armenia and defines the scope of priority issues. The 2023-2026 Action Plan mainly focuses on increasing agricultural production, developing rural areas and increasing Armenia's competitiveness in the global economy. Furthermore, sustainable food production, processing and consumption, food loss and waste, fisheries, key dimensions of the F2F strategy have not been adequately addressed in the existing strategies and action plans. Therefore, a comprehensive strategy for the sustainable development of Armenia's food systems is needed, addressing the interlinkages between primary production and consumption.

Despite some regulations covering key areas, significant work remains to align Armenian laws with those of the European Union, particularly related to the EGD requirements in the F2F area. While some progress has been made in approximating legislation, not all fields are covered, including food processing, consumption, food waste, and loss. A policy granting tax exemption for commercial organic inputs at the point of sale can incentivise the production and procurement of organic inputs.

Furthermore, the approximation of European Union regulations on agriculture and fisheries is not included in the CEPA Agreement. To address these issues, Armenia's agricultural policies need to be evaluated to the extent to which they align with the key principles and objectives of the European Union's F2F strategy. The evaluation should



Armenia

show the gaps where some elements of F2F will be incorporated by updating existing regulations or introducing new ones.

Armenian policies focus on agriculture for food security and self-sufficiency but lack emphasis on food accessibility and consumption. While efforts have been made to address certain aspects of food safety, challenges persist in ensuring nutritional security and sustainable dietary patterns. To safeguard public health effectively, it is important to consider avoiding contaminants and pathogens and promoting healthy and sustainable diets.

There is a lack of regulatory and economic tools to guarantee tangible and effective enhancements in line with the European Union F2F Strategy. In addition, the existing policies are unlikely to provide sufficient legal support for measurable environmental improvements in the country. Addressing gaps in the effectiveness of existing policies related to the F2F goals in Armenia and enhancing environmental outcomes requires developing and implementing specific economic instruments aligned with the European Union F2F strategy.

In terms of financial capacity, there is a need for a comprehensive assessment report to assess the required funding across F2F area, including moving towards organic/agroecological farming (improving soil health), sustainable fisheries, reductions in pesticides/fertilisers use, reductions in food waste, food security, healthy and sustainable diets, dealing with food fraud. There is also a need to review and revise state-subsidised loan programs to incorporate sustainability criteria from the F2F strategy and encourage organic farming that contributes to more sustainable agricultural practices. Furthermore, to assess the effectiveness of regulatory and economic instruments, it is necessary to establish a monitoring and evaluation system.

Most public institutions have the regulatory capacity to implement certain reforms. However, they often lack the financial or human resources to implement EGD monitoring and reporting practices at the necessary level. Furthermore, some institutions lack experience conducting capacity-building initiatives, stakeholder engagement, awareness, and communication activities.

Notably, there is currently limited engagement, awareness, and communication regarding the F2F Strategy within Armenia.

While many public institutions have regulatory capacity, they often lack the financial or human resources to effectively implement monitoring and reporting practices. Some also lack experience in capacity-building and stakeholder engagement. In addition, inter-



Armenia

institutional cooperation should be strengthened as there is a dispersion of F2F initiatives across different ministries, with mandates that, while clear, may require additional considerations for effective alignment with European Union goals. Institutional and human capacity is notably deficient at the national, regional, and local levels and should be addressed.

The “GREEN Armenia” Policy Dialogue with the European Union, initiated in 2022, highlights the importance of further technical and infrastructure development discussions to facilitate a successful green transition. Advancing the agriculture sector necessitates additional investments in human capital across various segments and levels of the agricultural market. This involves a comprehensive reform of the educational and vocational training systems to actively involve youth, enhance farmers' skills, and train the next generation of Armenian agronomists, agricultural technologists, and entrepreneurs. Additional efforts are required to attract qualified specialists.

Transition finance is key to enabling the transition towards sustainable food production and consumption in Armenia. It could be applied to several areas, from technologies and infrastructure to promoting healthy and sustainable dietary patterns. To ensure a Just Transition in the Armenian agri-food sector, a multi-stakeholder approach is needed, as is addressing any existing inequalities and providing targeted support to the system's more vulnerable actors.



Armenia

Table 10. Summary of main enabling conditions, gaps and needs

EU Strategic framework and Acquis (policy and legal readiness) (section 3.1)	Summary of the findings (main enabling conditions) in section 3.1	Identification of the summary of the gaps table 3.1.3	List the needs in line with the identified gaps. One need should have a matching gap, or gaps listed in the section
	<p>The CEPA agreement between the European Union and Armenia entered into force in 2021. A significant aspect of this agreement is its commitment to gradually align Armenian laws and regulations with the European Union acquis, reflecting a shared commitment to convergence and cooperation. It's worth noting, however, that the agricultural component of the agreement is relatively limited.</p> <p>The Strategy of the Main Directions Ensuring Economic Development in the Agricultural Sector of the Republic of Armenia for 2020-2030 outlines the key priorities of agricultural policy in Armenia, defines the scope of priority issues, and includes the Action Plan for implementing the Strategy for 2023-2026.</p> <p>Adopting the 2023-2028 Strategy on the Development of the Food</p>	<p>1. The approximation of European Union regulations on agriculture and fisheries are not included in CEPA Agreement.</p> <p>2. Sustainable food production, processing and consumption, food loss and waste, aquaculture - key dimensions of the F2F strategy - are rarely or not adequately addressed in the existing strategies and action plans.</p> <p>3. A lack of well-defined and cohesive policies concerning land and water resources. Agriculture, while crucial for food production and economic development, can have adverse effects on biodiversity due to practices such as deforestation, habitat destruction, pesticide use, and monoculture.</p>	<ol style="list-style-type: none"> 1. A need to include approximation on agriculture and fisheries into CEPA agreement. 2. A need for a comprehensive strategy for sustainable development of Armenia's food systems, addressing the interlinkages between primary production and consumption. 3. Proper regulation is essential to protect water and land resources when addressing agricultural development. 4. A need for periodic reviews to ensure its continued effectiveness and alignment with evolving challenges and international standards. Regular assessments can help identify areas for improvement, address emerging environmental issues, and incorporate the latest scientific and technological advancements. 5. The national legislation on food safety should be revised and



Armenia

	<p>Security System in the Republic of Armenia shows a commitment to addressing food security challenges and partially aligns with the objectives of the F2F approach.</p> <p>In general, Armenia's environmental and agricultural regulatory framework is comprehensive.</p> <p>While some efforts have been made to address certain aspects of food safety, challenges persist in ensuring that the nutritional content of food products aligns with health standards and contributes to disease prevention. To safeguard public health effectively, it is essential to consider not only the avoidance of contaminants and pathogens but also the promotion of a balanced and nutritious diet.</p>	<p>4. Some regulatory documents have not been updated for a long time and there is risk being outdated.</p> <p>5. Food safety legislation is not up to date and requires systemic revision and improvement.</p> <p>6. There is no strategy for ensuring and promoting healthy and sustainable diets.</p> <p>7. There is no strategy for sustainable fisheries.</p> <p>8. There is no policy addressing food loss and waste.</p> <p>9. The European Union directives on animal welfare are not fully transposed into Armenian legislation and are not included in the CEPA Agreement.</p> <p>10. Even though the Law on Organic Farming exists, there are no incentives for farmers to move towards organic farming.</p>	<p>improved aiming to align it with international standards.</p> <p>6. Policies, national dietary recommendations and actions are needed to improve food availability, healthy and sustainable diets and public awareness.</p> <p>7. A strategy on sustainable fish farming (aquaculture) is needed.</p> <p>8. Formulating a policy and setting targets on food loss and waste is crucial for addressing one of the significant challenges in the food supply chain.</p> <p>9. A national strategy is needed to safeguard animal welfare in alignment with European standards.</p> <p>10. A policy granting tax exemption for commercial organic inputs at the point of sale can incentivise the production and procurement of organic inputs.</p>
--	--	---	--



Armenia

Instruments for policy implementation (implementation readiness) (section 3.2)	Summary of the findings (main enabling conditions) in section 3.2	Identification of the summary of the gaps table 3.2.3	List the needs in line with the identified gaps. One need should have a matching gap, or gaps listed in the section
	<p>Despite the regulations covering key policy and legal areas of the European Union's F2F Strategy, significant work is still required to transpose European legislation into the Armenian legal framework.</p> <p>The government has initiated several assistance programmes to support the agricultural sector, including the green transition.</p>	<ol style="list-style-type: none"> 1. While some progress has been made in approximating legislation, it is acknowledged that not all fields are covered, for example, organic agriculture, food processing, consumption, etc. 2. There are some gaps in specific areas of the F2F where there is misalignment or gaps in implementation. It is essential to evaluate the extent to which Armenia's agricultural policies align with the key principles and objectives of the European Union F2F strategy and address them. 3. State assistance programmes are insufficient to address the issues relevant 	<ol style="list-style-type: none"> 1. Approximation in organic agriculture, food processing and consumption is needed. 2. There is a need to evaluate the extent to which Armenia's agricultural policies align with the key principles and objectives of the European Union F2F strategy. The evaluation will show the gaps where some elements of F2F should be incorporated by updating existing regulations or introducing new ones. 3. There is a deficiency in regulatory and economic tools to guarantee tangible and effective enhancements in line with the European Union F2F Strategy. In addition, the existing policies are unlikely to provide sufficient legal support for measurable environmental improvements in the country. 4. Reviewing and revising state-subsidised loan programs to incorporate sustainability criteria from the F2F strategy can



Armenia

		<p>across the agri-food sector comprehensively.</p> <p>4. State-subsidised loan programmes lack sustainability criteria; they do not encourage the transition to sustainable agricultural practices, such as organic agriculture.</p> <p>5. Additional measures are required to effectively tackle the sector's multifaceted challenges. This could involve further policy adjustments, increased investments, enhanced coordination with stakeholders, and the development of more targeted and comprehensive programmes to ensure a more impactful and sustainable</p>	<p>contribute to more sustainable agricultural practices.</p> <p>5. Addressing the potential gap in the effectiveness of existing policies related to the F2F goals in Armenia and enhancing environmental outcomes involves the development and implementation of specific economic instruments aligned with the European Union F2F strategy.</p> <p>6. A policy granting tax exemption for commercial organic inputs at the point of sale can serve as an incentive to encourage the production and procurement of organic inputs.</p> <p>7. To assess the effectiveness of regulatory and economic instruments, it is required to establish a monitoring and evaluation system.</p> <p>8. A need to improve advisory services and peer-to-peer learning for farmers.</p>
--	--	--	---



Armenia

		<p>transformation of the agricultural sector.</p> <ol style="list-style-type: none"> 6. A lack of tax incentives to facilitate more sustainable consumption. 7. There is no monitoring and evaluation system to assess the impact of agricultural policies on the goals of the F2F strategy. 8. There is a lack of extension services to transfer knowledge. 	
Financial capacity (implementation/financial readiness) (section 3.2.2)	<p>Summary of the findings (main enabling conditions) in section 3.2.2</p> <p>Both external and domestic financing initiatives face challenges in Armenia. Due to the reduced significance of inward FDI, there has been an increased dependence on external non-FDI liabilities.</p>	<p>Identification of the summary of the gaps table 3.2.2</p> <ol style="list-style-type: none"> 1. Existing state programmes for agriculture often do not include broader sustainability criteria and metrics, and focus on production rather than sustainability. 2. Access to finance, especially for small and medium enterprises (SMEs), is 	<p>List the needs in line with the identified gaps. One need should have a matching gap or gaps listed in the section</p> <ol style="list-style-type: none"> 1. Reviewing and revising state-subsidised loan programs to incorporate sustainability criteria from the F2F strategy can contribute to more sustainable agricultural practices. 2. A need to improve access to finance, especially for SMEs.



Armenia

		<p>notably limited, often requiring these businesses to rely on internal resources and retained earnings. This constraint poses challenges for the growth and development of SMES in the F2F area (the whole value chain, including farmers transitioning to organic/ agroecology), as they may face difficulties securing external funding for investments, expansion, and operational needs.</p> <p>3. A comprehensive assessment of the required funding and the actual funding available for the transition to the F2F system is lacking.</p> <p>4. The existing grant and funding programs (national and international) within the agri-food sector in</p>	<p>3. A comprehensive assessment report that would introduce the required funding across F2F area is needed. It should include moving towards organic/agroecological farming (improving soil health), sustainable fisheries, reductions in pesticides/ fertilizers use, reductions in food waste, food security, healthy and sustainable diets, dealing with food fraud.</p> <p>4. The grant programmes should be adjusted to expand the focus to consumption levers, such as dietary change, food labelling and food waste.</p>
--	--	---	--



Armenia

		Armenia primarily focus on primary agriculture and food processing, with limited attention to consumption levers, such as dietary change, food labelling and food waste.	
Public capacity (institutional capacity - effectiveness and efficiency - implementation readiness) (section 3.3)	Summary of the findings (main enabling conditions) in section 3.3 Most institutions have the regulatory capacity to implement certain reforms. In the agri-food sector, existing roles and responsibilities are recognised but lack clarity, necessitating further definition and precision.	Identification of the summary of the gaps table 3.3.3 <ol style="list-style-type: none"> 1. Some institutions lack experience conducting capacity-building initiatives and stakeholder engagement, awareness, and communication activities. 2. The institutions often lack the financial or human resources to implement EGD monitoring and reporting practices at the necessary level. 	List the needs in line with the identified gaps. One need should have a matching gap or gaps listed in the section <ol style="list-style-type: none"> 1. Capacity strengthening is essential for state control structures, with a focus on improving data collection, monitoring, and reporting systems, especially in traceability principles such as producer registration and animal numbering. 2. Enhancing financial and human resources in public institutions for EGD implementation and monitoring. 3. Timely updates on ministry websites are crucial for accuracy and relevance, yet some data may not be available or accessible to the public.



Armenia

		<ol style="list-style-type: none">3. Access to information is lacking.4. There is a dispersion of F2F initiative authorities across different ministries, with mandates that, while clear, may require additional considerations for effective alignment with European Union goals. Institutional and human capacity is notably deficient at the thematic area's national, regional, and local levels.5. Stakeholder engagement and communication activities within institutions show deficiencies, and inter-sectoral collaboration appears weak.6. Enforcing the implementation of regulations in some cases is weak.	<ol style="list-style-type: none">4. Better coordination among institutions and agencies responsible for F2F.5. It is important to enhance stakeholder engagement and improve cross-sectoral collaboration.6. A need to strengthen the implementation of existing regulations.
--	--	--	--



Armenia

Non-governmental capacity (implementation readiness) (Section 3.4)	Summary of the findings (main enabling conditions) in section 3.4	Identification of the summary of the gaps table 3.4.5	List the needs in line with the identified gaps. One need should have a matching gap or gaps listed in the section.
	<p>The 2020-2030 Strategy for Economic Development in the Agricultural Sector emphasises a technology-focused modernisation approach, particularly through digital investment.</p> <p>The "GREEN Armenia" Policy Dialogue initiated with the European Union in 2022, requires further discussions for technical and infrastructure development, emphasising successful green transition implementation.</p>	<ol style="list-style-type: none"> 1. Financial constraints and limited technical capacity within the agri-food system pose significant challenges in implementing and supporting an inclusive transition. 2. The state agencies overseeing the sector continue to face challenges in attracting qualified specialists, primarily because of the relatively low salary levels. Also, young specialists from rural areas who pursue education in the capital city often choose not to return to their villages 3. There are no provisions for ecolabeling, which encompasses the provision of 	<ol style="list-style-type: none"> 1. Advancing the sustainable development of the agriculture sector necessitates additional investments in human capital across various segments and levels of the agricultural market. This involves a comprehensive reform of the educational and vocational training systems to actively involve youth, enhance farmer skills, and train the next generation of Armenian agronomists, agricultural technologists, and entrepreneurs. 2. More attractive working conditions for qualified experts, including in rural areas, need to be created. 3. Encourage the adoption of ecolabeling, encompassing the provision of comprehensive information regarding the environmental impact of products and services across their entire lifecycle 4. Expanding training and awareness-raising tools involve identifying priority goods and



Armenia

		<p>comprehensive information regarding the environmental impact of products and services across their entire lifecycle.</p> <ol style="list-style-type: none">4. Strengthening policy requirements in sustainable public procurement is essential.5. There are gaps in the policy requirements to facilitate a shift towards healthy and sustainable diets6. Lack of incentives and support for stakeholders to transition towards organic agriculture and IPM integration.	<p>services for Sustainable Public Procurement (SPP) pilot tenders. This process includes developing sustainability criteria tailored explicitly to these identified priority items.</p> <ol style="list-style-type: none">5. Strengthening policy requirements and technical capabilities of consumption shifts, including healthy and sustainable diets.6. We need to promote and encourage the transition to organic agriculture and the wide application of IPM approaches.
--	--	---	--



References

1. AGREEN. *Feasibility Study Climate-Smart Agriculture in the Black Sea Basin Region of Armenia*. [Online]. Cross-Border Alliance for Climate-Smart and Green Agriculture in The Black Sea Basin. Available at: <https://blacksea-cbc.net/wp-content/uploads/2022/02/BSB1135 AGREEN - Feasibility-study-of-the-state-of-art-and-potential-of-climate-smart-agriculture-in-Armenia EN.pdf> [Accessed 15 January 2024].
2. ANAU. *Development of Aquaculture and Fisheries Education for Green Deal in Armenia and Ukraine: From Education to Ecology*. Armenian National Agrarian University. [Online]: Available at: <https://isec.am/en/development-of-aquaculture-and-fisheries-education-for-green-dea> [Accessed 7 February 2024].
3. ANAU. The First Green Agri Conference Armenia. Armenian National Agrarian University. [Online]. Available at: [IMPACT AIM ANAU AgriTech INCUBATOR - Home](#) [Accessed 12 February 2024].
4. ARLIS. *Decision of the Government of the Republic of Armenia on 20 January 2011 N 34-N "On Approval of the Technical Regulation of Hygienic Requirements of Food*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/higiena_voroshum_1656660529.pdf [Accessed 26 November 2023].
5. ARLIS. *Decision of the Government of the Republic of Armenia on 28 June 2007 N 885-N "On Approval of the Requirements submitted to the Technology Instruction*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/885-voroshum_1656660728.pdf [Accessed 26 November 2023].
6. ARLIS. *RA Law "On Communal Waste and Sanitary Cleaning"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docID=69863> [Accessed 26 November 2023].
7. ARLIS. *Government Decision on 1 April 2021 N 464 - L "On Approval of the Communal Waste Strategy and Program of Measures for 2021-2023 ensuring the Implementation of the Strategy"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/DocumentView.aspx?DocID=151384> [Accessed 24 January 2024].
8. ARLIS. *The Government Decision on 29 March 2004 N 353-N "On Approval of the National Programme for Control and Prevention of the Consequences of Dietary Iodine Deficiency in the Nutrition of the Population of the Republic of Armenia"*. [Online].



Armenia

Armenian Legal Information System. Available at:

<https://www.arlis.am/documentView.aspx?docid=33968> [Accessed 4 February 2024].

9. ARLIS. *RA Law "On Fodder"*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%AF%D5%A5%D6%80%D5%AB-%D5%B4%D5%A1%D5%BD%D5%AB%D5%B6_1677050349.pdf [Accessed 26 November 2023]. ARLIS. *RA Law "On Food Safety"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180741> [Accessed 26 November 2023].
10. ARLIS. *RA Law "On Organic Agriculture"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=75260> [Accessed 26 November 2023].
11. ARLIS. *RA Law "On the Law Organization and Conduct of Inspections in the Republic of Armenia"*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%BD%D5%BF%D5%B8%D6%82%D5%A3%D5%B8%D6%82%D5%B4_1696251495.pdf [Accessed 26 November 2023].
12. ARLIS. *RA Law "On Phytosanitary"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180288> [Accessed 26 November 2023].
13. ARLIS. *RA Law "On the Protection of Consumer Rights "*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%BD%D5%BA%D5%A1%D5%BC%D5%B8%D5%B2%D5%B6%D5%A5%D6%80_1696251452.pdf [Accessed 26 November 2023].
14. ARLIS. *RA Law "On State Control over Food Safety"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=180737> [Accessed 26 November 2023].
15. ARLIS. *RA Law "On Trade and Services "*. [Online]. Armenian Legal Information System. Available at: https://snund.am/public/storage/uploads/%D5%A1%D5%BC%D6%87%D5%BF%D5%B8%D6%82%D6%80_1696251538.pdf [Accessed 26 November 2023].
16. ARLIS. *RA Law "On Veterinary"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=166253> [Accessed 26 November 2023].



Armenia

17. ARLIS. *RA Law "On Waste"*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/documentview.aspx?docid=1722> [Accessed 26 November 2023].
18. ARLIS. *Tax Code of the Republic of Armenia, adopted on 4 October 2016*. [Online]. Armenian Legal Information System. Available at: <https://www.arlis.am/DocumentView.aspx?docid=145780> [Accessed 4 February 2024].
19. Atamanchuk M. and Tokuoka K. (2023) *Supporting Sustainable Financing and Access to Finance in Armenia* (working paper). [Online]. International Monetary Fund. Available at: <https://www.imf.org/en/Publications/WP/Issues/2023/01/13/Supporting-Sustainable-Financing-and-Access-to-Finance-in-Armenia-521315> [Accessed 3 December 2023].
20. AUA. *Green Economy Online Training for Armenia*. American University of Armenia. [Online]: Available at: <https://newsroom.aua.am/2023/04/17/green-economy-online-training-for-armenia/> [Accessed 27 January 2024].
21. AWHHE. *Rural Economic Development - New Economic Opportunities Programme*. [Online]. Armenian Women for Health and Healthy Environment NGO. Available at: <https://awhhe.am/2019-2022-rural-economic-development-new-economic-opportunities-program/> [Accessed 28 December 2023].
22. Central Bank of Armenia. (2023) *National Sustainable Finance Roadmap of Armenia*. [Online]. Available at: https://www.cba.am/EN/pmessagesannouncements/National_Sustainable_Finance_Roadmap_06.10.2023.pdf [Accessed: 30 November 2023].
23. *Comprehensive and Enhanced Partnership Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Armenia, of the other part*. [Online]. (2018) Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22018A0126\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22018A0126(01)) [Accessed 12 January 2024].
24. ERASMUS. *Transforming Graduate Education for Green and Sustainable Future. National Erasmus+ Office in Armenia*. [Online]: Available at: <https://erasmusplus.am/course/t-green/> [Accessed 7 February 2024].
25. European Union for Armenia. *EU4Climate*. [Online]. Available at: <https://eu4armenia.eu/projects/eu-project-page/?id=300> [Accessed 28 November 2023].
26. European Union for Armenia. *EU4Climate Assesses Potential for Reducing GHG Emissions from Armenia's Agricultural Sector for Low Carbon Development*.



Armenia

- [Online]: Available at: <https://eu4climate.eu/2021/07/26/eu4climate-assesses-potential-for-reducing-ghg-emissions-from-armenias-agricultural-sector-for-low-carbon-development/> [Accessed 27 January 2024].
27. European Union for Armenia. *EU4Environment: Water and Data Easter Partner Countries*. [Online]. Available at: <https://www.eu4waterdata.eu/en/about/programme-description.html> [Accessed 28 December 2023].
28. European Union for Armenia. EU4Environment. *Success Stories of the Armenian SMEs using the RECP methodology*. Last update 22 February 2022. [Online]: Available at <https://www.eu4environment.org/success-stories-of-the-armenian-smes-using-recp-methodology/> [Accessed 1 March 2024].
29. Fang, C. and Gurinović, M. (2023) *Sustainable and nutrition-sensitive food systems for healthy diets and prevention of malnutrition in Europe and Central Asia*. [Online]. Budapest, FAO. Available at: <https://doi.org/10.4060/cc3907en> [Accessed 28 December 2023].
30. FAO. (2023) *Europe and Central Asia: Regional Overview of Food Security and Nutrition 2023 – Statistics and trends*. Food and Agriculture Organisation of the United Nations, Budapest. [Online]. Available at: <https://doi.org/10.4060/cc8608en> [Accessed 28 January 2024].
31. FAO. (2017) *Gender, Agriculture and Rural Development in Armenia: Country Gender Assessment Series*. [Online]. Food and Agriculture Organisation of the United Nations. Available at: <https://www.fao.org/3/i6737en/i6737en.pdf> (Accessed 27 January 2024).
32. FAO. *Ongoing Projects in Armenia*. [Online]. Food and Agriculture Organisation of the United Nations. Available at: <https://www.fao.org/armenia/programmes-and-projects/project-list/en/> [Accessed 3 December 2023].
33. FAO IEX Database. *Armenia - Fisheries*. [Online]. Food and Agriculture Organization of the United Nations: FAO IEX Database. Available at: <https://www.fao.org/faolex/country-profiles/general-profile/see-more/en/?iso3=ARM&countryname=Armenia&area=Fisheries&link=aHR0cDovL2Zhb2xleC5mYW8ub3JnL2NnaS1iaW4veG1sLmV4ZT9kYXRhYmFzZT1mYW9sZXgmYW1wO3NIYXJjaF90eXBIPXF1ZXJ5JmFtcDt0YWJsZT1hbGwmYW1wO3F1ZXJ5PUFSRUe6RkkgQU5EIEITTzpBUk0gQU5EIFQ6QUxMIEFORCBSRVBFQUxFRDpOIEFORCBTVVBFIUM6TiBOT1QgUk86WSBBTkQgWjooTCBSIE0pIE5PVCBaOlAmYW1wO3NvcnRfbmFtZT1Ac3ByZkZlJmFtcDtsYW5nPXhtbGYmYW1wO2ZvcmlhdF9uYW1lPUBYU0hPUIQmYW1wO3BhZ2VfaGVhZGVyPUVYTUxIJmFtcDtwYWdlX2Zvb3Rlcj1FWE1MRg==> [Accessed 2 December 2023].



Armenia

34. FAO/IAEX Database. *Law "On Provision of Sanitary-Epidemiological Security of the Population of the Republic of Armenia"*. [Online]. Food and Agriculture Organization of the United Nations: FAO/IAEX Database. Available at: <https://faolex.fao.org/docs/pdf/arm47094E.pdf> [Accessed 2 December 2023].
35. Food Safety Inspectorate under the Government of the Republic of Armenia. *Decision of the Government of the Republic of Armenia No. 293-N "On Approval of the list according to the requirements of the List of Chemical Substances and Pesticides Prohibited in the Republic of Armenia Subject to the Regulation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade of the UN"*. [Online]. Food Safety Inspectorate. Available at: <https://snund.am/hy/page/phytosanitary/102> [Accessed 26 November 2023].
36. Food Safety Inspectorate under the Government of the Republic of Armenia. *Annual Reports: Annual Activity Plan for 2024*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/en/page/annual-reports/146> [Accessed 4 February 2024].
37. Food Safety Inspectorate under the Government of the Republic of Armenia. *Legislation*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/hy/page/food-safety/71> [Accessed 4 February 2024].
38. Food Safety Inspectorate under the Government of the Republic of Armenia. *Useful Information*. [Online]. Food Safety Inspectorate under the Government of the Republic of Armenia. Available at: <https://snund.am/hy/page/useful-information/164?page=2> [Accessed 4 February 2024].
39. Global Nutrition Report, (2022). [Online]. Available at: <https://globalnutritionreport.org/resources/nutrition-profiles/asia/western-asia/armenia/?country-search=Armenia> (Accessed 19 November 2023).
40. Government of the Republic of Armenia. *Government Decision on 22 April 2021 N 610 - L "On Approval of the Nationally Determined Contribution 2021-2030 of the Republic of Armenia to the Paris Agreement"*. [Online]. Available at: <https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20of%20Republic%20of%20Armenia%20%202021-2030.pdf> [Accessed 24 January 2024].
41. Government of the Republic of Armenia. *Government Decision N-658 as of 1 June 2019 "On Approval of the Charter of the RA Ministry of Economy"*. [Online]. Available at: <http://www.irtek.am/views/act.aspx?aid=99862> [Accessed 19 November 2023].



Armenia

42. Government of the Republic of Armenia. *Programme of the Government of the Republic of Armenia 2021-2026: Annex to Decision of the Government of the Republic of Armenia 1363-N of 18 August*. [Online]. Available at: <https://www.gov.am/files/docs/4737.pdf> [Accessed 25 November 2023].
43. Government of the Republic of Armenia. (2021) *National Action Programme of Adaptation to Climate Change and the List of Measures for 2021-2025*. [Online]. Available at: https://unfccc.int/sites/default/files/resource/NAP_Armenia.pdf [Accessed 8 December 2023].
44. Government of the Republic of Armenia. (2022) *Official News: The first policy dialogue of "GREEN Armenia" joint platform took place*. [Online]. Government of the Republic of Armenia, published online 27 June 2022. Available at: <https://www.gov.am/en/news/item/10142/> [Accessed 12 November 2023].
45. Government of the Republic of Armenia. *Decision of the Government of the Republic of Armenia No. 1083-I, "On Strategy on the Development of the Food Security System in the Republic of Armenia"*. [Online]. Available at: https://www.e-gov.am/u_files/file/decrees/kar/GVC4-C2D2-66AC-4391/1083.1.pdf [Accessed 26 November 2023].
46. IRTEK. *Decision of the Government of the Republic of Armenia No. 444-N "On Determining the Allowable Maximum Residue Level of Pesticides, Antibiotics, and Other Pollutants in Honey"*. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=53275> [Accessed 26 November 2023].
47. IKI. *Promoting Green Deal Readiness in the Eastern Partnership Countries (ProGress)*. [Online]. Internationale Klimaschutzinitiative. Available at: <https://www.international-climate-initiative.com/en/project/promoting-green-deal-readiness-in-the-eastern-partnership-countries-progress-22-i-496-nus-g-green-deal-readiness/> 777 [Accessed 4 February 2024].
48. Investment Council Armenia. *Green growth for SMEs in Armenia: Recommended business models*. [Online]. Investment Council Armenia. Last updated: 31 August 2022. Available at: <https://icarmenia.am/en/news/Green%20Growth%20for%20SMEs%20in%20Armenia:%20recommended%20business%20models> [Accessed 27 January 2024].
49. IRTEK. *Decision of the Government of Armenia No. 1904-N "On Determining the Maximum Residue Level of Pesticides and Nitrates in Foods of Animal and Plant Origin"*. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=37782> [Accessed 26 November 2023].
50. IRTEK. *Decree of the Minister of Health of the Republic of Armenia No.790-N "On Approval of Sanitary Rules and Norms for Storage, Transportation, Usage and Sale of*



Armenia

- Pesticides*". [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=31683> [Accessed 26 November 2023].
51. IRTEK. *Decision of the Government of Armenia No. 1195-N "On Approval of Technical Regulation on Production, Packaging and Circulation of Pesticides and Agrochemicals"*. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=82379> [Accessed 26 November 2023].
52. IRTEK. *Decision of the Government of Armenia No. 1104-N "On Approval of the Composition and Order of Activity of the Pesticides and Agrochemicals Registration Committee"*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=117059> [Accessed 26 November 2023].
53. IRTEK. *Decree of the Head of the Food Safety Inspectorate of the Republic of Armenia No. 426-A "On Approval of the List of Pesticides and Agrochemicals Permitted for Use in the Republic of Armenia"*. [Online]. Legal Information Center JSC. Available at: https://snund.am/public/storage/uploads/426-%D4%B1_1674712778.pdf [Accessed 26 November 2023].
54. IRTEK. *Decision of the Government of Armenia No. 1192-N "On Approval of the Procedure for Conducting Tests of Pesticides and Agrochemicals and the Forms of Conclusions on the Import and Export of Pesticides and Agrochemicals"*. [Online]. Legal Information Center JSC. Available at: <https://www.irtek.am/views/act.aspx?aid=82414> [Accessed 26 November 2023].
55. IRTEK. *Decision of the Government of Armenia No. 1266-N "On Approval of the of Countries whose Pesticide and Hygienic Assessment Test Results are Acceptable for Registration of Pesticides and Agrochemicals in the Republic of Armenia"*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=82560> [Accessed 26 November 2023].
56. IRTEK. *Decision of the Government of Armenia No. 1117-N "On Approval of the Procedure for State Registration, Re-Registration and De-Registration of Pesticides and Agrochemicals"*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=117063> [Accessed: 26 November 2023].
57. IRTEK. *Decision of the Government of Armenia No. 195-N "On Approval of the Rules on the Use of Unsuitable Pesticides"*. [Online]. Legal Information Center JSC. Available at: <http://www.irtek.am/views/act.aspx?aid=58657> [Accessed 26 November 2023].
58. Kato T. and Neuweg I. (2021) *An Assessment of Investment Needs for Climate Action in Armenia up to 2030*. [Online]. Organization for Economic Cooperation and Development. Available at: <https://www.eu4environment.org/app/uploads/2021/04/Report-Assessment-of->



Armenia

- [Investment-Needs-for-Climate-Action-in-Armenia-up-to-2030.pdf](#) [Accessed: 28 December 2023].
59. MASDAR. *AYG-1 Solar Photovoltaic Plant*. [Online]. Available at: <https://masdar.ae/en/renewables/our-projects/ayg-1-solar-photovoltaic-plant> [Accessed 4 February 2024].
60. Ministry of Economy of the Republic of Armenia. *Agricultural cooperation*. [Online]. Available at: <https://mineconomy.am/en/page/1331> [Accessed 24 November 2023].
61. Ministry of Economy of the Republic of Armenia. *Agro-processing*. [Online]. Available at: <https://www.mineconomy.am/en/page/1327> [Accessed 19 November 2023].
62. Ministry of Economy Armenia. *Fish Farming*. [Online]. Available at: [Ministry of Economy of the Republic of Armenia | Home \(mineconomy.am\)](#). [Accessed 25 November 2023].
63. Ministry of Economy of the Republic of Armenia. *International Cooperation*. [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/93> [Accessed 4 February 2024].
64. Ministry of the Economy of the Republic of Armenia. (2020) *Strategy of the Main Directions Ensuring Economic Development in Agricultural Sector of the Republic of Armenia for 2020-2030* [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/1467> [Accessed 25 November 2023].
65. Ministry of Economy of the Republic of Armenia. *TAIEX*. [Online]. Ministry of Economy of the Republic of Armenia. Available at: <https://mineconomy.am/en/page/777> [Accessed 4 February 2024].
66. Ministry of Environment of the Republic of Armenia. Information Platform: *The 4-year program "Waste management policy in Armenia" has been launched*. [Online]. Ministry of Environment of the Republic of Armenia. Posted: 31 October 2022. Available at: <http://www.mnp.am/en/news/4-year-program-waste-management-policy> [Accessed 27 November 2023].
67. President of the Republic of Armenia. (2015) *Constitution of the Republic of Armenia*. [Online]. Available at: <https://www.president.am/en/constitution-2015/> (Accessed 27 January 2024). PROPARGO Group AFD. Farm Credit Armenia, a Finance Cooperative for Food Security. [Online]. Available at: [Farm Credit Armenia, a finance cooperative for food security | Proparco - Groupe Agence Française de Développement](#) [Accessed: 30 November 2023].
68. Republic of Armenia. (2020) *Republic of Armenia: Sustainable Development Goals: Voluntary National Review*. [Online]. Available at:



Armenia

- https://sustainabledevelopment.un.org/content/documents/26318Armenia_VNRFI_NAL.pdf [Accessed 7 December 2023].
69. Republic of Armenia and Food Systems Summit Dialogues. (2021) *National Pathway for Food Systems Transformation in Support of the 2030 Agenda*. [Online]. Available at: https://summitdialogues.org/wp-content/uploads/2021/09/Armenia_National-Pathway_2021_En.pdf [Accessed 23 November 2023].
70. State Support Programs: Awareness Platform. [Online]. Available at: <https://irazekum.am/> [Accessed 25 January 2024].
71. Statistical Committee of the Republic of Armenia. External trade database According to the Commodity Nomenclature at 4-digit level. [Online]. Available at: <https://armstat.am/en/?nid=148&thid%5B%5D=3101&thid%5B%5D=3102&thid%5B%5D=3103&thid%5B%5D=3104&thid%5B%5D=3105&years%5B%5D=2022&years%5B%5D=2021&years%5B%5D=2020&years%5B%5D=2019&years%5B%5D=2018&submit=Search> [Accessed 2 February 2024].
72. Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2023_5.pdf [Accessed 12 November 2023].
73. Statistical Committee of the Republic of Armenia. (2022) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2022_5.pdf [Accessed 12 November 2023].
74. Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2021_5.pdf [Accessed 12 November 2023].
75. Statistical Committee of the Republic of Armenia. (2019) *Food Security and Poverty: Accessibility of Food*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2019_5.pdf [Accessed 12 November 2023]. Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_3_2023_3.pdf [Accessed 12 November 2023].
76. Statistical Committee of the Republic of Armenia. (2022): *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_4_2022_3.pdf [Accessed 12 November 2023].
77. Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Availability of Food*. [Online]. Available at: https://armstat.am/file/article/f_sec_1_2021_3..pdf [Accessed 12 November 2023].



Armenia

78. Statistical Committee of the Republic of Armenia. (2023) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_3_2023_1.pdf [Accessed 12 November 2023].
79. Statistical Committee of the Republic of Armenia. (2022): *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2022_1.pdf [Accessed 12 November 2023].
80. Statistical Committee of the Republic of Armenia. (2021) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_4_2021_1.pdf [Accessed 12 November 2023].
81. Statistical Committee of the Republic of Armenia. (2020) *Food Security and Poverty: Social-Economic Indicators*. [Online]. Available at: https://www.armstat.am/file/article/f_sec_2_2020_1.pdf [Accessed 12 November 2023].
82. Statistical Committee. (2023) *Labor Market in Armenia: Employment*. [Online]. Available at: https://www.armstat.am/file/article/lab_market_2023_4.2.pdf (Accessed 27 January 2024).
83. Statistical Committee. (2023) *Labor Market in Armenia: Incomes*. [Online]. Available at: [Lab Market 2023 6 \(armstat.am\)](https://www.armstat.am/file/article/lab_market_2023_6.pdf) [Accessed 27 January 2024].
84. Statistical Committee of the Republic of Armenia. *Socio- Economic Situation of RA, January-December 2022*. [Online]. Available at: https://www.armstat.am/file/article/sv_12_22a_122.pdf [Accessed 16 November 2023].
85. Statistical Committee of the Republic of Armenia. *Socio- Economic Situation of RA, January-December 2018*. [Online]. Available at: https://www.armstat.am/file/article/sv_12_18a_122.pdf [Accessed 16 November 2023].
86. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Agriculture*. [Online]: Available at: <https://www.armstat.am/file/doc/99541108.pdf> [Accessed 16 November 2023].
87. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Education and Culture*. [Online]: Available at: <https://www.armstat.am/file/doc/99541063.pdf> [Accessed 7 February 2024].



Armenia

88. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: General Description*. [Online]: Available at: <https://www.armstat.am/file/doc/99541043.pdf> [Accessed 16 November 2023].
89. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Industry*. [Online]. Available at: <https://armstat.am/file/doc/99541098.pdf> [Accessed 17 November 2023].
90. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: Labour Market*. [Online]. Available at: <https://www.armstat.am/file/doc/99541258.pdf> [Accessed 13 November 2023].
91. Statistical Committee of the Republic of Armenia. (2020) *Statistical Yearbook of Armenia: Labour Market*. [Online]. Available at: <https://www.armstat.am/file/doc/99521073.pdf> [Accessed 13 November 2023].
92. Statistical Committee of the Republic of Armenia. (2023) *Statistical Yearbook of Armenia: System of National Accounts*. [Online]. Available at: <https://armstat.am/file/doc/99541093.pdf> [Accessed 12 November 2023].
93. Statistical Committee of the Republic of Armenia. (2021) *Statistical Yearbook of Armenia: System of National Accounts*. [Online]. Available at: <https://armstat.am/file/doc/99526988.pdf> [Accessed 12 November 2023].
94. Statistical Committee of the Republic of Armenia. *Sustainable Development Goals: Indicator 12.3.1.a Food Loss*. [Online]. Available at: <https://sdg.armstat.am/12-3-1-a/> [Accessed 02 February 2024].
95. Statistical Committee of the Republic of Armenia. (2021) *Women and Men in Armenia*. [Online]. Available at: [gender_2021.pdf \(armstat.am\)](https://armstat.am/gender_2021.pdf) [Accessed 27 January 2024].
96. Stepanyan S., Pipoyan D., Beglaryan M. and Merendino N. (2022) *Assessing Dietary Intakes from Household Budget Survey in Armenia, 2008–2019* [Online]. PubMed Central, published online 14 September 2022. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9498088/> [Accessed 24 December 2023].
97. UNDP. *European Union Green Agriculture Initiative in Armenia (EU-GAIA)*. [Online]. United Nations Development Programme. Available at: <https://www.undp.org/armenia/projects/eu-green-agriculture-initiative-armenia-eu-gaia> [Accessed 28 November 2023].
98. UNECE. (2022) *Fifth Reporting Exercise Under the Protocol on Water and Health (November 2021-April 2022): Armenia*. [Online]. United Nations Economic Commission of Europe. Available at: https://unece.org/sites/default/files/2022-04/Armenia_summary_report_5th_cycle_18Apr22_ENG.pdf [Accessed 12 November 2023].



Armenia

99. UNEP. (2020) *Enhancing NDCs for Food Systems recommendations decision – makers*. [Online]. United Nations Environment Programme. Available at: https://wwfint.awsassets.panda.org/downloads/wwf_ndc_food_final_low_res.pdf [Accessed 12 January 2024].
100. UNFCCC. (2020) *Fourth National Communication on Climate Change* [Online]. United Nations Development Programme Armenia, Yerevan. Available at: https://unfccc.int/sites/default/files/resource/NC4_Armenia_.pdf [Accessed 12 December 2023].
101. *United Nations Sustainable Development Cooperation Framework for Armenia 2021-2025*. Available at: https://unece.org/sites/default/files/2021-05/Armenia_UNSDCF_2021-2025.pdf [Accessed 30 November 2023].
102. U.S. Embassy in Armenia. *USAID Lunches Rural Economic Development - New Economic Opportunities Programme*. [Online]. Available at: <https://am.usembassy.gov/new-economic-opportunities/> [Accessed 28 December 2023].
103. WFP. (2023) *Fifth Food Security and Vulnerability Assessment in Armenia, December 2022 – January 2023*. [Online]. World Food Programme. Available at: https://docs.wfp.org/api/documents/WFP-0000151180/download/?_ga=2.248936903.1734944632.1706442824-341257857.1700418359 <https://www.wfp.org/countries/armenia> [Accessed 28 January 2023].

Annexes

Annex 1. Mapping the strategic national documents as well as relevant thematic objectives and targets

Relevant international or EGD policy area/ strategic document	Existing national strategic document	Time of adoption and date of last revision	Legally binding or not	Relevant objectives and targets	Comments:
Common Agriculture Policy	Strategy of the Main Directions Ensuring Economic Development in the Agricultural	19 December 2019	yes	Increase the competitiveness of the agriculture sector and enhance efficiency. Ensure food safety. Develop local markets and	There are too many objectives and targets, so priority areas have been added instead.



Armenia

	Sector of the Republic of Armenia for 2020-2030			increase export possibilities. Improve food security and nutrition Develop institutional and human capacity; Support sustainable rural Development. Promote digital agriculture and technology innovations.	
United Nations SDGs, EC	Sustainable Development Strategy 2030	2015, draft, paused	no	The strategy sets goals and targets in key areas such as energy, transport, agriculture, tourism, and education, and aims to create a sustainable and prosperous future for all Armenians.	This strategy is aligned with the United Nations SDGs.
	The 2014-2025 Strategic Programme of Prospective Development	2014	yes	Expansion of employment, Human capital development, Improvement of the social protection system, and Institutional modernisation of the management system.	
Paris Agreement	National Action Programme of Adaptation to Climate Change	13 May 2021	yes	The general objective of the NAP process is to promote the reduction and management of climate risks in Armenia.	



Armenia

Annex 2. European Union approximation assessment template

The following table provides a summary of the most significant pieces of Armenian national laws and how they approximate with various piece of European Union directives and regulations which are most pertinent to the F2F.

Relevant European Union legal document	Existing national law	Planned national law (including drafted, but not adopted)	Status of transposition (fully, partially, not transposed)	Further steps in transposition	Competent Authority	Comments: issues/difficulties that can create problems for further transposition
Name of the directive	Name and date of adoption	Name and planned date of adoption				
Agriculture/Fisheries						
Common Agriculture Policy Strategic Plan 23 - 27 ⁴	Not approximated.	N/A	N/A	N/A	N/A	
Regulation (EU) No 1380/2013 on the common fisheries policy	The Regulation is not included in the CEPA Agreement.	N/A	N/A	N/A	N/A	
Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council	Law on Organic Agriculture	LAW on Organic Agriculture, adopted by the National Parliament on April 8, 2008	Fully	N/A	Ministry of Economy	



Armenia

Regulation (EC) No 834/2007						
<p>The Action plan for the development of Organic Production:</p> <p>REGULATION (EC) No 1069/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)</p>	Law on Organic Agriculture	N/A	N/A	N/A	N/A	The Action plan is not approximated.
Water Quality						
Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources	Partially started.	<p>The following provisions of that Directive shall apply:</p> <p>Adoption of national legislation and designation of competent</p>	<p>The Directive shall be implemented within 4 years (Ar. 3 and 6) and 8 years (Ar. 4 and 5) of the entry into force of the CEPA Agreement</p>	Probably will start in spring 2024	<p>Ministry of Environment</p> <p>Ministry of Territorial Administration and Infrastructures</p>	<p>The establishment of a legal basis for developing criteria for identifying nitrate-vulnerable areas and implementing measures to reduce and prevent nitrate</p>



Armenia

		authority/ies Articles 3 and 6 Articles 4 and 5	app. 2025. app. 2029.			pollution from agricultural activities is planned. Sources of pollution caused by nitrates emitted from agricultural sources are estimated in the plans of Sevan and Hrazdan.
Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy	Water Code and subsequent documents	The following provisions of that Directive shall apply: Adoption of national legislation and designation of the competent authority. Articles 3 (1-7), 5 8, 13, 14	In process The Directive shall be implemented within 5 years of the CEPA Agreement's entry into force, app. 2026.		Ministry of Environment Ministry of Health Ministry of Territorial Administration and Infrastructures	EUWI+ programme: Hrazdan and Sevan Water Basin Management Plans (WBMP) were adopted. EU4Environment – Water and Data Programme: North WBMP is being developed. Changes in Water Code: - new definitions were defined,



Armenia

						<ul style="list-style-type: none"> - five statuses of surface water quality have been fixed: - provisions have been established regarding the maintenance of excellent and good water conditions, - The amendments envisage requirements regarding the quality of underground water bodies, - the principle of ensuring equal access to water supply and sanitation was established,
Pesticides						
DIRECTIVE 2009/128/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for Community action to achieve the	This Directive is not included in the CEPA Agreement.	N/A	N/A	N/A	N/A	



Armenia

sustainable use of pesticides						
Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC	The Regulation is not included in the CEPA Agreement.	N/A	N/A	N/A	N/A	
Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115'	Not approximated.	N/A	N/A	N/A	N/A	
Food Safety and Food Fraud						
Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying	2023-2028 Strategy on the Development of the Food Security	N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.



Armenia

down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety	System in the Republic of Armenia is partially addressing EU F2F Strategy.					
Commission Implementing Regulation (EU) 2019/1715 on food fraud ⁵	2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia is partially addressing European Union F2F Strategy.	N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.
Food Labelling						
Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers		N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.



Armenia

Regulation (EU) 2015/2283 on novel foods ⁶		N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.
Regulation (EC) 1924/2006 on nutrition and health claims ⁷		N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.
Proposal for a Directive on substantiation and communication of explicit environmental claims (Green Claims Directive)		N/A	N/A	N/A	N/A	Not approximated.
EU Code of Conduct on Responsible Food Business and Marketing Practices ⁸						Not approximated.
Animal Welfare						
Veterinary Medicinal Products Regulation (Regulation (EU) 2019/6)		N/A	N/A	N/A	N/A	The Regulation is not included in the CEPA Agreement.
Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept		N/A	N/A	N/A	N/A	This Directive is not included in the CEPA Agreement.



Armenia

for farming purposes						
Food Security						
COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Contingency plan for ensuring food supply and food security in times of crisis	2023-2028 Strategy on the Development of the Food Security System in the Republic of Armenia is partially addressing European Union F2F Strategy.	N/A	N/A	N/A	N/A	Not approximated.
General Sustainability						
Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937		N/A	N/A	N/A	N/A	Not approximated.
ANNEX to the proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Corporate		N/A	N/A	N/A	N/A	Not approximated.



Armenia

Sustainability Due Diligence and amending Directive (EU) 2019/1937:						
Food Waste						
Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL amending Directive 2008/98/EC on waste	Adoption of national legislation and designation of the competent authority.	Adoption of national legislation and designation of the competent authority. Chapters IV and V Article 14	Within 4 years of the entry into force of the Agreement : 2025		Ministry of Territorial Administration and Infrastructures Ministry of Environment Ministry of Health	
Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste	Adoption of national legislation and designation of the competent authority.	The following provisions of that Directive shall apply: Adoption of national legislation and designation of the competent authority. Chapters IV and V Article 14	The Directive shall be implemented within 4 years (Ch. IV and V) and 6 years (Ar. 14) of the entry into force of the CEPA Agreement app. 2025. app. 2027.		Ministry of Territorial Administration and Infrastructures Ministry of Environment Ministry of Health	



Armenia

Annex 3. Stakeholder meetings held as part of the Quality Assurance Process

1. Meeting with Gohar Vardanyan, Head of Food Safety Department of the Food Safety Inspectorate under the Government of the Republic of Armenia, 4 April 2024
2. Meeting with Vahan Amirkhanyan, the Agricultural Expert at FAO-Armenia, 19 March 2024
3. Meeting with Gayane Avagyan, Scientific Secretary of the ANAU, 15 March 2024
4. Meeting with Elena Manvelyan, Head of the NGO AWHHE, 15 March 2024
5. Meeting with Sona Telunts, RED-NEO project coordinator from the CARD Foundation, 25 March 2024
6. Meeting with Lusine Nalbandyan, Chairperson of the Organic Armenia Agricultural Association, 20 March 2024

