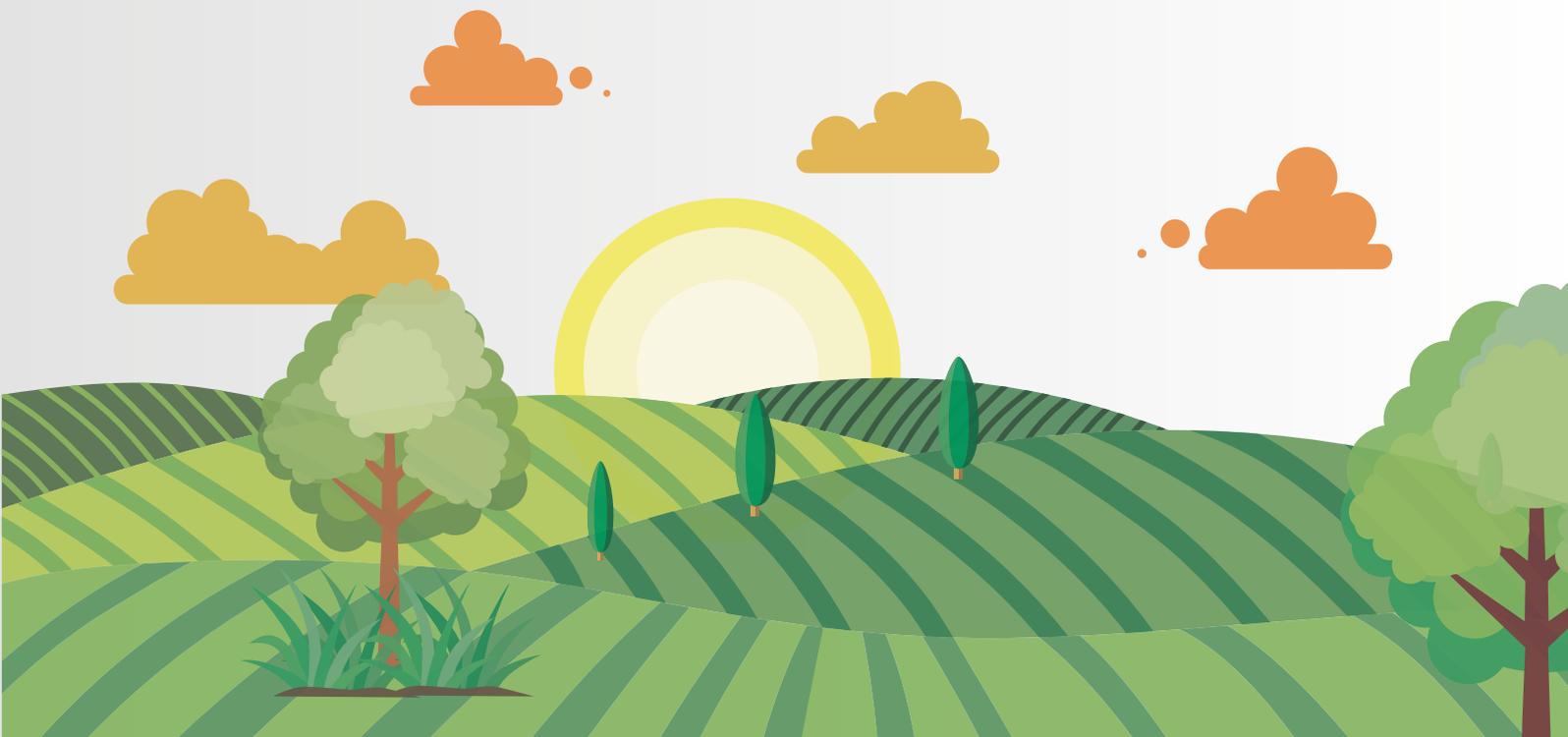




Food and Agriculture Organization
of the United Nations

**Regional Synthesis Report
based on country studies in eight countries
in Europe and Central and Asia**

Empowering smallholders and family farms in Europe and Central Asia



Regional Synthesis Report

2019

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Contents

Foreword	vii
Acknowledgements	x
Abbreviations and acronyms	xi
Executive summary	xiii
FAO regional priorities, objectives for FAO smallholder support and context of eight country studies	xv
Objectives of the Regional Synthesis Report	xv
Key findings	xvi
Recommendations	xvii
Краткое резюме	xxiii
Региональные приоритеты ФАО, задачи ФАО по поддержке мелких землевладельцев и контекст семи страновых исследований	xxv
Цели Регионального сводного отчета	xxvi
Основные выводы	xxvi
Рекомендации	xxviii
1. Introduction to smallholders and family farms and their role in Europe and Central Asia	1
1.1 Background for the Regional Initiative supporting smallholders and family farms and the rationale for the country studies	3
1.2 Background and objectives of the country studies	5
1.3 The overall methodological principles of the country studies on smallholders and family farms	6
1.4 Objective of the Regional Synthesis Report	9
2. Development trend and current state of smallholders and family farms in the eight study countries	11
2.1 Definitions of smallholders and family farms	13
2.1.1 Definitions of smallholder and/or family farm in the eight study countries	13
2.1.2 FAO's definition and identification of "small-scale food producers"	16
2.2 Structural analysis of the importance of smallholders and family farms in the eight study countries	18
2.2.1 Development of the role and importance of smallholders and family farms in the economy, 2005–2015	18
2.2.2 Farm structures	28
2.2.3 Land market development and property rights	43
2.2.4 Value chain organization, standards and access to markets	45
2.2.5 Access to finance	49
2.2.6 Access to rural institutions, extension services, research, development and education	54
2.2.7 Access to input factors	57
2.3 Environment, nature and climate change	58
2.3.1 Water management and irrigation	58
2.3.2 Climate change	59
2.3.3 Insurance	60
2.4 Rural development	61
2.4.1 Population	61
2.4.2 Rural income and poverty	65
2.4.3 Labour market	68
2.4.4 Quality of life and livelihoods in rural areas	70
3. Current political priorities and policies positively or negatively affecting smallholders and family farms	81
3.1 National smallholder targeted policies	83
3.1.1 State budgets for agriculture	83
3.1.2 Summary of smallholder and family farm policies	84

3.1.3 Policies on access to finance	88
3.1.4 Policies related to value chains and the development of cooperatives	90
3.2 Donor-funded programmes and projects	91
3.3 FAO Country Programming Frameworks and the focus on supporting smallholders and family farms	92
3.4 Fulfilment of preconditions for comprehensive policymaking for smallholders and family farms	94
4. Recommendations	97
4.1 Policy recommendation summary for the eight study countries	99
4.1.1 Supporting the development of statistical systems and EU standards	100
4.1.2 Institutional and regulatory framework development and enhancement	100
4.1.3 Facilitate structural transformation of smallholders and family farms and support productivity growth	102
4.1.4 Climate change mitigation and adaptation	108
4.1.5 Diversification	110
4.2 Recommendations for further supporting smallholders and family farms based on FAO comparative advantages	112
4.2.1 Areas of work with FAO comparative advantages	113
4.2.2 Achieving the Sustainable Development Goals through a more programmatic approach	115
4.2.3 Three strategic pathways for smallholders and family farms	116
5. Bibliography	121

Tables

1. Selected economic indicators (data from latest available year)	19
2. The relative distribution of the value of agricultural production	21
3. International agrifood trade	22
4. Land resources	23
5. Land resources of family farms	29
6. Farm structure by size classes	32
7. Share of family farms in total production	35
8. Rural population (% of total population)	62
9. Rural population growth (annual %)	62
10. Gross national income per capita (USD), 2016	65
11. Population, poverty headcounts (%), number of the poor, trends	67
12. Rural poverty headcount ratio	67
13. Government expenditure on agriculture, forestry and fishery in 2017	84
14. FAO Country Programming Framework priority areas in the eight study countries	92

Figures

1. Small-scale food producers	17
2. Gross production indices (2004–2006=100%)	20
3. Number of farms and land used (cumulative share by size classes, %)	31
4. Agriculture, forestry, and fishing, value added per worker, 2005–2016, USD	38
5. Average annual labour productivity growth rate, 2005–2016	38
6. Agriculture value added per ha, 2005–2016, USD	39
7. Average annual land productivity growth rate, 2005–2016	39
8. Average yields of key crops, 2006–2014 (tonnes/ha)	40
9. Total factor productivity index, 1991–2014	41
10. Growth rates of agricultural input, output and total factor productivity (TFP), 2005–2014	42
11. Growth rate of agricultural inputs, 2005–2014	43
12. Value chain – main channels for smallholder access to final consumers in Armenia	47
13. Agricultural loans in foreign and local currencies by commercial banks, Armenia, 2005–2015	50
14. Remittances and net monetary transfers, Armenia, 2005–2015	52
15. National poverty rate in Kyrgyzstan, 2005–2016, % of population	68
16. Salaried workers by sector, type of settlement and gender, Serbia, 2017	69
17. Percentage of salaried workers without a formal labour contract and welfare benefits from employment, by type of settlement, Serbia, 2017	70
18. Agriculture pensions in Serbia, 2007–2017	74
19. Percentage of salaried workers in rural areas of Serbia without formal labour contract and welfare benefits from employment, by gender, 2017	80
20. Volume of loans to the agricultural sector in national and foreign currencies and interest rates in Georgia, 2010–2017	88
21. Pyramid of farms distributed on size	113
22. The vicious circle of agricultural stagnation	117

Boxes

1. Female managers of smallholders and family farms in Serbia	34
2. Successful farmer group in Albania	47
3. Barter transactions in Serbia	51
4. Synergy of mutual funding – the case of Talas bean merchants and small farmers social network financing in Kyrgyzstan	53
5. Rural Advisory and Extension Services in the Republic of Moldova	56
6. Water users' associations in the Republic of Moldova increase the productivity in agriculture	59
7. Outmigration patterns from rural areas of Serbia	64

Foreword



In most of the FAO programme countries in Europe and Central Asia, farm structures are dominated by smallholders and small family farms. The small farms have, at the same time, many needs and constraints and often require support in many technical fields. Smallholders and family farms are often not economically viable, and the rural population remains the poorest and most vulnerable part of the population. Despite this, they potentially represent a key resource for achieving sustainable economic, social and environmental development. Family farming is – both globally and in Europe and Central Asia – essential for achieving several of the Sustainable Development Goals (SDGs). In this respect, a key SDG target in the region is SDG target 2.3 on doubling the agricultural productivity and incomes of small-scale food producers by 2030.

For these reasons, support to smallholders and family farms is one of four priorities for FAO in Europe and Central Asia, latest confirmed by the FAO Regional Conference in 2018. FAO established in the region in 2014 the Regional Initiative on Empowering Smallholders and Family Farms for Improved Rural Livelihoods and Poverty Reduction as a programmatic umbrella for the implementation of support to smallholders and family farms in the programme countries in the region. The Regional Initiative builds on the legacy of the International Year of Family Farming in 2014. Furthermore, the implementation of the United Nations Decade of Family Farming 2019-2028 (UNDF) provides an excellent opportunity for FAO to further enhance its support to smallholders and family farms in partnerships with the member countries, civil society, academia and the private sector.

With the objective of better understanding the specific needs and constraints of smallholders and family farms, FAO initiated in 2018 smallholder country studies in eight countries of the region as part of a regional project. The countries included are Albania, Armenia, Georgia, Kyrgyzstan, Republic of Moldova, North Macedonia, Serbia and Tajikistan. This Regional Synthesis Report is intended to provide a regional overview of the main needs and constraints of the small farms and based on the conducted country specific analysis to give a set of key policy recommendations for the improvement of the situation for smallholders and family farms. The report will with the country reports provide important input to the FAO work programmes both at regional and country level but it will hopefully also be relevant for governments, international organizations, donors, civil society and others when designing future support to smallholders and family farms.



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Abbreviations and acronyms

ADA	Austrian Development Agency
ADC	Austrian Development Corporation
AMD	Armenian Dram (Armenia's currency)
AOI	Agriculture orientation index
ARDA	Agricultural and Rural Development Agency, Albania
ARMSTAT	National Statistical Service of Armenia
ATTC	Agricultural Technology Transfer Centres
CAP	Common Agricultural Policy (of the European Union)
CF	Contract farming
CLLD	Community-led Local Development
CPF	Country Programming Framework
DANIDA	Danish International Development Agency
DCFTA	Deep and Comprehensive Free Trade Agreement
DRM	Disaster risk management
EC	European Commission
EU	European Union
EUR	Euro (official currency of the Eurozone)
FADN	Farm Accountancy Data Network
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	FAO Statistical Databases (United Nations)
FDI	Foreign direct investment
FUA	Forest users' associations
GAEP	Good agricultural and environmental practices
GAP	Good agricultural practice
GDP	Gross domestic product
GEL	Georgian Lari (Georgia's currency)
GEOSTAT	National Statistics Office of Georgia
GIS	Geographic information system
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GNI	Gross national income
GVA	Gross value added
ha	Hectares
HACCP	Hazard analysis and critical control points
IFAD	International Fund for Agricultural Development
INSTAT	Albanian Institute of Statistics
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
IPM	Integrated pest management
ISARD	Inter-sectoral Strategy for Agriculture and Rural Development
km	Kilometre
LFS	Labour Force Survey
LGU	Local government units
LEIWW	Rural development through integrated forest and water resource management
LIS	Land Information System

LPIS	Land Parcel Information System
LSMS	Living Standard Measurement Survey
MA	Managing Authority
MAFCP	Ministry of Agriculture, Food and Consumer Protection, Albania
MAF	Ministry of Agriculture and Food, Bulgaria
MAFI	Ministry of Agriculture and Food Industry, Republic of Moldova
MAFWE	Ministry of Agriculture, Forestry and Water Economy, North Macedonia
MAFWM	Ministry of Agriculture, Forestry and Water Management, Serbia
MAP	Medicinal and aromatic plants
MARD	Ministry of Agriculture and Rural Development, Republic of Moldova
MARDWA	Ministry of Agriculture and Rural Development, Albania
MICS	Multiple Indicator Cluster Survey
MIS	Market Information System
MoA	Ministry of agriculture (general reference to various ministries)
NGOs	Non-governmental organization
NMS	National minimum standards
PSF	Private subsidiary farm
REU	Regional Office for Europe and Central Asia
RI	Regional Initiative
SARED	Sustainable Agriculture Research and Education Programme (Funded by DANIDA and GIZ, implemented by GIZ)
SCA	Savings and credit associations
SDG	Sustainable Development Goals
SITC	Standard International Trade Classification
SME	Small and medium enterprises
SWG RRD	Standing Working Group for Regional Rural Development
TA	Technical assistance
UAA	Utilized agricultural area
UN	United Nations
UNFFF	United Nations Decade of Family Farming 2019-2028
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Programme
UNSTAT	United Nations Statistical Division
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VET	Vocational education and training
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forestry in the Context of National Food Security
WB	World Bank
WUA	Water users' associations

Executive summary



FAO regional priorities, objectives for FAO smallholder support and context of eight country studies

The farm structures in the countries in Eastern Europe and Central Asia are highly diverse, but in most of the countries are still largely dominated by smallholders and family farms. Supporting smallholders and family farms is one of four priorities for the Food and Agriculture Organization of the United Nations (FAO) in Europe and Central Asia, confirmed by the FAO Regional Conference in 2018. FAO established in the region in 2014 the Regional Initiative on Empowering Smallholders and Family Farms for Improved Rural Livelihoods and Poverty Reduction (Regional Initiative 1) as a programmatic umbrella for the implementation of support to smallholders and family farms in the programme countries in the region.

During 2018-2019, FAO REU conducted country studies on the needs and constraints of smallholders and family farms in eight countries of the region. Seven of these were funded from a regional project (TCP/RER/3601) and the Serbian study was financed from extra budgetary funds. The countries were selected from among those where smallholders and family farms dominate the farm structures and from the various sub-regions so that together they provide a regional overview. The countries covered in the report are Albania, Armenia, Georgia, Kyrgyzstan, Republic of Moldova, North Macedonia, Serbia and Tajikistan.

The methodology was common among the eight country studies, although with some variations from country to country due to differences in national contexts. The eight studies were elaborated by national experts supported by international consultants and FAO technical guidance. The research methodology combines the use of desk research and statistics, interviews with key stakeholders, workshops with key stakeholders and decision makers, and the use of qualitative cases.

Objectives of the Regional Synthesis Report

This Regional Synthesis Report was prepared based on the eight country studies. The objective was to summarize the data and information collected and analysed in each country into a common synthesized report. The generic needs, constraints and challenges for small farms were outlined, and policy recommendations were generated based on the individual country studies but also based on the generic horizontal assessments of the reports. Thus, the main value of the Regional Synthesis Report is that it establishes a regional overview based on the eight studied countries that can be used as basis for regional initiatives.

Key findings

DEFINITION OF SMALLHOLDERS AND FAMILY FARMS AND DATA SOURCES

The lack of recent and reliable statistical data in the eight countries is a big problem. On one hand, it is important for the validity of conclusions and recommendations of this Regional Synthesis Report that the role of smallholders and family farms is described as precisely as possible. In this respect, it is encouraging to see that most countries have made progress in harmonizing their agricultural statistics. On the other hand, data describing the agricultural sector, farm structure and performances in rural areas are scarce and often incomparable. The reasons for this lack and inconsistency of statistical information are several, including the lack of formal definitions and/or characterizations of smallholders and family farms (for example, based on quantitative criteria such as hectares, number of livestock and income). The lack of smallholder definitions and problems with data quality and data availability make smallholders absent in the important policy documents, without targeted instruments.

NEEDS, CONSTRAINTS AND CHALLENGES

Small farms and excessive land fragmentation dominate farm structures. In countries where farm structure data according to size were available, only 6 percent of the farms are bigger than 5 ha, and these farms cover 40 percent of the agricultural land¹. Family farms dominate the agricultural production in the eight countries, but their share of the total output of the sector varies depending on the product and country. Serbia and the Republic of Moldova have dualistic farm structures with many small farms but also a relatively high number of larger farms (above 10 ha), while in the other six countries between 95 and 99 percent of all farms are smaller than 5 ha.

Basically, the conditions for sustainable agriculture are difficult. Land market activities vary across the countries, from relatively well functioning agricultural land markets in the Republic of Moldova and Serbia to the absence of a land market in Tajikistan. Smallholders have limited access to production factors, natural resources and finance. They often suffer from poorly managed irrigation and drainage systems and from poor access via roads to their fields and parcels. Outdated technology, low input quality and low labour skills are the key constraints for value-adding opportunities. Furthermore, smallholders and family farms are mostly active in short value chains with local standards, and there are only few examples of integration in international niche markets. Contract farming is rare and varies across scales of operation and sectors. As a result, smallholders face high transaction costs in production and marketing, which further contributes to low productivity and high risks.

Smallholders accomplish only limited investments. They lack their own funds and thus need to borrow from the banks, but they often cannot provide acceptable collateral. They fight with high interest rates, price volatility, the risk of natural disasters and with the effects of climate change.

Smallholders also experience weak support from rural institutions and extension services. This is due to the low capacity of local institutions and to the limited coverage and low quality of extension

¹ The countries for which data on farm structure according to farm size was available are: Armenia, Georgia, Republic of Moldova, North Macedonia and Serbia.

services. There is some progress in establishing networks of service providers, but the networks are still highly fragmented in terms of territorial coverage and knowledge base.

Demographic trends of rural areas are characterized by an ageing population and intensive outmigration from rural to urban areas and abroad. A mono-economic structure prevails, with high employment in agriculture. However, new branches – for example rural tourism and agritourism – are beginning to emerge. High rural poverty rates of 30 percent or more dominate, though rates generally are decreasing in most countries.

The diversity of survival strategies and development pathways is described in the eight national studies. Most studies state that remittances are an important source of income for recipient families, but this income is typically spent on housing and consumptions, not on investment in agriculture or in other ways of developing business in rural areas.

POLICIES AFFECTING SMALLHOLDERS AND FAMILY FARMS

Strategic directions and regulatory frameworks are developed and updated. Competitiveness, food safety, climate change and land reforms are in focus, but support measures to target smallholders and family farms are not planned and developed. Implementation, control and enforcement are hampered by lack of institutional competence, capacity and political willingness.

The amount and composition of budgetary transfers to farmers differs among countries and sectors. In general, funding is limited, with very few policy interventions targeting smallholders, marginalized groups and remote areas. Investment subsidies, if they exist, require in most cases high standards and/or are provided with complex compliance mechanisms.

Recommendations

Meeting the needs, constraints and challenges of smallholders and family farms represents a huge task far beyond the capacity of national agricultural ministries; it requires an effort from various line ministries as well as from FAO, other United Nations organizations and the broader donor community. Agenda 2030 and the 17 Sustainable Development goals (SDGs) require, in general, a more integrated and cross-sectoral approach. Rural development is per se cross-sectoral and must be based on an integrated and coherent approach through cross-sectoral cooperation. Thus, to ensure the maximum impact for smallholders and family farms in achieving the SDGs, it is recommended that the SDGs are strongly considered, when support to smallholders and family farms is designed. The complex nature of these goals also requires a comprehensive and integrated approach. Furthermore, data collection and statistics in each of the countries must be enhanced in order to cover smallholders and family farms separately.

The Regional Synthesis Report presents three main recommendations for further activities of FAO in the programme countries in the region. They focus on:

- selected policy areas with FAO comparative advantages;
- a programmatic, multidisciplinary and cross-sectoral approach from FAO; and
- complementary approaches that integrate an agricultural path, a diversification path and an exit path.

FOCUS ON SELECTED POLICY AREAS IN WHICH FAO HAS COMPARATIVE ADVANTAGES

The identified policy areas described in this document represent areas in which FAO should focus its efforts related to smallholders and family farms in the eight studied countries and in other countries in the region, with variations determined and defined by the specific situation in each country. FAO REU will attempt to match country needs, constraints and challenges through policy dialogue and development – as they are summarized in this report based on the individual country studies – with country priorities reflected in the Country Programming Frameworks, on one hand, and with documented FAO comparative advantages on the other hand:²

- policy dialogue and development for increased sustainable agricultural production, including agro-ecology, focusing on the promotion of integrated pest management, organic agriculture, conservation of plant genetic resources, livestock production, animal health and competitiveness;
- innovative and good practices for increased sustainable agriculture production, including livestock, plants and aquaculture;
- agricultural and rural development strategy elaboration, including preparation of action plans and rural development programmes, and capacity development of ministerial staff and staff of local governments related to rural development, programming, monitoring and evaluation;
- elaboration of ministerial and local policy design based on data-driven monitoring and evaluation systems;
- development of land consolidation strategies, legislation and programmes and implementation of land consolidation projects;
- development of investment support measures;
- promotion of research, development and innovation through transforming rural institutions, including extension services and technology transfer institutions;
- development of cooperatives;
- support to local community development, addressing in an integrated approach the locally prioritized development needs, including local capacity development, mobilization of local human and other resources, and investment support with the help of grants;
- climate change adaptation and improved natural resource management, including water management; and
- ensuring inclusiveness regarding gender, including vulnerable groups, and women's economic empowerment in agriculture.

The United Nations Decade of Family Farming 2019-2028 (UNDF) will be an excellent opportunity to further enhance support to small farms in the region in partnerships with government, civil society, academia and the private sector.

² It should be emphasized that the comparative advantages referred to here are NOT exhaustive. The summary is based on the eight country study reports and NOT on a full analysis of the comprehensive portfolio of FAO policy areas and technical disciplines in the region.

A PROGRAMMATIC, MULTIDISCIPLINARY AND CROSS-SECTORAL APPROACH

During the preparations of the biannual work plans for the Regional Initiative on smallholders and family farms, efforts were and are made to develop a more programmatic approach, with the aim of implementing support to smallholders and family farms as a comprehensive and coherent programme with regional level activities supporting the country level work. It is recommended to continue this process to further enhance impact in the programme countries. The support should focus on work areas identified clearly within FAO comparative advantages, and this should be reflected in the Country Programming Frameworks (CPFs).

The need to apply an integrated, multidisciplinary and cross-sectoral approach clearly comes out of the eight country studies and this Regional Synthesis Report. This begins with the formulation of projects and other activities, where focus should be directly on benefitting smallholders and family farms within the technical areas included in the Regional Initiative. The available (limited) funding from the FAO budget for projects (Technical Cooperation Programme and Multidisciplinary Fund) is recommended to be used in a strategic way (for example, for support that has a high potential to be subsequently scaled up with donor funding).

Therefore, FAO needs to continue in the region the strategic cooperation with governments, international organizations, civil society, academia and local communities, including efforts to engage the private sector. The Regional Initiative itself – due to its integrated and multidisciplinary approach – serves as an excellent platform to create synergies with a wide variety of partners. It is encouraged that cooperation for supporting smallholders and family farms be initiated during the design of a specific intervention. Strategic partnerships with international organizations, which have strong presence in the countries, need to be in focus. The same applies for donors for whom the support to smallholders and family farms under the programmatic umbrella of the Regional Initiative has strong potential to catalyse resource mobilization, resulting in enhanced support.

THREE STRATEGIC PATHWAYS FOR SMALLHOLDERS AND FAMILY FARMS

The agricultural path

Breaking the vicious circle of poverty in rural areas demands an integrated approach, in which many links in the cycle are addressed at the same time. The strategic approach to supporting smallholders and family farms choosing the agricultural path as a survival strategy is to determine the key links in the circle and organize a set of interventions that simultaneously target the relevant problems.

Possible work areas in which FAO's comparative advantages could contribute to national policymakers supporting the agricultural path are the following:

- policy design and institutional support;
- formal land registration and cost-effective transaction procedures;
- development of agricultural land markets and introduction of land consolidation;
- investment support schemes with appropriate financial instruments, and targeting competitiveness and standards; and
- extension services, technology transfer and support to sustainable production.

Small farm size and excessive land fragmentation represent long-term handicaps of farm structures and limiting factors to agricultural development. It is suggested to address the problem of farm structures through the introduction of land consolidation instruments and through better regulation and stimulation of land markets (both sales and rental markets).

Structural development of the commercially oriented part of the sector will make it feasible to consider their developing into commercial family farms through investing in mechanization, new technologies and structures contributing to fulfilling standards. It is important that investment support schemes packed with different types of financial instruments are made available for smallholders and family farms in order to take advantage of development opportunities. Investment support may be funded exclusively from national budgets or may be co-funded with donor support. Extension services must be made available to smallholders and family farms to help them benefit from the investment support measures and to support them in fulfilling standards requirements.

Following successful investment, production will increase in volume and in quality and productivity will go up. Consequently, market access will be made possible, and income will increase due to higher prices. The positive development of agricultural production will translate to positive development in rural communities.

It is important to stress that the approach may be seen as supply driven, but this is not the case. On the contrary, the economic growth in all eight countries, the increase in income in domestic urban areas, and signs of increased international demand represent the market-based and demand-driven side of the approach. Formalized supply will meet the demand for quality products.

The diversification path

However, a large group of smallholders and family farms will have neither the economic and agricultural potential nor personal interest to develop into commercially oriented family farms, as described above. Here it will make little sense to demand formalization with all its requirements. On the contrary, this large group of rural dwellers follows another survival strategy reliant on decreasing dependence on agriculture: the diversification path. This path includes on-farm diversification as well as off-farm activities in sectors other than agriculture. This may be on-farm processing, rural tourism and agritourism, handicrafts, services or other gainful activities.

Rural dwellers following this path typically will have more restricted access to financial support in the form of grants and subsidies (which is often conditional on co-financing), and they often face a lack of extension services tailored to their needs. Consequently, smallholders and family farms are lagging behind in the informal sector, living on subsistence agriculture within a local barter economy. Therefore, there is a need to think of alternative instruments and support measures related to diversification, which can be implemented without the requirements of full compliance with the traditional eligibility and formality criteria.³ Supporting the survival strategy of family farms and the informal agricultural and rural sector through the diversification path requires support to local institutional and capacity development, access to investment support schemes designed with less restrictive requirements to standards, lower minimum and maximum support thresholds, lower minimum scales of production,

³ The focus here is on production-oriented support, diversification either on- or off-farm, and thus also to production outside of traditional agriculture. However, other policy areas are not covered. These could include policies that are more closely linked to the social dimension than usually is the case with production-oriented interventions.

and lower educational and/or experience requirements, all supported with the use of broader and softer financial instruments. It is the expectation that semi-subsistence smallholders, family farms and rural dwellers interested in and capable of following the diversification path will move into commercialization and even also to formalization, where a mixture of agricultural and non-agricultural activities will generate family incomes. For the group of semi-subsistence smallholders and family farms for whom commercialization and formalization is not an attractive and possible survival strategy, alternative jobs should be generated outside the sector, for example in services or other production sectors.

The exit path

The last survival strategy will be, for many smallholders and family farmers, to leave agriculture and rely on social support. Elderly farmers in particular often will follow this strategy when their farms have not developed, and their children will not continue small-scale farming. They will have no chances in the agricultural path and also will find it difficult to follow the diversification path. Thus, exit from agriculture will be the last option and is a consequence of structural changes. These processes take place in all eight studied countries, at different paces and scopes but also with different impacts on the livelihood strategies of rural households. These strategies widely vary across individuals, families, groups and regions. However, all country studies point to an increase in the number of vulnerable farmers who gradually exit the sector due to ageing, outmigration, low productivity, poor resources, land degradation or some combination of these.

Social support from public schemes outside agriculture will be a precondition for this process. The structural development facilitated by the various measures supporting commercial development, for example those leading to bigger and more productive farms, will push elderly and weak farmers out of production, and the social support network must be in place to avoid social de-route and poverty.

It is recommended to consider using early retirement support measures, in which older farmers and household owners wanting to leave production and retire are supported. This will make their land available for younger farmers and households with better preconditions to pursue the commercial agricultural path.

Краткое резюме



Региональные приоритеты ФАО, задачи ФАО по поддержке мелких землевладельцев и контекст семи страновых исследований

Структура фермерских хозяйств в странах Европы и Центральной Азии очень разнообразна, но в большинстве стран мелкие землевладельцы и семейные фермы являются доминирующими.

Поддержка мелких землевладельцев и семейных фермерских хозяйств является одним из четырех приоритетов Продовольственной и сельскохозяйственной организации Объединенных Наций (ФАО) в Европе и Центральной Азии, что было подтверждено Региональной конференцией ФАО в 2018 году. В 2014 году ФАО учредила в регионе Региональную инициативу по расширению прав и возможностей мелких землевладельцев и семейных ферм для улучшения условий жизни в сельской местности и сокращения бедности (Региональная инициатива 1) в качестве комплексной программной меры осуществления поддержки мелких землевладельцев и семейных фермерских хозяйств в странах реализации программ в регионе.

В течение 2018-2019 гг Региональное отделение ФАО для Европы и Центральной Азии проводило страновые исследования потребностей и ограничений мелких землевладельцев и семейных фермерских хозяйств в восьми странах региона. Семь из них были профинансированы в рамках регионального проекта (TCP/RER/3601), а исследование по Сербии из внебюджетных фондов. Для исследования были выбраны страны в которых мелкие землевладельцы и семейные фермы являются доминирующей формой хозяйствования, а также представляющими различные субрегионы чтобы обеспечить региональный обзор. В число этих стран вошли Албания, Армения, Грузия, Кыргызстан, Республика Молдова, Северная Македония, Сербия и Таджикистан.

Была выработана общая методология для проведения восьми страновых исследований, хотя и с некоторыми различиями от страны к стране из-за разницы в национальном контексте. Восемь исследований были проведены национальными экспертами при поддержке международных консультантов и технических руководств ФАО. Методология исследования предполагала использование кабинетных исследований и статистики, интервью с ключевыми заинтересованными сторонами, семинары с ключевыми заинтересованными сторонами и лицами, принимающими решения, и использование качественных ситуационных примеров.

Цели Регионального сводного отчета

Данный региональный сводный отчет был подготовлен на основе восьми страновых исследований. Цель состояла в том, чтобы обобщить данные и информацию, собранную и проанализированную в каждой стране, в единый обобщенный отчет. Были изложены общие потребности, ограничения и проблемы мелких фермерских хозяйств, выработаны политические рекомендации на основе исследований отдельных стран, а также на основании содержащихся в отчетах общих горизонтальных оценок. Таким образом, главная ценность Регионального сводного доклада заключается в том, что он предполагает региональный обзор на основе восьми изученных стран, которые может быть использован в качестве основы для региональных инициатив.

Основные выводы

ОПРЕДЕЛЕНИЕ МЕЛКОГО ЗЕМЛЕВЛАДЕЛЬЦА, СЕМЕЙНОЙ ФЕРМЫ И ИСТОЧНИКИ ДАННЫХ

Отсутствие актуальных и достоверных статистических данных в восьми странах является большой проблемой. С одной стороны, для обоснованности выводов и рекомендаций этого регионального сводного доклада важно, чтобы роль мелких землевладельцев и семейных ферм описывалась как можно точнее. В этом отношении отрадно видеть, что большинство стран добились прогресса в согласовании своей сельскохозяйственной статистики. С другой стороны, данные, описывающие сельскохозяйственный сектор, структуру фермерских хозяйств и показатели в сельской местности, скудны и зачастую несопоставимы. Причин этого недостатка и несогласованности статистической информации несколько, в том числе отсутствие формальных определений и/или характеристик мелких землевладельцев и семейных ферм (например, на основе количественных критериев, таких как площадь земельного участка, количество скота и доход). Отсутствие определений мелких землевладельцев и проблемы с качеством и доступностью данных приводят к тому, что мелкие землевладельцы отсутствуют в важных программных документах без целевых инструментов.

ПОТРЕБНОСТИ, ОГРАНИЧЕНИЯ И ПРОБЛЕМЫ

В структуре фермерского сельского хозяйства преобладают небольшие размеры ферм и чрезмерная фрагментация земель. В странах где были доступны данные по размеру ферм, только 6 процентов фермерских хозяйств превышают размеры в 5 га, и эти фермы

охватывают 25 процентов сельскохозяйственных угодий⁴. Семейные фермы доминируют в сельскохозяйственном производстве восьми стран, но их доля в общем объеме продукции сектора варьируется в зависимости от продукта и страны. Сербия и Республика Молдова имеют дуалистические фермерские структуры со множеством небольших ферм, но также с относительно большим числом крупных фермерских хозяйств (более 10 га), в то время как в других шести странах от 95 до 99 процентов всех хозяйств имеют размер менее 5 га.

В принципе, условия для устойчивого сельского хозяйства сложны. Активность земельного рынка варьируется в зависимости от страны: от относительно хорошо функционирующего сельскохозяйственного рынка земли в Республике Молдова и Сербии, до отсутствия рынка земли в Таджикистане. Мелкие землевладельцы имеют ограниченный доступ к средствам производства, природным ресурсам и финансам. Они часто сталкиваются с проблемами ненадлежащим образом организованных ирригационных и дренажных систем и с низким качеством подъездных дорог к своим полям и участкам. Устаревшие технологии, низкое качество ресурсов и низкие трудовые навыки являются основными ограничениями для создания дополнительных возможностей. Кроме того, мелкие землевладельцы и семейные фермы в основном работают в коротких цепочках создания стоимости в рамках местных стандартов, и примеров интеграции на международных нишевых рынках мало. Подрядное фермерство встречается редко и варьируется в зависимости от масштаба деятельности и сектора. В результате мелкие землевладельцы сталкиваются с высокими транзакционными издержками в производстве и маркетинге, что также способствует низкой производительности и высоким рискам.

Мелкие землевладельцы осуществляют лишь ограниченные инвестиции в свою деятельность. Им не хватает собственных средств, и поэтому им необходимо брать кредиты в банках, но зачастую они не могут предоставить приемлемое обеспечение. Они сталкиваются с проблемами высоких процентных ставок, волатильностью цен, риском стихийных бедствий и с последствиями изменения климата.

Мелким землевладельцам также не оказывается полноценная поддержка со стороны сельских учреждений и служб распространения знаний. Это связано с ограниченными возможностями местных учреждений, ограниченным охватом и низким качеством услуг по распространению знаний. Существует определенный прогресс в создании сетей поставщиков услуг, но сети по-прежнему сильно фрагментированы с точки зрения территориального охвата и базы знаний.

Демографические тенденции в сельской местности характеризуются старением и интенсивной миграцией населения из сельской местности в города и за границу. Преобладает моноэкономическая структура с высокой занятостью в сельском хозяйстве. Однако начинают развиваться и новые отрасли - например, сельский туризм и агротуризм. Доминируют высокие показатели сельской бедности, составляющие 30 процентов и более, хотя в большинстве стран эти показатели в целом имеют тенденцию к снижению.

Разнообразие стратегий выживания и путей развития описано в восьми национальных исследованиях. В большинстве исследований говорится, что денежные переводы являются важным источником дохода для семей-получателей, но этот доход обычно расходуется на

⁴ Страны, для которых были доступны данные о структуре ферм по размерам площадей: Армения, Грузия, Республика Молдова, Северная Македония и Сербия.

жилье и потребление, а не на инвестиции в сельское хозяйство либо другие виды бизнеса в сельской местности.

ПОЛИТИКА, ЗАТРАГИВАЮЩАЯ МЕЛКИХ ЗЕМЛЕВЛАДЕЛЬЦЕВ И СЕМЕЙНЫЕ ФЕРМЫ

Стратегические направления и нормативно-правовая база разрабатываются и обновляются. Конкурентоспособность, безопасность пищевых продуктов, изменение климата и земельные реформы находятся в центре внимания, но меры поддержки, направленные на мелких землевладельцев и семейные фермы, не планируются и не разрабатываются. Осуществлению, контролю и обеспечению исполнения препятствуют отсутствие институциональной компетенции, потенциала и политической готовности.

Объем и структура бюджетных трансфертов фермерам различны в разных странах и секторах. В целом, финансирование ограничено, и выявлено крайне мало политических мер, направленных на мелких землевладельцев, маргинализированные группы и отдаленные районы. Инвестиционные субсидии, если они существуют, требуют в большинстве случаев соответствия высоким стандартам и/или обеспечиваются сложными квалификационными механизмами.

Рекомендации

Удовлетворение потребностей, ограничений и проблем мелких землевладельцев и семейных фермерских хозяйств представляет собой огромную задачу, выходящую далеко за рамки возможностей национальных министерств сельского хозяйства; это требует усилий со стороны различных отраслевых министерств, а также от ФАО, других организаций системы Организации Объединенных Наций и более широкого сообщества доноров. Повестка дня на период до 2030 года и 17 целей в области устойчивого развития (ЦУР) требуют, как правило, более комплексного и межсекторального подхода. Сельское развитие само по себе является межсекторальным и должно основываться на комплексном и последовательном подходе через межсекторальное сотрудничество. Таким образом, чтобы обеспечить максимальный эффект для мелких землевладельцев и семейных фермерских хозяйств при достижении ЦУР, рекомендуется, чтобы ЦУР строго учитывались при разработке систем поддержки мелких землевладельцев и семейных фермерских хозяйств. Сложный характер этих целей также требует комплексного и всестороннего подхода. Кроме того, в каждой из стран необходимо укрепить системы сбора данных и статистики, чтобы отдельно охватить мелких землевладельцев и семейные фермы.

В Региональном сводном докладе представлены три основные рекомендации для дальнейшей деятельности ФАО в странах реализации программ в регионе. Они сосредоточены на следующем:

- отдельные области политики с указанием сравнительных преимуществ ФАО;
- программный, междисциплинарный и межсекторальный подход со стороны ФАО; а также
- дополнительные подходы, которые объединяют сельскохозяйственный путь, путь диверсификации и путь выхода.

ФОКУС НА ОТДЕЛЬНЫХ ОБЛАСТЯХ ПОЛИТИКИ, В КОТОРЫХ ФАО ИМЕЕТ СРАВНИТЕЛЬНЫЕ ПРЕИМУЩЕСТВА

Указанные области политики, описанные в этом документе, представляют области, в которых ФАО следует сосредоточить свои усилия, связанные с мелкими землевладельцами и семейными фермами в восьми странах, где проводились исследования, и в других странах региона, с различиями, установленными и определяемыми конкретной ситуацией в каждой стране. Региональное отделение ФАО для Европы и Центральной Азии будет пытаться отреагировать на потребности, ограничения и проблемы страны посредством политического диалога и развития – так, как это кратко изложено в настоящем отчете на основе исследований отдельных стран — с учетом приоритетов стран, отраженных в Рамочных положениях страновых программ, с одной стороны, и с помощью задокументированных сравнительных преимуществ ФАО с другой стороны:⁵

политический диалог и развитие в целях повышения устойчивого сельскохозяйственного производства, включая агроэкологию, с акцентом на содействие комплексной борьбе с вредителями, органическое сельское хозяйство, сохранение генетических ресурсов растений, животноводство, здоровье животных и конкурентоспособность;

- инновационные и передовые методы для увеличения устойчивого сельскохозяйственного производства, включая животноводство, растениеводство и аквакультуру;
- разработка стратегии развития сельского хозяйства и сельских районов, включая подготовку планов действий и программ развития сельских районов, а также наращивание потенциала министерского персонала и персонала местных публичных администраций в области развития сельских районов, разработке программ, мониторинга и оценки;
- разработка структуры министерской политики (а также локальных) на основе систем мониторинга и оценки на основе данных;
- разработка стратегий, законодательства и программ по консолидации земель и реализация проектов по консолидации земель;
- разработка мер поддержки инвестиций;
- содействие научным исследованиям, разработкам и инновациям путем преобразования сельских учреждений, в том числе служб распространения знаний и учреждений по передаче технологий;
- развитие кооперативов;
- поддержка развития местного сообщества, с помощью комплексного подхода удовлетворяя приоритетные потребности развития на местном уровне, включая развитие местного потенциала, мобилизацию местных людских и других ресурсов и поддержку инвестиций с помощью грантов;

⁵ Следует подчеркнуть, что упомянутые здесь сравнительные преимущества НЕ являются исчерпывающими. Резюме основано на национальных экспертах и их отчетах о страновых исследованиях, а НЕ на полном анализе всеобъемлющего портфеля областей политики и технических дисциплин ФАО..

- адаптация к изменению климата и улучшение управления природными ресурсами, включая управление водными ресурсами; а также
- обеспечение гендерной инклюзивности, включая уязвимые группы, и расширение экономических прав и возможностей женщин в сельском хозяйстве.

Десятилетие семейных фермерских хозяйств Организации Объединенных Наций в 2019-2028 годах станет прекрасной возможностью для дальнейшего расширения поддержки мелких фермерских хозяйств в регионе в партнерстве с правительствами, гражданским обществом, научными кругами и частным сектором.

ПРОГРАММНЫЙ, МЕЖДИСЦИПЛИНАРНЫЙ И МЕЖОТРАСЛЕВОЙ ПОДХОД

В ходе подготовки 2-х летних рабочих планов для Региональной инициативы по мелким землевладельцам и семейным фермерским хозяйствам были предприняты усилия для разработки более программного подхода с целью оказания поддержки мелким землевладельцам и семейным фермерским хозяйствам в качестве комплексной и последовательной программы с региональными мероприятиями, поддерживающими работу на страновом уровне. Рекомендуется продолжить этот процесс для дальнейшего усиления воздействия в странах осуществления программ. Поддержка должна быть сосредоточена на областях работы, четко определенных в рамках сравнительных преимуществ ФАО, и это должно быть отражено в Рамочных положениях страновых программ.

Необходимость применения комплексного, междисциплинарного и межсекторального подхода ясно вытекает из восьми страновых исследований и настоящего Регионального сводного доклада. Рекомендуется начать с разработки проектов и других видов деятельности, где основное внимание следует уделять непосредственным преимуществам для мелких землевладельцев и семейных фермерских хозяйств в технических областях, включенных в Региональную инициативу. Имеющееся (ограниченное) финансирование из бюджета ФАО для проектов (Программа технического сотрудничества и Многопрофильный фонд) рекомендуется использовать стратегическим образом (например, для той поддержки, которая имеет большой потенциал для последующего наращивания масштабов за счет донорского финансирования).

Поэтому ФАО необходимо продолжать в регионе стратегическое сотрудничество с правительствами, международными организациями, гражданским обществом, научными кругами и местными общинами, включая усилия по привлечению частного сектора. Сама Региональная инициатива - благодаря своему комплексному и междисциплинарному подходу - служит отличной платформой для синергического взаимодействия с широким кругом партнеров. Рекомендуется начать сотрудничество для поддержки мелких землевладельцев и семейных ферм во время разработки конкретных инициатив. В центре внимания должно быть стратегическое партнерство с международными организациями, заметно присутствующими в странах. То же самое относится и к донорам, для которых поддержка мелких землевладельцев и семейных фермерских хозяйств в рамках программного характера Региональной инициативы имеет большой потенциал для стимулирования мобилизации ресурсов, что приведет к усилению поддержки.

ТРИ СТРАТЕГИЧЕСКИХ ПУТИ ДЛЯ МЕЛКИХ ЗЕМЛЕВЛАДЕЛЬЦЕВ И СЕМЕЙНЫХ ФЕРМ

Сельскохозяйственный путь

Разрыв порочного круга бедности в сельской местности требует комплексного подхода, при котором усилия направлены на многие звенья цикла одновременно. Стратегический подход к поддержке мелких землевладельцев и семейных фермерских хозяйств, выбирающих сельскохозяйственный путь в качестве стратегии выживания, заключается в определении ключевых связей в круге и организации ряда мероприятий, которые одновременно нацелены на соответствующие проблемы.

Возможные области работы, в которых сравнительные преимущества ФАО могли бы способствовать формированию политики на национальном уровне, поддерживающей сельскохозяйственный путь, включают следующие:

- разработка политики и институциональная поддержка;
- официальная регистрация земли и незатратные процедуры оформления сделок;
- развитие рынков сельскохозяйственных земель и внедрение консолидации земель;
- схемы поддержки инвестиций с соответствующими финансовыми инструментами, также ориентация на конкурентоспособность и стандарты; а также
- услуги по распространению знаний, передача технологий и поддержка устойчивого производства.

Небольшие размеры фермерских хозяйств и чрезмерная раздробленность земель представляют собой давние сложности для фермерских структур и ограничивающие факторы для развития сельского хозяйства. Предлагается решить проблему структур фермерских хозяйств путем внедрения инструментов консолидации земель и путем более эффективного регулирования и стимулирования рынков земли (как рынков сбыта, так и аренды).

Структурное развитие коммерчески ориентированной части сектора позволит рассмотреть возможность их превращения в коммерческие семейные фермы путем инвестирования в механизацию, новые технологии и структуры, способствующие соблюдению стандартов. Важно, чтобы схемы поддержки инвестиций с различными типами финансовых инструментов были доступны для мелких землевладельцев и семейных фермерских хозяйств, чтобы возможности развития были использованы. Инвестиционная поддержка может финансироваться исключительно из национальных бюджетов или совместно с донорской поддержкой. Мелким землевладельцам и семейным фермерским хозяйствам необходимо предоставлять услуги по распространению знаний, чтобы они могли воспользоваться преимуществами мер инвестиционной поддержки и чтобы поддержать их в выполнении требований стандартов.

После успешных инвестиций объемы производства увеличатся, вырастут качество и производительность. Следовательно, доступ к рынку станет возможным, и доход увеличится из-за более высоких цен. Положительное развитие сельскохозяйственного производства приведет к положительному развитию сельских сообществ.

Важно подчеркнуть, что этот подход может казаться движимым предложением, но это не так. Напротив, экономический рост во всех восьми странах, увеличение доходов в городских районах внутри страны и признаки роста международного спроса представляют рыночную

и ориентированную на спрос сторону подхода. Формализованное предложение позволит удовлетворить спрос на качественную продукцию.

Путь диверсификации

Однако большая группа мелких землевладельцев и семейных фермерских хозяйств не будет иметь ни экономических, ни сельскохозяйственных возможностей, ни личного интереса для превращения в коммерчески ориентированные семейные фермы, как описано ранее. Здесь бессмысленно требовать формализации с выполнением всех требований. Напротив, эта большая группа сельских жителей следует другой стратегии выживания, основанной на уменьшении зависимости от сельского хозяйства: пути диверсификации. Этот путь включает внутривладельческую диверсификацию, а также деятельность вне фермерских хозяйств в других секторах, помимо сельского хозяйства. Это может быть местная переработка, сельский туризм и агротуризм, ремесла, услуги или другие приносящие доход виды деятельности.

Сельские жители, следуя этому пути, как правило, будут иметь более ограниченный доступ к финансовой поддержке в форме грантов и субсидий (которые обычно предоставляются на условиях софинансирования), и они часто сталкиваются с отсутствием услуг по распространению знаний, адаптированных к их потребностям. Следовательно, мелкие землевладельцы и семейные фермы отстают в развитии, ведут деятельность в неформальном секторе и живут натуральным сельским хозяйством в рамках местной бартерной экономики. Следовательно, необходимо подумать об альтернативных инструментах и мерах поддержки, связанных с диверсификацией, которые могут быть реализованы без требований полного соответствия традиционным квалификационным и официальным критериям⁶. Поддержка стратегии выживания семейных ферм и неформального сельскохозяйственного и сельского сектора путем диверсификации требует поддержки местного институционального развития и наращивания потенциала, доступа к схемам поддержки инвестиций, разработанным с менее строгими требованиями к стандартам, более низкими минимальным и максимальным порогами поддержки, более низкими минимальными масштабами производства, и более низкими требованиями к образованию и/или опыту — все они должны предлагаться с использованием более широких и более мягких финансовых инструментов. Ожидается, что мелкие землевладельцы, семейные фермы и сельские жители, заинтересованные и способные следовать по пути диверсификации, перейдут к коммерциализации и даже к формализации, где сочетание сельскохозяйственной и несельскохозяйственной деятельности будет приносить семейный доход. Для группы мелких землевладельцев и семейных фермерских хозяйств, для которых коммерциализация и формализация не являются привлекательной и возможной стратегией выживания, следует создавать альтернативные рабочие места вне сектора, например в сфере услуг или других секторах производства.

Путь выхода

Последняя стратегия выживания для многих мелких землевладельцев и семейных фермеров состоит в том, чтобы уйти от сельского хозяйства и рассчитывать на социальную поддержку. В частности, такой стратегии будут следовать пожилые фермеры в ситуациях, когда их фермы

⁶ Основное внимание здесь уделяется производственно-ориентированной поддержке, диверсификации как на ферме, так и за ее пределами, а также на производстве вне традиционного сельского хозяйства. Однако не охватывают другие области политики. Это может включать в себя политику, которая более тесно связана с социальным измерением, чем обычно бывает с случае ориентированных на производство инициатив.

еще не достаточно развиты, а их дети не готовы заниматься мелким фермерством. У них не будет шансов на сельскохозяйственном пути, им также будет трудно следовать по пути диверсификации. Таким образом, выход из сельского хозяйства будет последним вариантом и является следствием структурных изменений. Эти процессы имеют место во всех восьми исследованных странах, с разными темпами и в разных масштабах, но также с различным воздействием на стратегии жизнеобеспечения сельских домохозяйств. Эти стратегии широко варьируются для отдельных лиц, семей, групп и регионов. Тем не менее, все страновые исследования указывают на увеличение числа уязвимых фермеров, которые постепенно уходят из сектора по причине старения, эмиграции, низкой производительности, нехватки ресурсов, деградации почв или их комбинации этих факторов.

Обязательным условием этого процесса будет наличие социальной поддержки со стороны государственных схем вне сельского хозяйства. Структурное развитие, которому способствуют различные меры, поддерживающие коммерческое развитие, например, ведущие к созданию более крупных и продуктивных фермерских хозяйств, вытеснит пожилых и слабых фермеров с рынка производства, и должны быть созданы механизмы социальной поддержки, чтобы избежать социальных проблем и бедности.

Рекомендуется рассмотреть возможность использования мер ранней поддержки при выходе на пенсию, при которых поддерживаются пожилые фермеры и владельцы домашних хозяйств, желающие покинуть производство и выйти на пенсию. Это сделает их землю доступной для молодых фермеров и домашних хозяйств с большим потенциалом для развития на коммерческом сельскохозяйственном пути.

1. Introduction to smallholders and family farms and their role in Europe and Central Asia



1.1 Background for the Regional Initiative supporting smallholders and family farms and the rationale for the country studies

Europe and Central Asia is largely a region of smallholders and family farms. In the region, FAO has 18 programme countries and territories⁷ in which the large majority have farm structures dominated by smallholders and family farms. The farm structures in these countries and territories are either fully dominated by smallholders or are dualistic farm structures with large numbers of small farms and small numbers of large, corporate farms. In most of the countries, but not all, the current farm structures are the outcome of land reforms implemented from the beginning of the transition from planned economy towards market economy, which began after 1990.

Smallholders and family farms in the FAO programme countries typically suffer from a wide range of needs, constraints and challenges. Smallholders and family farms often are not economically viable, and the rural population remains the poorest and most vulnerable part of the population. Despite this, they potentially represent a key resource for achieving sustainable economic, social and environmental development. Smallholders and family farms can achieve higher levels of income, production and productivity through the sustainable utilization of resources, the intensification of production, better organization, the provision of adequate public services, and better integration into agrifood value chains. Getting family farming right in this respect is a key component in enhancing food security, ensuring equitable and decent livelihoods for all rural women and men, achieving sustainable rural development and diversification in rural areas, and reducing rural poverty.

Supporting smallholders and family farms is one of four priorities for FAO in Europe and Central Asia, confirmed by the FAO Regional Conference in 2018. FAO established in the region in 2014 the Regional Initiative on Empowering Smallholders and Family Farms for Improved Rural Livelihoods and Poverty Reduction (Regional Initiative 1) as a programmatic umbrella for the implementation of support to smallholders and family farms in the programme countries in the region, with gender equality, nutrition, statistics, climate change and governance as corporate cross-cutting themes.

The Regional Initiative builds on the legacy of the International Year of Family Farming in 2014. The United Nations General Assembly, in December 2017, officially declared 2019–2028 the Decade of Family Farming, and the Regional Initiative continues to provide the framework for FAO support to family farms in Europe and Central Asia.

During 2018, FAO conducted country studies on the needs and constraints of smallholders and family farms in eight countries in the region. Seven of the studies were funded from a regional project (TCP/RER/3601), while the Serbia study was funded from extra budgetary funds. The countries included are Albania, Armenia, Georgia, Kyrgyzstan, Republic of Moldova, North Macedonia, Serbia and Tajikistan. The eight countries were selected among countries in the region where smallholders and

⁷ The FAO programme countries and territories in Europe and Central Asia are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo,* Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

*References to Kosovo shall be understood to be in the context of UN Security Council Resolution 1244 (1999).

family farms dominate the farm structures and in the different sub-region so that they together also provide a regional overview.

The FAO REU Regional Initiative has two main components:

- Support policy development and innovative practices for increased sustainable agricultural production.
- Support the improvement of rural livelihoods and enhanced access to natural resources.

Through the first component, support is provided to the development of competitive and commercial smallholders and family farms. There is a need to increase the capacities of the farmers in terms of sustainable agricultural production using pilot projects, farmer field schools and strengthened extension services. In this context, FAO supports policy development and practices in line with the sustainable food and agriculture principles (FAO, 2014a), such as efficient use and management of natural resources and adaptation and resilience to climate change. More specifically, FAO is focusing in the region on the promotion of such good agricultural practices as integrated pest management, organic agricultural techniques, agro-ecology, conservation of plant genetic resources, and proactive drought risk management. In addition, work is ongoing on modern irrigation systems, sustainable forest management and fish production, including fish seed improvement, focusing on supporting smallholders.

Another main challenge of the Regional Initiative is to ensure inclusive growth through improved rural livelihoods. This is supported through the second component of the Regional Initiative. There is a need, both at policy and community level, to ensure that disadvantaged and vulnerable groups also benefit from economic growth and to accelerate gender equality and rural women's economic empowerment. In this context, FAO supports, under the programmatic approach of the Regional Initiative: multi-sectoral rural development policies; integrated community development; improved access to value chains; the implementation of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forestry in the Context of National Food Security (VGGT) (FAO, 2012), including addressing structural problems with land fragmentation and small farm sizes through land consolidation instruments; statistics; decent rural employment; and social protection.

As part of the preparation of the work plan for the Regional Initiative for 2018/19, the Regional Initiative was refocused to ensure strong and increased contribution to implementing the 2030 Agenda and achieving the Sustainable Development Goals (SDGs). The Regional Initiative directly contributes to SDG 2 on zero hunger, in particular SDG target 2.3 on doubling the agricultural productivity and income of small-scale food producers by improving the agricultural productivity and incomes of small-scale farmers through the promotion of conservation agriculture in the region, the generation of knowledge regarding principles of organic agriculture, and the improvement of capacities regarding best practices in the conservation of animal genetic resources. The enhancement of access to natural resources, especially access to land, and the promotion of VGGT contribute to SDG 1 on ending poverty (target 1.4 on ensuring equal rights to land and other natural resources), SDG 5 on promoting gender equality (target 5.A to undertake reforms to give women equal rights to economic resources and access to ownership and control over land and other forms of property), SDG 8 on the promotion of sustainable and inclusive economic growth (target 8.6 on reducing the proportion of youth not in employment, education or training) and SDG 10 on reducing inequality within and among countries.

1.2 Background and objectives of the country studies

Regarding the background for conducting country studies on the challenges, needs and constraints of smallholders and family farms in the eight countries, it has been a wish to further strengthen the Regional Initiative and develop it towards a stronger programmatic approach at both regional and country level. In order to provide more targeted support to smallholders and family farms, there has been a need to develop a better understanding and knowledge platform on the main needs, constraints and challenges of smallholders and family farms in the specific country context. Even though many of the challenges are the same throughout the region, there are still significant variations among the countries, and this is important to be aware of and to understand when designing support to smallholders and family farms in each specific country.

It has been the objective first to analyse the development trend and current state of smallholders and family farms in the specific country, second to study the current political priorities and policies affecting smallholders and family farms, and finally, based on the conclusions made, to provide recommendations, mainly at the policy level, on how to further support the development of commercial family farms by ensuring in general inclusive growth, improved rural livelihoods and the reduction of rural poverty. The country studies will not only be relevant for FAO but also for governments and civil society, donor and other international organizations when formulating policies and preparing programmes. Furthermore, the recommendations from the country studies will provide further inputs for the formulation of the Country Programming Frameworks (CPFs), the multi-annual cooperation agreements between FAO and each country.

In addition, the eight country studies contribute to raising awareness on the support to smallholders and family farms provided by FAO under the programmatic umbrella of the Regional Initiative among government institutions, civil society organizations and other stakeholders at the country level, and among international donors and organizations. In this way, it is the hope that the studies will lead to the establishment of enhanced partnerships and the mobilization of resources to further scale up support to smallholders and family farms in the region.

As mentioned, it is a global observation that the smallholders and family farms face needs, constraints and challenges, limiting their development and reducing their potential, and that current policies only to a limited extent provide support to their development.

Thus, it has been the objective of the country studies to verify these observations through answers to the following research questions for each of the eight conducted studies:

1. What are the trends in and the current role and weight of smallholders and family farms in economic, social and environmental development in the covered countries?
2. What are the main needs, constraints and challenges for the realization of the economic, social and environmental development potential of smallholders and family farms?
3. Which current administrative procedures, institutional settings and policy interventions are implemented that support or hinder the development of smallholders and family farms?
4. Which future administrative procedures, institutional structures and policy interventions can

be developed and recommended to strengthen the role of smallholders and family farms in the economic, social and environmental development and in the transformational change process?

The questions have been answered, taking into consideration country-specific definitions and characteristics regarding smallholders and family farms. Furthermore, the research questions have been answered following a common overall methodology, described briefly in Section 1.3.

1.3 The overall methodological principles of the country studies on smallholders and family farms

The methodology summarized in this section was common among all eight country studies, although with some variations from country to country due to differences in the national contexts. The eight studies have been elaborated by national consultants supported by international consultants and FAO staff in the Europe and Central Asia region. The research methodology combines the use of desk research, including the use of available official and administrative statistics, interviews with key stakeholders and the use of case studies. The eight study countries were selected among those in the region where smallholders and family farms dominate the farm structures. They were also represent each of the sub-regions (Western Balkans, Caucasus and Central Asia) so that together they provide a regional overview through this Regional Synthesis Report.

DESK RESEARCH:

The desk research covers an assessment of available policy documents, research papers, reports, studies and more from public authorities, academia and international donors and organizations. Furthermore, the desk research covers official and administrative statistics from public sources, supplemented with poverty and living conditions surveys and internal databases from academia, donor organizations and other contributors.

INTERVIEWS:

Interviews were accomplished with the aim of contributing data and information to answer the four research questions explained earlier. The interviews contribute to filling in data gaps identified during the desk research. Interviews were conducted with selected resource persons representing key stakeholders.

The interviews targeted different stakeholders and were streamlined to the individual interviewee or groups of interviewees, depending on the findings from the desk research phase.

An interview template was prepared and used by the national consultants when interviewing national stakeholders and resource persons. The template included the themes covered by the project.

Two rounds of interviews were accomplished: 1) The national consultant completed the primary round of interviews with national stakeholders and resource persons. The interview template was targeted to the expertise of the person being interviewed. 2) The national consultant made additional interviews during the final stage of writing the report to address gaps that emerged during the analysis of the primary and secondary data.

The interviews were individual or group interviews, depending on the topic and the situation. The national consultant planned, carried out and reported the interviews. Emphasis was placed on the engagement of both women and men of different ages and backgrounds so that the realities and needs of different members of smallholders and family farms could be identified and reflected. The interviews were important, contributing to answering the four research questions.

CASE STUDIES:

Case studies are used to illustrate or demonstrate various topics. One example is case studies of policy interventions to demonstrate the results and impacts of these interventions. It can be an investment support scheme, or it may be a training of farmers accomplished by advisory services. Based on the documentation and information gathered from these interventions, recommendations were formulated to existing or new policies. These good policy examples are useful not only for the country in question but also for other countries facing similar challenges.

Case studies also include studies of needs, challenges and constraints identified through stakeholder interviews and where the case studies exemplify or illustrate the topics. The case studies are prepared at family/village/municipality level depending on the selected topic and in order to ensure diversity.

Furthermore, case studies include examples of administrative procedures and/or institutional settings that prevent or support the development of smallholders and family farms. These cases were also identified through stakeholder interviews.

WORKSHOPS:

Two workshops were organized in each country.

One introductory workshop, accomplished right at the beginning of the working process, had the objective to clarify and define:

- a. the definition of smallholders and family farms, the problems faced due to the lack of national specific definitions, and approaches used in defining smallholders and family farms by different institutions;
- b. the current situation and the state of play of smallholders and family farms;
- c. the problem analysis regarding needs, constraints and challenges for smallholders and family farms;
- d. the policy analysis, identifying and targeting administrative procedures, institutional settings and policy solutions to the identified needs, constraints and challenges; and

- e. the comparative advantage of FAO vis-à-vis the donor community in providing solutions to the identified needs, constraints and challenges.

The second workshop was a validation workshop in which the preliminary findings, conclusions and recommendations were presented to those stakeholders who participated in the first country workshop as well as new stakeholders identified through the working process. The objective was to validate the analysis and to establish a common understanding about the conclusions and recommendations. The validation workshop took place at the end of the process but before the finalization of the study, so that remarks and comments from the workshop participants could be incorporated into the final text.

Finally, hand-over meetings were organized in the countries; at these meetings, the final reports were presented for ministerial counterparts and other relevant stakeholders.

AVAILABILITY OF STATISTICS:

Finally, it is important to mention a disclaimer regarding the availability of statistical data in the eight countries. On one hand, it is important for the validity of conclusions and recommendations that the analyses are data-driven and that the role of smallholders and family farms is described as precisely as possible. In this respect, it is encouraging to observe that in recent years most countries have made progress in the harmonization of their agricultural statistics, while Republic of Moldova has started to produce smallholder statistics. On the other hand, data describing the agricultural sector, farm structure and performances in rural areas are scarce and often incomparable. The reasons for this inconsistency and lack of statistical information are several:

- lack of formal definitions and/or characterizations of smallholders and family farms, for example based on quantitative criteria (hectares, number of livestock and income);
- lack of an appropriate institutional organization responsible for the national collection of data related to agriculture and rural development;
- lack of human capacity responsible for data collection, surveys and reporting in the involved institutions;
- changes in statistical methodologies, including changes in definitions, data collection systems and concepts over time; and
- lack of data availability among smallholders and family farmers due to the informal nature of agriculture in the eight countries, where bookkeeping, accounting and tax payments are rare or even non-existent among smallholders and family farmers.

Not all causes are present in all countries. Other than Armenia, all countries have statistical definitions of farms and farm groups based on size indicators; some have national statistical services with Eurostat compliance (North Macedonia and Serbia), and some are actively working on improvements (Georgia, Albania). Nevertheless, in all countries, the main problem when it comes to the availability of data is the lack of crossed data at the household and farm level (for example, data on income sources, employment and others) and the lack of data disaggregated by farm size and, not the least, by sex. Consequently, quantitative data should be used with a critical eye, not only in this synthesis report and in the country studies but also in the ministries, where policymaking should be result-based and data-driven.

1.4 Objective of the Regional Synthesis Report

The present Regional Synthesis Report was prepared based on the eight country studies. The objective is to summarize the data and information collected and analysed in each country into a common, synthesized report. Generic needs, constraints and challenges are outlined and policy recommendations generated based both on the individual country studies and on the generic horizontal assessments of the reports. Each country study report is rich in details covering many topics of relevance for the development of smallholders and family farms. The Regional Synthesis Report may lose some of the details in the synthesis, but it is still the intention that generic recommendations will be valid at the regional level and also will be able to match the specific national context. Thus, the main value of the Regional Synthesis report is that it establishes a regional overview based on the eight studied countries and that this overview can be used as a basis for regional and country-specific initiatives.

At the regional consultation workshop, organized in March 2018 in Budapest, the preliminary results from the eight country studies and a draft synthesis report were presented for FAO staff, for government representatives from all eight countries, and for civil society participants, with the objective of further enhancing support to smallholders and family farms in Europe and Central Asia through the FAO Regional Initiative. The remarks and comments from the workshop participants, both to the country reports and to the draft synthesis report, were addressed in later versions of the reports.

2. Development trend and current state of smallholders and family farms in the eight study countries



This section presents the synthesis of the eight country study reports and their contributions to research questions 1 and 2:

- What are the trends in and the current role and weight of smallholders and family farms in economic, social and environmental development in the covered countries?
- What are the main needs, constraints and challenges for the realization of the economic, social and environmental development potential of smallholders and family farms?

2.1 Definitions of smallholders and family farms

2.1.1 Definitions of smallholder and/or family farm in the eight study countries

In the eight study countries, definitions of farms/holdings/farmers were not well developed. In most countries, there is only a formal statistical definition in place.

However, for the purpose of policy implementation, some countries have developed their own definitions of family farms and/or smallholders. These definitions differ from country to country, making it difficult to make comparative analyses. The country-specific definitions are summarized below.

ALBANIA

In Albania, there is no formal definition of a farm in force. The agricultural census (2012) was prepared based on the definition of an agricultural holding, which is any economic unit that has at least 200 square metres of agricultural land in use (owned, rented or given in use without rent). However, in the case of agriculture surveys carried out by the Ministry of Agriculture and Rural Development until 2012, the term “farm” was used. No definition was provided in the agriculture annual reports that published the results of such surveys.

However, according to Law 9426 dated 6 October 2005 and titled “On livestock,” cattle farms are officially classified by the Ministry of Agriculture and Rural Development as:

- large farms breeding more than 50 dairy cows on a daily basis;
- medium farms breeding 10 to 50 cattle; and
- small farms breeding fewer than 10 cattle.

For statistical purposes, the Albanian Institute of Statistics (INSTAT) uses a statistical definition of large farms in this way:

- those that are 10 ha in size or larger, as is the case with agriculture farms;
- those that have eight or more head of cattle; and
- those that have 150 head or more of small ruminants (sheep and/or goats).

The following categorization was applied in the country study reports for Albania: Small and very small farms have up to 2 ha (a category representing 86 percent of all farms), while large farms are classified from 2 ha to 10 ha (13 percent of farms) and very large farms have 10 ha or more (less than 1 percent of farms).

ARMENIA

In Armenia, no formal definition refers to the size of farms. However, peasants' farms have been defined by the law on peasant and collective peasant farms, adopted in 1991, where they were characterized as independent organizational units ensuring production of agricultural products and established based on the property of citizens. The law was removed in 2007, and no alternative definition of peasant farm, family farm or any other type of farm owned and managed by a physical person exists nowadays.

The methodology used by the National Statistical Service of Armenia distinguishes between two types of primary agricultural producers: commercial farms or holdings, which have a legal status, and individual households or household farms, which do not have a legal status. It should be emphasized that the terms "farm" and "holding" are translated into the Armenian language as the same word.

Smallholder family farms are in this report categorized as farms with fewer than 3 ha, which covers 89 percent of all household farms in Armenia.

GEORGIA

In Georgia, there is no official definition of a farmer or of small farms, according to the Ministry of Environmental Protection and Agriculture. GEOSTAT collects the data through sample surveys (12 000 of 640 000 holdings in 2016) and defines a family holding as an agricultural holding operated by a household. All non-enterprise farms are considered as small farms in this report, since the number of large farms not registered as enterprises is negligible. According to the 2012 census data, 77 percent of farms are smaller than 1 ha, 22 percent are between 1 and 5 ha, and only 1 percent are bigger than 5 ha.

KYRGYZSTAN

In Kyrgyzstan, there is a definition of a farm in the law on the peasant farm, dated 3 June 1999. The law describes the legal status of a peasant farm, the rights and obligations of farmers, and the modality of use of resources. However, in the law there is no definition of the size of farms, and thus there is no official definition of small farms (only of types of farms, such as collective farms and state farms). The vast majority of farms are smallholders and small family farms, and there is no data on distribution of the farms by size groups.

REPUBLIC OF MOLDOVA

In Republic of Moldova, there is no official definition of a farmer or of small farms. The National Bureau of Statistics distinguishes among three major categories of agricultural holdings:

- agricultural enterprises;
- peasant farms; and
- population's households.

Peasant farms include two types of farms: legally registered farms and individual farmers without registration. Based on the availability of statistical data, in this study smallholders are considered agricultural holdings and peasant farms holding an area of less than 10 ha of land and so-called population's households, mostly family farms with less than 1 ha of land. In Republic of Moldova, 36 percent of all farms are smaller than 1 ha, 57 percent are between 1 ha and 5 ha, and 7 percent are bigger than 5 ha.

NORTH MACEDONIA

In the North Macedonia, both the Ministry of Agriculture, Forestry and Water Economy (MAFWE) and the Statistical Office use the same definition of agricultural holdings as economic units of agricultural production that meet defined requirements:

- The economic units use 1 000 square metres of agricultural area or more, or
- They use less than 1000 square metres of agricultural land, but they own a certain minimum number of livestock, poultry or beehives: one cow and one calf, one cow and one heifer, one cow and two small adult livestock, five adult sheep or goats, three adult pigs, four adult sheep or goats and pigs together, 50 adult poultry, or 20 beehives.

According to official statistics, around 63 percent of farms are smaller than 1 ha, while 32 percent are between 1 ha and 5 ha. Only 5 percent are bigger than 5 ha.

SERBIA

In Serbia, both the Statistical Office and the Ministry of Agriculture, Forestry and Water Management (MAFWM) use the concept of agricultural holding, with a land size criterion of 0.5 ha as a demarcation threshold. A farm smaller than 0.5 ha is only considered to be an agricultural holding if it:

- carries out intensive production of fruit and vegetables, vineyards, flowers (including production in greenhouses), mushrooms or livestock, or performs agricultural production intended for the market; or
- has at least two heads of cattle; or one head of cattle and two heads of pigs, goats, sheep; five heads of sheep or five heads of goats; or three heads of pigs, four heads of pigs, goats, sheep; or 50 individual poultry animals, or 20 beehives.

The agricultural holding is defined as a technical and economic independent production unit with a single management on which an enterprise, farm cooperative, institution or another legal entity,

entrepreneur or family agricultural holding undertakes agricultural production. In this context, a family agricultural holding is defined as a family or other group of people living together and sharing subsistence expenses out of their respective incomes and where the members are engaged in agricultural production as either their primary or supplementary activity, whether they produce solely for their own consumption or both for own consumption and sale.

According to official statistics (Serbia Census of Agriculture, 2012), 99.5 percent of agricultural holdings are family farms, and their share of the total land use is 82.2 percent. Of all farms, 29.2 percent are smaller than 1 ha, 48.5 percent are between 1 ha and 5 ha, while 22.2 percent are larger than 5 ha.

TAJIKISTAN

Finally, in Tajikistan there is no official definition using size categories. In the law of the Tajikistan dated 19 May 2009, No. 526, revised in 2016, dehkan farms⁸ are private entrepreneurs producing agricultural products sold with an income, while households are small household plots smaller than 1 ha producing agricultural products to meet own needs. The definition of smallholders of TajStat, the statistical services of Tajikistan, is farms with no more than 5 ha of land. There is no data available on the distribution of farms by size groups. However, the majority of farms are small farms.

2.1.2 FAO's definition and identification of "small-scale food producers"

FAO is the custodian agency for 21 SDG indicators and has, as part of the custodianship of SDG indicators 2.3.1 and 2.3.2, developed a definition of a "small-scale food producers" related to SDG target 2.3 (UN Economic and Social Council, 2018) on doubling the productivity and income of small-scale food producers.⁹ As a part of this work, FAO (FAO, 2017a) has mapped the applied definitions in the Member Countries and has found that no "one size fits all" definition exists. Many different criteria are used around in the world, reflected in this multi-criteria hierarchy:

- land size (ha)
- number of livestock (numbers)
- labour input (full-time equivalent of family labour and hired labour)
- family farming (family member as manager)
- market orientation (percent of production to own consumption less than 50 percent)
- economic size (value of output)

The most common criterion for defining smallholders is the size of the farm based on the number of hectares, and it is typically also the only one used here, as demonstrated earlier by the eight countries. However, it also is important to include at least the economic size of the farm as well, in order to capture the group of farmers with high incomes from producing high-value-added products on small areas.

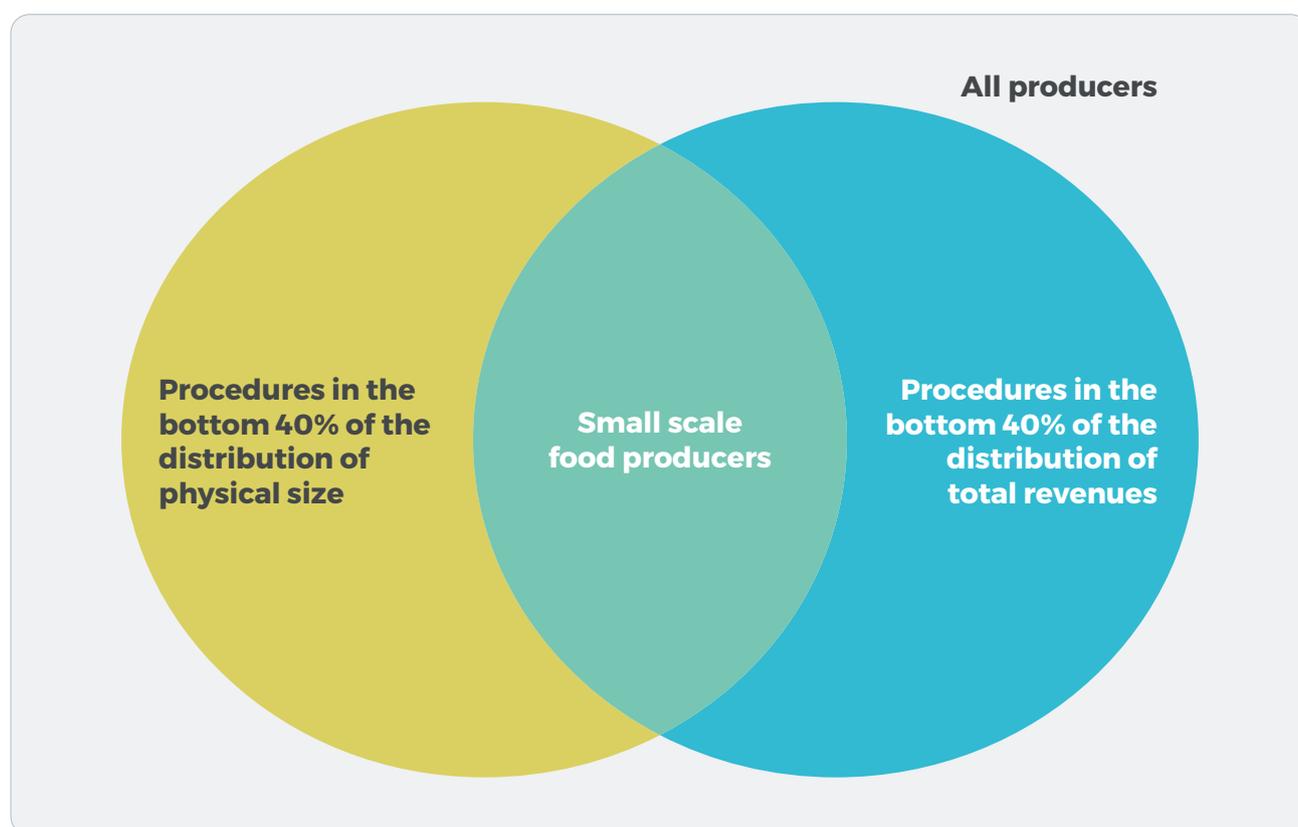
⁸ A dehkan farm is a business entity in which the production, storage, processing and realization of agricultural produce are based on the private activity of one person or on the joint activity of groups of physical entities on land parcels and property belonging to them.

⁹ Indicator 2.3.1: Productivity of small-scale food producers. Indicator 2.3.2: Income of small-scale food producers.

Thus, FAO defines “small-scale food producers” using a combination of two criteria: the physical size of the farm, as expressed by the amount of operated land and the number of livestock heads in production, and the economic size of the farm, as expressed by its revenue (value of production). This is illustrated in Figure 1. These criteria are applied in relative terms. In practice, FAO proposes to define small-scale farmers (food producers) as producers who:

1. **Physical size:** Operate an amount of land falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of land size at national level (measured in hectares), and who operate a number of livestock head falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of the number of livestock per production unit at national level (measured in tropical livestock units, or TLUs); and
2. **Economic size:** Generate annual economic revenue from agricultural activities falling in the first two quintiles (the bottom 40 percent) of the cumulative distribution of economic revenues from agricultural activities per production unit at national level (measured in purchasing power parity dollars).

Figure 1. Small-scale food producers



Source: FAO, 2018a

It is important to highlight that the definition of small-scale food producers serves the purpose of computing and monitoring SDG indicator 2.3.1 (productivity of small-scale food producers) and SDG indicator 2.3.2 (income of small-scale food producers), and it is not intended to replace country-specific definitions. National definitions may reflect national policy priorities, while the proposed international definition ensures global reporting of the SDG indicators. Therefore, countries will be requested to collect data in a way that allows the monitoring of both national and international definitions.

In this report, the national statistical definitions are used for most countries in order to prepare a better overview of smallholders and family farms. The FAO definition presented above serves as an inspiration for future work, with the development of clearer and more precise definitions in each country¹⁰.

2.2 Structural analysis of the importance of smallholders and family farms in the eight study countries

This section summarizes the quantified data available in the eight country studies, supplemented with data from the statistical databases of the United Nations and the World Bank. Only the main data are reflected in the section, and considerably more data and detailed information are available in each of the country studies. The structure of the section follows the template used in the drafting of the country studies. Case studies inserted in boxes are used to illustrate specific topics. The section also represents also the conclusions from the country studies regarding needs, constraints and challenges for smallholders and family farms, while the country specific recommendations are presented in Chapter 4.

2.2.1 Development of the role and importance of smallholders and family farms in the economy, 2005–2015

This section describes the contribution of agriculture, forestry and fisheries to the national economy. The lion's share of the analysis is devoted to agriculture, due to the big role of this sector compared to forestry and fisheries in all eight countries. However, a brief presentation of the summary findings regarding forestry and fisheries and aquaculture is included in this section as well.

The data collection in each of the countries is based on available official statistical information, and here it is important to stress that there is typically no segregation of data on the types of farms according to ownership structure and size groups. Therefore, the aggregated figures presented here refer not only to the majority of smallholders and family farms in each country, but also to all types of agricultural operators, including enterprises, state and collective farms and similar organizations. Where data are available at the national level and broken down into size groups and types of farms, that information is presented.

¹⁰ Owing to the lack of a national specific definition, the FAO approach in defining small-scale food producers was used in the Serbian study. The three variables used as selection criteria are: 1) land size (utilized agricultural area); 2) herd size (livestock units); and 3) revenue (standard output). To these variables is added a variable on labour input, expressed in annual working units, or AWUs, since the monitoring of SDG 2 requires the monitoring of labour productivity. The threshold that separates "small-scale food producers" from other agricultural holdings is set in relative terms, at the level of the bottom 40 percent. Namely, the "small-scale" producers are those that fall in the bottom 40 percent of the cumulative distribution for each of considered variables (land, livestock, labour and revenue).

AGRICULTURE

Relevance of the sector to the national economies

The role of agriculture in the economy of all the eight study countries¹¹ is recognized as significant. The important role of agriculture, forestry, hunting and fishery in the economy is indicated by the high relative contribution to the gross value added (GVA) in each country. Albania and Tajikistan are at the top, with 22.9 percent and 20.7 percent, respectively. Serbia has the lowest contributions, of 7.9 percent (Table 1). The relative importance of agriculture in the gross value added has a declining trend, indicating that other sectors of the national economies are developing faster. This is a well-known tendency from other transition countries and is confirmed in all national reports.

The share of agriculture in total employment is high, ranging from 16.2 percent in North Macedonia to 57.2 percent in Tajikistan (Table 1). In all countries, the share of women in agricultural employment is significant, being the largest employer sector for women and men in rural areas in most of the countries. However, farmers are ageing, and the share of employees in agriculture of the total number of employees declined relatively and absolutely from 2005 to 2015 in all eight studied countries. The decline of agriculture's contribution to total employment has varied across countries, from only 3 percentage points in Tajikistan to 17 percentage points in Albania, not just due to the differences in the dynamics of structural transformation, but also due to the changes in statistical definitions and methods.

Table 1. Selected economic indicators (data from latest available year)

Country	Agriculture, value added (% of total)	Employment in agriculture (% of total employment)	Share of agriculture in foreign trade		% of agriculture value added /% of agriculture employment
			% of total import	% of total export	
	2016	2017		2016	2016/2017
Albania	22.9	41.4	17.8	8.7	0.55
Armenia	17.7	31.3	24.5	31.7	0.51
Georgia	9.0	44.7	12.0	30.0	0.20
Kyrgyzstan	12.8	23.0	13.8	23.5	0.55
Republic of Moldova	14.3	28.8	16	47	0.50
North Macedonia	9.9	16.2	12.0	11.9	0.61
Serbia	7.9	17.2	8.2	21.5	0.46
Tajikistan	20.7	57.2	13.6	20.8	0.36

Sources: FAO, 2019d–2019k, World Bank 2017a, 2017c.

In all eight countries, the agrifood sector is an important contributor to external trade for both exports and imports. The contribution of agrifood exports to total exports varied between just under 9 percent

¹¹ According to standard statistical methods, agri-processing and food industry are not included under the heading. In most of the eight study countries, the value of the contribution to gross domestic product is for the primary sectors agriculture, forestry, hunting and fisheries, and no disaggregated data are available in most cases.

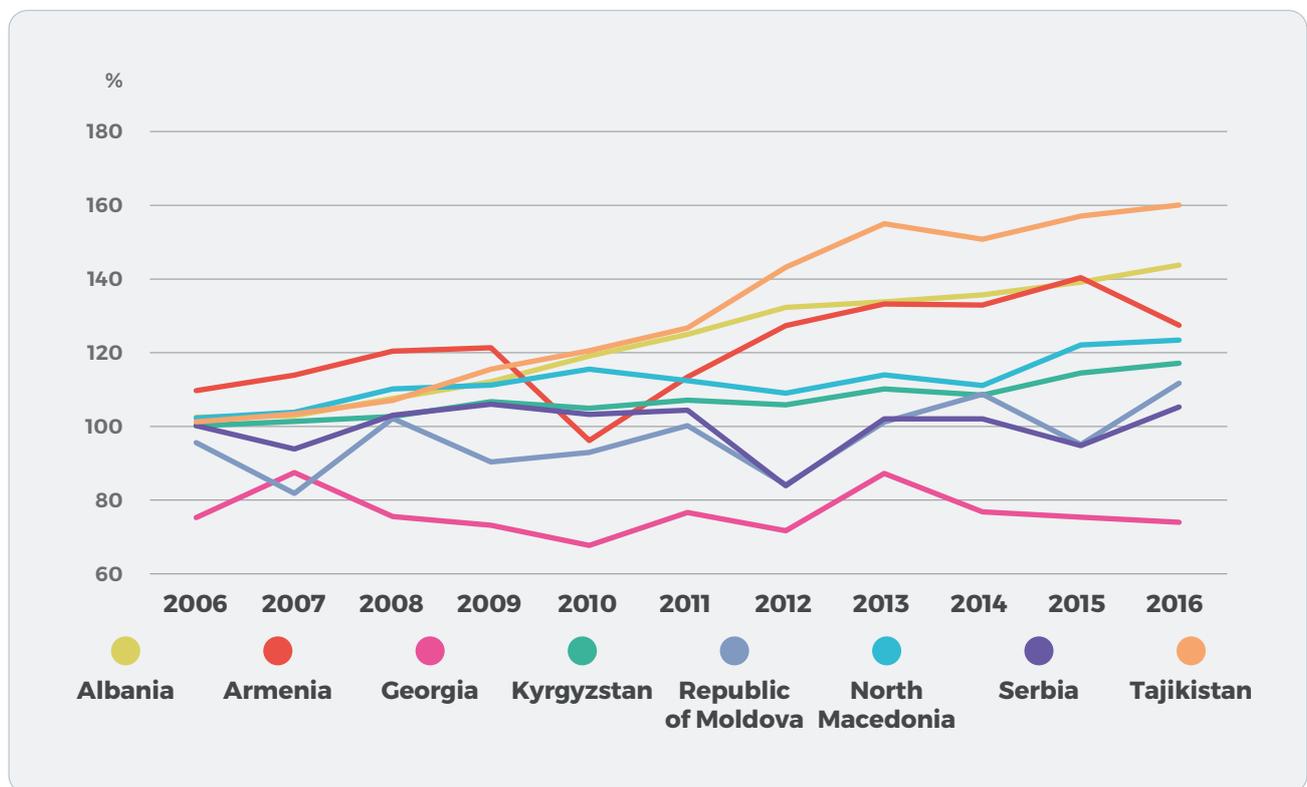
in Albania and just under 32 percent in Armenia (Table 1). The proportion of imports ranged from 8.2 percent in Serbia to roughly 24 percent in Armenia.

The ratio of the agriculture sector’s contribution to value added and employment reflects the productivity of agriculture compared with other sectors of the economy. The figures in Table 1 show that even though the share of added value in agriculture in GVA in North Macedonia and Georgia is close, the value added has been produced with only 16.2 percent of employees in North Macedonia and with 44.7 percent in Georgia.

Production trends

Agricultural production has been increasing over the past decade but at different rates over the period and across the countries (Figure 2). These variations can be explained by different regional and national specific factors, such as the strong impact of extreme weather conditions, the effect of the global economic crisis, the volatility of input and commodity prices, foreign exchange rates, and more.

Figure 2. Gross production indices (2004–2006=100%)



Source: FAO, 2019c (accessed 01 June 2018). No data is available for Georgia.

With the exception of Albania and Georgia, in all countries the crop sector dominates agricultural output. This is particularly the case in North Macedonia, where 76 percent of the gross agricultural output (GAO) is produced in the crop sector, and in Tajikistan (68 percent). Only in Albania does livestock production dominate (51.5 percent), whereas in Kyrgyzstan the share of the crop and livestock sectors is almost equal (Table 2).

Table 2. The relative distribution of the value of agricultural production

Country (year)	Plant production (%)	Livestock production (%)
Albania (2012)	48.5	51.5
Armenia (2016)	55.4	44.6
Georgia (2016) ²	38.0	56.0
Kyrgyzstan (2015) ³	49.5	48.1
Republic of Moldova (2015)	58.0	42.0
North Macedonia (2015) ¹	75.9	23.6
Serbia (2016)	67.2	32.8
Tajikistan (2016)	67.8	32.2

Sources: FAO, 2019d–2019k (country study reports). Agricultural services are counted superlatively in only some countries, while the services are included under the main categories of plant and/or animal production in other countries. This is why the figures do not always add up to 100 percent.

1. Agricultural services cover 0.5 percent of the total agricultural value.

2. Agricultural services cover 6 percent of the total agricultural value.

3. Agricultural services cover 2.2 percent. Hunting and forestry = 0.2 percent; fisheries = 0.02 percent.

The structure of agricultural production in most countries experienced extensive changes during the past three decades. Such changes were driven mostly by the need to expand domestic production and to improve food security after gaining independence but also by newly established trade regimes and unions.

Agricultural production is dominated by cereals (still, all countries except Serbia are import-dependent), followed by different groups of crops in various countries: fruits and grapes (Balkan and Caucasus countries), oilseeds (Republic of Moldova and Serbia), fodder crops (Central Asia), and potatoes and vegetables. Competitive advantages are reported for several commodities, including cereals (Serbia), dried fruits, grape/wine, hazelnuts, cotton, olive oil, tobacco, beans and others.

External trade

Since 2005, the value and the structure of agrifood trade have varied considerably in most countries. Only Republic of Moldova (for the first time in 2016) and Serbia were able to generate a positive trade balance (Table 3). All other countries are import-dependent on agrifood products, which makes food security and nutrition fragile, especially when international agrifood prices increase or if temporary trade barriers are imposed.

Various factors have influenced changes in the value, volume and composition of foreign trade. According to national reports, the most common causes were the following: weather-induced crop-yield variability, the effects of the global economic crisis, the development of domestic production and processing, the Russian ban on agricultural products, and the volatility of commodity prices and foreign exchange rates. In this regard, the national reports state:

In **Albania**, the trade deficit expanded until 2010, but in recent years, domestic production met the domestic demand to a larger extent, and exports increased substantially. Export flows started to compensate for a larger share of imports, resulting in a doubling of the export/import coverage ratio (from 11 percent in 2005 to 22 percent in 2015).

In **Armenia**, agrifood exports recorded considerable growth in monetary terms from 2010 to 2014,

after recovering from the global financial crisis of 2008. This continued export growth was interrupted in 2014 when, due to spring frosts, 80 percent to 90 percent of the annual yield of apricots was destroyed. In 2015, there was growth in the volume of exported products, but the value of exports fell by 4 percent compared to 2014, mainly because of depreciation of the national currency.

In **Georgia**, starting from 2013, the export of wine (main export product) has significantly increased; it was then that the Russian market again became accessible after the ban for Georgian wine exporters that had been in place since 2006.

In **Serbia**, the external trade in agrifood products has been constantly growing, reaching a peak of EUR 4 394 million in 2017. Average annual export and import growth rates were high (8.7 percent and 8.5 percent respectively) and resulted in a record export-to-import coverage ratio in 2016 (207.5 percent).

In **Tajikistan**, significant changes in the composition of imports are noticeable. Namely, the main imported agricultural products are wheat and wheat flour, with a total share of over 50 percent. From 2005 to 2015, the share of wheat imports increased from 24 percent to 49 percent, while the share of flour imports fell from 36 percent to 7 percent, indicating an increase in domestic flour production.

Table 3. International agrifood trade

Country (year)	Import (millions EUR)	Export (millions EUR)	Trade balance (millions EUR)	Export/import coverage ratio (%)
Albania (2015)	706	154	-552	21.8
Armenia (2015)	724	396	-328	54.7
Georgia (2016)	869	621	-248	71.5
Kyrgyzstan (2016)	4 296	2 198	-2 098	51.0
Republic of Moldova (2016) ¹	408	613	+205	150.2
North Macedonia (2015)	701	487	-214	69.5
Serbia (2016)	1 393	2 890	+1 497	207.5
Tajikistan (2016) ²	264	144	-120	54.5

Source: FAO, 2019d–2019k (country study reports).

1. Standard International Trade Classification (SITC classification 0, 21, 22, 26, 29, 4)

2. Main products only in Tajikistan

The main import and export trading partners of Albania (64 percent of exports and 54 percent of imports), North Macedonia (48 percent for both exports and imports) and Serbia (45 percent of exports and 60 percent of imports) are EU Member States. The main export market for Armenian agrifood products is Russia (40 percent to 60 percent, on average), followed by EU countries. For Georgia's total exports, countries in the Commonwealth of Independent States (CIS) are the main destinations, although this trend is decreasing (from 55.7 percent in 2013 to 34.9 percent in 2016) while exports to EU-28 countries is increasing (from 20.9 percent in 2013 to 27.1 percent in 2016). The main trade partners of Tajikistan for exports are Turkey (29 percent) and Switzerland (23 percent), while on the import side it is the Russian Federation (31 percent share of imports) and China (22 percent).

There have been considerable variations in the composition of the export of goods among countries. However, the common characteristic is that only a few products dominate the export structure in most

countries. For example, cotton accounts for around 80 percent of the value of Tajikistan exports, while alcoholic and non-alcoholic beverages cover 60 percent of exports in Armenia, and hazelnuts, other nuts, and wine from fresh grapes cover 44 percent of Georgian agriculture and food export. The import structure is much more diversified, which is due to high dependencies on imported food.

Land resources

In all eight study countries, land resources are extremely diverse, including fertile plains and river valleys, steppes, saline land and mountain areas. Therefore, among and within countries are great differences in the availability of land per capita, land use/cover, soil quality, and cropping systems. Intra-regional differences are particularly pronounced in the Central Asian countries (where huge differences exist between the mountainous areas and the valleys) and between coastal zones and mountain areas, as in Albania and Georgia.

Table 4. Land resources

	Agricultural land			Agricultural land per capita (ha)
	Total (thousands ha)	% of arable land and permanent crops ²	% of permanent meadows and pastures ²	
Albania	1 174	59.3	40.7	0.42
Armenia	2 045	30.1	69.9	0.69
Georgia	788	23.9	76.1	0.21
Kyrgyzstan ¹	10 608 [1 037]	12.8	87.2	1.74 [0.17]
Republic of Moldova	2 236	85.9	14.1	0.63
North Macedonia ³	1 264	35.9	64.1	0.61
Serbia ³	3 437	79.3	20.7	0.50
Tajikistan	3 639	18.3	81.7	0.42

Source: FAO, 2019d–2019k (country study reports).

1. The figures in brackets show the utilized agricultural area.

2. Calculated based on data from FAOSTAT database in 2018.

3. The figures on total agricultural land refer to UAA.

The available agricultural land per capita ranges from 0.2 ha in Georgia to 1.7 ha in Kyrgyzstan. In Republic of Moldova and North Macedonia, it is about 0.6 ha, and the figure is slightly lower in Serbia, Albania and Tajikistan (Table 4). These data, at first glance, indicate the abundance of agricultural land in the eight study countries. However, the structure of agricultural areas indicates that the situation is somewhat different. Namely, permanent meadows and pastures dominate the structures of agricultural land in most countries, with the exception of Serbia and Republic of Moldova. The share of the land used as permanent meadows and pastures is particularly high in the countries of Central Asia (87 percent in Kyrgyzstan and 82 percent in Tajikistan), and then in the Caucasus countries (Table 4). Large areas of permanent meadows and pastures in scarcely populated high mountainous areas – with poor soil quality, low precipitation, severe drought and poor vegetation growth – indicate that land resources, especially in the Central Asian countries, are relatively modest in comparison to the population.

Still, unused land is reported to be a serious problem in most countries. Armenia could be an example. The country study report cites census results from 2014 in stating that, on average, 33 percent of arable land in holdings without legal status and 38 percent in holdings with legal status are abandoned in

Armenia. In Republic of Moldova, 11 percent (or 246 900 ha of 2 235 600 ha) are not cultivated, according to the General Agricultural Census 2011.

Forestry

The forestry sector is important for rural development, both from an economic perspective and from a nature/biodiversity perspective. This is the reason why support to forestry and forest areas is included in the EU regulation on rural development, and it is why support for the development of forest-related activities is eligible under EU rural development programmes (afforestation on agricultural land, rural tourism linked to hunting and adventure tourism, and others) as well as under IPARD programmes supported under the so-called diversification measure.

In most of the eight study countries, the value of the contribution to the gross domestic product (GDP) from forestry is included in the data for the primary sector “agriculture, forestry, hunting and fisheries,” and no disaggregated data are available in most cases. Data are available and reported only in Armenia (reported from 2000 to 2011 in the range of 0 percent to 3 percent), Kyrgyzstan (reported from 2014 to 2017 in the range of 0.04 percent to 0.19 percent) and Republic of Moldova (estimated). In all study countries but North Macedonia, forests were not privatized during land reforms. In North Macedonia, 90 percent of forests remained in private ownership and use during the decades of collectivization.

In Albania, there are no economic data related to forestry reported, but those data are included with hunting and fisheries in agricultural data. The importance of forestry in the economy is negligible. However, the importance of wild picking of medical and aromatic plants (MAPs) and forest fruits is significant for many rural households. These activities provide many rural families with an important share of their income, and because of its high added value and the strong presence of women in the sector, these activities are particularly significant for women’s livelihoods and empowerment. The MAPs sector has developed into a successful export sector and is now dominated by commercial operators cultivating the MAPs instead of collecting them in the wild.

In Armenia, forest areas cover 11.2 percent of the total territory. The distribution of land on ownership shows that there are 334 000 ha of forests and that the majority of these hectares are state-owned, with a few hundred hectares owned by local communities. As of 2016, a negligible 0.2 ha is privately owned. There are no data on the contributions of family farms. However, forests in Armenia are rich in wild fruits, berries and edible greens, and people are allowed to collect all available non-timber forest resources for their own consumption free of charge, based on forest-usage cards. Thus, forests serve as sources of food and additional income for villagers living in nearby communities.

In Georgia, forests cover about 2.7 million ha of land (almost 39 percent of the country territory). Many villages depend on forests as a source for energy, since firewood remains the most used source for heating. In this respect, the development of protected areas and the enforcement of stricter rules have affected rural communities negatively, from an economic perspective, but rural households are now usually given a license quota of 3–6 cubic metres of firewood to cut, depending on the region.

In Kyrgyzstan, forests are state-owned and cover a relatively small area of about 5.6 percent of the territory, though forests play important socio-economic and environmental roles in remote mountainous areas. However, a significant improvement of the forest public management system is needed. The lack of transparency in the management of forests is a key issue, decreasing accountability and excluding community participation in forest operations. The risk of corruption may increase deterioration of

forest resources and make it more vulnerable in the light of potential climate change.

Republic of Moldova's forests cover 11 percent of the land area (379 300 ha) and have remained in state ownership after the land reform of the 1990s. Forests are typically in hilly areas, with the majority of forests located in the central part of the country. The forests are mainly broadleaved, represented by such species of trees as oak, ash, hornbeam, black locust and others.

Serbia is considered to be a middle-forested country, compared to the average world forest coverage of about 26 percent, but it is still below the European average of 47 percent (MCPFE, 2003). Forests cover 0.3 ha per inhabitant. Regional differences in forest coverage are apparent: In the flat and fertile Vojvodina Region, forests cover only 7.1 percent of the territory, whereas in Central Serbia they cover 37.6 percent.

The forest sector's direct economic contribution to the economy is difficult to estimate, since the structure of GDP by sector includes agriculture, forestry and fishing in one single category, which in 2016 represented 12.19 percent of the GDP. However, it is estimated that the contribution of forestry to the economy is below 0.5 percent.

Many rural households depend on forests as an important source of fuel for heating and cooking and for other forest products – such as berries, nuts, mushrooms and pasture for grazing and fodder – for their subsistence and income. The legislation in Republic of Moldova allows for collection of medicinal herbs, berries and wild fruits from the forests. Both physical and legal entities may apply for authorization, following a quite uneasy procedure. Despite the procedures for authorization, picking plants, berries and wild fruits from the forest by smallholders and family farms, and also by the population, is quite common, authorized or unauthorized. These products are available on local markets throughout the growing season. However, there are no statistical data on the quantities collected and sold, and no data about the numbers of smallholders or family farms involved in this kind of activity.

In North Macedonia, 998 000 ha, equal to 39.6 percent of the total land, are forest land (Trading Economics, 2019). According to Stojanovski *et al.* (2015), private forests in North Macedonia are fragmented, with an approximate size of 0.4 ha, and there are 220 000 private parcels of forest lands, owned by 65 000 households. According to a subsector analysis conducted of 1 000 owners of private forests, most private forest owners hold forest properties smaller than 1 ha, with the smallest being 0.01 ha, the largest being 10 ha, and the average being 4.17 ha (Stojanovski *et al.*, 2015). In addition, these properties are often fragmented into, on average, four parcels. Private forests are mainly used for domestic firewood. Tourism, nature conservation and hunting are of minor importance, although landowners have stressed that the environmental services from their forests are very significant even though they are not used.

However, it is well known that forests contribute additional income generated from picking forest fruits, aromatic and medicinal plants and mushrooms, as was the case in Albania. These products also are abundant in rural areas in North Macedonia, and many families depend on this income. Other gainful forest-related activities are tourism and accommodation, handicrafts, wood processing, and hunting. However, these activities contribute less to the incomes of family farms than do picking forest fruits.

The state-owned forest area in Serbia covers 896 400 ha (40 percent of the total forest area), and the remaining area is in private ownership (52 percent) or used by other types of owners (8 percent).

According to the Law on Forests, public enterprises are obliged to carry out professional and technical tasks in private forests (cultivation, forest protection, production of wood assortments and other activities) if there are private forests in the territory. However, to improve the situation in the forestry sector, more effective coordination of policies is needed, including cadastre, soil data, demarcation of protected areas, water management and infrastructure plans.

The state-owned forestry sector in Tajikistan is not an important economic sector. The total area of state-owned forests is 1 336 600 ha, including 422 700 ha of forest-covered area and 583 100 ha of non-forested land.

Fisheries and aquaculture

When it comes to rural areas and the fisheries and aquaculture sector in Europe and Central Asia, it is inland fisheries and freshwater aquaculture that have the most potential for improving rural livelihoods, especially for small-scale fishers and smallholder fish farms. Unfortunately, inland water bodies are not included in European Union regulations on rural development or in the Common Fisheries Policy. Inland water bodies such as seas and lakes are relegated to national jurisdiction, even if these bodies cross international boundaries. However, support for aquaculture development is eligible under EU Rural Development Programmes, as well as under IPARD programmes under the so-called diversification measure and the European Maritime and Fisheries Fund (2014–2020).

In most of the eight study countries, the value of the contribution to GDP from fisheries and aquaculture is included in the data for the primary sector “agriculture, forestry, hunting and fisheries,” and no disaggregated data are available, in most cases. Only in Armenia, Kyrgyzstan and North Macedonia are some disaggregated data available and reported on fisheries.

In Albania, inland fisheries and aquaculture is primarily production of carp, trout and mussels. Carp is the primary fish cultivated. The production is typically extensive or semi-intensive pond aquaculture using freshwater resources. At present, there are four active carp hatcheries, with a total pond capacity of about 28 ha. Regarding trout, also a freshwater species, there are 58 farms producing trout culture in tanks. In brackish water of the Black Sea estuaries, there are 51 mussel facilities. The fisheries and aquaculture sector has only a few operators compared to agriculture, but the producers have a strong market orientation, which is different from most small subsistence or semi-subsistence agriculture-oriented farms. In the upcoming IPARD II programme co-funded by the EU, support may be made available for technology investments in aquaculture to modernize the sector, as well as in the processing and marketing of fish products from aquaculture. As mentioned, the so-called diversification measure can be used to support these investments.

In Armenia, the development of the fisheries and aquaculture sector has been strong since 2001, even though the value of production is still very small – with the exception of sturgeon caviar exports, mostly to the Russian Federation, which are very high in value due to the pure quality of water in Armenia. The gross output of the fisheries sector grew 16 times from 2005 to 2015, from AMD 1.6 billion to AMD 27.9 billion (roughly EUR 53 million), to 2.7 percent of the total contribution to GDP of the primary sector.

The area of ponds and artificial lakes used for private aquaculture is 1 400 ha. Family farms manage the largest share of the ponds (76 percent), while commercial farms and enterprises manage 24 percent and typically focus on the higher-value species like sturgeon and trout.

In Georgia, aquaculture is in an early phase of development. Today, there are 719 holdings with reservoirs for aquaculture. Estimations show that the total number of active producers is only 350 across the country, producing roughly 3 000 tonnes of fish. The main (and almost only) product is trout. Fish feed is imported from abroad, since the demand for fish feed in Georgia is too small to justify private investment in domestic production facilities. In addition, the prices on the market are volatile, making it very risky for small farmers to invest in aquaculture. In general, there is little information available about appropriate technologies and methods. As a result, there have been cases in which fish businesses experienced massive losses due to relatively simple technological mistakes in operations. To date, there has been no strategy presented by the government for the development of aquaculture. There is interest in the development of cage aquaculture in the Black Sea, and FAO has been helping the Government with advice and training provided through the General Fisheries Commission for the Mediterranean.

In Kyrgyzstan, the contribution of fisheries and aquaculture to the primary sector is almost negligible. It was only 0.02 percent in 2015, equal to EUR 170 000, and the sector does not play any role in rural development for the time being.

There is little data available on aquaculture in Republic of Moldova. Data on fisheries and aquaculture are combined with data on agriculture, as is observed in other countries. Some data were produced by FAO in 2013 stating that Republic of Moldova is rich in artificial water reservoirs and ponds. There are 41 700 ha of these water reservoirs and ponds, of which 20 500 ha (49 percent) are used as fish farms. This is mainly due to the country's good topography and abundant freshwater resources. Most of the water bodies used for aquaculture are the property of local authorities. In 2010, the country's fish production facilities consisted of one state-owned enterprise with one scientific and three production branches operating 1 746 ha; 18 joint stock companies, which are former state fish culture enterprises, operating 8 134 ha; 56 medium-sized and small fish farms, which are included in the Piscicola Association, covering 1 680 ha, and more than 100 small farms that use 9 000 ha of ponds under the ownership of local public authorities. In 2015, Moldovan fish farms of all referred categories produced about 9 000 tonnes of fish and fishery products, marketed predominately in Republic of Moldova. The fish sold in supermarkets is usually in fresh or cooled form. In small shops as well as in open markets, live fish are sold directly from fresh fish containers to consumers.

In North Macedonia, fisheries and aquaculture contribute only 1.2 percent to GDP (2012). This is equal to around EUR 157 million. Only 142 full-time persons were employed in the fisheries and aquaculture sector in 2012. Most of the farmed production is trout and carp. This takes place on around 56 000 ha, out of which 83 percent are natural lakes, 11 percent are artificial lakes, 4 percent are rivers and only 1 percent are fishponds. The production of trout and carp increased from 2010 to 2012. Trout production increased from 725 tonnes in 2010 to 829 tonnes in 2012. Carp production increased from 342 tonnes in 2010 to 417 tonnes in 2012.

Aquaculture production has increased to a large extent due to new investments, the reconstruction of old facilities and the building of new capacities. Support has been made available through IPARD measures "Investments in physical assets concerning processing and marketing of agriculture and fishery products" and "Improvement of training." The new government assistance, with a favourable scheme to provide pre-financing of investments, is expected to increase the rate of the sector's development in the coming years, especially in the adoption of water-saving technologies. The funds for financial support in fisheries and aquaculture for 2017 provided by the state budget are in the amount of MKD 90 million (EUR 1.5 million).

Aquaculture represents only a small part of the Serbian economy. Aquaculture and freshwater fishery provide jobs for about 2 000 workers and contribute about 0.2 percent of the gross value added. The share of fishery products in the structure of agrifood exports is low (0.5 percent), while it represents 5 percent of imports. The total area covered by fish farms is approximately 14 000 ha, out of which about 20 percent are not in use.

The overall trends in the fishery sector are positive, both in terms of the fish farm area (which increased 10 percent in the first decade of the 2000s) and the number of newly-built fish farms (approximately 100 small, family-run fish farms have been established in the last decade). However, production growth is based on the growth of carp production and is a result of the improved management of fish farms after privatization. Until 2016, the production continued to grow owing to the fact that new feeding technology was introduced. Production on carp farms has increased by more than 100 percent, and carp meat quality is significantly improved. Since 2016, the koi herpesvirus (KHV) has affected carp production, which has dropped to the level of the beginning of the 2000s.

In Tajikistan, the total area of ponds and lakes operated by 126 family farms (dehkan farms) for fisheries and aquaculture was 1 800 ha in 2016. The production of family farms was 998 tonnes. In total, the production of fish in the country was 1 539 tonnes (2016).

The absolute majority of family farms are engaged in plant production, and only 0.2 percent of family farms are active in aquaculture.

2.2.2 Farm structures

Serbia and the Republic of Moldova have dualistic farm structures with many small farms but also a relatively high number of larger farms (above 10 ha), while in the other six countries between 95 and 99 percent of all farms are smaller than 5 ha. The total number of farms of different types of legal status in eight study countries is over 5 million, out of which 3.6 million are small family farms (Table 5). Again, there are difficulties in comparing data. Data on the number of farms and their types by ownership and size, as emphasized earlier, are not fully comparable.

Land reforms from the 1990s onwards have, in all study countries except North Macedonia and Serbia, led to the emergence of numerous farm operators and landowners, resulting in highly fragmented land ownership. Some countries include all types of agricultural producers in the figure of the number of farms (subsistence households, semi-subsistence and family farms as well as enterprises, state and collective farms, etc.), while other countries only register family farms (Table 5). One such example is Tajikistan, where the number of commercially oriented family farms is 145 000 and where the contribution to agricultural production comes from more than 1.2 million subsistence households with up to one hectare of land around their house.

There is a barely noticeable tendency in the period covered, from 2005 to 2015, towards a reduction of land fragmentation and an increase in farm size, but still no country has fully comparable data from two consecutive censuses to confirm such facts. However, despite scarce and insufficiently comparable data, it can be concluded that households in Central Asia are of bigger average size and that land fragmentation in that part of the region is less evident (Table 5). On the other hand, it is interesting that in North Macedonia, as the only country that had a large family farming sector in continuity and where the land reform after independence was not so radical, the average size of the farm remains

relatively modest. The reason for this is that the agricultural land market in Yugoslavia was “frozen” during the decades of collectivization, which also resulted in outdated land registers.

Table 5. Land resources of family farms

	Total land (thousands ha)	Agricultural land (thousands ha)	Total number of family farms	Average farm size (ha)	Number of parcels	Comment
Albania	1 201.0	723.5	350 916	2.0	2–5	Data on agricultural land corresponds to the definition of utilized agricultural area (UAA).
Armenia	2 045.0	481.1	345 875	1.5	3	
Georgia	787.7	787.7	642 209	1.2	4–5	
Kyrgyzstan	10 608.1	1 037.0	415 433	2.5	1–2	The total number of farms does not include rural households, as their number is not officially available. The total number of entities acting as producers of agricultural products exceeds 1 million units (1 175) working simultaneously as independent agents.
Republic of Moldova	2 235.6	970.9	898.8	1.1	3	The number of farms includes three categories of holdings: 1) rural households (227 000) whose only land are kitchen gardens of less than 0.3 ha; 2) holdings with up to 10 ha (455 788 holdings cultivating 813 800 ha); and 3) holdings with more than 10 ha of land (3 000 in total, including 280 with more than 100 ha). Due to the lack of a minimum threshold value in the definition of agricultural holding, the average farm size is calculated for all holdings. Therefore, a lower average farm size (1.1 ha) in comparison with other countries should be understood in the context of definitional disputes.
North Macedonia	1 267.0	320.7	178 125	1.5	7	Data on agricultural land corresponds to the definition of UAA.
Serbia	5 347	2 825.1	628 552	4.5	6	Data on total land include both family holdings and enterprises. Data on agricultural land correspond to the definition of UAA and refer to family farms only.
Tajikistan	3 638.5	535.0	174 837	3.1	n.a.	The figure for the total number of farms includes only dehkan farms. Private subsidiary farms (PSF), numbering 1.1 million, are not included since there is no official data on their number. The number of PSFs is estimated based on the rural population of Tajikistan divided by the average number of household members in rural areas ($6\,431\,300 / 6 = 1\,071\,883$). If the average size of the farm were to be calculated by taking into account the number of PSFs, the average size of the farm would be 2.92 ha.

Source: Author's elaboration based on FAO, 2019d–2019k (country study reports).

The data on farm structure by size classes is not available for all countries (Figure 3, Table 6). There are no data available for Tajikistan and Kyrgyzstan; data on the number of farms by size classes for Albania are available, but not on the agricultural land used by these farms. In North Macedonia, the farm structure is presented for family farms, based on the Farm Structure Survey, and for Serbia based on the Census of Agriculture. Therefore, cross-country comparisons must be made cautiously and thoughtfully and in the light of definitional and data differences.

However, it is noticeable that in all of the countries, farms of the smallest size (up to 1 ha) are prevalent, with shares of the total number of farms ranging from 41 percent in Republic of Moldova to 77.1 percent in Georgia (Table 6). Their share of used land areas also varies, from 13.2 percent in North Macedonia to as much as 21.5 percent in Georgia. However, the differences among countries are reduced with a size limit of up to 3 ha. Approximately 45 percent of land areas is used by farms smaller than 3 ha (ranging from 42 percent in North Macedonia to 49 percent in Armenia).

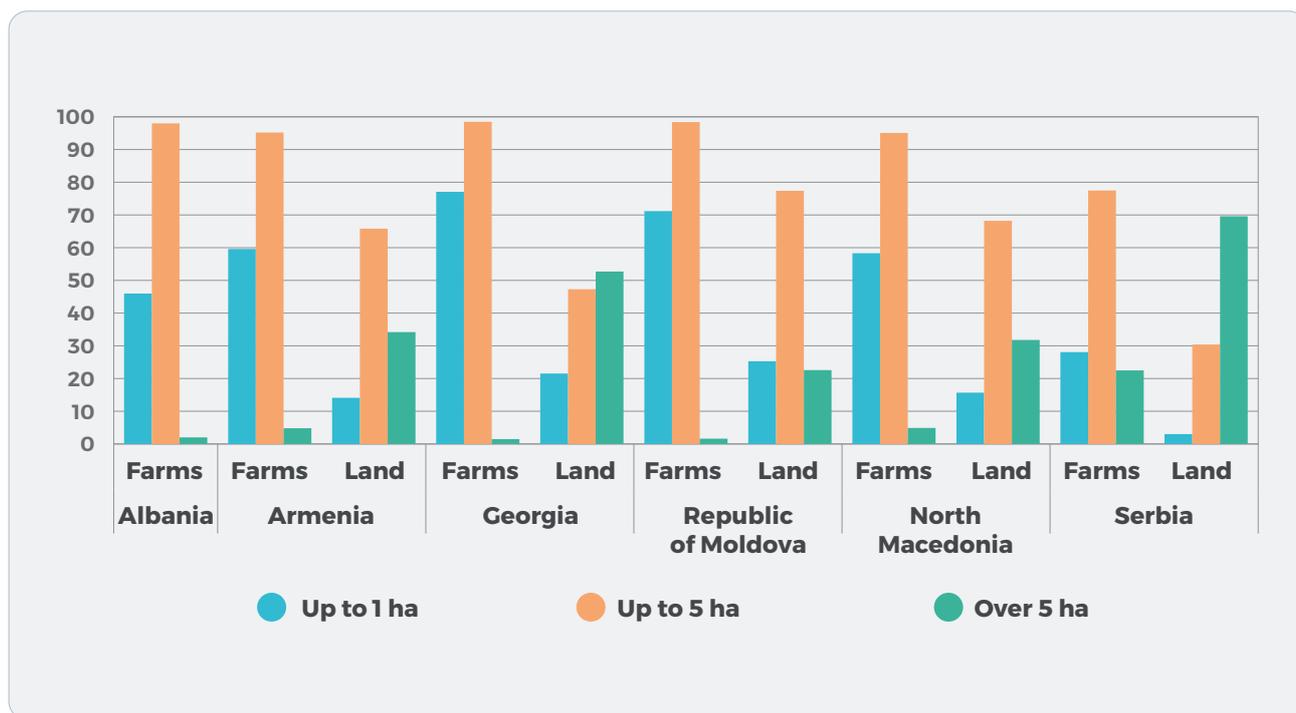
The exception to these patterns is Serbia, where only 28 percent of farms have no land or cultivate less than 1 ha. The share of farms with less than 5 ha (77.5 percent) is also lower than in other countries, while the number of farms larger than 5 ha (22.5 percent) and the land they occupy (70 percent) are both much higher. This highly dualistic farm structure is the result of heterogeneity of the relief, but also differences in pathways of farm development and restructuring. The lowland rural areas in the north of the country are characterized by favourable soil quality and structure for capital-intensive agricultural production. Along with small subsistence and semi-subsistence farms, there are very large family-run agricultural holdings and a significant number of enterprises of more than several thousand hectares, established mostly through the privatization process of the former agro-kombinats and cooperatives. In the rest of the country, small family farms prevail, with fragmented land parcels and lower soil quality. If the Belgrade Region is excluded as atypical, the smallest number of agricultural holdings is in Vojvodina Region (23 percent of the total in Serbia), which dominates the total UAA (48 percent). On the other hand, agricultural holdings from the Šumadija and West Serbia Region make up 41 percent of all agricultural holdings and use only 29 percent of the total UAA. Consequently, average farm sizes vary significantly, ranging from 3.6 ha in the high-mountain region of Eastern and Southern Serbia to 10.9 ha in the northern Vojvodina Region.

Among the countries for which data are available, Georgia has a particularly fragmented farm structure, with 50 percent of farms operating on land smaller than 0.5 ha).

In the four countries with data segregated by farm size classes (Armenia, Georgia, North Macedonia and Republic of Moldova), 69.8 percent of farms are up to 1 ha and cultivate 20.4 percent of land, and 97.6 percent are in the category of up to 5 ha of utilized agricultural area (63.5 percent of land area).

If data were available for Kyrgyzstan and Tajikistan, the numbers would have confirmed a similar picture. While six of the eight countries have farm structures almost completely dominated by smallholders and family farms, Republic of Moldova and Serbia have a more dualistic farm structure.

Figure 3. Number of farms and land used (cumulative share by size classes, %)



Source: National statistical offices and FAO country study reports (FAO, 2019d–2019k).

Note: Data from Republic of Moldova are from 2011, data from Albania and Serbia are from 2012, data from North Macedonia are from 2013, and data from Armenia and Georgia are from 2014.

Table 6. Farm structure by size classes

Country	Albania (Census, 2012) *		Armenia (Census, 2014)**		Georgia (Census, 2014)***			Republic of Moldova**** (Census, 2011)			North Macedonia (2013, FSS, family farms)			Serbia (Census, 2012, family farms)								
	Number of farms	%	Number of farms	%	UAA (000 ha)	%	Number of farms	%	UAA (000 ha)	%	Number of farms	%	UAA (000 ha)	%	Number of farms	%	UAA (000 ha)	%				
≤ 0.5 ha	70 195	20.0									459 858	51.2	122 276	12.6	67 651	39.7	17 207	6.5				
> 0.5 ≤ 1 ha	89 661	26.0	206 338	59.6	75 217	14.1					180 485	20.1	123 295	12.7	31 804	18.6	24 551	9.2				
up to 1 ha	159 856	46.0	206 338	59.6	75 217	14.1	442 540	77.1	169 481	21.5	640 343	71.2	245 571	25.3	99 455	58.3	41 759	15.7	176 874	28.1	85 004	3.0
> 1 ≤ 2 ha											139 102	15.5	199 515	20.6					125 553	20.0	179 012	6.3
> 1 ≤ 3 ha	148 084	40.0	101 148	29.2	186 719	34.9	113 314	19.7	166 917	21.2		0.0			50 224	29.4	91 617	34.4				
> 2 ≤ 5 ha											104 881	11.7	306 598	31.6					184 791	29.4	594 578	21.0
> 3 ≤ 5 ha	41 140	12.0	22 318	6.4	89 538	16.8	9 646	1.7	36 174	4.6					12 462	7.3	48 485	18.2				
up to 5 ha	349 080	98	329 804	95.2	351 474	65.8	565 500	98.5	372 572	47.3	884 326	98.4	751 686	77.4	162 141	95.1	181 861	68.2	487 218	77.5	858 594	30.4
over 5 ha	7 836	2.0	16 412	4.7	182 926	34.2																
> 5 ≤ 8															4 942	2.9	30 979	11.6				
> 8 ≤ 10							4 505	0.8	29 490	3.7					1 399	0.8	12 781	4.8				
up to 10 ha							570 005	99.3	402 062	51.0	895 685	99.7	824 761	85.0	168 482	98.8	225 621	84.6	577 306	91.8	1476 915	52.3
over 10 ha							4 072	0.7	385 673	49.0	3 083	0.3	146 114	15.0	2 098	1.2	40 958	15.4	51 246	8.2	1348 153	47.7
TOTAL	350 916	100	346 216	100	534 400	100	574 077	100	787 735	100	898 768	100.0	970 874	100	170 580	100	315 863	100	628 552	100	2825 068	100

Source: National statistical offices and FAO country study reports (FAO, 2019d–2019k).

*The census was prepared based on the definition of an agricultural holding, which is any economic unit that has at least 200 square metres of agricultural land in use (owned, rented or given in use without rent).

** The census covered individual (rural) households, individual agricultural holdings of urban population, individual holdings of members of horticultural associations, communities, all agricultural holdings with legal status, private entrepreneurs, and collective holdings.

*** The census covered all agricultural holdings, with and without legal personality, operating agricultural activities as main or supportive ones, despite the size, volume of agricultural production and location (urban, rural).

**** The census covered all agricultural holdings, including population auxiliary households, regardless of their size. An agricultural holding as a statistical observation unit was defined as a technical economic unit (with or without juridical status), including those of up to 0.10 ha if raising a few head of poultry (up to 20 head).

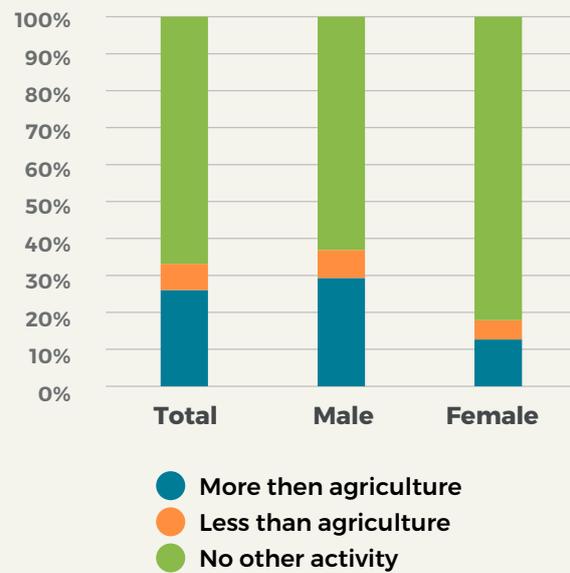
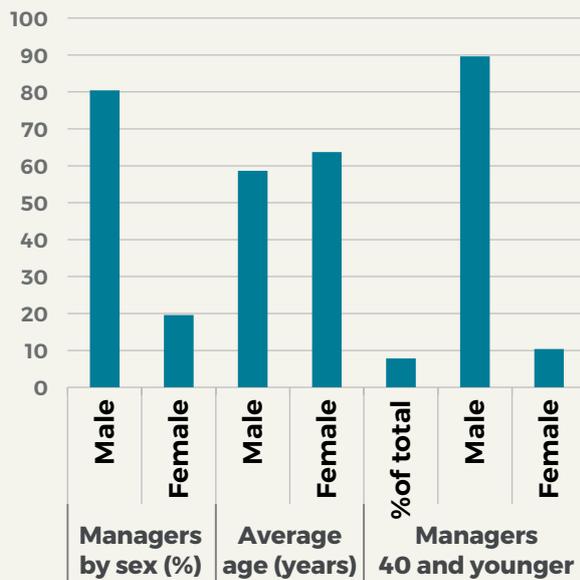
There is little data available on the distribution of other farm resources according to farm size. In relation to this, different indicators can be found in the country studies, depending on the available data. For this reason, only a few examples are highlighted indicating the importance of small farms in the structure of the number of livestock that illustrate the general picture. Small farms dominate in the total number, but their share of the total agricultural land and of the total number of livestock is small. In North Macedonia, 73 percent of households have fewer than 3 livestock units (LSU), and they own 20 percent of the total number of livestock. In Georgia, 79.5 percent of households have fewer than four head of cattle, 35.8 percent possess fewer than four sheep, and 65 percent own fewer than four goats.

In Serbia, smallholders and family farms are of note in the total production of fruits, wine, honey and goats, but these sectors are concentrated on a relatively small number of specialized smallholders and family farms. An exception is fruit production where smallholders and family farms have a high share in both total number of agricultural holdings growing orchards (42.7 percent) and the total area under fruit crops (40.4 percent). Moreover, a few smallholders and family farms are engaged in labour- and capital-intensive types of agricultural production (organic production and production in controlled conditions – greenhouses).

There are no data on differences in the size of agricultural land and the number of livestock per smallholder depending on the sex of the holder. However, there is global evidence, as was also documented in the 2013 Republic of Moldova agricultural census (FAO, 2014b), that female-headed farms tend to be smaller, with fewer heads of livestock and less technology. Family farms in the study countries tend to become female-headed only in the absence of a male family member to perform this role.

Box 1. Female managers of smallholders and family farms in Serbia

Data from Serbia show that the share of female managers of smallholders and family farms (20 percent) is above the country average (17 percent). However, the average age of female managers is higher (64 vs. 59 years). They are less represented among managers under the age of 40 (10 percent) confirming the prevalence of traditional patterns of inheritance, where women inherit the farm after the death of their husbands.



More than two-thirds of managers of smallholders and family farms (67 percent) in Serbia have no other gainful activity and this particularly applies to smallholders and family farms with female managers. Among the 33 percent of smallholders and family farms whose managers are pluriactive, 92 percent have an additional activity not related to agriculture.

Source: FAO 2019j.

There also are no data on the share of small farms of the total volume and value of agricultural production. In the absence of such indicators, Table 7 gives an overview of the share of family farms in the total production of key products.

Table 7. Share of family farms in total production*

	Armenia	Georgia	Kyrgyzstan	Republic of Moldova	North Macedonia	Tajikistan
Crop production						
Total grain, of which	99.1%	91.9%	95%		84.6%	60.3%
- Wheat		84.7%	94%	15.7%		63.1%
- Barley		97.3%	95%		93.8%	
- Corn/Maize		94.6%	98%	67.2%	78.0%	46.1%
- Rice			97%		89.1%	64.4%
Oilseeds			92%	15.0%	59.5%	
Sugar beets			92%			
Potatoes	99.6%	99.0%	99%	85.7%		49.7%
Grapes	97.7%	85.8%	97%	73.6%	68.8%	41.1%
Fruit	99.8%	98.2%	94%	55.6%	87.4%	41.9%
Cotton			94%			82.0%
Tobacco			100%		99.8%	
Vegetables	99.3%	94.4%	99%	81.6%	97.1%	47.3%
Haricot beans		99.8%				
Melons		100.0%				73.1%
Citruses		99.0%				
Tea leaf		80.0%				
Livestock - herd size						
Cattle	99.2%	99.2%	99%	95.0%	97.9%	6.0%
Pigs	93.0%	91.0%	-	56.0%	81.0%	
Sheep	98.9%	96.3%	100%	97.0%	95.9%	13.1%
Goats			-	99.0%	98.1%	
Horses	100.0%	50.8%	99%	99.0%	99.8%	20.5%
Poultry	54.8%	98.4%	86%		76.9%	6.8%
Beehives				98.0%	99.6%	5.9%
Livestock production						
Meat total						3.5%
Beef and veal	99.7%	96.2%	99%	60.6%		
Pig meat	98.3%	61.6%	100%			
Sheep meat	100.0%	99.9%	100%			
Poultry meat	33.0%	33.8%	82%			
Eggs	69.2%	29.5%	72%	57.0%	40.3%	2.3%
Honey		93.5%	74%	0.0%		6.2%
Cow milk	99.2%	98.8%	99%	95.0%	95.0%	3.7%
Sheep and goat milk			99%		97.3%	
Sheep wool	99.4%	98.1%	100%	97.6%	95.4%	13.2%

Source: FAO, 2019d–2019k (country study reports).
* No official data were produced in Albania and Serbia.

Production trends by commodities/subsectors are presented in detail in the national reports. Generally, production varies considerably from one sector to another and across countries. The common characteristic is that smallholders and family farms play a crucial role in animal husbandry (all products except for poultry production) as well as in fruit and vegetable production.

PRODUCTIVITY OF AGRICULTURE SECTOR

According to the most commonly used definition, productivity is “a ratio of some measure of output to some index of input use” (Griliches, 1987). This definition encompasses various possible combinations of measures of both outputs and (particularly) inputs. To measure the productivity of the agricultural sector, this study utilized both the partial factor productivity (PFP) concept for land and labour and total factor productivity. These measures are often used to assess the dynamics of productivity change over time and for the purpose of cross-country comparisons.

Labour productivity (SDG indicator 2.3.1) and revenue from agriculture (SDG indicator 2.3.2) are two of the main SDG indicators under FAO custodianship. Data are not available for smallholders alone in any of the eight countries studied here, but only for agricultural producers in general. However, since smallholders play a very important and significant role in the economy in all eight countries, it is still relevant to look into the development of labour productivity and revenue from agriculture.

The calculation of the sector’s productivity in the eight studied countries is constrained by quality and by the reliability of statistical data on both inputs and output. Some of the key problems are listed in the text that follows.

The Albania country study states:

“According to World Bank statistics,¹² Albanian agricultural GVA seems to be comparable to other relatively advanced countries. For example, Albanian agricultural GVA exceeds by far that of Bulgaria and Croatia during 2015, although these two countries are considered relatively strong agriculture producers in the region. Thus, there should be caution, when data related to the sector are analysed.”

The situation is similar when it comes to the reliability of input data. For example, due to the recent reforms of agricultural statistics (such as agricultural land vs. utilized agricultural area), data obtained from the national studies of Georgia and Tajikistan significantly differ from the data available in international databases, such as FAOSTAT. This difference in Tajikistan amounts to 1.11 million ha and in Georgia to 1.8 million ha.

When it comes to labour inputs, data for full-time-equivalent employment in agriculture is not available for most of the countries. A large amount of informal work in agriculture (including the work of household members with off-farm activities, occasional seasonal workers, child work and the like), as a rule, is not well reflected in labour force statistics.¹³

¹² Source: World Bank, 2019, last accessed on 12 May 2017.

¹³ If an individual has no other occupation, his/her work is attributed to agriculture, and the probability is high of employment in agriculture being overestimated. On the other hand, if he/she is a (seasonal) migrant or engaged in part-time, seasonal jobs or is a wage employer, pensioner, etc., there is a risk of the amount of his/her work in agriculture being underestimated.

In this regard, the Armenia country study states:

“No conversion into full time equivalent is available. For instance, according to Census data only 42% of heads of farms and only 35% of members of family farms, including heads were involved in agriculture for 7-12 months during the reference year.”

In general, output and input data in national reports are drawn from different databases with different time coverage, each constructed according to its own national definitions and methodologies. This raises the issue of comparability and consistency of data. Despite these concerns, available statistics derived from international databases still provide solid bases for a comparative analysis and assessment of trends in productivity rates. In the next few paragraphs, we will look at standard measures of productivity to understand recent developments in the studied countries.

Labour productivity, measured as agriculture, forestry and fishing value added per annual full-time worker, is highest in North Macedonia, followed by Serbia and Georgia (Figure 4). The relatively stable labour productivity growth in North Macedonia was halted in 2008, and after a brief stagnation, it started to decline until 2013. The slow recovery that followed was still not enough to reach the level from the starting year. Moreover, North Macedonia is the only one of the observed countries with a low yet negative average annual growth rate (-0.17) (Figure 5).

Armenia and Albania are the countries with the highest average annual growth rates in labour productivity, of 5.98 percent and 5.26 percent, respectively. In Armenia, the trend is rather stable (with the exception of 2009–2010), while Albania features cyclical growth and stagnation phases throughout the observed period. Agricultural labour productivity in Republic of Moldova and Georgia grew at approximately the same rate (3.85 percent and 3.83 percent, respectively). In Republic of Moldova, the peak was reached in 2014, followed by a drop, while in Georgia there are no pronounced variations. The subgroup of Central Asian countries has lower agricultural labour productivity but with steady growth over the observed period and with similar average annual growth rates (4.79 percent in Tajikistan and 4.26 percent in Kyrgyzstan).

Figure 4. Agriculture, forestry, and fishing, value added per worker, 2005–2016, USD

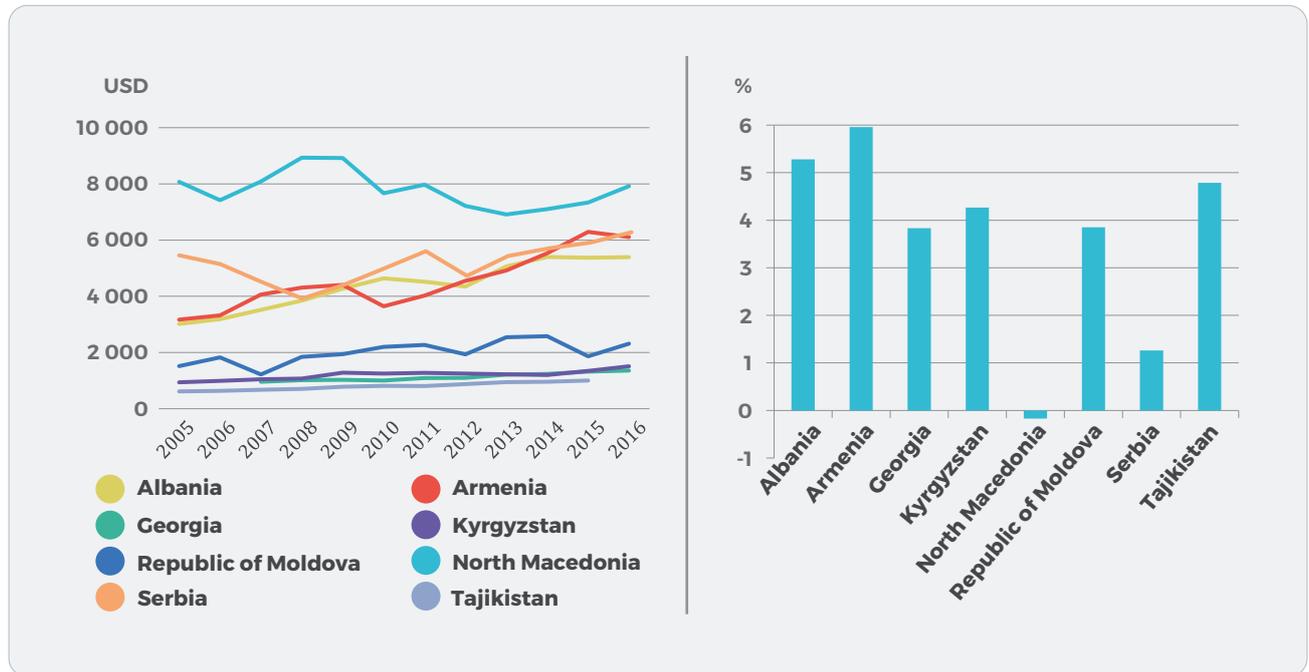
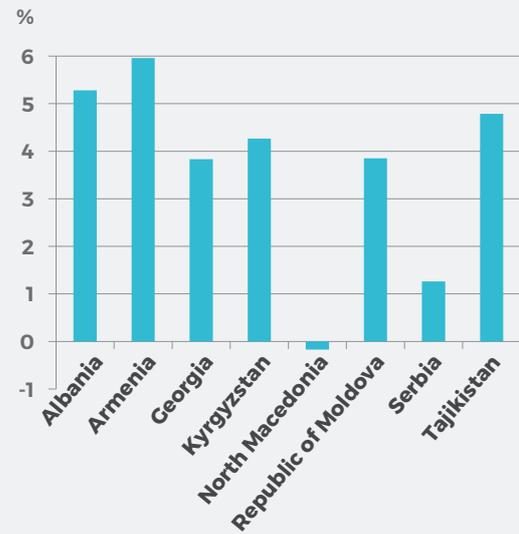


Figure 5. Average annual labour productivity growth rate, 2005–2016

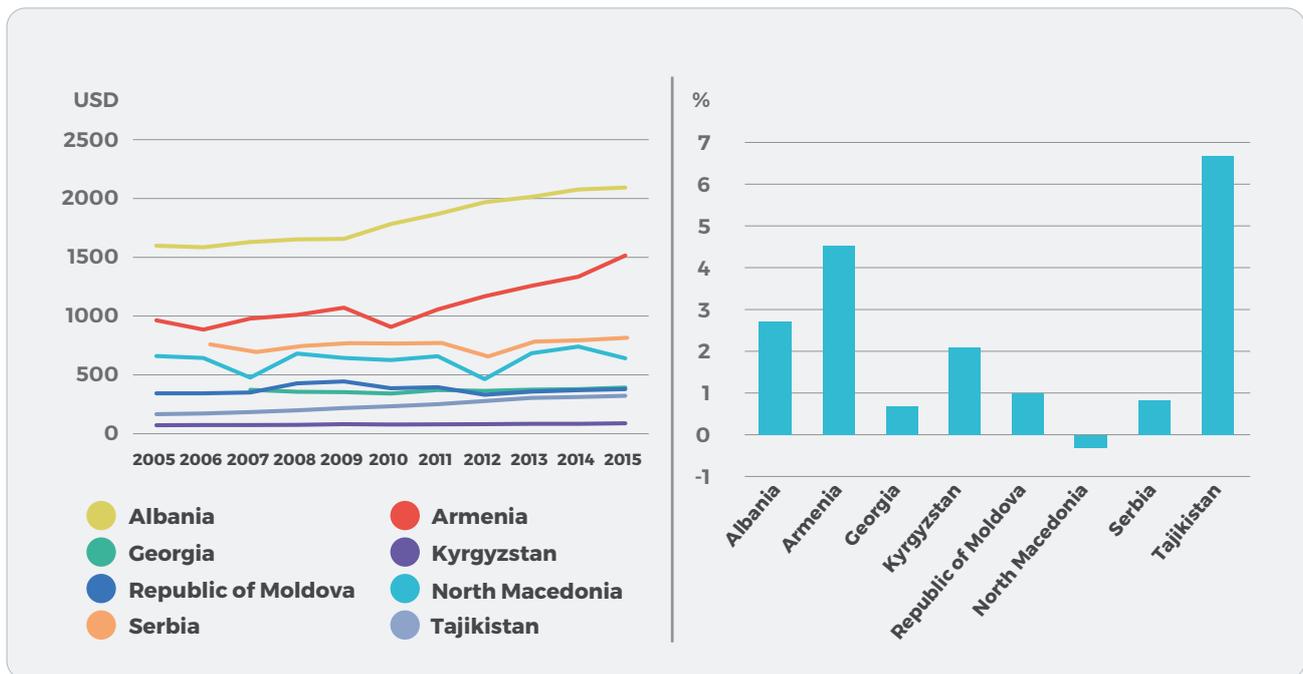


Source: World Bank, 2018a (accessed 24 May 2018).

Land productivity, expressed as the sector’s value-added per hectare, has grown in all countries, with the exception of North Macedonia and Republic of Moldova (Figure 6). The strongest growth in land productivity took place in Tajikistan (Figure 7), where it has permanently increased over time and almost doubled since 2005 (Figure 6). However, despite the dynamic growth rate, land productivity in Tajikistan remains very low (second lowest after Kyrgyzstan). Relatively volatile land productivity in Armenia lasted until 2010, when that country began a phase of more dynamic and steady growth than was taking place in other countries. The land productivity in Republic of Moldova reached its peak in 2009, followed by a permanent decline (of 15 percent by 2015).

Figure 6. Agriculture value added per ha, 2005–2016, USD

Figure 7. Average annual land productivity growth rate, 2005–2016

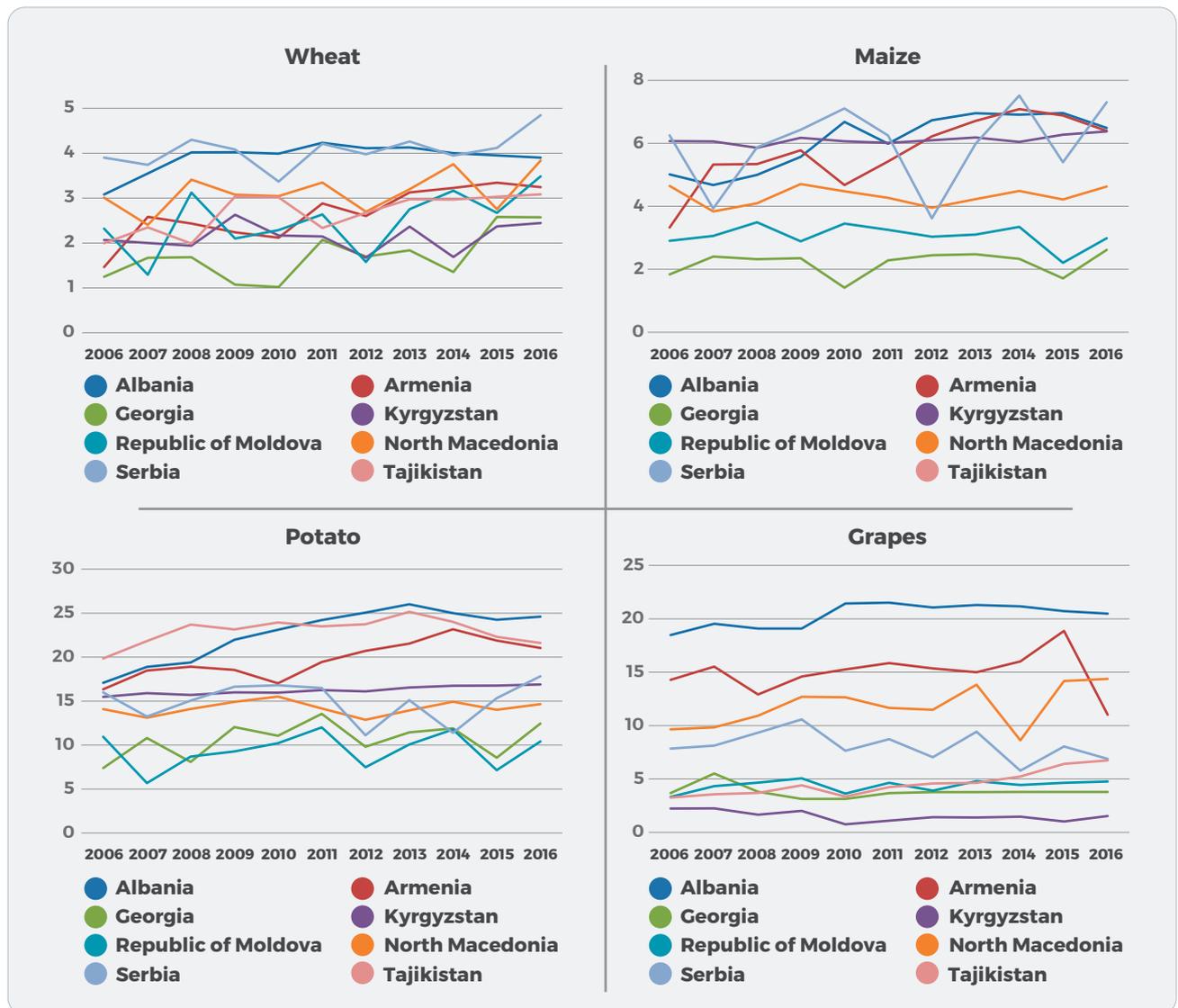


Sources: FAO, 2019a and World Bank, 2018b (accessed 24 May 2018).

Land productivity expressed by the average yields of key crops per hectare shows marked variations and differences among countries. The yields of key crops vary considerably among the eight studied countries, but on average are low and were not significantly increased (Figure 8).¹⁴ The low level of yields is due to the low usage of inputs in all countries (in some countries the quality of inputs is also reported as a critical issue), as well as due to natural constraints (weather conditions, soil quality, irrigation and others).

¹⁴ Data for Albania may be overestimated due to the lack of a reliable time series.

Figure 8. Average yields of key crops, 2006–2014 (tonnes/ha)



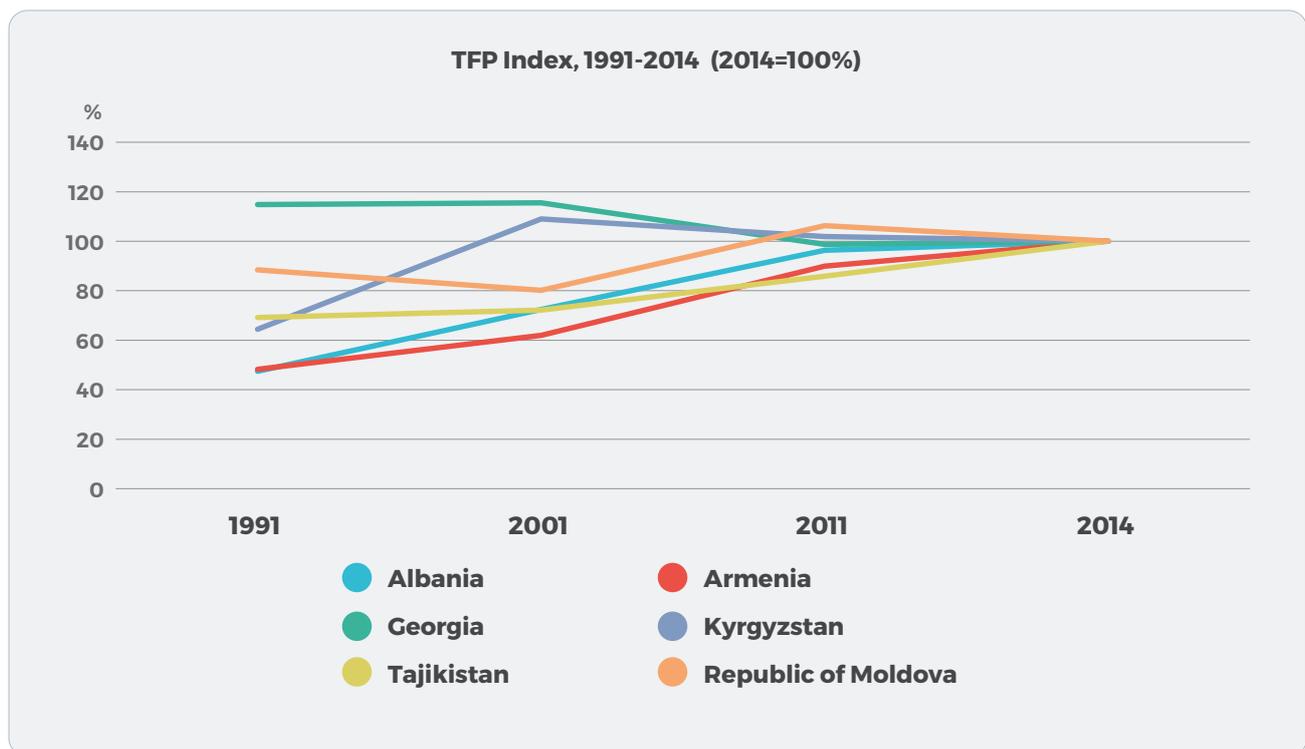
Source: FAO, 2019c (accessed 24 May 2018).

Still, the most relevant measure of agricultural productivity is total factor productivity (TFP), calculated as the ratio of the total output of agriculture to land, labour, capital and material resources employed in farm production. The advantage of total factor productivity over partial factor productivity is that it takes into account a broader set of inputs, thereby encompassing the average productivity of all of the inputs used in the production of all crop and livestock commodities.

The national databases do not provide comparable data series to calculate a sufficiently reliable and comparable TFP. Hence, secondary data from the Economic Research Service of the United States Department of Agriculture are used to present the developments in TFP in the agriculture sectors in the six study countries (USDA, 2018). Apart from all methodological limitations, these data provide solid – at least indicative – insight into the trend of TFP and factors that have affected it.

Figure 9 shows relative changes in TFP for six studied countries,¹⁵ organized by time sections. Long-term productivity trends point to different dynamics across countries in recent decades. Albania and Armenia recorded permanent and dynamic productivity growth in the period 1991–2011, while in Tajikistan, productivity grew, but at a slower pace. In Georgia and Kyrgyzstan, the peak was reached in the period 1991–2001, after which it declined. In Republic of Moldova, total factor productivity showed cyclical trends.

Figure 9. Total factor productivity index, 1991–2014

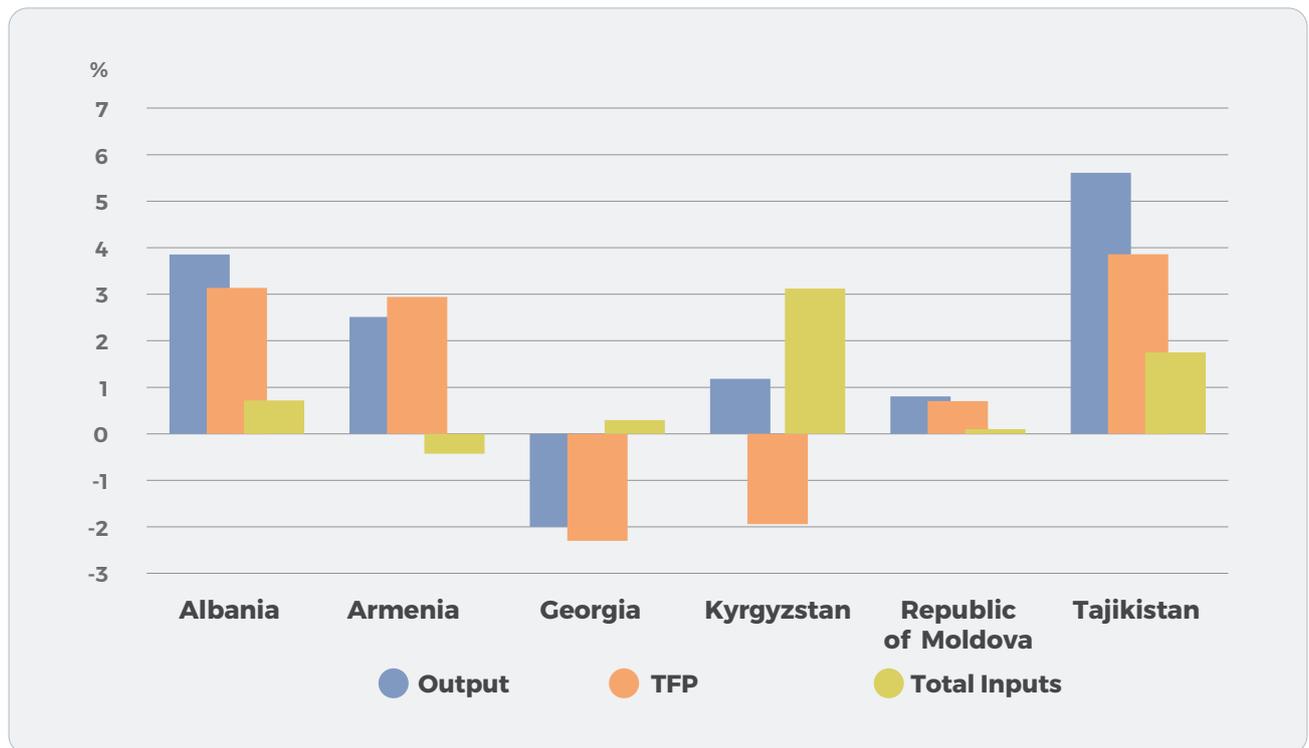


Source: USDA, 2018.

The changes in value of agricultural outputs and inputs (in total and by type of inputs) for the period covered by our analysis (2005–2014) are shown in Figure 10. In the past decade, the highest growth in TFP was observed in Tajikistan (3.8 percent), with impressive growth rates of both output (5.61 percent) and input (1.75 percent).

¹⁵ North Macedonia and Serbia are excluded because all countries of Yugoslavia are presented as “Yugoslavia, former.”

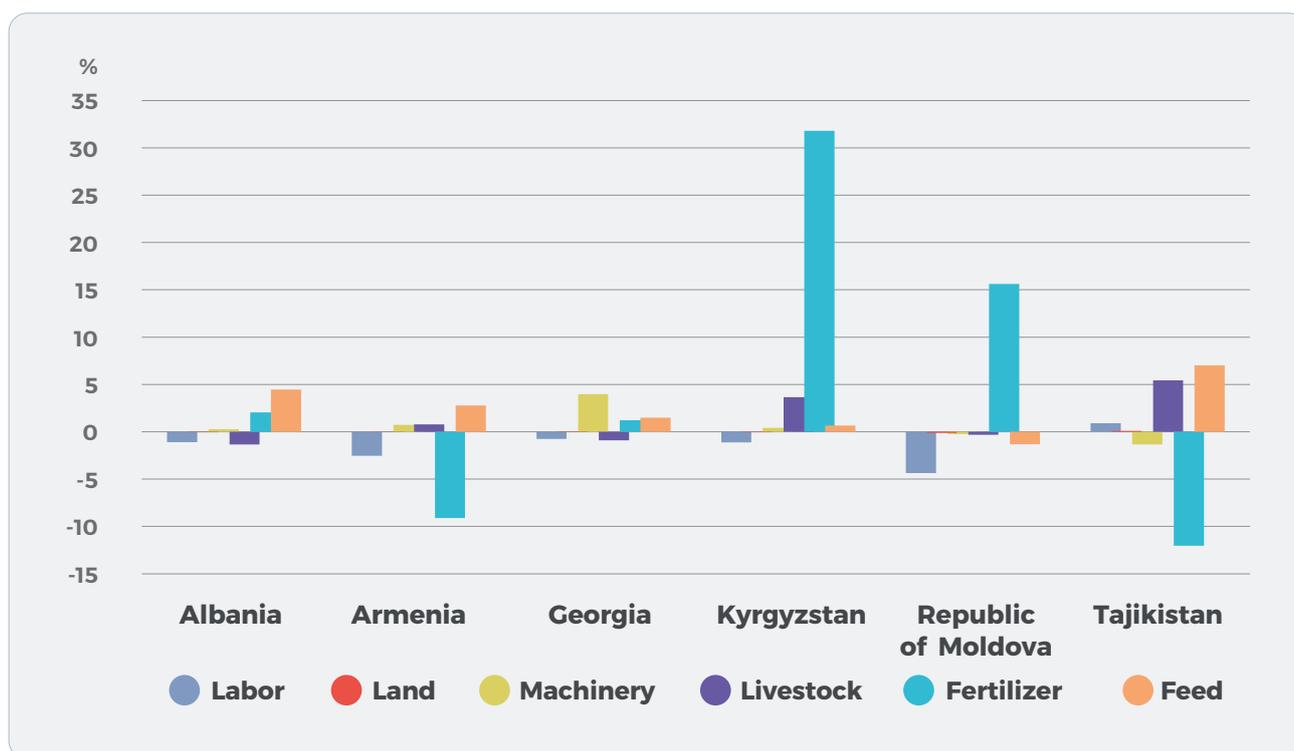
Figure 10. Growth rates of agricultural input, output and total factor productivity (TFP), 2005–2014



Source: USDA, 2018.

The output growth rate in Tajikistan seems to be influenced by the increase in the number of livestock (5.43 percent) and the quantity of total animal feed from crops (7.02 percent) (Figure 11). The positive TFP growth rates in Armenia (2.94 percent) and Albania (3.14 percent) were driven by growth of agricultural output of 2.51 percent and 3.85 percent, respectively. While in Albania, inputs also increased (0.7 percent), Armenia recorded a decrease (-0.4 percent).

Figure 11. Growth rate of agricultural inputs, 2005–2014



Source: USDA, 2018.

A decline in TFP in the last decade has been recorded in Georgia (-2.30 percent) and Kyrgyzstan (-1.04 percent) (Figure 11). In Georgia, the factor behind this is the negative growth rate of agricultural output (-2.0 percent), while in Kyrgyzstan decreases are recorded in both land and labour (Figure 11). Expectedly, growth rates of all used inputs grew most rapidly in Central Asian countries – Kyrgyzstan (3.12 percent) and Tajikistan (1.75 percent) – while in all other countries it has stagnated (Figure 11).

It is important to emphasize that the use of machinery has increased significantly only in Georgia (1.22 percent), while in other countries it has stagnated or even declined (Tajikistan, -12.04 percent). The use of mineral fertilizers continues to grow in Kyrgyzstan (3.2 percent) and Georgia (1.2 percent), while in all other countries it has stagnated or decreased, although the level of consumption remains low. This fact warns of the risk of further technological lagging in the development of the agriculture sector and the likely slowing down of structural reforms.

2.2.3 Land market development and property rights

Since the early 1990s, various land reform models have been applied in many of the countries in the region, with the main models being restitution to former owners or distribution of agricultural land to the rural population. Tajikistan is the only country in which agricultural land remains fully owned by the state; however, land use rights are allocated to the rural population. In Kyrgyzstan, only the arable land was privatized/distributed; this was only around 7 percent of the total agricultural land in the country. In North Macedonia and Serbia, land restitution has had relatively little impact on the farm structure according to the type of ownership since in the countries of ex-Yugoslavia about 80

percent of the total agricultural land was already farmed by family farms. However, the liberalization of the land market contributed to creation of a more dualistic farm structure in the northern part of Serbia (Vojvodina) with a substantial number of large both family farms and agricultural enterprises, established through the privatization process of the former combinats and collective farms. Currently, about 400 000 ha of agricultural land in Serbia is in state ownership and is leased out by municipalities. Most of this land (300 000 ha) is located in the Vojvodina Region.

However, after initial progress with land reforms, all countries have undergone several phases of improvements of legal and institutional set-up regulating land tenure, property rights and the agricultural land market. Most of them still face legal and procedural obstacles and land registers that are not up to date. This is hampering the development of a more efficient land market. The examples from the country studies confirm such a claim:

- In Albania, the unresolved restitution claims and overlap of claims have, in many cases, resulted in uncertainty of land ownership; at the same time, local government units (in charge of maintaining the land cadastre) lack human and technical resources, which constrains their efficiency in resolving administrative matters and disputes.
- In Georgia, the first land registration after land reform was done only for around 30 percent of the privately-owned agricultural land. So, it is not possible to trade land that is not formally registered on the land market. However, there is, as in most of the countries, an informal land market resulting in unsecure tenure rights. The low rate of formal registration of property rights in rural areas is the biggest obstacle for the development of the agricultural land market, as it leads to many informal land transactions and conflicts.
- In Tajikistan, where all agricultural land is owned by the state, land use rights are granted to farmers and are, in principle, tradable. However, the procedures to regulate the land market for land use rights and to register land use rights are not in place and still need to be developed.

Even though land was equally provided to men and women during the land privatization processes, it was in many countries registered in the name of only one family member (usually head of the household). This implies that there are many legitimate co-owners whose property rights are not registered, which affects the security of tenure rights of women in particular. Even when land was registered in the name of both spouses, as was the case for example in Republic of Moldova, the newly acquired land still tends to be registered not in the name of both spouses/co-owners but only in the name of one of them (the one whose name is indicated in the contract).

The country studies also identify other problems, such as the lack of market information in Republic of Moldova and the fact that digital cadastre maps in Armenia and the other seven countries are often not in line with the situation on the ground. However, the process of registering rights on real property in Armenia and Republic of Moldova has been improved in recent years and has become quite easy, transparent and cost-effective. The current farm structures in all studied countries are largely defined by the implemented land reform models but also to some degree by subsequent agricultural land market activities. In general, results from the land reforms are that both ownership and use of agricultural land has become fragmented to the degree that family holdings and parcels in many rural areas are too small to be viable. As indicated earlier, such a structure is an important major constraint for agricultural growth and increased income generation for the sector. A main concern, then, is that the farm structure does not significantly develop; this has been the experience in many other countries, where farms gradually are becoming larger and larger and land market dynamics are impacting changes in farm structure.

Land market activities vary across the countries and within each country. There are various reasons typical of all countries why farm structures only develop very slowly. Common among all the countries are land registration problems (informality) and the low income-generating capacity of the sector, which makes investments – including investment in purchasing or renting additional land – less attractive. Investments in the purchase of additional land are also hampered by lack of access to credit and finance. In Kyrgyzstan, the problem is that agricultural investments are rarely through purchase of additional land. In Armenia, the land market was quite active prior to the financial crisis, after which the level of annual transactions reduced due to the low economic attractiveness of the agricultural sector. In addition, the lack of off-farm jobs in rural areas keeps landowners attached to the land and forces them to practice subsistence farming.

In comparison with European countries, the Serbian agricultural land sale market is relatively well developed, as 1 to 3 percent of the total UAA is sold and purchased annually. The land lease market is even more active. According to the Census on Agriculture 2012, agricultural holdings rent about 1 million ha (30 percent of total UAA). The agricultural land rented out for money or in kind is about 875 000 ha, and the other 144 000 ha are common lands, are rented out for free, or are used in other ways.

The agricultural land markets in Republic of Moldova and Serbia are the most functional among the eight countries.

2.2.4 Value chain organization, standards and access to markets

VALUE CHAINS

The agriculture and food processing sector in general, and the commercially oriented smallholders and family farms in particular, face problems getting access to both domestic and international markets. For one thing, farmers lack market information, and they lack knowledge about where to find it and what to do with the information if they do have it. Another and more important element is that the small scale of production and the low level of specialization hinder smallholders from establishing durable or lasting links within the value chains. This is due to the difficulties of smallholders and small family farms in producing the stable quantity and quality that are demanded by processors and operators in the market. Therefore, long-lasting cooperation among smallholders and their clients is rare.

There are many different forms of supply chains in each country, varying by subsectors, products, regions, and types of farmers. In general, the supply chains are rather short, with very few links among the actors. For most of the smallholders, spot markets are the most important form of selling, particularly in the fruit and vegetable sector. On the other side, in each country there are examples of successful vertical coordination and contract farming, mainly for export-oriented products such as specialized varieties and qualities. This is the case with vegetable products in North Macedonia, the brandy industry in Armenia, kidney beans from Kyrgyzstan, cereals, oilseeds, fruit and vegetables in Serbia, and others.

Vertical and horizontal integration through cooperatives, farmer groups or associations are not common. Some of the problems identified as obstacles to stronger horizontal and vertical cooperation are lack of mutual trust among operators in the value chains (Kyrgyzstan, North Macedonia), lack

of farmers' interest in cooperation, lack of knowledge and awareness of possible benefits (Albania, Armenia, Republic of Moldova), and weak institutional and operational support for cooperatives. Various projects and support mechanisms for the establishment of cooperatives and the development of value chains were stimulated by donors, but in most cases the results were short-term effects only, with moderate success in establishing sustainable business linkages (Armenia).

However, mistrust towards cooperatives in general is high in the region because of the decades of collectivization; cooperation among farmers is usually guided by local social practices (Albania, Kyrgyzstan).

Thus, two important aspects of value chain integration are lacking: a) long-term relations and contracts among sellers and buyers, improving vertical coordination; and b) cooperation and collective action, improving horizontal coordination.

These aspects are interrelated, as the only way for smallholders to get long-term relations/contracts with buyers is through participation in farmer groups, cooperatives or economic interest groups/joint-stock companies. Collective action, if well managed, contributes to achieving economies of scale that make it more attractive for buyers to deal with smallholders thanks to the possibilities of consolidating larger volumes and reducing transaction costs, of better managing post-harvest handling and reducing post-harvest losses, and of facilitating the diffusion of good practices and innovations and increasing productivity. In turn, the bargaining power of organized farmers in the contracting process can be strengthened. This is particularly necessary for women, as they have less access to markets, transportation, information, decision-making, financial resources and agricultural inputs.

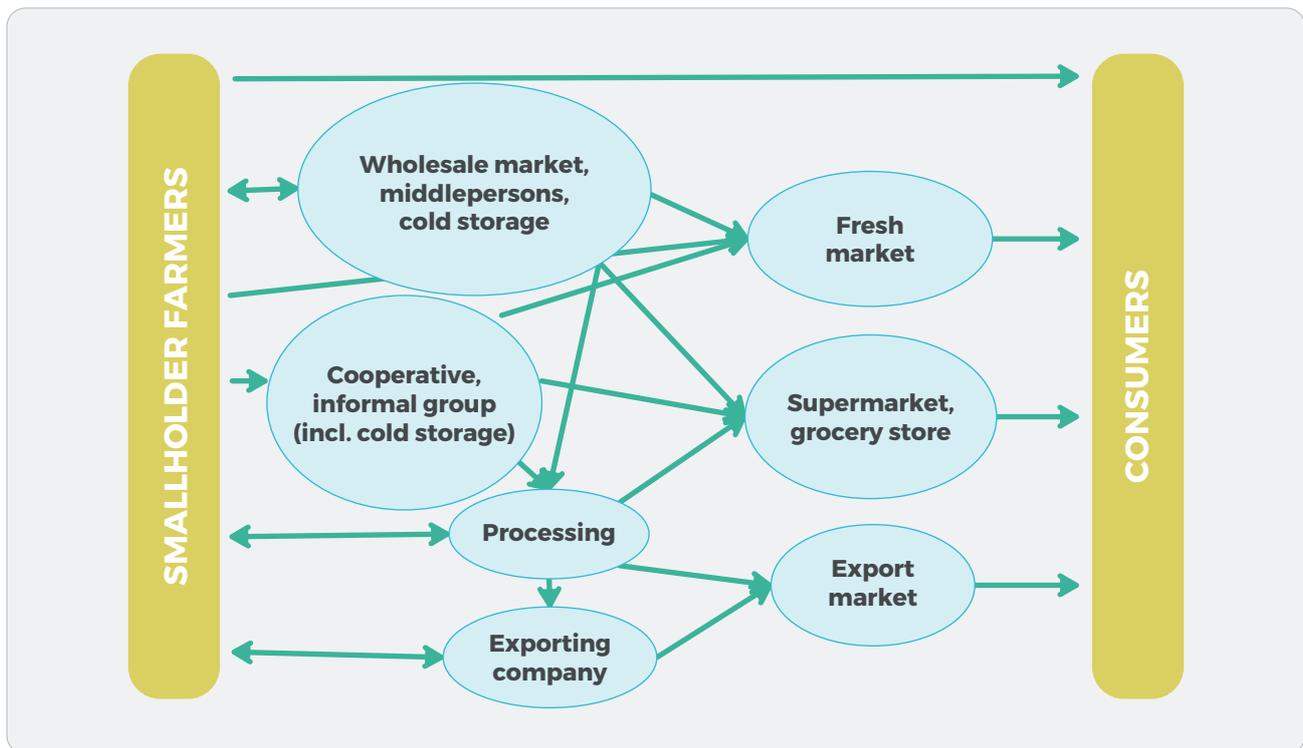
Investments in value chain reconstruction in new markets and products are highly risky. As a consequence, support mechanisms for the stimulation of the development of value chains and for the establishment of cooperatives and other types of cooperation are important to dissolve the difficulties for smallholders to get access to markets. For more, see also Chapter 5 on recommendations.

In order to illustrate the complexity of market access for smallholders, an example from Armenia is presented below. There are two big channels for smallholders moving their produce from farms to markets (Figure 12):

- **Middlepersons** are exporters; wholesalers working with processing companies, supermarkets and other retail chains or retailers; small retailers working in the fresh market; and a small number of cold storage owners working with supermarkets and other retailers (including in the fresh market).
- **Processing companies** (dryers, canneries, mills, beverage producers, and others) purchase the majority of their raw materials directly from smallholders who bring the products to the processor's facility on their own account and bear transportation costs and transportation losses due to product damages.

Even though Figure 12 is prepared for Armenia, it covers all eight countries, to a large extent.

Figure 12. Value chain – main channels for smallholder access to final consumers in Armenia



Source: FAO, 2019e.

An example of successful value chain integration in Albania is presented in Box 2.

Box 2. Successful farmer group in Albania

Farm group Myzeqeja is registered as an Agricultural Cooperation Association (SHBB). It is located in Kemishtaj, Lushnje. It counts 60 family farm members, represented by the heads of the farms. The main activity is milk collection and marketing, input provision, and agricultural machinery services. The group has a written agreement with the Erzeni milk processing factory. They sell at higher price than most individual farmers because of a) higher quality related to storing milk in a cooling tank; and b) bargaining power. Myzeqeja Farm also provides mechanical services for member farms at a lower price compared to other service providers. Heifer International, a charity organization, has provided support since the early days of transition for the group of farmers. The farm has a cooling tank and agro-mechanic equipment, which they use jointly. Success determinants are: a) there is a trusted leader (the leader is a farmer, and not the largest one); b) clear and simple rules emphasizing transparency and the separation of operational and financial management; c) community cohesion and solidarity (most group members have been village inhabitants for generations); d) cooperation (it has always happened among people in the village, even during the former communist system); and e) professional support (technical and financial) from the Heifer project and from other donors during startup and later phases.

Source: FAO, 2019d.

In Serbia, apart from the duality of the farm structure, the structural features of the agrifood value chains also point to a dual structure in each of its segments. There are many small to very small agents that dominate both the primary agriculture sector and the industries upstream and downstream. In parallel with these are medium- and large-scale operators.

Generally, for the export-oriented products (such as cereals and oil seeds), the market chains in Serbia are rather simple as most of the production is marketed by producers to organizers of production and/or to processors – and concentrated among a few traders and exporters. The commercially-oriented fruit and vegetable producers sell their products directly to retail chains or via production organizers to processors or exporters. However, for the majority of smallholders and family farms, direct sale – despite its form (direct selling at farmers' markets, pick-your-own operations, roadside stands and others) – is the most important market channel. The transaction costs of selling at farmers' markets might be too high for many smallholders and family farms. Farmers need to have certificates that are registered with the Farm Register and they must rent the stand at least three months in advance, pay the daily expenses for putting goods on the stand, and fulfil sanitary and other requirements. The costs of selling at farmers' markets are slightly higher in Belgrade than in other cities and these costs can reach EUR 150 per month.

STANDARDS

The informal subsistence and semi-subsistence sector, as well as most farmers in the commercially oriented sector, in the eight study countries find it difficult to meet national and international quality and food safety standards throughout the value chain.

During the past decade, all the studied countries have reformed their legislation and institutions dealing with marketing quality standards, labelling and branding. Unfortunately, enforcement and implementation are still very scarce and limited, due to the limited capacities of the institutions in charge of food safety. Despite these concerns, problems remain, as many producers still lack awareness and knowledge related to food safety and animal welfare.

It is noticeable that improvements in food safety and related control systems were mostly in export-oriented and processed food products. This indicates that harmonization of food safety standards highly corresponds to the accessibility of the international market and are driven by benefits of free trade agreements (Central European Free Trade Agreement, Eurasian Economic Union). Namely, while standardization and quality requirements are usually respected and maintained, this is not the case with the standards that govern the farming activities of family farms. These standards are often not regulated, and even if regulated they are not implemented and/or controlled. Traceability of food sold at farmers' markets and grocery stores (and even in supermarkets in some countries) is almost non-existent.

Standards also are a critical component of input supply. The presence of low-quality inputs (seeds, pesticides and fertilizers), expired medicines, fuel of unstable quality and more are serious constraints in many countries (Georgia, Kyrgyzstan and Tajikistan).

It is, therefore, of paramount importance that national standards are defined in compliance with international requirements, for example from the European Union, and that these standards are implemented in the sector. This requires information and the education of farmers, and it requires

investments in the relevant technologies and operational practices. Vertical and horizontal coordination and cooperation within the value chains can contribute positively to achieving the standards.

Building the regulatory framework and the administrative capacity in the ministries to support these standard processes is very important. This includes training and information for farmers, control of the implementation of farmers and, not in the least, enforcement of regulation, so that the market does not experience errors and fraud.

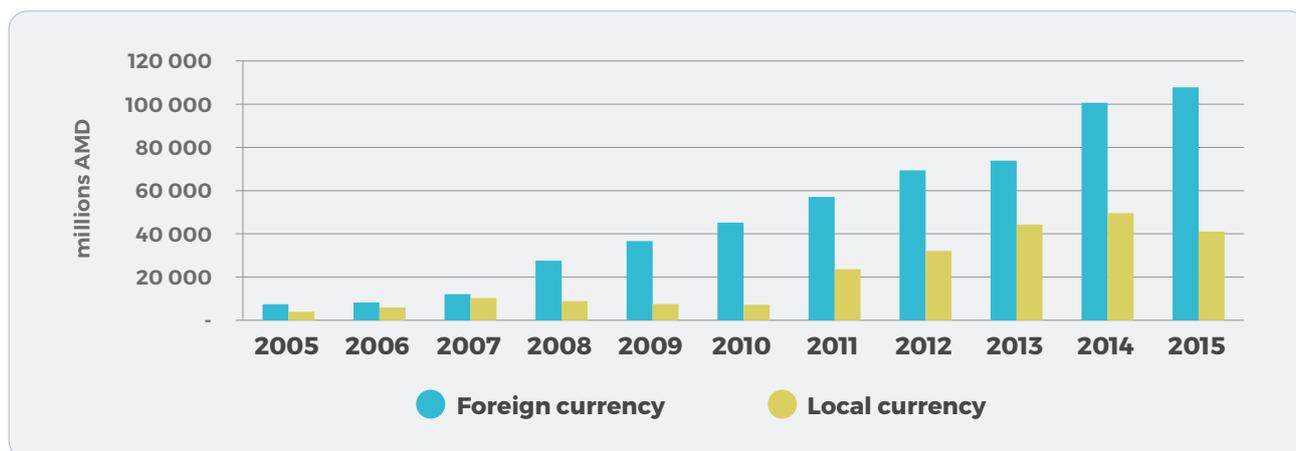
The formal requirements will lead to increased formalization of the sector, but on the other hand they may be far too demanding for many smallholders. As a consequence, solutions other than pure agricultural formalization should be considered for smallholders – for example, involving other survival strategies, including income diversification and strategies for exit from agriculture, combined with social support. This is further developed in Chapter 5 on recommendations.

2.2.5 Access to finance

Access to finance for the funding of investments for smallholders and family farms is a key factor for the growth and modernization of the agricultural sector. As has been demonstrated in the country studies, there are many sources of funding available, and the supply of credit in the agriculture sector is growing in all eight countries, but access is difficult for smallholders and family farmers, due in part to the fact that smallholders' land is not recognized as collateral. Most financial institutions provide agricultural loans and other agricultural financing services. However, lack of access to finance from financial institutions is a major constraint for the development of agriculture in most studied countries, independent of the overall macroeconomic and political environment. Lack of liquidity is also restricting operational activities, and not only investments.

The shares of credits provided to agriculture vary across the countries. In Albania, for example, it has been 2–3 percent of total credits, while in Tajikistan microcredits and credits provided to the agricultural sector account for about 50 percent of all credits and microcredits in the economy. In Kyrgyzstan, it is about 20 percent of all credits. However, as demonstrated in Armenia, the volume of lending to agriculture has been increasing over the years (Figure 13). To improve farmers' access to commercial funding, governments have implemented various programmes to subsidize interest rates for agricultural loans (Armenia, Kyrgyzstan and Serbia).

Figure 13. Agricultural loans in foreign and local currencies by commercial banks, Armenia, 2005–2015



Source: Central Bank of Armenia, 2017.

The total agricultural loan portfolio of banks in Serbia has recorded a steady growth and diversification of the credit products offered to the farmers. This includes short-term business loans for working capital and investment loans for such purposes as the purchase of a house, machinery, equipment or land or for the construction and renovation of farm buildings. Lending conditions are tailored to the specifics of agriculture and are flexible in terms of grace periods, differing repayment periods, variable repayment schedules, contract collateralization and more. The total portfolio of agricultural loans approved by commercial banks in 2017 was about EUR 1.035 billion, out of which loans granted to registered agricultural holdings were about EUR 470 million (45.4 percent), while loans granted to companies in the agriculture, forestry and fishery sector amounted to EUR 565 million (54.6 percent).

Despite this increase in credits to agriculture, which in most cases is caused by credits to bigger farms and enterprises, smallholders and family farms still suffer from difficulties in accessing credit and finance. There are plenty of reasons why small farmers face difficulties accessing finances (loans) from financial institutions:

- Smallholders and family farmers have limited availability of collateral, since their assets – such as land, plantations and houses – often are not accepted as collateral or are accepted only on a low loan-to-collateral ratio. Furthermore, in Armenia for example, some financial institutions don't evaluate the credit history of individual borrowers but instead take into account the loan portfolio of the community from which each borrower comes. In Albania, banks avoid using agricultural land as collateral, particularly when it is situated in remote areas. Loans in foreign currency bring additional risk and cost into the picture due to volatile currency exchange rates.
- Lack of collateral causes high interest rates (amounting to more than 15 percent in Albania and even 20–30 percent in Republic of Moldova and Tajikistan) and short loan payback periods, typically without any possibility for grace periods. In addition to high(er) interest rates, smallholders also face a lack of flexible repayment schedules aligned with the seasonality of production and sales, and loans with grace periods are limited in availability.
- A lack of information among farmers about different credit options and a low level of education regarding crediting and financial management are reported as important constraints in all countries.

Other financing models are developing in order to dissolve the financial constraints. These include microcredit institutions and savings and credit associations (SCA) supported by donor organizations,

as in the case of Republic of Moldova, or by state subsidies, as is the case with Armenia and Georgia. Most SCA members and main clients in Republic of Moldova are small and medium-sized farmers. In 2016, 42 percent of the loans provided by SCAs went to agriculture. The evidence from Armenia and Kyrgyzstan shows that rural women tend to borrow through microcredit programmes, which often are donor-supported.

Insurance of the risks of agricultural operations is less present in all countries. Many obstacles exist that have inhibited the widespread use of insurance, including the absence of reliable data, the underdeveloped infrastructure, lack of farmers' interest in borrowing, and more. In Armenia, for example, research reveals (Martirosyan, 2017) that even when insurance premiums were subsidized, some farmers refused to include their animals in the insurance scheme.

Box 3. Barter transactions in Serbia

Barter transactions between value chain players (food-processing companies, cooperatives, buyers/traders, integrators) are the most important source of lending for family agricultural holdings in Serbia.

Under this system, farmers that hold contracts with processing companies, cooperatives or integrators are provided necessary inputs in exchange for crop surplus sales upon harvest. These contracts are mostly used in the production of wheat, sunflowers, sugar beets, raspberries, some types of vegetables and, to some extent, soybeans and maize. In livestock production, these types of contracts are rare.

The terms of lending are set based on the price parity ratio defined before sowing and are not transparent to borrowers, making it difficult for them to compare interest rates with credit offered by banks. The cost of such loans is, in most cases, higher than with bank credit, and farmers are poorly informed of the levels of credit indebtedness in connection to the input prices. This form of barter agreement sometimes leads to situations in which buyers (integrators, cooperatives and processors) would earn greater profit from these hidden interest rates than from actual product sales. The system usually binds the farmer to a single processor or integrator, reducing choice when it comes to sale or credit options. There is no official data on the amount of this type of lending, but estimates are that it accounts for at least EUR 100 million (USAID, 2013).

Source: FAO.2019j.

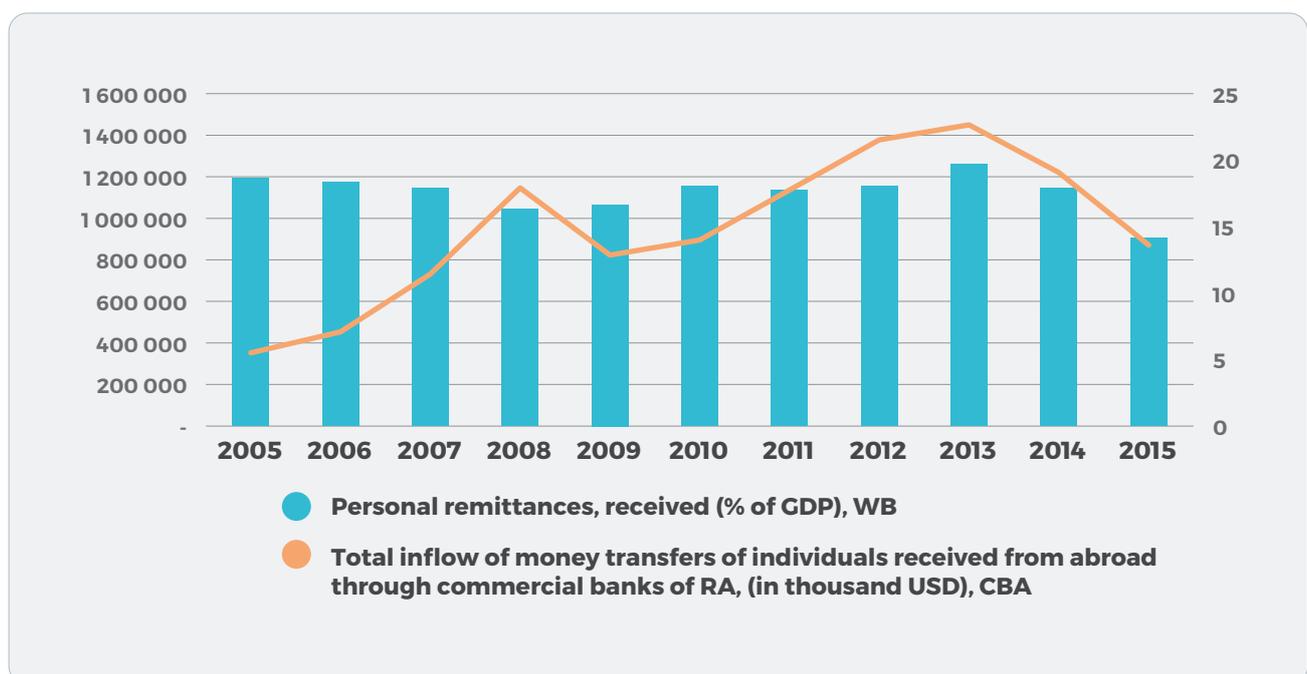
Access to finance is even lower for rural women facing constraints in access to state and donor support in many of the eight studied countries. A lack of networks and advice and the existence of male dominance of information channels decrease women's access to financial support even further.

Funding activities with the help of remittances is an important factor in all countries contributing to loosening the financial burdens of farmers. In Armenia, the volume of remittances is quite significant in the national economy. According to the World Bank database (World Bank, 2017b), remittances contributed 14.2 percent of the gross domestic product in 2015. During the period 2005–2015, the

average net inflow of money transfers received by individuals through commercial banks was around USD 950 million, but unfortunately there is no differentiation on how big a share of the remittances goes to the agricultural sector. However, case studies show that the importance of remittances as a source of income can be very high (FAO, 2019e.). The contribution from remittances to the economy is even higher in Kyrgyzstan, with 30 percent of the gross domestic product, and in Tajikistan, with as much as 32 percent (as of 2017), according to the World Bank Migration and Remittances Database; this is the highest reported figure in the world. In Republic of Moldova, the figure is 26 percent.

Looking exclusively into the share of gross household income in rural areas, remittances play a small but increasing role. In Armenia, the contribution is 8 percent, while it is 3 percent in Georgia and North Macedonia.

Figure 14. Remittances and net monetary transfers, Armenia, 2005–2015



Sources: World Bank and Central Bank of Armenia, 2016.

A reverse effect of the international financial crises is, for example, observed in Albania and in Republic of Moldova. Here, returning migrants have brought their savings and know-how back to their home countries, where they now operate many successful farms and processing plants. There are also cases of successful farms or enterprises initiated with the financial and technical support of family members living and working abroad.

As an alternative to credit institutions (banks, microfinance organizations), farmers use other sources of credit for investments or as working capital. These sources include loans from friends and relatives, loans for future harvest or pledge of livestock, and the sale of liquid assets, such as livestock, livestock feed and crops. In Kyrgyzstan, value chain participants have developed a mutual funding model based on the clans to dissolve this constraint. Traders in the bean value chain provide loans to farmers in the spring for operations and are paid back in the form of beans for an agreed-upon fixed price after harvest. The rest of the bean production is sold to the traders at market price after harvest, typically at a higher price, when the market peaks (Box 4).

These alternative financing models illustrate the understandable lack of willingness among smallholders to take commercial bank loans under these strict and expensive conditions, where they risk not only the value of the loan but their farm and property as well. Lending from relatives and/or friends may seem a good alternative for many smallholders, but the other side of that coin is financial (as well as political and social) dependency on resource-strong members of the local community.

Box 4. Synergy of mutual funding – the case of Talas bean merchants and small farmers social network financing in Kyrgyzstan

Bean farmers in the Talas area of Kyrgyzstan face the problem of a lack of financing of production operations from spring until harvest. During this period, farmers receive support in the form of loans from traders/middlemen in the value chain. The support covers costs of seeds, fertilizers, mechanized works and hired labour. After the harvest, farmers pay back the loans with a share of the produced beans. The price of the beans is typically 5–7 percent lower than the market price in the harvest period. In this way, the trader gets a benefit (interest) from providing the loan.

The rest of the bean production is stored until the farmers sell the remaining beans at the maximum price, which is reached three to four months after harvest.

Farmers and traders avoid paying high interest to banks and increase their profit from operations. Farmers benefit partly from the credit on operations and partly from the agreements with the trader: a guaranteed minimum price for one part of the production sold immediately after harvest and a higher market price later in the season, when prices peak. The trader benefits from lower minimum prices.

Source: FAO. 2019g

The lack of access to finance, both for investments and for operational activities, is a serious constraint for the development of the sector, enhanced by the low level of financial and business knowledge among smallholders. As illustrated earlier, many instruments are in place that provide different types of funding, but the core problem is still that farming for smallholders and family farms must be economically viable, contributing to good household incomes.

If this precondition can be established, access to funding will be less difficult. If this precondition cannot be established, smallholders and family farms may resist investing and making their production formal, and they may decide to pursue a survival strategy within the informal sector based on self-subsistence and the barter economy. This will not unlock the potentials of the agricultural sector for economic growth and development. Available policy instruments focusing on these financial constraints are discussed in Chapter 4. This point is further developed in Chapter 5 on recommendations.

2.2.6 Access to rural institutions, extension services, research, development and education

It is self-evident that viable farming requires knowledge about farm management, including knowledge about farming practices in particular but also about other aspects of farm management, too, such as financial management, market access, and national product and production standards. Many farmers became farmers overnight after the land reforms in 1990s, and most of them had no experience in agriculture other than from large-scale collective farms. The limited level of farmers' agro-technical and marketing knowledge reduces productivity growth, and the farmers fail to adapt to the changing competitive environment and to innovate to remain economically viable. Smallholders and household farmers also often lack knowledge about using machinery and technology in appropriate ways, and they lack knowledge about appropriate plant varieties, of breeding and feeding livestock, of the use of inputs, and of financial management. Access to information about modern farming principles is of paramount importance in this regard.¹⁶

Although the available agriculture-related services and logistical support to farmers have increased in Serbia in recent years, this is mostly the case only for export-oriented sectors and producers. For smallholders and family farms, which do not produce marketable commodities, the matter is still complex and challenging. In the environment created after the collapse of cooperatives, the "empty space" was partially filled by private companies, newly-established cooperatives and associations, and civil society organizations. Currently, they are playing increasingly more important and diverse roles in delivering logistical support and services. There are examples of non-governmental organizations, local self-governmental units and farmers' associations establishing functional linkages and partnerships related to the promotion of local products and local tourist attractions. However, few of these initiatives remained sustainable after the initial enthusiasm, with the majority reducing their activities to the organisation of local events and trade fairs, supported by municipal agricultural budgets.

Most smallholders use informal channels of knowledge and information transfers, such as media, dealers, distributors and others, which in itself raises issues of reliability and quality. Extension services have a big role and responsibility in closing this gap of knowledge and information among smallholders and family farms, but generally, in all eight studied countries, extension services suffer from a lack of funding and weak links with knowledge generation institutions. Even though there are examples of positive experiences and of evaluations showing acceptable effectiveness and efficiency of specific extension service activities – typically linked to concrete trainings – the main impression is that the services fail to deliver the required knowledge to smallholders and family farms.

The basket of complex knowledge required is often not present among smallholders and family farms. It is the observation in all eight countries that smallholders and family farmers lack the appropriate knowledge about modern production, in which product quality is very important, along with such topics as environmental standards, animal welfare and more.

There are several reasons for this. On the supply side, the organizational and institutional structures are often not in place. There are not sufficient financial resources available to implement a comprehensive

¹⁶ Two examples from Georgia can be mentioned: the <https://kalo.ge/> website for farmers (formerly the traktor.ge website) and the country's Information Consultation Centers.

extension service system, and the systems do not focus on smallholders. Therefore, the coverage of smallholders is typically too low, and the resources are too scarce for the advisors to do their jobs. Furthermore, the competences of the extension service staff may be incomplete, too weak or even outdated.

On the demand side, the recognition of smallholders and family farmers about their need for information and knowledge may be limited, and their willingness to spend time on extension and training/education may thus be limited due to other activities of a more immediate importance for their survival strategies. Only 10 percent of beneficiaries of extension services in the countries of the region are women, and they have limited access to information about these services. In order to achieve significant and sustainable change, extension services should reach not only registered farmers but also all those family farm members who are actually performing the work through the agricultural cycle. However, neither the extension advisors nor the family farm members are usually aware of the importance of this engagement.

In order to match supply and demand and to increase the knowledge base of smallholders and family farmers, the organizational and institutional challenges in the individual countries must be solved. Next, the needed financial resources must be mobilized. Regarding the content of the services, information, training and education of farmers must include a number of different topics, such as introduction to modern technologies and practices, use of farm machinery, new plants and breeds.

Demonstration farms or plots and FAO farmer field schools should be used more than they are in order to provide the practical and operational transfer of knowledge to farmers. But in addition, knowledge about financial management, how to access markets – through farmers' fairs, for example – and how to align production standards to new regulations must be included on the palette.

Information from extension services about available support programmes from governments and donors must be mandatory, as must knowledge about farmers' rights and responsibilities in this connection. This also implies that information about the requirements for the formalization of production to meet eligibility criteria should be embedded in the support measures.

Additionally, information and education on non-agricultural topics may be added to the advice from the extension services. This may include knowledge about non-agricultural activities, entrepreneurial behaviour, start-up of agritourism or rural tourism, and more socially oriented information about how to better organize life in rural communities.

Up the supply chain, the research and development system must target smallholder needs, and the education system must provide sufficient staff, including specialists and general agronomists. As the situation is today in many countries, the educational system is either not supportive of agriculture or it delivers education that is too low in quality.

As public sector extension services are facing a lot of criticism due to a lack of efficiency and for not pursuing programmes that equally address the needs of all farmers, commercialization and privatization are also an agenda that could be taken into account and encouraged. These could contribute to more efficient delivery of tailor-made services and of a higher quality of service, and it also would reduce government expenditures and lead to development of new jobs in rural areas.

There are examples of pilot projects on developing information and communication technology-based

extension services and information delivery in some of the studied countries. Such systems could play a vital role in the provision of agricultural information and knowledge for farmers, particularly for those in remote and marginalized rural areas, and for smallholders. Such pilot projects or commercial services should be promoted and supported in cooperation with research institutions and academia.

Box 5. Rural Advisory and Extension Services in the Republic of Moldova

Rural Advisory and Extension Services is providing long-term support to accelerate agricultural regeneration and agricultural growth. As a part of the Rural Advisory and Extension Services Project financed by a pool of donors (World Bank, the United Kingdom Department for International Development, the Swedish International Development Cooperation Agency), the National Network of Rural Advisory and Extension Services provide information, advice and training services in agriculture: best practices, growing technologies for a wide variety of crops, fruits and vegetables, post-harvest technology, agricultural marketing and management, through its network of 35 local service providers with a total of 425 consultants. Rural Advisory and Extension Services consultants provided more than 1 341 600 advisory services to more than 2 540 000 farmers and rural entrepreneurs, including repeated customers. Approximately 62 percent of clients received consulting services offered “in group” (roundtables, workshops, meetings, discussions and field visits), and 38 percent of beneficiaries benefited from individual consultations. In the provided advisory services structure, technological services were prevailing (53.3 percent), followed by those related to agricultural marketing (17.7 percent), economics (15.9 percent) and business advisory (13.1 percent). The Rural Advisory and Extension Services network created and promoted extension activities on 356 demonstration plots and published 38 booklets and manuals, covering 386 communities of Republic of Moldova, which constitutes over 26 percent of all villages in the country.

Rural Advisory and Extension Services has produced positive changes among beneficiaries. Specifically: an increase of 15.6 percent of the number of beneficiaries applying semi-intensive cultivation technologies, with an increase of 3.7 percent of farmers applying intensive technologies and with a 19.4 percent reduction of those who use ordinary technology. Additionally, 72.8 percent of beneficiaries increased family revenues, 68.2 percent have reported increase in crop yields/animals, and 55.5 percent significantly increased the volume of agricultural output. Rural Advisory and Extension Services also had other positive effects for beneficiaries, such as product diversification, improved product quality and farmers' efficiency, which is particularly important in a market economy.

Rural Advisory and Extension Services also produced an economic impact among the beneficiaries, evidenced by the fact that 32.5 percent of beneficiaries have invested in and improved crop cultivation technologies and livestock. Due to Rural Advisory and Extension Services, 23.2 percent of beneficiaries have increased their production land through consolidating or leasing areas, and 20.2 percent of them have invested in and acquired new agricultural machinery and equipment. Of the total number of surveyed beneficiaries, 39 percent mentioned availability to pay for consulting services in cash at the time of their receipt.

Finally, it should be mentioned that the relatively well-functioning extension service in Republic of Moldova now is being reformed by the Ministry of Agriculture and Rural Development and split among several private service providers. The impacts of this restructuring are still to be seen.

Source: FAO, 2019i.

2.2.7 Access to input factors

Farmers in all eight studied countries face major constraints in getting access to high-quality supplies supporting their production. These constraints include lack of cash/liquidity to pay for the high-priced input factors, but they also include difficulties for farmers manoeuvring on input markets. The time-consuming and complex procedures for importing new plant varieties, for example, is negative for farmers and for their effort to import disease- and pest-resistant varieties that could improve yields and quality.

In Albania, problems with the use of inputs are mostly due to lack of know-how among farmers. Farmers lack the appropriate knowledge about production technology and the use of inputs. Farmers also often lack basic equipment, such as pesticides sprays with the right technical standards to ensure the proper application of the pesticides.

In Serbia, there has been a visible increase in the degree of innovation in the agriculture sector, with several enterprise start-ups beginning to provide new technology related to climate change mitigation and adaptation. For example, the input market for fruit and vegetable production has been improved with the growth of investments in these sectors. In general, subsidies for establishing new plantations and expanding existing ones, as well as for investments in anti-hail nets, irrigation equipment and more, are available from national and local agricultural budgets. However, in the fruit, vegetables and grape sectors, critical points are a lack of labour during seasonal work peaks, high costs of harvesting and a lack of storage capacities and collecting centres that have cooling facilities for fruits and vegetables.

One important mix of constraints is the low quality of inputs and the high price for fuel, quality mineral fertilizers, pesticides and seeds. The low quality has often resulted in production failures and poor results and is an obvious challenge for farmers to overcome.

The lack of high-quality, certified planting material causes additional barriers between producers and traders. Products produced without certified planting material lack consistency in terms of the quality and quantity requested on international markets. Without these certificates, traders are unable to

provide stable connections to export markets and are forced to cut off cooperation with the producers who cannot provide quality assurance.

Some of the constraints may be dissolved with the help of qualified extension service providers. If they are available, they could be able to assist farmers in their struggle to find their way through the input factor market and advise them on appropriate use in terms of timing, quantities and use of equipment. Another possibility is to make sure that tested and certified high-quality planting material is available from private or public nurseries at prices affordable to smallholders, and that high-quality breeds are available as well.

2.3 Environment, nature and climate change

2.3.1 Water management and irrigation

One of the most important topics under the heading of environment and climate change is water management. The topic is primarily related to irrigation and/or drainage in many areas. Crop irrigation is fundamental for agricultural activities. In North Macedonia, the majority of farmers use obsolete irrigation systems, which cause not only unnecessary environmental pressure due to ineffective use of water but also indirectly increase production costs. The situation is the same in other countries, such as Republic of Moldova, where most irrigation facilities – which were designed and built for large-scale corporate farms and not for smallholders and family farms with fragmented parcels – have deteriorated after the collapse of the Soviet Union. Only 213 000 ha of arable land (11.7 percent of the total) and 13 000 ha of permanent crops (4.6 percent of the total) were irrigated in Republic of Moldova in 2015. In Tajikistan, problems include a serious lack of water – including limited access to irrigation water – and a lack of agricultural equipment for the development and cleaning of drainage systems. In general, the existence of outdated equipment and machinery, including irrigation systems, is an important problem related to efficient water use.

Moreover, not all farmers have access to irrigation systems. The water shortage in the summer months causes a significant moisture deficiency, especially for perennial plants. If water is available – which is not always the case without private wells – drip irrigation or similar modern systems cannot be afforded by many smallholders and family farmers. Since irrigation is of paramount importance for the survival of agricultural production and for agro-biodiversity – particularly in vulnerable regions affected by climate change – environmentally sustainable and effective water management is needed in many countries.

Box 6. Water users' associations in the Republic of Moldova increase the productivity in agriculture

The United States Government-funded Millennium Challenge Corporation Program in Republic of Moldova has supported the development, legal registration, and capacity building of 11 irrigation water users' associations. Ten of the corresponding central irrigation systems were redesigned and rehabilitated under the Transition to High-value Agriculture Project, and the management of all 10 has been transferred to the respective water users' associations. A water users' association (WUA) is defined as an association that exclusively manages an agricultural irrigation system and not any other form of water use. Thus, the principal activity of a WUA is the irrigation of agricultural crops, and in a few cases, this can include land drainage services and facilities. Through a specialized support project, the WUAs have received intensive, continuous support and capacity building through training and other activities. Currently, the WUAs in Republic of Moldova can cover with irrigation services more than 150 000 ha of agricultural land with a total number of 13 587 land users, including 7 306 members of WUAs. Although they are at an incipient stage, if properly developed and supported further, the newly created WUAs will be able to significantly increase the productivity and yields of small and medium-sized landholders and farmers through quality irrigation services. Each of the WUAs is still a very young organization, but investment in WUA support is relatively risk-free compared to most development projects because of the strong basis for WUAs in Republic of Moldova and because of the robust start that these young organizations have had. Another positive aspect of the creation of WUAs is that they contribute towards land consolidation in the country. Through WUAs, the newly rehabilitated irrigation systems will be used properly, and the transition to high-value agriculture and irrigated agriculture will continue in the coming years in Republic of Moldova. Even if some of the WUAs have had a shaky start due to decades without any irrigation and delays in rehabilitation works under the Transition to High-value Agriculture Project, they can thrive and be successful in the long run.

Source: FAO, 2019i.

2.3.2 Climate change

The close connections between challenges related to water management and challenges from climate change are obvious, but climate change includes other challenges than those just related to water management.

Albania has experienced climate change and its effects. In recent years, Albania has suffered severely from costly floods, particularly (but not exclusively) in the southern regions of the country. An intensified effort is considered, potentially including elaboration of a water management strategy and an action plan for investments in required solutions. The investment plan could cover all components of water management, such as the establishment of dikes along rivers at risk of flooding, reservoirs for surplus water and/or areas with higher water absorption capacities, and drainage and irrigation systems for farms where, from agronomic and economic perspectives, it will be feasible to establish such systems.

In Armenia, it is expected that problems related to land quality, water availability and the occurrence of natural disasters will continue to worsen because of climate change. In recent decades, climate change has significantly increased the frequency and intensity of hazardous hydro-meteorological phenomena such as drought, hail, early frost, spring floods and landslides. Damages from extreme weather events amounted to USD 177 million from 2009 to 2013. With the increasing impact of climate change, the damages caused by extreme weather events will continue to grow.

Climate change also impacts agriculture in Georgia, where intensified drought in some regions has resulted in the loss of yield. Damage to the soil is frequent, both in the form of the worsening of soil salinization processes (accompanied by the problem of increases in evaporation rates) and the rapid mineralization and reduction of organic matter in the soil. In addition, erosion processes intensify while at the same time the intensity of precipitation increases, resulting in high risks of floods and, sometimes, hail.

The picture is the same in Kyrgyzstan. Volatile weather conditions drastically reduce the crops of smallholder farmers. Consequently, climate change adaptation measures should be focused on the small farmers: new varieties of crops, new breeds of livestock and new agronomic techniques (zero tillage or irrigation innovations such as drip irrigation) are all included in the action plan for adaptation to climate change.

Climate change also has an ascending impact on agriculture in North Macedonia. In recent decades, these changes have been evident. Farmers have been facing significant losses in their production caused by unfavourable climate events such as hail, heavy rainfalls and floods, spring frost and drought. As a result, crops have been irreversibly damaged, causing significant financial burdens on smallholder families. Livestock production is also susceptible to these climate changes, which affect the volume and quality of production. Smallholders and small family farms face such consequences as instability and decreases in production, affecting the quality of life of their families as well.

Climate change projections indicate that Serbia is facing a high probability of continuing temperature increase, along with more frequent and prolonged droughts and wildfires. The flooding of large rivers (Danube, Sava, Morava) and flash floods are also frequent and challenging hazard events. It is estimated that the potential flooding area in Serbia comprises about 1.57 million ha, out of which 30 percent is agricultural land.

Tajikistan experiences similar trends – more frequent and more severe soil erosions, devastations, low yields, depletions of water reservoirs and droughts, as well as waterlogging (rising groundwater) and floods. Furthermore, attacks from locusts and sudden frosts are frequent in periods when frost is not common.

2.3.3 Insurance

The general observation is that the eight study countries have no adequately developed insurance systems in place for smallholders and family farmers, although an insurance system has been introduced in North Macedonia, where the Government currently subsidizes 60 percent of the insurance costs. The lack of insurance systems is a big problem, not only for farmers but also for insurance companies and banks, since agricultural production is considered a high-risk business due to the changing weather conditions, among other things. It is very difficult to predict precisely what the yields will be the next season, and it is even more difficult to predict future market prices under uncertain market conditions.

Stakeholders in several of the countries also point to increased risks due to effects of climate change. Georgia, for example, has experienced strong climatic impacts in recent years, such as devastating hailstorms, early temperature drops, and severe droughts. These effects have demonstrated the need for an effective insurance system to achieve more stability and predictability. Initial steps already have been made in this direction, but many farmers do not see the value, even in state-subsidized insurance packages. The same is seen in other countries, such as Tajikistan, for example.

The MAFWM in Serbia began to subsidize insurance premiums for registered agricultural holdings in 2007. In the first two years, the subsidies accounted for 30 percent of the premium, only to be increased to 40 percent starting in 2009 (and 45 percent for areas with natural constraints), with a limited maximum amount of incentives depending on the types of crops. The number of farmers with agricultural insurance is increasing, but it is still relatively small. According to data from the National Bank of Serbia, there were only about 30 000 insurance policies in crop production in 2016 and more than 5 500 for animal insurance.

The introduction of state-subsidized insurance systems, accompanied with information campaigns, could contribute to lifting this constraint and easing the access to finance for smallholders and farmers.

The insurance system will not be sufficient on its own, since many smallholders and family farms will not be able to afford its costs. Therefore, the insurance system should be supplemented with a national disaster compensation system or even be used as an alternative to private insurance.

2.4 Rural development

This section summarizes the main conclusions from the eight country studies regarding broader rural development and livelihood topics, such as population trends, rural income and poverty, labour market and quality of life, focusing on rural infrastructure, social protection and gender.

2.4.1 Population

The demographic trends in rural areas differ across countries, both in terms of the number and age structure of the rural population. The share of the rural population in the total population ranges from 41 percent in Albania to 73 percent in Tajikistan (Table 8).

Table 8. Rural population (% of total population)

	1990	2000	2010	2015	2016	2017
Albania	63.6	58.3	47.8	42.6	41.6	40.6
Armenia	32.6	35.3	36.6	36.9	36.9	36.9
Georgia	45.0	47.4	44.5	42.6	42.2	41.8
Kyrgyzstan	62.2	64.7	64.7	64.2	64.1	63.9
Republic of Moldova	53.2	55.4	57.4	57.5	57.5	57.4
North Macedonia	42.2	41.5	42.9	42.6	42.4	42.3
Serbia	49.6	47.2	45.0	44.3	44.2	44.1
Tajikistan	68.3	73.5	73.5	73.3	73.1	73.0

Source: World Bank, 2019.

There is a notable and long-standing trend of rural population decline in Albania and Serbia, while in Tajikistan and Kyrgyzstan the number of rural residents is relatively stable, though with a slow annual growth during the latest years (table 9).

Table 9. Rural population growth (annual %)

	1990	2000	2010	2015	2016	2017
Albania	1.4	-1.6	-2.7	-2.6	-2.5	-2.4
Armenia	0.9	0.2	-0.1	0.4	0.3	0.1
Georgia	0.5	-0.3	-2.2	-1.2	-0.9	-1.0
Kyrgyzstan	2.4	1.2	1.2	1.8	1.8	1.7
Republic of Moldova	0.6	0.5	0.0	-0.1	-0.1	-0.1
North Macedonia	-1.0	1.0	0.1	-0.2	-0.3	-0.3
Serbia	-0.8	-0.8	-0.9	-0.7	-0.8	-0.8
Tajikistan	3.4	2.0	2.2	2.1	2.0	1.9

Source: World Bank, 2019.

Ageing of the rural population is occurring in all countries, but at different tempos. In Albania, the average age of the total population increased from 30.6 years in 2001 to 35.3 in 2011. The old-age index, which is the proportion of the population aged 65 years and older divided by the total population, is higher than ever after increasing from 8.0 percent in 2001 to 11.0 percent in 2011. The data for Serbia reveal that the average age of the population is even higher than in Albania – over 42 years. The ageing index was 139.5 in 2016, and according to population projections, the oldest age cohorts (particularly of women) will significantly increase their share of the total population, outbalancing young generations. In comparison to the overall demographic picture of Serbia, the situation with regard to population and demographic trends in rural areas is worse. Between the 2002 and 2011 censuses, the total population of Serbia declined by 4.15 percent due to the negative growth rate and outmigration, while during this period the rural population declined by 10.9 percent. The rural depopulation is not gender neutral as the decline between 2002 and 2011 was higher among women (-11.6 percent) than among men (-10.2 percent). The decrease in the female population in rural areas not only influences the further decline of natality, but it also influences changes in the structure of the rural economy. In

areas facing these trends, declines were recorded in diary, in the production of vegetables and in other forms of agricultural production that traditionally have engaged the female labour force (Bogdanov and Babovic, 2014, p. 25).

On the other hand, in Kyrgyzstan in 2015 the average age of the rural population (26.8 years) was lower than the average age of the total population in the country (27.4 years), while in Tajikistan just 3.2 percent of the rural population is older than 65 (contrary to a total of more than 16 percent in Georgia in 2014). In Armenia, the rural population is also ageing, and more than 13 percent of the total population in rural areas is above 69.

All eight countries experience migration from rural areas to cities or even abroad. In general, migration is leading to declining household sizes and to declines in the size of the labour force ready to work during the agricultural season. In line with this development, the situation becomes worse because of the migration of young people from rural areas; the parents become vulnerable and dependent on their children's assistance.

Box 7. Outmigration patterns from rural areas of Serbia

The intense outmigration started with the first wave of migrants to Western Europe, and during the 1960s and 1970s Serbia was one of the most important migrant-sending countries, mostly from its rural areas (over 70 percent of migrants from the 1970s to 1990s were rural workers, out of which approximately 80 percent migrated to France, Austria and Germany). Research in rural regions with the most intense outmigration has identified two common patterns, driven by different factors. In East Serbia, the continuous and long-lasting emigration of the rural population is closely related to push factors and the existence of social and family networks. On the other side, a newly emerged ethnic pattern of emigration of national minorities in Vojvodina (South-East Banat) is driven by pull factors and economic opportunities that are not available in the area of origin.

	Region with long-lasting migration	Region with the new ethnic pattern of emigration
Local economy and agriculture system	<ul style="list-style-type: none"> • Remittance-driven family economies; lack of jobs out of farming • Farm structure dominated by medium-sized, mixed family farms • An inactive land market (land left uncultivated) • Unfavourable investment environment of recipient communities • Environmental degradation due to lack of human activity in the area 	<ul style="list-style-type: none"> • Lack of job opportunities out of agriculture • Sharply dual farm structure • Capital-intensive agriculture • Agricultural land leasing market more active than sales • Higher share of income arising from leasing of farmland
Migrant profile, type and patterns of migration	<ul style="list-style-type: none"> • Massive and long-lasting outmigration (from the 1970s) • Different types of migrant families in terms of employment status of members abroad, length of stay, stage of life • New wave of migrants: seasonal workers of middle age; low and semi-skilled; family reunification purposes 	<ul style="list-style-type: none"> • Outmigration of national minorities since 2010s • Migratory flows influenced by immigration policies of destination countries • Pull factors draw migrants towards motherlands (EU countries) • Migration driven by pull factors to settle permanently in destination country • Young people to continue higher education in one of the EU countries • Middle-aged people with families; people with mostly technical job experience (craftsmen entrepreneurs)
Remittance patterns and the impact on household well-being	<ul style="list-style-type: none"> • Remittances mostly spent on consumption and housing • Migration and remittances foster entrepreneurial non-farm activities, farm investment (including farmland expansion) and agricultural production until the 1990s • Unfavourable business environment resulted in decreased investment • A large percentage are saving for retirement • Risk of poverty of retired returnees, disabled and single persons • Possibility of losing social and economic security • Personal security and safety issues 	<ul style="list-style-type: none"> • Remittances are less important for migrant sending household well-being • Migrants have (some) savings and are more likely in the position to find a better job in the destination country • Remittance transfer and migrant earnings enabling the saving of money for family reunification, for the purchase of houses and apartments, and for starting own business in the destination country

Source: Bogdanov and Babovic, 2016

In North Macedonia, the continuing migration process from rural areas also leads to the ageing of the remaining population, and it is becoming difficult to find appropriate seasonal workforce. In addition, underutilized and abandoned land is seen as a result of several complex factors – including structural problems, such as small farm sizes and land fragmentation, the increased average age of the rural population, and migration to cities and abroad – leading to a decline of agricultural activities in general. This is the situation in Armenia and North Macedonia, for example, where around 33 percent of the arable land is unused or abandoned. Usually, the registered owner of the family farm is an older male with an average age of 57 years.

2.4.2 Rural income and poverty

INCOME

The availability of data related to income differs from country to country, making comparisons difficult. However, Table 10 presents the gross national income per capita in the eight study countries, based on World Bank data. The table gives a relatively updated picture of the income level in each country.

The highest gross national income per capita is produced in Serbia, with USD 5 550, while the lowest is produced in Kyrgyzstan and Tajikistan, with only USD 1 100 per capita.

Table 10. Gross national income per capita (USD), 2016

Country	GNI/Capita, USD
Albania	4 180
Armenia	3 770
Georgia	3 830
Kyrgyzstan	1 100
Republic of Moldova	2 120
North Macedonia	4 980
Serbia	5 550
Tajikistan	1 110

Source: World Bank, 2015.

The income per family member in rural areas is far lower than the average gross national income per capita. This is a general observation confirmed when comparing urban and rural consumption data, where data are reported. Incomes are generally higher in urban areas than in rural areas. The latest data reported in Albania is from 2012. The average consumption per capita per year in urban areas of Albania was ALL 130 000 (EUR 940), while it was ALL 120 000 in rural areas (EUR 840), or 90 percent of the average level in the cities. The average gross national income per capita per year increased in 2016 to around EUR 3 800. In North Macedonia, urban households also have higher incomes per year than rural households: MKD 373 712 in 2016 (EUR 6 084) in urban areas and MKD 329 296 (EUR 5 360) in rural areas, where the total was 88 percent of the level in the cities. Republic of Moldova has registered certain progress lately in terms of increasing the income of the population, as was the case in Albania from 2012 to 2016, but the situation is still difficult. From

2010 until 2015, the average disposable income of the population increased by 53.5 percent, from MDL 1 274 (EUR 78) to MDL 1 957 (EUR 93). At the same time, the income gap between the urban and the rural population increased from 23.6 percent in 2010 to 41.8 percent in 2015, demonstrating that social inequalities have deepened.

The salary gap is also significant between women and men in all countries. In the case of Tajikistan, it has even been increasing in the past ten years. While in 2008, women's wages in agriculture equalled 65 percent of men's wages, women's wages represented only 47 percent of men's wages in 2016.

Another general observation is that income from agriculture in rural households is decreasing, and other sources of income are taking over the main roles in the income generation of rural households. This is the case in Armenia. The gross household income increased from USD 1 044 per year in 2008 to USD 1 200 in 2015. The share of rural household incomes from agriculture¹⁷ continuously is decreasing. In 2015, it was, on average, only 25.6 percent (USD 307 per year) of the gross per capita household income, as compared to 38.8 percent (USD 405 per year) in 2008. The greatest income source in 2015 was paid work (USD 451), followed by state transfers, such as pensions and social assistance payments (USD 202). The share of remittances from relatives abroad increased from 6.6 percent in 2008 to 7.7 percent (USD 92) in 2015. In Georgia, the average annual household cash income in rural areas is GEL 4 100 (EUR 1 345). The largest share of cash income (32 percent) comes from wages. Pensions and targeted social assistance are also very important for rural areas, at 27 percent. Income from agricultural production comes only third, at 22 percent. Incomes from gifts (9 percent), self-employment (7 percent) and remittances (4 percent) complete the picture. The high share of state or public transfers can be attributed to the ageing population of the countryside.

In Kyrgyzstan, the average annual income in rural areas was KGS 46 600 (EUR 651) in 2015. The largest share of income comes from employment (including self-employment), at 57 percent. Income from home production activity is the second source of money in rural areas, at 21.9 percent. Pensions and other social transfers, including targeted social assistance, are also important, at 16.9 percent. Other sources of income are minor (4.5 percent).

The picture is similar in rural areas of North Macedonia in 2016. Wages and salaries provide 52 percent of the income, income from self-employment provides 24 percent (primarily from agriculture), and pensions and social transfers provide 22 percent.

Similar data are not presented in the country study report for Tajikistan, but since agriculture still plays a significant role in employment in rural areas of this country, agriculture is very important for the generation of income.

POVERTY

According to the World Bank data, the number of the poor in the eight study countries, based on national poverty lines, is in total almost 8 million people (Table 11). This is 26.3 percent of the total population. However, it is positive that the overall trend of poverty is decreasing, but unfortunately with a tendency of stagnation in recent years.

¹⁷ Income from the sale of agricultural products and the value of food for own consumption.

Table 11. Population, poverty headcounts (%), number of the poor, trends

Country (year)	Population, millions	Poverty headcount, %	Number of the poor*	Trend
Albania (2012)	2.9	14.3	415 000	Increasing after years of decrease
Armenia (2015)	2.9	29.8	870 000	Decreasing
Georgia (2016)	3.7	21.3	792 000	Decreasing, but at a slowing rate
Kyrgyzstan (2015)	6.1	25.4	1 550 000	Decreasing
Republic of Moldova (2015)	3.6	9.6	341 000	Decreasing
North Macedonia (2014)	2.1	22.1	459 000	Decreasing
Serbia (2016)	7.1	25.7	1 775 000	Decreasing
Tajikistan (2015)	8.7	31.3	3 000 000	Stable
Total	37.1	24.8	9 202 000	Decreasing, but at a slowing rate

Source: World Bank, 2015.

* Number of the poor according to the national poverty line.

Rural poverty is generally higher than national average poverty and poverty in urban areas. Where data are available, the poverty head counts in rural areas are slightly above the country average for all countries, with more than 35 percent of the rural population listed as poor in Tajikistan, on the high end, and 15.3 percent in Albania, on the low end (Table 12).

Table 12. Rural poverty headcount ratio

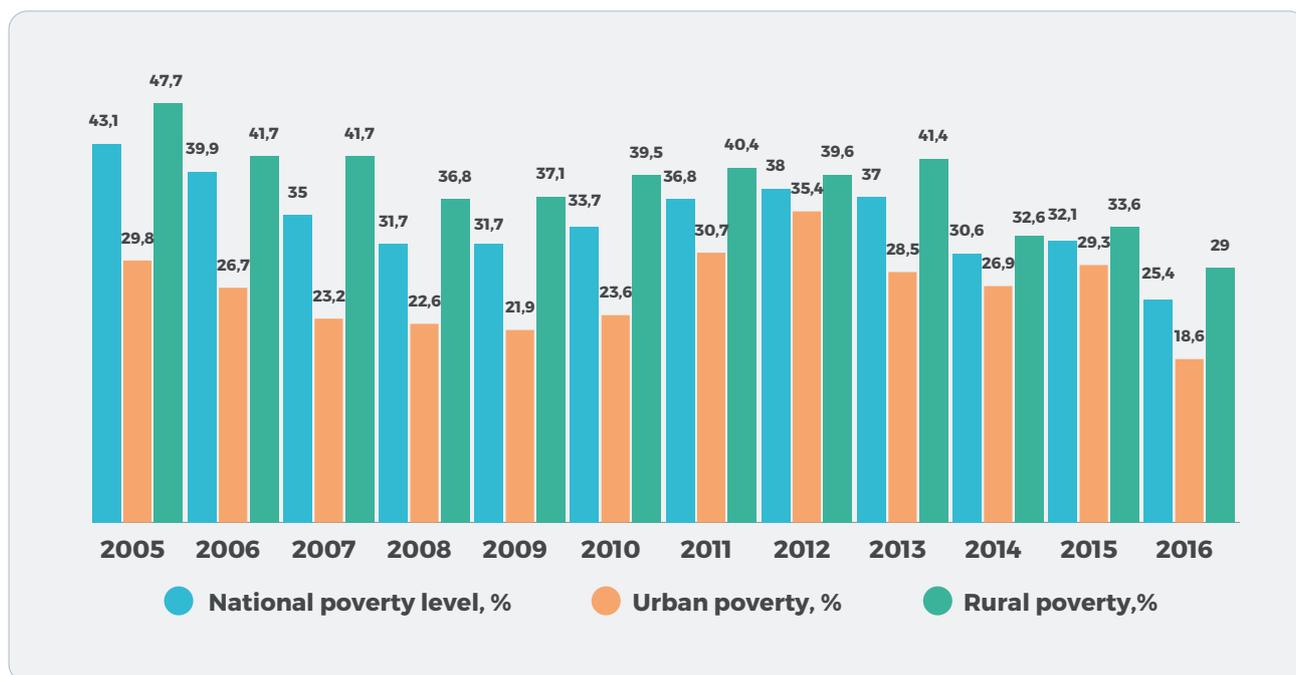
Country (year)	Rural poverty headcount ratio* (%)
Albania (2012)	15.3
Armenia (2015/2016)	30.4
Georgia (2016)	no data
Kyrgyzstan (2016)	29.0
Republic of Moldova (2013)	18.8
North Macedonia (2014)	no data
Serbia	no data
Tajikistan (2015)	35.2

Source: World Bank, 2015.

* Rural poverty headcount ratio is the percentage of the rural population living below the national poverty line.

The case of Kyrgyzstan is presented in Figure 15. The national poverty headcount rate demonstrates a changing trend from 2005 to 2016. Poverty declined in the period 2005–2009 from 43 percent to 31.7 percent. Poverty started to grow in 2010–2012 and declined again to 25.4 percent in 2016. The gap between urban and rural poverty rates decreased and increased again in different years.

Figure 15. National poverty rate in Kyrgyzstan, 2005–2016, % of population



Source: NSC, 2016.

In Serbia, data on absolute poverty for the period 2006–2016 indicate continuously higher poverty rates in rural areas. A significant decrease in absolute poverty could be noticed prior to the economic crisis in 2008, when the poverty rate in rural areas reached the poverty rate of urban areas and closed the poverty gap. After 2008, poverty in rural areas increased significantly and the gap widened again. Therefore, while absolute poverty levels were more or less stable in urban areas, rural areas experienced fluctuations until 2013, but at a constantly higher level than in urban areas. Relative poverty measures reveal similar tendencies. The rural population has the highest rate of being at risk of poverty, with more than one third of the population at risk of financial poverty and more than half of the population at risk of poverty and social exclusion. Almost one third of the rural population faces severe material deprivation.

2.4.3 Labour market

Agriculture is the main source of employment in rural areas in all eight studied countries, but due to the informal nature of the agricultural sector, employment is also informal, which obscures information on unemployment. Related data are, in general, fragile and difficult to interpret.

In Tajikistan, for example, 65 percent of the national employed workforce is employed in agriculture. However, data are difficult to interpret, since the solidity of data on the share of formally employed people in agriculture is very low. One example is Georgia, but other countries can be referred to in the same way. More than 43 percent of the total workforce in Georgia is self-employed in agriculture, but the majority of this share (97 percent, or 842 000) is self-employed. In Armenia, also, the vast majority of rural jobs (75 percent) are informal and dominated by agriculture (99 percent of rural jobs are agricultural).

In all countries, labour force participation is lower for women than for men. The higher employment rates of men in rural areas may be related to their involvement as heads of holdings, while the lower employment rates of rural women may be related to the informality and under-registration of women's contribution to family farms. Rural women who self-declare as homemakers may be de facto contributing family workers of small holdings.

Because the rural labour market provides only limited opportunities for women's engagement – in particular for young women and for off-farm work – women are overwhelmingly involved in unpaid agriculture on-farm work in all countries.

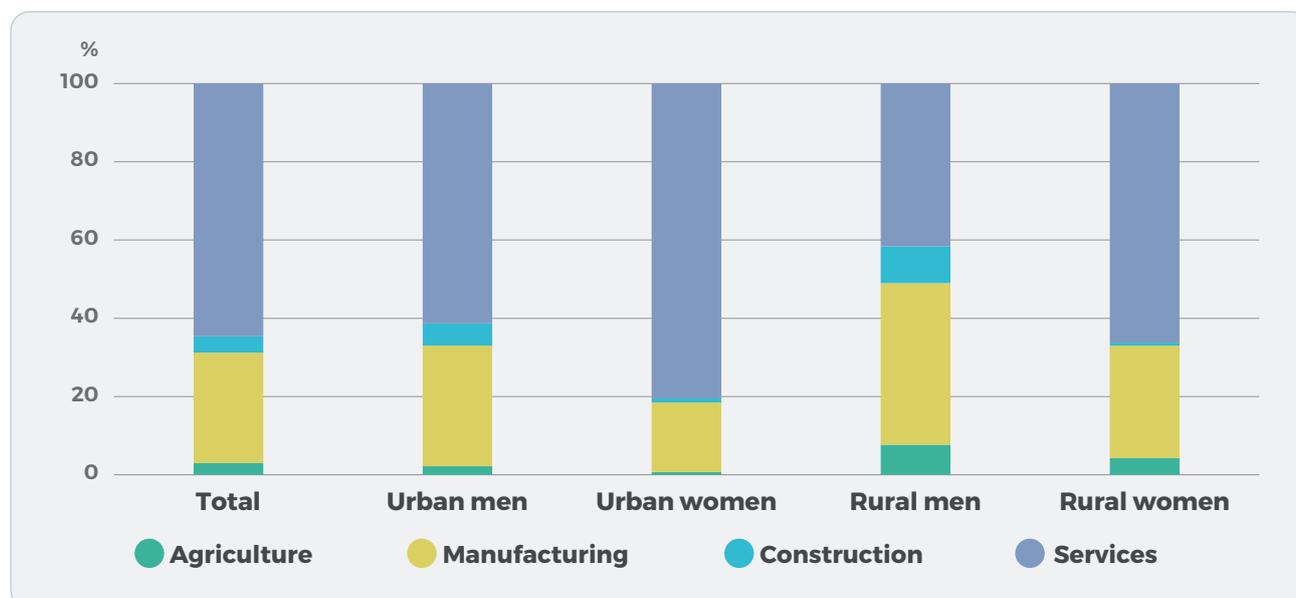
Many of these small and non-viable farms can only survive in farming by supplementing their farm incomes with incomes earned outside the sector, for example through paid employment, which is typical for men.

In Republic of Moldova, 410 900 of the 1 219 500 employed and self-employed persons (33.7 percent) work in the agricultural sector. Of these, 181 000, or 44 percent (14.7 percent of the total employed population), are engaged in the production of agricultural products exclusively for their own consumption. The number of employed in agriculture increased by 29 100, or 7.6 percent, from 2015 to 2017.

However, agricultural employment has declined over the years, due to low profitability, migration, and general economic structural changes. As a consequence, there are needs for alternative job opportunities and alternative income-generating possibilities in rural areas outside the agricultural sector.

Rural labour market statistics are available for Serbia. The data reveal that in the salaried workers sector of employment, differences are evident between urban and rural areas (Figure 16). Among salaried rural employed men, the highest percentage of persons are employed in manufacturing and construction, and the lowest share are employed in services. Rural women have higher employment rates in manufacturing than urban women, who are predominantly employed in services.

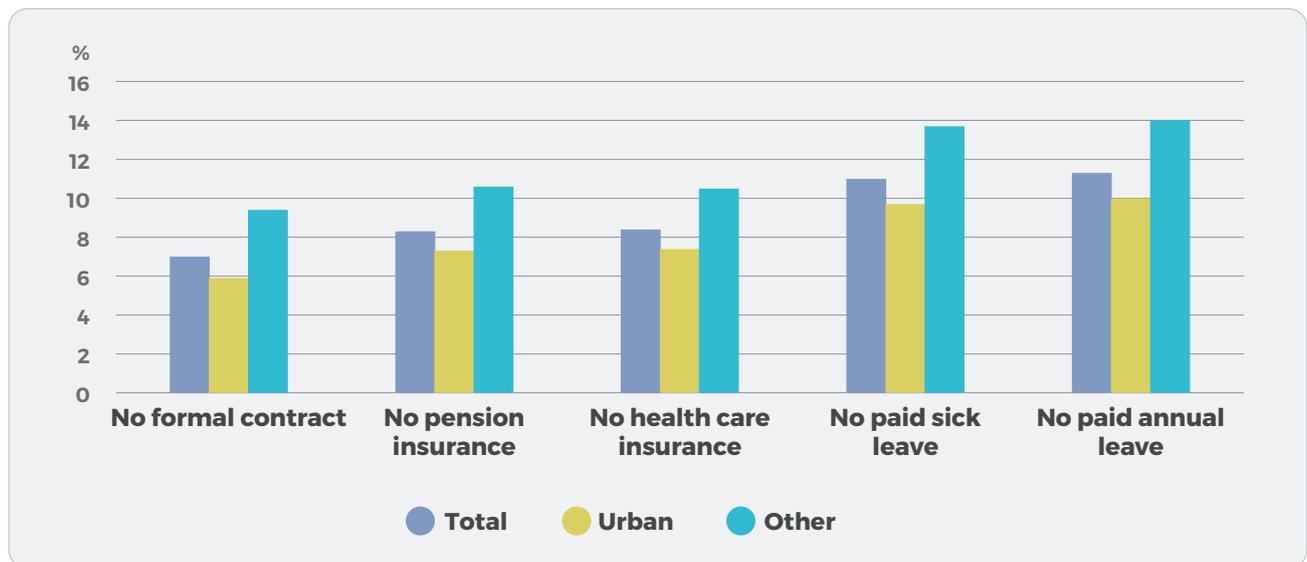
Figure 16. Salaried workers by sector, type of settlement and gender, Serbia, 2017



Source: FAO.2019.j

For rural development, not only the level of activity and employment counts, but it is of equal importance to look at the quality of work. Within the 2030 Agenda for Sustainable Development, Sustainable Development Goal 8 is dedicated to the promotion of sustainable, inclusive economic growth, full productive employment and decent work. Target 8.8 sets as an important objective the protection of labour rights and the promotion of safe and secure working environments for all workers. Data presented in Figure 17 indicate a lower level of protection of labour rights among salaried workers in rural areas in Serbia. In comparison to salaried workers from urban areas, rural workers more frequently work without formal contracts, with no pension or health care insurance and are denied rights for paid sick leave or paid annual leave.

Figure 17. Percentage of salaried workers without a formal labour contract and welfare benefits from employment, by type of settlement, Serbia, 2017



Source: FAO.2019j.

2.4.4 Quality of life and livelihoods in rural areas

RURAL INFRASTRUCTURE

Overall, it is the observation in all eight studied countries that rural areas suffer from underdeveloped and poorly maintained social and physical infrastructure and public services, and that this is one of the major reasons for migration and for the perception of low standards of living in rural areas.

Regarding agricultural infrastructure, the poor quality and even lack of field roads and especially access roads represent a huge problem in all countries. Farmers are often forced to drive over parcels owned and farmed by others, with the risk of destroying the production and leading to many serious conflicts among neighbours. Improved access to fields is typically an outcome of land consolidation projects.

Electricity is available in rural areas in all countries, although the coverage is not complete, for example in Albania. However, the electricity supply is not always modernized and able to provide uninterrupted supply, as is the case in Kyrgyzstan, North Macedonia and Tajikistan. The gas supply is also much lower

in rural areas than in urban areas. In Republic of Moldova, only 35 percent of households in rural areas have access to gas.

Drinking water supply systems are underdeveloped. In Republic of Moldova and Tajikistan, only 36 percent of the population in rural areas have access to pipeline water supply. This has strong impacts on workloads and work times in rural households – particularly for rural women, who are mostly responsible for fetching water. In Republic of Moldova, about 33 percent of rural households had a bathroom or a shower in 2016, and fewer than 14 percent had a water closet. The figures are similar in other countries, for example in Armenia, but the situation with individual facilities is gradually improving in all covered countries. Furthermore, the systems are often not well-maintained and are characterized by large pipeline water losses, as is reported in North Macedonia. Finally, the quality of the supplied drinking water does not always meet hygienic requirements, as is often the situation in Republic of Moldova.

Wastewater management and sewage systems are generally not in place. Instead, individual septic tanks or uncontrolled wastewater disposal are widely used. At the same time, rural areas also suffer from lack of waste management and landfills. Consequently, waste and trash are dumped in nature. In Kyrgyzstan, as is the case in other countries, waste is dumped, burned or buried.

Access to public transportation (buses and trains) is difficult in most countries, and in some countries, there is almost no public transportation in rural areas, for example in Tajikistan. This severely limits the mobility of rural people, especially of the most vulnerable, who do not have access to cars, and of women, as driving licenses in rural areas are held mostly by men in all study countries. At the same time, road networks are poorly developed and lack maintenance. In North Macedonia, the road network is in the poorest condition of all physical infrastructures. In Republic of Moldova, nearly every village is accessible on asphalt roads, but the bad condition of local and village roads causes injuries to people and damage to vehicles and transported products. This increases transportation costs and negatively affects access to markets, product quality, quantity and sales prices down the value chain.

Rural areas lack nurseries, kindergartens and preschool facilities, as well as services for disabled people and the elderly, despite the ongoing ageing of rural populations. All these have severe impacts on women's economic empowerment, as they impact the possibilities for women to engage in gainful employment and economic ventures, as women are usually the ones held responsible for care work. The lack of these services also contributes to women's time poverty.

The data presented from various sources indicate poorer infrastructure in rural areas in Serbia and more difficulties in accessing basic or other social and cultural services. The rural population is also experiencing more difficulties in accessing public transportation, banks, groceries or supermarkets. When cultural services such as cinema or theatre are at stake, the difference becomes even more prominent.

Rural areas also lack schools and educational centres. Children often must travel to neighbouring towns to get to school. In Armenia, the distance to secondary schools is more than 4 km in rural areas for 4.8 percent of households, while it is only up to 1 km away for 64 percent. Also, healthcare services are few and of low quality, as reported in Georgia. In Tajikistan, furthermore, there is a shortage of medical personnel in rural areas, with high rates of infant and child mortality as a consequence.

The availability of opportunities for cultural development, adult education and knowledge also is limited, as are village entertainment, socio-cultural events, playgrounds and sports grounds, both in

terms of quality and coverage. In some countries, availability may be satisfactory, but the quality and the level of access often are too weak.

In Serbia, the early childhood development index score for children between 36 and 59 months old is higher in urban than other areas (96.8 vs. 92.0), while there is no difference between boys and girls (95.1 for both). However, a study on urban–rural disparities in the situation of children and women based on UNICEF MICS data found that the type of living area has no statistically significant effect on early childhood development. Contrary to that, the study found a significant influence of attending a preparatory preschool programme (SORS and UNICEF, 2015).

Finally, access to the Internet and to telephone lines is underdeveloped, as described in Tajikistan, for example. At the same time, lack of literacy in information technology also hinders access to the Internet. And then there is the issue of access to the Internet from a social perspective: Rural women, even when they do have a personal computer in their household, lack the necessary skills and time to access information. Cell phones are used to a large extent by both women and men – though not necessarily for accessing the Internet. In Armenia, 97 percent of rural households possess a cell phone. In the Republic of Moldova, 98.3 percent of localities are covered by land-net telephone connections, including code-division multiple access (CDMA), and 71 percent of the population used the Internet in 2016. In Serbia, only 59.8 percent of households in rural areas have access to the Internet (compared to 72.9 percent in urban areas). However, data indicate a narrowing gap in access to the Internet.

The lack of key infrastructure is one of the most disadvantaging factors of – and a significant determinant of – the low standard of living. Low-functioning infrastructure, in line with the low feasibility of agricultural production, fosters migration from villages. At the same time, urban communities with better economic conditions provide better social infrastructure. Thus, undeveloped infrastructure is not a challenge in its own, but the economic constraints caused by low incomes from agriculture and other sectors in rural areas, leading to underdeveloped infrastructure, are the main challenges for the development of rural areas.

SOCIAL PROTECTION

The economic and policy reforms undertaken during the transition have had diverse and divergent consequences and impacts on all groups of populations in all studied countries. However, the widening gap between urban and rural areas has become a common and accelerating trend. Economic and policy reforms have so far shown only little benefit for rural areas and their populations. Moreover, rural women and men have become even more vulnerable to economic, political, and social marginalization, including to a lack of access to basic social services. Besides higher poverty rates, the rural population faces many other forms of discrimination and social exclusion, some of which are related to specific individual, household or group characteristics such as location, age, education, gender or family size.

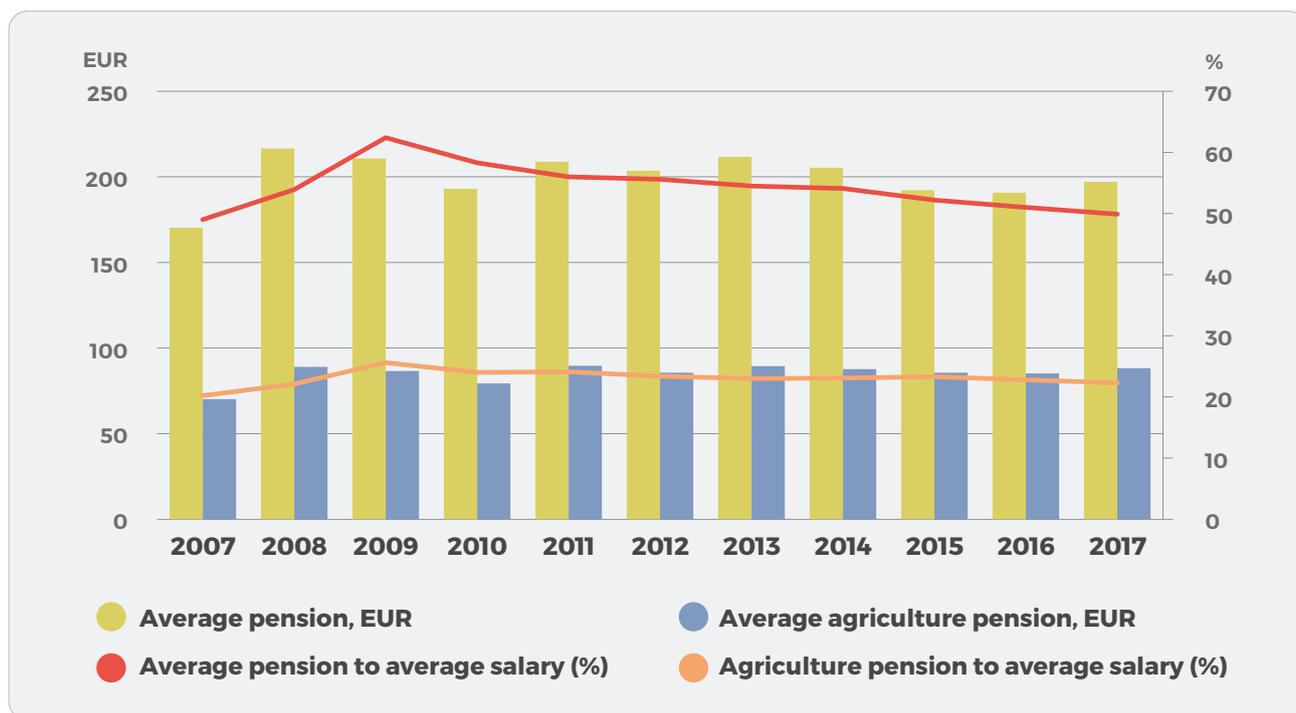
Social protection programmes are key policy instruments in poverty alleviation, as has been demonstrated by international practices and by FAO research worldwide. Since the last two decades of transition, the countries under review have been undergoing reforms in social protection areas to modify existing systems to the needs of their changing economies. The scope and the pace of the reforms vary significantly, but the common feature is that the key national programming documents and laws in all countries pay little attention to specific needs of rural households. For example, the social protection needs of seasonal workers, contributing family farm members, and registered and

non-registered farmers, among others, are frequently not considered. These documents either fail to mention particular problems of rural women and men or, even when they do recognize these problems, they neither develop nor implement any concrete programmes. However, it should be noted that in recent years, governments have developed a number of legislative, institutional, organizational and financial mechanisms to enhance rural women and their access to resources.

The authorities in many countries mainly implement passive social policies (based on various eligibility criteria), with a few measures limited to maintaining the standard of living of the unemployed, retired and poor. The current status of social protection reforms is characterized by the strong legacy of the past system (for example, the existence of an outdated system of privileges based on various eligibility criteria), and such new elements as social assistance that targets low-income groups of the population (who reside predominantly in rural areas). Generally, participation in the formal labour market remains a precondition for accessing old-age pensions, unemployment, short-term illness and maternity benefits, and agricultural workers in registered employment do have access to pensions in Albania, Kyrgyzstan, North Macedonia and Republic of Moldova, but this system is changing. In most of the countries, the concept of self-employment categories has been introduced, with implications for social insurance. The rural population, especially smallholders and family farmers, often do have the possibility of being registered as self-employed and making contributions to pension funds, as is the case in Republic of Moldova. At the same time, there is a risk – particularly in subsistence farms and in the case of contributing family members, seasonal workers and other informal workers – of being able to access only social pensions.

Usually, the number of pensions in rural areas, and especially social pensions, is significantly lower than the national average and below the subsistence level. This is confirmed by data for Serbia. According to data from the National Health Insurance Fund (NHIF, 2018), in comparison to both average pensions and average salary, farmers' pensions are rather low and since 2009 have not exceeded EUR 90 (EUR 88.2 in 2017) (Figure 18).

Figure 18. Agriculture pensions in Serbia, 2007–2017



Source: FAO.2019j.

Many households are not covered by social insurance or social assistance.

The delivery of health care and other social services in rural areas is hampered by various obstacles (including lack of infrastructure), but even if they are available, the quality of these services is lower (or they are more costly) than similar services in urban areas. The coverage of the rural population regarding sanitation facilities, safe and clean drinking water, and wired or wireless broadband service is low; even if facilities do exist, they often are neglected and require investment in upgrade and maintenance.

The countries under review demonstrate different experiences in addressing the social protection needs of rural dwellers. For example, in Albania, various sub-programmes in the social protection system provide financial support to different vulnerable groups of the population. The social protection system is designed to reduce the risks of poverty, enhancing the capacity to manage socio-economic risks such as disability, unemployment and short-term illness. The system also provides age-related pensions and maternity support. The social security system in rural areas is mainly focused on supporting old-age pensioners. The rural-urban gap among old-age pensions and other types of pensions is still high, despite decreases in recent years. In 2016, the Government of Albania approved an increase in the monthly unemployment payment by 60 percent, increasing it to ALL 11 000 per month (approximately EUR 80) from ALL 6 850 (approximately EUR 50). Regarding social assistance, the calculation of the full amount of economic assistance for households takes into consideration the family structure, but it cannot be higher than ALL 8 000 (approximately EUR 60) per month.

In Armenia, increased social vulnerability was reported in the period 2005–2016 for those people in rural areas who do not have a diversified income and rely on agriculture. The importance of support to small farms is also seen as a policy mitigating social tensions. Structural changes are currently taking place, and a new system of Integrated Social Services is being introduced throughout the country.

Under this concept, the Territorial Centres for Complex Social Services are being gradually developed as one-stop-shops offering comprehensive social service packages, which are provided based on applications by individuals and assessments of their needs. Until 2020, it is planned to have 50 to 55 such centres in the country. The main goal of such centres is the complex enlargement of capacities and opportunities of poor and socially vulnerable populations, mostly by the provision of social services and by assistance in the realization of people's education, health, housing and other needs, as well as in their inclusion in the labour market.

In Georgia, the law on state pensions of 2005 eliminated the contributory pension system and implemented a flat-rate basic pension based on three components: old-age, disability and survivor pensions. The old-age non-contributory pension has as its main objective reducing and preventing poverty in old age. This scheme contributed to strongly reducing the rural poverty rate, from 46.9 percent in 2005 to 28.2 percent in 2014. The 2015 law on high mountainous villages gave several social and tax concessions to the population in remote and high mountainous villages, including a small addition to pensions, subsidies for utility fees, and tax reductions for small businesses. Furthermore, the Ministry of Justice opened public service halls in all municipalities to make government services accessible to the population of remote areas. In the Republic of Moldova, subsistence and semi-subsistence farms can benefit from general economic and social policies, since agricultural policies typically only support the bigger farms, the enterprises and corporations. Since 2009, individual landowners and tenants who work on an individual basis have not been included in the list of the mandatory insured. They have the option of making voluntary insurance payments by signing an individual state contract with the National Social Insurance Office and by paying a fixed annual contribution, which is four times lower than the amount paid by other sectors.

In Kyrgyzstan, the social protection provision covers a wide range of risks, but the allocation of resources across the agricultural and rural sector is very unbalanced. Smallholders, though eligible for some of the existing social protection programmes and interventions, do not fully benefit from them due to various constraints, including the design, implementation and administration of those programmes. Smallholder farmers are, for example, largely ineligible to participate in social assistance programs and labour market interventions due to the legal provision that considers those with 0.05 ha of land ownership as self-employed. FAO has piloted a social contract model, funded by the Russian Federation. This Cash Plus pilot in Kyrgyzstan seeks to progressively lift households out of poverty and improve their food security and nutrition outcomes, achieved through a flexible combination of cash transfers administered by the Ministry of Labour and Social Development of the Kyrgyz Republic and productive inputs, including improved access to extension services, training and nutrition education, with individual follow-up. The pilot has contributed to policy dialogue on poverty reduction, food security and nutrition within the inter-ministerial working group on social contracts, the working group on the national food security and nutrition programme, the Development Partners Coordination Council on social protection, local governments, and other institutions.

In North Macedonia, the Government is currently implementing the National Strategy for Alleviation of Poverty and Social Exclusion. The strategy covers employment and the labour market, poverty and social exclusion, healthcare, education, social protection, transport, communications and housing. The focus is put on child protection, equal gender rights and institutional responsibility. One of the measures is to improve literacy by imposing mandatory secondary education, first introduced in 2008. The Government also has subsidized the costs for schooling in terms of provision of free books and educational material for all pupils, information technology equipment and Internet connections for schools, and free transportation of pupils in rural areas. Socially vulnerable families receive money from

the state to help pay for the schooling of their children. In addition, investments in the refurbishment and modernization of primary and secondary schools have been increased, resulting in about 200 refurbished and modernized schools in rural areas, including the building of new sports halls for schools or the modernization and equipping of existing ones.

In Serbia, the financial social assistance is the main social assistance scheme. The Law on Social Protection¹⁸ envisages at least six social assistance schemes, but the most important and most comprehensive one is financial social assistance. However, although the targeting is accurate, the coverage is low. The rural population is less likely to receive benefits and services. The share of the rural population among beneficiaries of social assistance is relatively small (19 percent) comparing with their overall share in the population (41 percent). The rural population faces many obstacles in accessing social protection services. Some of the obstacles refer to mere physical distance and inability to pay transport, while the burden of everyday household jobs prevents women in particular from accessing centres for social work and local self-government and employment services. Finally, beneficiaries often complain that procedures are complicated and difficult to understand and that professional and administrative workers are often unsupportive and unresponsive.

In Tajikistan, the main goal of the 2030 National Development Strategy is to promote agrarian reform, but other goals also are important. They include, for example, an effective multi-sectoral approach, including health and social protection policies.

Overall, the national social protection systems' reforms in the study countries are incomplete, and there is still significant space for specific provisions that would accommodate the needs of smallholders and family farmers – especially those living in remote rural areas – and including contributing family farm workers, seasonal workers and other agricultural workers. There are issues with access to social services, with the size and coverage of social benefits, and with the accessibility of social benefits for rural women and vulnerable groups. FAO, as a global food and agriculture organization, has generated international experience in applying a wide range of social protection schemes and programmes in rural areas which have significantly improved nutrition and livelihoods of rural women, men and children living in small farms. There are examples of such work conducted in Albania, Armenia, Kyrgyzstan and, at a lesser extent, in Tajikistan.

GENDER

Empowering smallholders and family farms is not possible without addressing gender-based inequalities. Gender-based discrimination persists in the region, especially in rural areas.

Women are overrepresented in manual labour as informal, unpaid and family workers and are rarely registered as owners, managers or co-managers of agricultural holdings. Patrilocal marriages and bias towards sons in inheritance practices are some of the reasons behind women's limited access to land. Even when women legally own land, registration made in the name of a male family member limits their de facto enjoyment of their rights over land.

In some of the countries of study, it is estimated that 60 percent to 87 percent of women working in agriculture are informal or family workers, while only between 6.5 percent and 31 percent of agricultural

¹⁸ Official Gazette of the Republic of Serbia No. 24/2011.

holdings are managed by women. Around 10 percent of those who benefit from rural advisory services and 5 percent of those who own agricultural machinery are women in some of the countries of study.

Domestic and reproductive work overwhelmingly falls on women's shoulders, and the low levels of infrastructure and social services in rural areas have a direct impact on rural women's household workload. In the countries in which time-use surveys have been conducted (Albania, Armenia and Kyrgyzstan, for example), the data demonstrate that women spend, on average, almost twice as much time on housework per day as men, and rural women can spend up to twice as much time as their urban counterparts and up to four times more time on household workloads as rural men. Time poverty, as extreme time pressure faced by rural women because of their household responsibilities as food producers and caretakers, is rarely included in income measurements or taken into account in policymaking. In the meantime, the unequal division of labour at the household level seriously limits women's economic opportunities, preventing them from engaging in productive work outside the home.

Rural women have less access to innovative agricultural practices than do men and women residing in urban areas. This further contributes to the gender pay gap, with women earning between 60 percent and 85 percent of men's salaries and having lower access to decent jobs and off-farm employment, which increases their risks of falling into poverty, especially in older ages.

These gender-based inequalities and barriers, which are very relevant to rural development, smallholders and family farms, are similar across the countries.

In Albania, as in other countries under review, social roles and discourses tend to assign men a leading role in the generation of household income, and this perception is dominant in rural areas. The income of women in the agriculture sector is quite low, and the gender gap is higher in agriculture than it is in other sectors. Only 7 percent of women contribute more than half of the income in the household. On the other hand, women contribute significantly to farming activities, but since men typically manage the sale of products, it appears that income from farming is eventually controlled by men, independent of the labour input from women in production.

One of the main issues regarding gender equality in Albania is access to land rights, which is a very sensitive topic in rural areas. The Albanian legal framework related to land is, in appearance, not discriminative against women, and it treats them equal to men: All family members, men and women, should agree with any land transaction. However, there is a gap between legal norms and social practices in rural areas, and the legislation misses capturing and addressing these socially based limitations for women. Even though both women and men received equal shares of land during land privatization, this land was registered only in the name of one family member, usually the oldest man in the family. Therefore, often women are ignored in decision-making processes related to transactions of land that they actually own. This has its roots in a) the way the initial land distribution was carried out in the early 1990s through a household head; b) the low awareness of the rural population of formal land rights in general and women's rights in particular; and c) patrilocal marriages, within which sons are socially expected to take over the family farm and daughters are socially expected to move to their husband's family after they marry and to voluntarily give up their ownership rights in favour of their brothers.

In Armenia, mostly men are involved in migration, which causes a redefinition of gender roles. Women take on additional roles and responsibilities that are considered to be masculine roles, especially in rural communities, while men do not take on any roles considered to be women's. Seasonal work migration

usually coincides with the period of the year when agricultural work is most intense, so women remain responsible not only for the household and family but also for the whole agricultural production and sales. In addition, the migration of men can also bring additional risks for women. These include a worsening of the financial situation of the family due to unsuccessful work arrangements of the migrant and the risk that men will not return and will not continue supporting the family left at home. Because of women's limited access to agricultural inputs, land management, subsidies, markets and transportation, women also experience difficulties in redirecting migrants' remittances to agricultural investments.

Patriarchal attitudes are prevalent in Georgia, especially in rural areas. While women are important contributors to agriculture, they are usually limited to low-paid or non-paid jobs. There is a strict gender-based division of labour, and men are usually considered responsible for the tasks that are more capital-intensive. Men own and head about 70 percent of agricultural land, which emphasizes the inheritance issue: Families prefer that sons inherit the holdings in the context of patrilocal marriages, as in other countries of the region. Men also lead in the tasks that require mobility and negotiations away from the farm and, such as in the purchase of input factors or the sale of produce. This division of labour creates significant disparities, and while women work more hours than men, they have less access to decision-making and to control of incomes and assets.

Considering that rural development programmes mainly target registered farmers, and that women tend to be excluded from information channels, it is very hard for them to be engaged in the implementation of these programmes as they are often designed. It is rare that women participate in stakeholder consultation meetings, and the involvement of women in decision-making is also minimal.

Although women are actively engaged in agricultural activities, working more than men and participating in the financial management of their households, men have the final say as the decision maker in control of the income and assets. These existing social practices and stereotypes that limit women's access to assets critical for production not only create problems for women but also have serious implications for agricultural development in general.

In Kyrgyzstan, there are no available official statistics on land ownership by sex, but some data are available on the heads of smallholders and family farms. Among 300 000 farms, women are the formally registered owners of only 55 000 farms, or just over 18 percent. This picture presents a strong disparity between men and women in the country. Furthermore, available data on the employment of men and women in the formal sector show that labour from men dominates agricultural production. At the same time, between 2011 and 2015 the ratio of the salary of women compared to the salary of men in agriculture declined from 99.7 percent to 81.8 percent.

Regarding access to finance, women tend to borrow money from microfinance institutions rather than from commercial banks, whereas with men it is the other way around. Also, women take smaller loans in general compared to men. All in all, and due to the patriarchal character of the family farm, men usually lead the holding in the majority of cases. The position of rural women has become weaker in recent decades due to the absence of policies protecting women's rights in institutional settings.

Republic of Moldova is, by global and regional standards, doing better than the other countries, and is ranking high in global gender equality ratings. Primary and secondary education completion rates are close to 100 percent and essentially equal for boys and girls; the university completion rate is also high, and 58 percent of university graduates are female. Republic of Moldova also has progressed substantially

in terms of legislation. National priorities on gender focus on equality in the labour market, increasing women's representation in politics, improving the enabling environment for women entrepreneurs, and combating gender-based violence. Republic of Moldova also has established working groups on gender in each ministry, along with a Gender Equality Coordination Council, which elaborated a National Gender Equality Strategy for 2016–2020. While these advanced indicators are also typical to one extent or another in the other countries under review, in Republic of Moldova in 2011, women headed 36 percent of agricultural holdings. However, male holders managed about 50 percent more land than female holders.

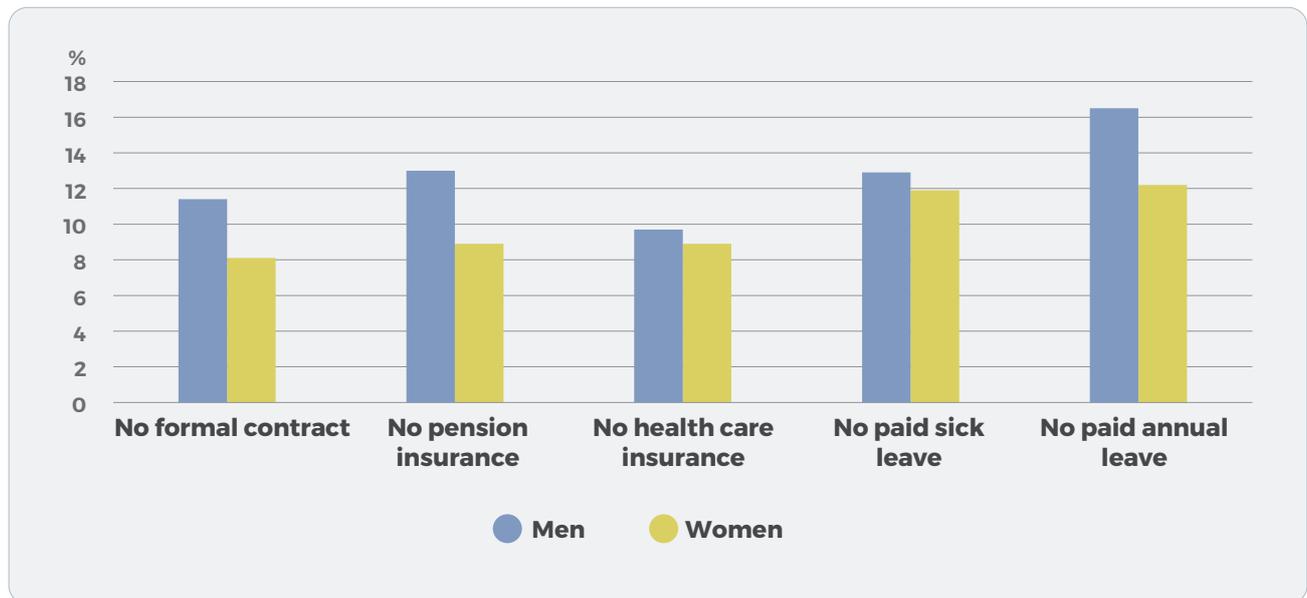
Only 29.8 percent of female-headed agricultural holdings benefit from extension services, compared to 70.2 percent headed by males. In terms of investment support to the modernization of agricultural holdings, 32.2 percent of projects were headed by females, while 67.8 percent were headed by males. Also, 34.6 percent of investments in the diversification of farm activities were implemented by female-headed households, while 65.4 percent were implemented by male-headed households.

This is also the case in North Macedonia. Here it is rather uncommon that a woman is the registered owner and head of the land holding. If it should be the case, it is typically due to the absence of a male member of the household to perform this role. In some cases, the female family members can be registered as the owners of the land because of the available subsidies for registered female farmers. However, the implementation focus of the National Strategy for Alleviation of Poverty and Social Exclusion is on child protection, equal gender rights and institutional responsibility in this respect.

In Serbia, women are rarely heading family farms (17 percent) and even less often are they the managers of family farms (16 percent). At the same time, they represent the main share of helping family members on farms (63 percent) (Bogdanov and Babovic, 2014). Apart from this, there are significant gender and generational gaps when activity and employment are analysed among the rural population. Women aged 15 years old and older have much lower activity and employment rates than men and at the same time they have a much higher inactivity rate. Women aged 15–24 have the lowest activity and employment rates and much higher unemployment and inactivity rates compared with men of the same age.

There also are noticeable gender differences in labour protection. Men are more often employed informally than are women (ILO, 2018) and therefore it is not surprising that protection of labour rights is lower among rural male salaried workers than among rural female salaried workers (Figure 19).

Figure 19. Percentage of salaried workers in rural areas of Serbia without formal labour contract and welfare benefits from employment, by gender, 2017



Source: FAO.2019j.

In Tajikistan, migration is predominantly male. In the absence of a male head, women take the role as both head of the household and head of the family farm. Gender equality and equality of opportunities are areas of attention at the political and legislative levels of Tajikistan, though challenges persist.

The state policy and the policy of international donor organizations also are aimed at ensuring equal rights and opportunities for men and women. As a result, in recent years the number of family farms headed by women is steadily growing; their share has increased from 13 percent in 2005 to 21 percent in 2016. However, this is not translating to improved access to markets, transportation, credits, agricultural inputs and information for women. This poses a risk not only to rural women's livelihoods but also to the overall development of agriculture. Women's limited access to these inputs also limits their possibilities to redirect remittances to agricultural investments.

Women are over-represented in low-skilled and seasonal work. Most women working in agriculture are unpaid workers. According to the 2012 Demographic and Health Survey (TajStat, 2012), 59 percent of women who worked in agriculture in the 12 previous months received no payment for it.

In general, and although women's participation in the labour force remains high across the region (60 percent, which is slightly above the global average), they tend to concentrate in low-paid sectors of the economy, with greater involvement in casual, temporary or part-time employment poorly protected by labour and social security legislation. As a result, they have smaller pensions and are at risk of constituting a significant portion of the poor in old age (FAO, 2019k).

The level of informal employment is significant in agriculture. Unfortunately, the lack of official data makes it difficult to estimate the amount of unpaid work performed by women. However, approximately 1 million women in rural areas can be classified as informally employed. Informal employment causes a lack of access to receive social benefits, family benefits and maternity leave.

3. Current political priorities and policies positively or negatively affecting smallholders and family farms



This chapter summarizes the findings from the eight country studies related to research question 3:

- Which current administrative procedures and institutional settings as well as policy interventions are implemented that support or hinder the development of smallholders and family farms?

3.1 National smallholder targeted policies

This section describes the national agricultural policies in the eight study countries, focusing on policies targeting smallholders and family farms. However, there are very few policies in the countries with specific focus on smallholders. Since the vast majority of farms in the focus countries are small farms with less than 5 ha, it might be logical that the policies do not differ and instead target the agricultural sector as such and in a horizontal way. However, this is not the case. It is the experience of many accession countries and new Member States in the European Union that bigger farms are far better at taking advantage of support measures than are smallholders. The reason is, first and foremost, that bigger farms have the technical and human resources to benefit from support – for example, in preparing applications for support – and have the political and financial networks needed to benefit from the support measures.

Access to state subsidies is hampered by a number of factors for smallholders. Here it is primarily a constraint for smallholders and family farms operating in the informal sector that no subsidies are provided to farmers without formal status as farmers, with registered farms and land. The scale of requirements for farmers varies from country to country, depending on the type of subsidy in question. Albania and North Macedonia require a high level of formalization, if support can be available under the IPARD investment support programmes co-funded by the European Union. For the groups of farmers actually fulfilling the formal requirements, access to support schemes may even still be difficult due to private co-financing of investments, including financing of the full investment before reimbursements can take place. Access to subsidies also may be restricted due to complexity in the administrative procedures of the application for and distribution of grants.

Therefore, it is important to think about policies targeting small farms explicitly, in order to make sure that scarce public resources actually are benefitting this target group and not only bigger farms with less urgent needs.

3.1.1 State budgets for agriculture

The latest state budget for agriculture in each of the eight study countries is presented in Table 13. The figures include the total budget for agriculture. A total of EUR 414 million is allocated to the eight countries (2016/2017). The average is EUR 59 million. North Macedonia sticks out with a state budget for agriculture of EUR 75 million, while Kyrgyzstan is at the bottom with EUR 29 million, equal to about 50 percent of the average.

Table 13. Government expenditure on agriculture, forestry and fishery in 2017

	State budget for agriculture, forestry and fishery (millions EUR)	Share of total outlays (%)	Number of hectares (thousands)*	Government expenditure per ha (EUR)	Agriculture Orientation Index (AOI)
Albania	50	2.17	1 201	42.1	0.14
Armenia	66	3.35	2 045	32.6	0.17
Georgia	68	1.95	787	86.75	0.31
Kyrgyzstan (2016)	29	1.71	1 037	27.3	0.12
Republic of Moldova	73	4.55	2 235	33.07	0.38**
North Macedonia	75	n.a.	1 267	99.1	n.a.
Serbia (2018)***	374 (258)	4.5	3 437	109 (75)	n.a.
Tajikistan	53	n.a.	535	59.2	n.a.

* For Tajikistan and Kyrgyzstan, only arable land is included.

** IFAD, 2018.

*** Figures in brackets represent the part of the budget intended for the incentives.

Sources: FAO, 2019d–2019k (country study reports) and FAO, 2019b.

The share of budgetary transfers to the agriculture sector in the total outlays varies from 1.7 percent in Kyrgyzstan to 4.5 percent in Republic of Moldova and Serbia (Table 13). The total state support from public budgets to agriculture per hectare of agricultural land is highest in North Macedonia (99.1 EUR/ha), followed by Georgia (86.75 EUR/ha) and Serbia (109 EUR/ha; 75 EUR/ha), whereas it is lowest in Kyrgyzstan (27.3 EUR/ha) (Table 13). The ratio of the share of government expenditures on agriculture over the contribution of agriculture to the economy (Agriculture Orientation Index, or AOI) shows that the agricultural sectors received less than one-third as much in public expenditures as their contribution to the countries' respective gross domestic products. The only exception to this rule is Republic of Moldova, with an AOI of 0.38.

Though the definition of the governments to which expenditures pertain differ among countries, and though policy beneficiaries differ, the data presented in Table 13 indicate that governments give relatively lower priority to the agriculture sector than the economic weight of the sector could justify. This is generally in the line with developments in most transition countries.

3.1.2 Summary of smallholder and family farm policies

As indicated above, very few policy interventions targeting smallholders have been identified, and most public agricultural policy is horizontal and primarily being absorbed by bigger farms. The table in Annex 2 summarizes the national agricultural policies with an explicit focus on smallholders and small farms, for example defined by size (income, hectares and/or number of animals). General policies eligible for all types of farms, including smallholders, are not included.

LAND POLICY, LAND MARKET DEVELOPMENT AND LAND CONSOLIDATION

A coordinated and prolonged policy response is required to address the problems of smallholders and family farms related to farm structures and land market development. Land policies should align with broader agricultural and economic policy objectives and support transformation of farm structures and rural development in general. Better regulation and stimulation of land markets, land lease mediation and land consolidation are among the specific policy instruments to improve farm structures and increase productivity and competitiveness. The registration of all legitimate owners is not mandatory in any of the countries, although co-registration of spouses is encouraged in some as a way to improve women's enjoyment of their ownership rights over land in line with 1) Article 14 on the rights of rural women of the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) (UN General Assembly, 1979); 2) target 5.a of the Sustainable Development Goals; and 3) the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT) (FAO, 2012).

Most governments in the region have recognized the need to address structural problems in agriculture regarding excessive land fragmentation and small average farm sizes. In Albania, FAO supported the preparation of a National Land Consolidation Strategy, adopted in 2016, and the next steps are currently under consideration. In North Macedonia, FAO is, funding from the European Union, supporting the first round of field projects under the National Land Consolidation Programme during 2017–2020. Amendment of the legal framework and development of capacity have begun in 2018–2019, along with the first ten projects under the national programme. The outcome will be reduced fragmentation and increased farm size in the project areas, combined with the improvement of agricultural infrastructure, leading to increased production, productivity and income generation.

In addition, Republic of Moldova has an ongoing intervention that is stimulating development of the agricultural land market. A support measure under the National Fund for Agriculture and Rural Development provides support to farmers who have amalgamated at least three plots of agricultural land to form a single land parcel. The support is a subsidy of 50 percent of the costs of the land market transactions. Armenia has, during 2004–2006, taken the first steps towards an operational land consolidation instrument, and additional support was provided by FAO for 2017–2018. This example comes from the country study report in Armenia:

“FAO implemented during 2004–2006 a land consolidation pilot project in Nor Erznka community, Kotayk marz, Armenia, where 60 percent of the community landowners, on a voluntary basis, took part in the project. The project was implemented during two years, and the following mechanisms were used to reduce fragmentation: exchange, purchase, sale or donation of land parcels between landowners; exchange of private land with community land; and purchase or lease of community land bordering the private land. As a result of the project, 162 land parcels of 92 owners had been consolidated into 67 parcels. The average number of parcels owned in the community was reduced from 3 to 2, and the average farm size increased from 1.25 to 2.5 hectares.” Source: FAO, 2019e.

FORMALIZATION POLICIES

Formalization of the agricultural sector is only pursued explicitly via policy actions as a political objective in some of the countries. This is first and foremost the case in Albania, North Macedonia and Serbia, where the EU approximation process is ongoing. Formal registration of farms in the farm

register is also an eligibility criterion for public support in North Macedonia and Serbia, both for national and IPARD support. In Albania, it has been an official policy of various governments to enhance formalization of the economy, including agriculture. Access to IPARD-like support and other national support programmes has been conditioned on formal registration of the farm in the farm register and in the tax system.

Republic of Moldova also is stimulating the formalization of the agricultural sector directly through the legal framework. Only registered farms can have access to subsidies and support, as is the case in many other countries. No smallholder or family farm is eligible for any state support unless it is registered legally. Incentives are also provided to farmers to register their farms. One incentive is tax benefits for smallholders registered as peasant farms. The incentive is a discount in land tax and income tax for smallholders. A land tax discount is provided if tax payments from smallholders are paid before 30 June. The income tax for farmers is 7 percent, whereas other economic entities pay 12 percent or 15 percent in income tax.

As a pilot project, Georgia is taking steps to implement a farm registry. Registration of all farms in the National Farm Register contributes to the formalization of the sector.

It should also be mentioned, however, that many subsistence and semi-subsistence smallholders in the eight studied countries avoid becoming formal because, in the long run, agriculture is not pursued as their main livelihood. This is true especially for the elderly, who might be renting out their land or producing for subsistence and staying in the local barter economy until the time comes for retirement and pensions, or for households whose members are already working abroad or plan to emigrate.

INVESTMENT SUPPORT POLICIES

Investment support provided as grants to farmers and processors to enable them to invest in the development and modernization of their farms and businesses are important for the development of the sector. The grant may be 50 percent of the total investment or even higher under certain circumstances. The idea of investment support is basically that a lack of resources among farmers and processors can be mitigated by public support. Access to finance in banks also can be facilitated with the help of public money, making it easier for smallholders to obtain the mandatory private co-financing loan. Furthermore, production capacity, productivity and product quality may be increased due to the investments. Last but not least, investments also can support the introduction of operational practices on farms and in processing companies related to fulfilling the national and international market requirements (standards), if not before the investment is initiated then at least when it is completed. The mainstream political philosophy is that farmers can be provided with economic support to modernize and be competitive if they fulfil the requirements, for example regarding food safety and environmental/nature protection. This is in line with the rural development policy of the second pillar of the Common Agricultural Policy in the European Union. However, this is not the case for many smallholders in the informal sector. The consequence is that these usual investment support programmes (IPARD I and IPARD II) co-financed by the EU will be relevant only for a small number of farmers able to fulfil the eligibility criteria, for example in terms of viability and minimum defined scale of production. Since the volume of these investment support programmes is limited in terms of resources, the number of potential beneficiaries is low, counting only in the hundreds in countries with several hundred thousand smallholders and family farmers. The eligibility criteria typically exclude smallholders in the informal sector.

The experiences from North Macedonia from IPARD I and IPARD II, co-funded by the EU, demonstrate the problem of programme design. The available funds for IPARD I 2007–2013 had a dramatic low absorption rate. Only 27 percent, or EUR 18.1 million out of a budget of EUR 67.7 million in public support, was contracted, and again only EUR 11.1 million was paid out to beneficiaries. The design of the programmes in terms of eligibility criteria, procedures for application, control and payments were far too restrictive for the agricultural sector. As a consequence, the design caused a low uptake of resources under IPARD I and caused wasted chances for new investments.

Thus, it is necessary to develop another way of using the investment support tool for supporting smallholders and family farms than what has been experienced so far. Albania may be a good example of that. Albania has implemented an investment support scheme co-financed by the EU called IPARD-Like.¹⁹ This was a precursor for the regular IPARD II currently under implementation from 2018 to 2020,. The IPARD-Like programme was less strict in its eligibility criteria than the IPARD II programme but still stricter than many smallholders could meet. For example, the required minimum size of production before the investment was bigger than what was possible for many smallholders.

However, another investment support programme was developed with donor support from Denmark (Danish International Development Agency, or DANIDA) and Germany (Deutsche Gesellschaft für Internationale Zusammenarbeit, or GIZ) in Albania. The programme was labelled SARED and was deliberately designed to be complementary in its eligibility criteria to the IPARD-Like programme and the upcoming IPARD II programme. SARED targeted smallholders in specific designated regions, including mountain areas, and also focused on specific value chains. In general, SARED had less strict requirements for documentation (such as business plan, production size, viability and farm register), compliance with national minimum standards, and investment size.

Combined, IPARD II, IPARD-Like and SARED represent a model of complementarity among grant support schemes, where smallholders with a small volume of production are eligible under SARED, while bigger farmers are eligible under IPARD II and IPARD-Like.²⁰ All of them presented serious challenges for the engagement of women. Although extra points were provided to applicants if they were women, few women applied, and it was identified that some of them were actually applying on behalf of their male relatives. Approaches that better consider the context and address gender-based inequalities and bottlenecks are essential. FAO and UN Women are currently in the process of providing technical support to Albania to address the challenge and to empower women so they can be active applicants for and beneficiaries of these grants.²¹

Also, SARED could be an inspiration for national grant support interventions in which more concern is about the informal sector than the share of the informal sector with commercial potential.

In Serbia, investment support is co-funded from the national agricultural budget, from the budget of the Autonomous Province of Vojvodina (for the farmers in the territory) and municipality budgets, with less demanding criteria with respect to the farm size and standards to be fulfilled than those

¹⁹ IPARD-Like is implemented with support from GIZ and funded by the European Union and the Government of Albania. See also the Danish-German grant scheme programme "Support to agriculture and rural development in disadvantaged areas of Albania" (SARED). For more information, see <https://www.giz.de/en/worldwide/294.html>.

²⁰ Based on documents and information from the three programmes.

²¹ The project is known as GREAT (Gender Rural Equality and Tourism). It is funded by the Italian Development Cooperation and is to be implemented from 2019 to 2022. Project code: UNJP/ALB/015/UNJ.

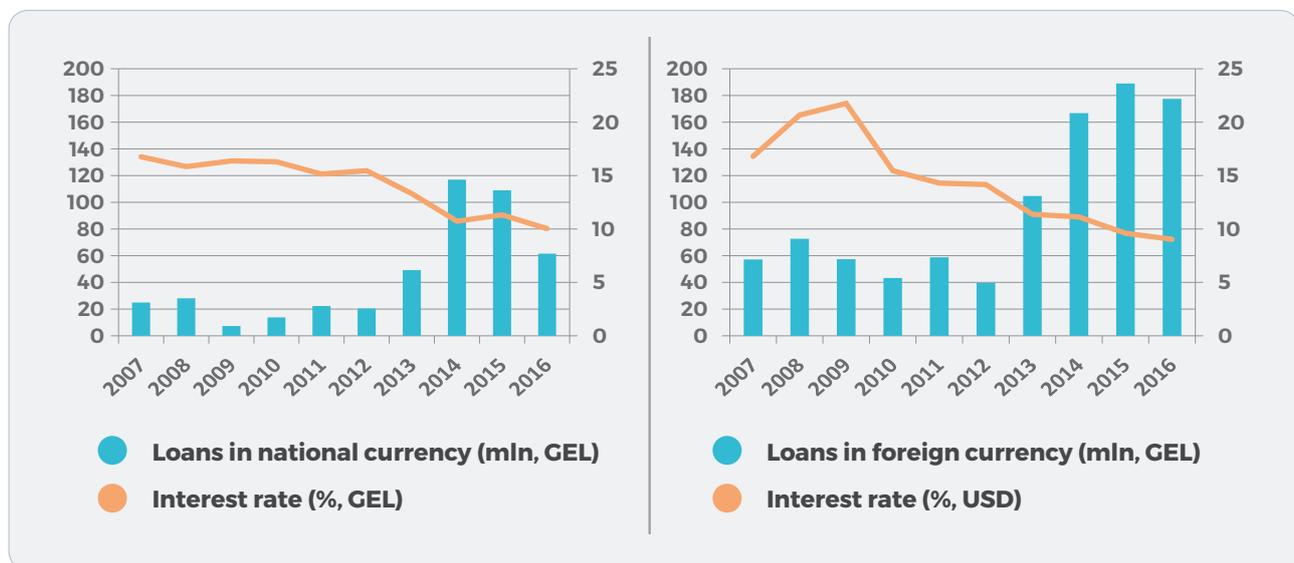
of IPARD. Still, application for these incentives requires extensive documentation and own money available for pre-financing.

From Armenia, another example may be relevant. The Organic Agriculture Support Initiative (OASI), implemented by the Austrian Development Agency (ADA) and funded by the European Union and ADA, provides investment grants to farmers and processors who are organic producers or are planning to convert to organic production. The only essential eligibility criterion for smallholders and processors is to be a certified organic producer or to plan to certify as one. In Georgia, there are grants provided to smallholders in select mountain areas who have experience in the production and processing of pigs. The experiences of the Regional Rural Development Standing Working Group in South Eastern Europe (SWG) with the Area Based Development (ABD) programme in the Western Balkan countries point in the direction of mandatory and formalized cooperation among the individual links in the value chains as a successful criterion for having access to grants. Based on lessons learned from the 2007–2013 Rural Development Programme in Bulgaria, it is important to guarantee a financial envelope for the support of small farms in order to make a financial reserve available for this group of beneficiaries.

3.1.3 Policies on access to finance

A good example of policies addressing the constraints for smallholders regarding their access to finance is from Georgia. The state has funded the so-called Preferential Agro-Credit Programme, introduced in 2013 and revised in 2016. It provides easier access to finance for farmers and gives access to interest-free commodity loans for small farmers. After the harvest period, the farmer pays back the loan without interest. The maximum loan limit is GEL 20 000 (EUR 6 630).

Figure 20. Volume of loans to the agricultural sector in national and foreign currencies and interest rates in Georgia, 2010–2017



Source: National Bank of Georgia, 2019.

Figure 20 shows that the volume of agricultural credits increased massively in 2014 due to the programme initiated in March 2013. The Preferential Agro-Credit Programme initially included three main components:

- Interest-free commodity loans for small farmers. This allowed small farmers to buy production supplies during the production cycle. After the harvest period, the farmer pays to the bank the money without accrued interest.
- Preferential agro-credit for medium and large farmers.
- Preferential agro-credit for agricultural enterprises.

In 2016, the programme was revised, and new components were added. Most important for small farmers was that the lower limit of the loan amount was raised from GEL 5 000 (EUR 1 700) to GEL 20 000 (EUR 6 630). Taking into account that the average value of production per farm was less than EUR 2 400 in Georgia in 2016, access for smallholders was seriously restricted. The idea was to promote newly established agricultural cooperatives, which in itself was positive, but that it was at the expense of individual small farmers may not have been immediately logical.

However, a significant share of the programme funds was directed towards smallholder farms anyway; 47 percent of loans for fixed assets and 72 percent of loans for working capital went to smallholders. But the total number of smallholder farmer beneficiaries was only 13 849 for the years 2013 and 2014, which was less than 2 percent of the total number of smallholders in the country. Furthermore, although 30.9 percent of family farms are headed by women, only 7 percent of beneficiaries of the programme were women.

Another “access to finance” policy example is from Armenia. In 2017, the Government initiated a new programme supporting the leasing of agricultural machinery. The programme was changed in 2018 and is now subsidizing 7 percentage points of 11-percent leasing interest rates for most types of agricultural machinery, such as combines, tractors, sprayers, cultivators and others. According to the state budget for 2017, AMD 120 billion was allocated for this programme. From April 2017 to May 2018, 245 units of agricultural machinery were leased to 115 beneficiaries under the programme (MoA, 2018).

The third example is also from Armenia. Since 2011, the Government has implemented a programme subsidizing from 4 to 6 percentage points of interest rates for agricultural loans of up to AMD 3 million (EUR 5 000). However, this programme is limited to funds provided annually by the state budget. For 2015, the amount equalled AMD 1.16 billion, which was 33.3 percent more than was provided in 2014. Around 127 500 loans with a total amount of AMD 106.4 billion were disbursed under this programme from April 2011 to June 2017.

Beginning in the second half of 2017, the Government reformulated the programme terms by reducing the interest rate paid by farmers to 5 percent, increasing the repayment period to five years, and changing the loan amount, setting it from the minimal AMD 3 million (EUR 5 000) up to AMD 10 million (EUR 17 000) (MoA, 2017a). Again, this increase in the loan limit can be related to the average revenue per farm, which was EUR 5 687 in 2016. Although the interest rate was reduced and the repayment period was lengthened, it is still a considerable lift in the minimum level of loan compared with the annual revenue from production per farm.

In Serbia, subsidized interest rates, particularly for investments in less-developed regions and in the agricultural sector, have been widely used policy instruments. In 2004, the MAFWM introduced a model of subsidized short and long-term loans for agriculture, providing more favourable conditions than the market conditions. Short-term loans were granted to registered farms, with an interest rate of 5 percent and a repayment period of 12 months. Long-term loans (three to five years) were granted

through commercial banks for investments in farm modernization. This model of lending was very popular with both banks and agricultural holdings, and it continued to exist (with some minor changes) until 2010.

In 2010, a new model of long-term loans was established in which the subsidized interest rates were provided in order to encourage banks to lend to the sector. The participation from banks was 60 percent of the capital, with the other 40 percent coming from the MAFWM. The model was such that the banks' funds had to be repaid in the first three years of the repayment period, at the interest rate according to the bank's business policy, while the amount of the MAFWM had to be repaid in the two subsequent years, without interest charged. This model (in which only the interest rate was subsidized, but not the principal), was less popular with banks, though quite appreciated by farmers, as the annual interest rate was 5 percent and loans were dinar-oriented with flexible repayment terms.

In 2017, a new model of subsidized loans was introduced with an interest rate of 3 percent. Interest rates of 1 percent are applied to young farmers (40 years old or younger), female holders and farmers residing in areas with difficult agricultural working conditions. The budgetary support for subsidized interest rates for long-term loans in 2017 was EUR 5.4 million, which was granted to about 5 700 applicants.

3.1.4 Policies related to value chains and the development of cooperatives

It is a general observation that smallholders and small family farms have only weak, if any, access to established value chains in the eight countries. This is primarily due to the informal character of their production, which is based on small and fragmented land. The quantities and the quality of the produce is often not sufficient to be accepted by value chain operators.

Cooperation among commercially oriented smallholders and family farms is one way of getting better access to value chains. This is also supported in some of the countries through support for the development and operation of cooperatives, for example in Albania and in North Macedonia.

The Agricultural Cooperatives Development Agency (ACDA) in Georgia provides investment subsidies for cooperatives (honey producers as well as those in milk, hazelnut and grape production) through grants of up to 70 percent of the investment costs. Furthermore, women-only cooperatives and cooperatives representing vulnerable groups receive grants of 80 percent of their eligible investments. These subsidies contribute to increased honey production and an important formalization of the sector, which is considered to be a precondition for smallholders to get access to value chains downstream.

Other examples are from Tajikistan, where two specific support programmes have been initiated to support value chains and improve access to the market for farmers. The programme for the development of silkworm breeding and the processing of silkworm cocoons is one example funded by the Government. Besides the strengthening of the regulatory and legal framework and the development of mechanisms for the implementation of legislative acts, the programme also supports increases in the volume of production of cocoons, planting of mulberry plants, creation of mulberry plantations, production of silkworm eggs and processing of cocoons inside the country. The programme will create conditions for the restoration and development of the silkworm industry, providing silkworm breeders

with quality local grains, increasing the volume, producing silkworm cocoons, increasing the silkworm feed base and providing silk-processing enterprises with high-quality raw materials.

The other example from Tajikistan is the development programme for horticulture and viticulture, also funded by the Government. The objective is to increase the volume of production of fruit and grapes through the planting of new orchards and vineyards, the reconstruction of old orchards and vineyards, and the replacement of old low-yielding crops with high-yielding varieties intended for export. Government bodies will buy seedlings of new high-yielding varieties, grant preferential long-term loans for the construction of gardens and vineyards for a period of at least five years, and take measures to establish leasing companies and leasing operations in order to make technology available for farmers.

3.2 Donor-funded programmes and projects

The main donors and their most important programmes and projects addressing the needs, constraints and challenges of smallholders and family farms in the eight studied countries focus on the following topics:

- Capacity development at ministerial level preparing for EU accession is an important topic in Albania and North Macedonia, as is supporting alignment with EU regulation in case of ENPARD in Armenia, Georgia and Republic of Moldova. The capacity development covers many policy areas, including the Instrument for Pre-Accession Assistance (IPA), IPARD investment support, development of product quality schemes and schemes for organic production, food safety, veterinary health, the Farm Accountancy Data Network, Agricultural Census, statistics, monitoring and evaluation and more.
- Development of cooperatives, extension services and training of trainers and farmers is another important area covered in many countries in which small-scale and fragmented farming structures dominate.
- Community-led Local Development also is supported in several countries through technical assistance, capacity development among stakeholders through investment support schemes. The focus is often on vulnerable groups, including women, youth, internally displaced persons and others.
- Sustainable resource management, including investment in water and irrigation infrastructure, land and forestry is another heavy policy area among donors. This topic covers improvements of important preconditions for the development of viable agriculture, including access to land and water.
- Value chain development through technical assistance and investment support, quality and high-value-added products is also important in order to improve access to the market for the many smallholders and family farms.
- Organic farming, supported through technical assistance and investment grant schemes, is also covered by several donors.

- Access to finance, soft loans, and grants contributes to reducing the weak or even lack of access to capital experienced by many smallholders in the eight countries.
- Finally, improved living conditions through improved nutrition and reduced poverty in rural households is a policy area covered by some donors.

3.3 FAO Country Programming Frameworks and the focus on supporting smallholders and family farms

With each programme country, FAO signs a cooperation agreement called a Country Programme Framework (CPF), usually for a period of three to four years. The priorities indicated under each CPF for the eight study countries are summarized in Table 14.

Table 14. FAO Country Programming Framework priority areas in the eight study countries

Country	Priority Area
Albania	Priority area 1: Increasing rural income and improving the support provided to smallholders and family farms, particularly for rural women and youth Priority area 2: Strengthening the legal and institutional frameworks for agrifood production and climate change resilience for increased competitiveness and sustainability in the agricultural sector
Armenia	Priority area 1: Sustainable use of natural resources, disaster risk reduction and management Priority area 2: Animal health, plant protection and food safety Priority area 3: Food and nutrition security and poverty reduction
Georgia	Priority area 1: Institutional development Priority area 2: Regional and sectoral development – value chain development Priority area 3: Food safety, veterinary and plant protection Priority area 4: Climate change, environment and biodiversity
Kyrgyzstan	Priority area 1: Coherent and gender-sensitive agricultural, food security and nutrition, social protection and rural development policies and programmes Priority area 2: Reducing rural poverty through smallholder support Priority area 3: Sustainable natural resource management and resilience to climate change and disasters
North Macedonia	Priority area 1: Increasing competitiveness of the agricultural sector Priority area 2: Enhancing rural livelihood through sustainable rural development Priority area 3: Improving capacity for sustainable management of natural resources and climate change mitigation and adaptation
Republic of Moldova	Priority area 1: Increasing competitiveness of the agrifood sector Priority area 2: Fostering sustainable agriculture and rural development Priority area 3: Improving capacity for sustainable management of natural resources and disaster risk management

Country	Priority Area
Serbia	Priority Area 1: Development of small-scale family farming, rural livelihood for women and men and the enabling environment for sustainable agriculture
	Priority Area 2: Building resilience to natural disasters and climate change, and improving sustainable management of natural resources
	Priority Area 3: Increasing the competitiveness of the agrifood sector by modernizing the market chains
Tajikistan*	Priority area 1: Enhancing national food and nutritional security and safety
	Priority area 2: Sustainable management of natural resources and improved resilience to climate change
	Priority area 3: Sustainable agricultural productivity and competitiveness

* This CPF has expired, and the listed priority areas reflect the recent CPF consultation.

The CPF priorities in Table 14 clearly indicate that the CPFs implemented in the eight study countries and under implementation over the years are in full compliance with the needs, constraints and challenges for the development of agricultural production and reducing poverty for smallholders and family farms in the countries. It is clear that the priorities in the CPFs are broader in their design than just focusing on smallholders. Support to elaboration of a regulatory framework and to policy design in compliance with the EU Common Agricultural Policy (CAP) will not exclusively benefit smallholders, for example, but will benefit the whole agricultural and rural sectors, independent of the gender, age, education, ethnicity and religious observation of the rural population.

However, many activities have smallholders and family farms in focus due to their importance in the economy. FAO-implemented activities include support to capacity development of ministries and regional/local administrations regarding strategy formulation and implementation of rural development policies, support to development of institutions and policies responsible for food safety and animal health, and other essential policy areas determining the national and international standards for safe and secure food production.

Furthermore, the FAO support includes activities related to data collection and statistical services and policy development in line with the CAP, for example regarding the introduction of legislation for marketing standards, organic production and production and protection of high-quality food products in line with the geographical indication principles of the CAP. Problems related to knowledge transfer and value chain integration are covered through projects addressing the development of extension services and of value chain integration, including support to the development of cooperatives.

The activities also include projects focusing specifically on some of the fundamental constraints for the development of agriculture in the countries, the development of land policies and markets, and the implementation of land consolidation programmes and projects in order to reduce the fragmentation of farms and, eventually, to develop commercial family farming. Initiatives supporting integrated community development also focus on smallholders and vulnerable and poor populations in rural areas.

The technical areas include climate change mitigation and adaptation, with particular focus on water management (flood protection, reservoirs, irrigation and drainage). The sustainable use of resources in agriculture, forestry and fisheries are covered in the CPFs representing agreements between FAO and the country governments.

The programming of upcoming and already-approved CPFs in, for example, Albania, Armenia and North

Macedonia, makes an even more explicit point of departure in the needs, constraints and challenges for smallholders and family farms identified in the smallholder country reports. New smallholder Technical Cooperation Programmes are already under development in Albania and Armenia based on the country study report recommendations. Thus, it is the absolute expectation that the FAO CPFs in the future will provide enhanced support for the development of framework conditions – including regulatory frameworks and specific project-oriented support – and for the development of the vast majority of farmers in the eight studied countries, including women and vulnerable groups.

3.4 Fulfilment of preconditions for comprehensive policymaking for smallholders and family farms

Comprehensive policymaking for smallholders and family farms depends on many factors, but the fulfilment of these factors differs considerably from country to country.

Even though all countries have national strategies for the development of agriculture and rural areas, there is still room for improvement when it comes to the implementation of policy programmes pursuing the strategy visions and objectives. A comprehensive regulatory and institutional framework must be established in which smallholders and family farms are addressed according to carefully elaborated definitions. As has been demonstrated previously in this report, the definitions of smallholders and family farms are often vague or even non-existent. This legislative gap allows neither policies to be specific nor to offer differentiated policy measures for targeting the needs of different actors of the agricultural sector, if required.

Comprehensive policymaking also implies consistency. The development objectives of individual policies must be consistent with the overall vision of the ministry and the government, and all policies must deliver in accordance with this vision.

However, due to the inter-sectoral character of agricultural and rural development, coordination is of paramount importance. Coordination has two sides: An internal intra-ministerial coordination between the various departments in agricultural ministries covering not only agriculture, with all the topics to be covered here, but also rural development, forestry, water management and, in some cases, fisheries. External inter-ministerial coordination must also be ensured with government institutions covering areas such as environment, labour, gender equality and social inclusion, social protection, infrastructure, regional development and others in order to make a comprehensive effort to deal with the many needs, constraints and challenges in rural areas. Openness and transparency in decision-making processes is needed in order to ensure coordination, internally as well as externally. Nevertheless, for many ministries, this is a big challenge. Furthermore, and in this connection, there is a need for participatory policy development mechanisms ensuring that the issues faced by the farmers – as well as by seasonal workers, contributing family farm workers, other persons engaged

in agriculture, consumers and persons living in rural areas – are appropriately reflected in the policy design. Communication mechanisms for reporting on achievements and challenges are not established, as also is stressed later in this document regarding weak or lacking monitoring and evaluation systems.

In order to be consistent in the implementation of policies, data and statistics must be available, collected systematically by national statistical services and internal ministerial departments using data and statistics for administrative and political purposes. It has been demonstrated in this report that there is a long way to go before good statistical data are available in the eight studied countries. Specific systems such as farm registers, Land Parcel Information Systems (LPIS), animal registers and Farm Accountancy Data Network (FADN) systems should be designed and implemented to support further development. These registers and systems represent important preconditions for implementing specific investment support policies in line with EU regulation, which, however, is less important in Central Asia.

Data collection can be for monitoring and evaluation purposes. Such systems are rare in the eight countries, and no lessons learned from implemented policies are collected systematically.

In many of the country reports, it is emphasized that weak analytical capacity of ministries is a serious problem, including regarding the link between agricultural technical areas of work and social issues affecting family farm members and rural populations. This is also the case regarding the capacity of staff, for example in departments for the administration of support programmes, including investment grant schemes. Improved policy design relies and depends on strong analytical capacities in ministries at central as well as at local level.

Another important factor relates to land policy. Weak development of land markets is considered to be one of the important obstacles for the development of the agricultural sector. Land markets are weak in all eight countries, with the exception of Republic of Moldova and Serbia, where farm structures are more dualistic and not fully dominated by smallholders. Numerous land registration problems with a high degree of informality and including complicated and costly land transaction procedures are present in the eight countries, to different extents.

Food safety, animal health and environmental standards represent another factor. The setting up of an appropriate organization, development of legislation, and enforcement of endorsed laws and bylaws are critical in food value chains, particularly in the meat and dairy sectors. A comprehensive food safety and veterinarian system requires strong political will as well as human and technical capacities and coordination among institutions responsible for the control of standards along the value chains.

All these preconditions must be fulfilled in order for the ministries in the eight studied countries to be able to develop a comprehensive policy design and ensure implementation to the benefit of smallholders and family farms. However, it is also a costly investment, and despite the importance of agriculture and agri-processing in the overall economy, the agricultural budgets are still modest. Thus, money is a scarce resource in agricultural ministries. This fact calls for careful design of policies, where the value, effectiveness and efficiency of the investment are optimized for agriculture in general but for smallholders and family farms in particular.

4. Recommendations



This chapter summarizes the recommendations developed based on the eight country studies, their description and analysis of the situation on the ground for smallholders and family farms, and the conclusions drawn. Thus, this chapter also presents the answers to research question 4:

- Which future administrative procedures, institutional structures and policy interventions can be developed and recommended to strengthen the role of smallholders and family farms in the economic, social and environmental development and in the transformational change process?

The chapter presents, first, the main recommendations at national level from the country reports. These recommendations vary from one country to another, and yet there are generic observations and recommendations across all countries. Many, but not all, of the recommendations are relevant from a FAO perspective, while others may be more relevant for national initiatives or interventions elaborated by donor organizations – in particular the European Union but also bilateral donors and international organizations.

The next section in the chapter presents the recommendations for enhancing FAO support to smallholders and family farms provided under the Regional Initiative on smallholders and family farms. The aim here is to prepare a set of recommendations for project activities to be included in Country Programming Frameworks and implemented in the eight countries in the coming programming period.

Recommended interventions may focus on individual countries and may be replicated in several countries. Other interventions may be designed as regional to cover and support development in several countries (such as tools and guidelines based on regional good practices), since the problems are alike across the programme countries.

4.1 Policy recommendation summary for the eight study countries

This section of the report presents a synthesis of the main recommendations from each of the country studies. Because the fundamental needs, constraints and challenges across the eight countries are similar, the main recommendations are also common. Most recommendations, if not all, are targeting national ministries of agriculture, and if they are relevant and a priority for the government, they could be supported by FAO, other international organizations and the donor community.

It should be emphasized that the national recommendations were developed and prioritized in close cooperation with the national authorities and stakeholders and were confirmed during the organized national validation workshops. The variation in the prioritization reflects this process as well as variations in the national context. It is therefore highly recommended also to pay attention to the detailed list of recommendations in each country study report in order to be able to catch the country-specific details relevant for each of the common recommendations.

4.1.1 Supporting the development of statistical systems and EU standards

The lack of basic agriculture and rural development statistics reporting on rural households and small farms, including sex-disaggregated data and gender statistics, should be addressed in all countries and should include Sustainable Development Goal indicators. Today, the lack of data and the poor quality of existing data make smallholders invisible from a policymaking perspective.

The agriculture statistical departments should improve data collection and processing capacities, with a focus on evidence-based policy programming and decision-making. Specific indicators and statistics related to small farms should be introduced. First and foremost, it is important to report data on income sources and distribution of labour funds at household level, when applicable, including sex disaggregation.

Country-specific, context-specific and pragmatic definitions of “smallholder,” “small holding,” “small farm” and “small farmer” should be developed to ensure better characterization of the beneficiaries of various policies (primarily social and agricultural). An institutional differentiation of agricultural producers will contribute to a better understanding of farm household characteristics and increase the effectiveness of support schemes in addressing their specific needs and challenges. In addition, the recognition of smallholders and family farms as a separate category of food producers that contribute to maintaining food security and that have important roles in preserving agri-biodiversity and cultural heritage will contribute to mainstreaming the agendas of smallholders and family farms across national policies and strategies.

There is a need to complete, merge and make various registers fully accessible, with sex-disaggregated data of farm managers, co-managers, land owners and co-owners that can serve as a source of information, per se, or a basis for using sample data to draw appropriate baseline analysis. Along with the farm register, the development of Land Parcel Identification Systems, animal registers, and Farm Accountancy Data Networks are important at least in EU accession countries.

There is a need to strengthen, maintain and upgrade the national analytical capacities of ministerial staff, statistical staff and university researchers dealing with agriculture and rural issues. It should be possible to track the three areas of sustainability (economic, social and environmental). This includes hiring competent staff, providing continuous training and allowing administration to use expert services. Therefore, sustainable platforms for collaboration among the research and education sector, national statistical services and ministries of agriculture (such as joint programmes, working groups and professional networks) should be created and enhanced to provide relevant input for policymakers, the business sector and other stakeholders.

4.1.2 Institutional and regulatory framework development and enhancement

Although extensive institutional and legislative reforms already have been made in various areas in most of the eight countries, an important common recommendation is to continue to enhance

institutional capacities of relevant line ministries and their bodies and the development of the regulatory framework, where smallholders and family farms are visible and directly targeted. Not only registered farmers should be targeted, but all those engaged in agriculture, including contributing family workers, seasonal workers and other relevant persons engaged in agriculture and small-scale rural food processing.

Operational and technical capacities of institutions dealing with agriculture and rural issues are critical for effective implementation of policy reforms and for achieving planned policy objectives and outcomes. Therefore, more emphasis is needed on strengthening capacities at all levels of governance and of other relevant actors. This requires more effort than simply strengthening the capacity of individual staff, but sustained, long-term commitment, investment, adequate resourcing and strong and persistent political will. Weak or missing institutional structures and institutional memory and inadequate human resources should be seriously considered and addressed by all actors concerned.

An overall regulatory framework for the agricultural and rural sector is of paramount importance, especially in terms of establishing general political directions for ensuring resilient and socially sustainable agricultural and rural development. Therefore, in all countries, reforms of regulatory frameworks, standards and regimes that govern agriculture, food production, environmental issues and rural life and livelihoods should be prioritized on the policy agenda and encouraged.

Important components of the framework should be to create a definition of smallholders and family farms according to size indicators (a combined indicator embracing economic and physical characteristics such as hectares, number of animals and income), support mechanisms (financial and non-financial), and the implementing role of the state and its institutions, including ministerial functions (policy design, analysis, monitoring and evaluation, payments), food safety and veterinarian services, scientific and educational institutions, extension services, social support institutions, and other relevant institutions.

The development of the regulatory framework and the differentiation of agricultural producers will provide a basis for the introduction of segregated and specific policy and support mechanisms targeting the constraints and challenges faced by producers and rural dwellers of different scales and types, including women and youth.

There is a need for a polycentric approach in rural development policymaking to properly address the complex and interrelated needs, constraints and challenges faced by rural people in all study countries. It implies that improved policy coordination across governmental bodies and various levels of policymaking should be developed to address rural issues in general. Results of the country studies suggest that there is insufficient synergy among the policies implemented by various ministries/governmental bodies on one side, and the lack of coherence between policy (quantified) objectives, mechanisms, funding and outcomes on the other.

Cross-sectoral cooperation, policymaking and implementation must be facilitated, and capacities for that must be strengthened at the sub-national levels. It is particularly important for regional and local departments dealing with social protection (including employment and social reform programmes), agricultural and environmental issues. In general, local self-governmental units need more autonomy and more tools, to properly address specific local needs. Policy design and decision-making processes at the local level should be guided and assisted, and they should involve farmers and the business sector to ensure that their real needs are responded to.

The regulatory framework for the implementation of territorial development initiatives should be developed and put in place. The rural civil society should be engaged in private–public partnerships and in the preparation and implementation of local development strategies and plans. Even though some efforts have been made (mostly by donors) in establishing local partnerships and strengthening their capacities, these are not sufficient to meet the needs.

4.1.3 Facilitate structural transformation of smallholders and family farms and support productivity growth

THE AGRICULTURAL LAND MARKET AND THE NEED FOR LAND CONSOLIDATION INSTRUMENTS

There is a clear need to mainstream and accelerate development of the agricultural land market in all countries. If mechanisms are not in place that can ensure structural development and reach economies of scale, many other development initiatives are also hampered. The introduction of operational land consolidation instruments and programmes can address the structural problem of land fragmentation and small farm sizes as well as the high degree of informal land transactions. Given the considerable area of agricultural land that in some countries is currently left unused by smallholders, bringing suitable abandoned farmland back into use is an important option for increasing agricultural production and productivity.

In the future, priority also should be placed on enhancing the agricultural land market, partly through having a more vivid ownership and rental land market and the through the development of national land consolidation programmes and other land management tools, such as the use of state-owned agricultural land to provide access to additional land for smallholders.

There is a clear need to support the development of the agricultural land market through more efficient and less costly land transaction and registration procedures. This will reduce the high degree of informal land transactions, improve security of tenure rights and reduce the number of land-related disputes, in line with the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forestry in the Context of National Food Security (VGGT).

Co-registration of all legitimate owners should be promoted; making it mandatory by law and providing economic incentives are two examples of how this can be implemented. Co-registration of ownership rights would contribute to the security of tenure rights to all owners, and particularly to women, who are less likely to have their land ownership registered. The co-registration would contribute to the implementation of Article 14 of CEDAW (UN General Assembly, 1979), SDG target 5.a and the VGGT (FAO, 2012). The creation of the figure of co-manager of the farm by law, as has been done, for instance, in Belgium and Spain, can further contribute to improving women's access to subsidies, credit, rural advisory services and agricultural inputs (FAO, 2018b; FAO, 2018c). This would, in turn, contribute to redirecting remittances of male migrants to agricultural investments and overall agricultural productivity.

Instruments that could be used to enhance land market transparency and efficiency include the mediation of leases, the systematic land registration process, strengthening of the regulation of land use

and land ownership, improvements to land market information, and reviews of land policy, aligning them with other policies that support smallholders and family farms.

Improvement of the enforcement of land legislation and provisions, including compliance with land management requirements and controls of land legislation implementation, also are important.

IMPROVE ACCESS TO AGRICULTURE INPUTS

Important reforms are needed in systems for the delivery of inputs and services in all countries to make fundamental resources easily available to smallholders and family farms and to enable them to manage their farm businesses more effectively. These reforms will require institutional changes that enhance the transfer of technology and the acceptance of modern production practices. The reforms in the delivery of inputs and services should prioritize the development of input delivery systems and of access to agricultural inputs of reliable quality, therefore involving both the private and public sectors.

Strengthening the quality control system for seeds, pesticides and fertilizers for compliance with national standards is of vital importance for the reduction of production risks and for ensuring better market access. To accomplish this, it is necessary to strengthen the enforcement of existing regulations.

Supporting the domestic production of seedlings (organized through specialized agribusinesses, cooperatives or the private sector) is also highly recommendable.

ENHANCEMENT OF EXTENSION SERVICES

Improved dissemination of information, knowledge and skills to smallholders and family farmers is key to agricultural development in all eight study countries. Identified as main factors that affect the more effective use of extension services are the poor system of service delivery, outdated manuals of services that are narrowly oriented towards technical skills, and an insufficient number of extension service providers and their lack of knowledge and equipment. Enhancement of existing extension service systems is recommended regarding the quality of staff, services and equipment, the organizational models used, and the coverage of extension service beneficiaries. This should include:

- The availability of competent and well-qualified researchers and extension service providers should be ensured. This would entail the revision and innovation of the content of academic curricula and training courses as well as higher public investment in national research and education systems.
- Connectivity should be facilitated among family farms' needs and knowledge generation institutions, and it should be ensured that new technologies, knowledge and practices reach smallholders. New models of collaboration and networking among national agriculture research institutions, extension services and other public and private actors should be developed, and the traditional top-down approach must be changed to a market- and demand-driven, bottom-up approach.
- The offer of training modules and programmes (financial management, risk analysis, good agricultural practices etc.) should be expanded, and delivery models should be developed with greater use of local resources, volunteers, staff and resources of secondary agricultural schools, lead farmers etc.
- It is recommended to introduce new information and communication technologies (marketing

information systems, early warning and communication systems, regularly updated websites, electronic media and others) and e-agriculture to ensure the high coverage and efficiency of provided services. In addition, the establishment of demonstration sites and model farms, in cooperation with scientific centres and higher educational institutions, is relevant in all countries.

- A wider array of advisory and tailor-made services and technical assistance should be developed, to include not only traditional agronomic content but also content regarding business management and investment plans, marketing, food processing, income diversification, tourism, environmentally friendly practices and climate change mitigation.
- A designated public authority responsible for the coordination and supervision of the agricultural extension system must play a role as a certifier to ensure that the quality of provided services is adequate and that farmers receive the best possible support to address their specific needs.
- Mechanisms should be in place to ensure that the services provided by extensions are equally available for all men and women, young and old, involved in farming. Services should be tailored to different social groups, including those most vulnerable. Gender-responsive and socially inclusive approaches should be used. The involvement of young farmers in trainings also could be important for advisory services, as youth can more easily grasp knowledge and are more likely to take risks in terms of implementing new production technologies and changing established practices.
- Finally, introducing a results-based monitoring system should enhance the extension services.

INVESTMENT SUPPORT AND ACCESS TO FINANCE

Investment support is recommended that specifically targets the needs of smallholders and family farms. The development of smallholder farming and productivity growth requires innovation, and therefore a better and enhanced investment environment and assistance to a greater range of financial products and support are needed. Renewed focus is needed on development support but also on the investment needs of smallholders, small-scale agri-processors and agricultural service providers in many studied countries.

Governments should play major roles in smallholder access to investment support and finance. To do so, focus should be on: 1) establishment of the appropriate regulatory environment; and 2) provision of the necessary support infrastructure (through paying agencies and support schemes) that will reduce the transaction costs and risks associated with agricultural lending, particularly for smallholders.

One major concern is the gap between the requirements and eligibility criteria for state support imposed by the legislation (often introduced in the context of the EU approximation process in the Western Balkan countries) and real-world situations, especially in the case of standards. Various standards and requirements are not and cannot be fully implemented by many farmers, especially by small-scale farmers. This has negative consequences that include a lack of eligibility for donor and EU investment support schemes (IPARD II), which assume compliance with national standards. In this context, it is necessary carefully to review the legislation related to agriculture and rural development while on the other hand enhancing efforts to raise awareness and provide funding and technical assistance for investments related to compliance with regulations. Therefore, investment facilitation through simplifying administrative procedures, setting up standards better adjusted to the specific policy goals and needs and establishing one-stop shops to help farmers obtain the necessary documents and licenses from responsible government departments are of high importance.

Enhancement of the access of smallholders to viable financial services must be ensured, as must

transparency and fairness in the selection of beneficiaries. Both limited access to credit and the cost of credit pose significant constraints to the agricultural sector and, in particular, to small-scale farmers. At the same time, high interest rates lead to a low demand for bank loans. The provision of subsidies to cover interest rates could be an efficient measure to overcome smallholders' lack of access to finance. However, the fact is that high interest rates, on one hand, and a lack of trust in the banking system together with a lack of knowledge and collateral, on the other hand, lead to a low demand for bank loans. This is particularly relevant in the case of women. Besides, from the perspective of economic justification of subsidized agricultural loans, it is important to consider whether positive effects on farm outcomes and sustainability are to be expected, because more favourable market prices of agricultural credits come at some costs to the wider society. Therefore, investment support by means of subsidized interest rates should be carefully targeted to those with the capacity and willingness to grow, thereby lowering risks for moneylenders and the risk of irrational spending of the state budget. As an option, legal frameworks for micro financial institutions and support in setting up self-help initiatives of saving and credit associations for small farms are highly recommended.

Some additional recommendations include:

- Assist eligible beneficiaries in identifying and preparing projects. Preparation of off-the-shelf investment projects for different sectors can orient farmers in their investment decisions and applications for grants. These investment proposals could, for example, be delivered by extension services.
- Fiscal incentives can be provided to small and medium enterprise development and start-ups located in rural areas, particularly to those that are led by women and/or that employ women. This could, for example, be a tax exclusion for a certain period. These incentives and other support schemes need to be adapted to the reality of women and men (regarding lack of farm or land registration, for example) so they can be more widely available.
- Develop an effective system of warehouse receipt to allow access to credits at competitive rates by borrowing (FAO, 2015a). These models enable producers to delay the sale of their products to a moment when prices are more favourable and therefore both mobilize credit for the agricultural sector and improve agricultural trade.
- To enhance the use of modern practices and quality inputs, it is important to establish innovative mechanisms such as a credit card concept linked with trained and accredited input suppliers and dealers.
- Reduction of the financial illiteracy of smallholders and family farmers, particularly women, is important. This would increase their chances of applying for creditor grant financing. That could be done through trainings provided by advisory and extension services and other operators.

AGRICULTURE VALUE CHAIN DEVELOPMENT

Facilitating smallholders' access to markets and reducing their transaction costs is a big challenge for policymakers in all eight studied countries. Although agriculture value chain development and access to (international) markets are recognized as key strategies to boost agricultural development in all of the countries, in reality many smallholders and family farms often fail to exploit and benefit from these opportunities due to various barriers. Value chain participation requires that smallholders deliver produce of consistent quality and sufficient quantity; in other words, it requires access to quality inputs, technology, knowledge, organization, skills and infrastructure, which is not affordable for the majority of smallholders in most of the eight studied countries.

The creation of an enabling environment to promote socially inclusive agricultural value chains, with a focus on smallholders, requires a well-structured approach to value chain development and the involvement of various actors at different levels, from both the public and business sectors. The following recommendations aim to address the challenges for improving smallholders' access to markets:

- Encourage private investment in processing and storage capacities and equipment and facilitate their accessibility across rural areas to enhance availability, quality and food safety standards and to reduce losses.
- It is suggested that agricultural value chain financing programmes be initiated to target existing sectors with high export potential, to target identification of a new prospective sector, or to work on the development of a new value chain. This programme could strengthen smallholders by improving their market integration and increasing their competitiveness based on a defined code of conduct and high-quality production protocols.
- Contract farming should be prioritized and facilitated to mitigate latent risks and negative effects for smallholders. To do this, formulating relevant legal frameworks and encouraging partnerships in contract farming schemes, especially contract enforcement, are highly recommended.
- Increase investments in rural infrastructure (irrigation, drainage, roads, energy supply) and small-scale centres for collecting, processing and packaging, and marketplaces for direct sale.
- Support innovative mechanisms for farmers' access to market and price information through information and communication technologies, media, and market information systems to enable informed decision-making among farmers.
- The development of short food chains and networks of different actors surrounding them (SMEs, service providers, farmers associations and cooperatives) should be encouraged and supported. Short food supply chains are promising market channels for the many smallholders and family farms that currently operate in (semi)informal channels of direct selling.
- Support the promotion of local products and of products with specific quality characteristics that can respond to consumer demand while contributing to employment and preserving traditional practices, knowledge and agricultural biodiversity. A more systematic approach to value chain organization and development should consider innovative events aimed at raising awareness of the benefits of chain organization, along with capacity-building training and seminars on chain organization.
- Invest in smallholder-adapted innovative practices, products and services to promote value addition, niche markets and on-farm income diversification in order to insure against food price risks and other shocks in smallholder income.
- Support the development of the production, managerial, and entrepreneurial skills of smallholders and their associations, with special attention to participation of rural women and youth. Support should be offered to current professional associations to build up capacities and ensure coordination, including of aspects related to participation in policymaking.

IMPROVE FOOD SAFETY STANDARDS

Promoting food safety standards is an important milestone to formalizing agriculture. Awareness among farmers about standards (such as safety and quality standards, including national minimum standards and EU standards, where relevant) should be achieved. This is necessary to improve market access, especially for exports, but also to benefit from EU-funded support schemes. The awareness of those working in family farms can be strengthened through extension services and through various

informative platforms. In order to achieve meaningful and sustainable results, it is crucial that not only the registered farmers or the heads of farms are informed and trained, but also all those who contribute to family farms and work in agriculture, livestock and/or aquaculture. Without improving awareness about standards, there will not be sufficient action taken by farmers to tackle them.

In this context, it is also recommended to raise awareness, to train and to support the adoption of good agricultural and environmental practices (GAEP), hazard analysis and critical control points (HACCP), International Organization for Standardization (ISO) standards, organic production certification, and traceability systems.

NICHE AGRICULTURAL MARKETS

Niche food products based on traditional or rare plants, species and livestock could provide many opportunities for producers to expand product range and to enter into new domestic and international markets, which are expected to further grow. This would require that farmers acquire the relevant knowledge, adopt appropriate production methods, and obtain necessary certifications.

Niche food markets are not seen as particularly suitable for smallholders. This is because the production of high-value food products for niche markets, particularly for export, requires quality certifications (Good Agricultural Practices, organic, etc.) which are costly for smallholders. However, smallholders and family farms could target local and tourism market demands.

Agroecology and organic farming, especially in hilly and mountainous areas where there is also usually a higher concentration of poorer and smaller farms, can be promoted as a way of differentiating production and competing in higher-value market segments. Furthermore, the EU voluntary food quality schemes that provide protection to products with geographical indications (GI) and traditional specialties – often referred to as protected geographical indication (PGI), protected designation of origin (PDO) and traditional specialties guaranteed (TSG) – can be implemented and promoted among smallholders.

To overcome the transaction costs associated with accessing some of those niche markets, both public and private interventions are needed to assist farmers in gaining access to market networks and infrastructure. This should include supply chain coordination, establishing farmers' groups, and promoting collective marketing and contract farming agreements. This could be reached if the national authorities, in collaboration with international organizations, promote a branding strategy for quality products – in particular, those that are produced in a traditional way and/or along organic production standards.

Besides, new models of direct marketing, such as Internet-based marketing, new institutional arrangements that involve consumers as active participants, public food procurement and others, could help overcome weak market infrastructures that limit smallholders from connecting to niche markets.

Support for participatory or group certification schemes could be one important door opener for smallholders.

DEVELOPMENT OF COOPERATIVE STRUCTURES

Although cooperative structures can provide many possibilities for farmers, especially for smallholders, these structures are, due to the legacy of collectivization, not very common among farmers in the eight studied countries. Enhanced cooperation is, however, relevant for smallholders purchasing input factors (such as pesticides, fertilizers or machinery services) and common production and processing facilities, as well as for marketing- and sales-related activities.

In order to promote cooperative structures among agricultural producers and enhance their natural development, it is recommended to develop an appropriate regulatory framework and incentives for supporting and developing cooperative structures. So, it is suggested that the formation and development of cooperatives be supported through tax incentives, subsidies, investment support and education, training and information. Particular incentives could be created for the development of women-led cooperatives and cooperatives of vulnerable groups.

REGIONAL SPECIALIZATION

Regional specialization, in terms of the development of a list or a group (like a recommended variety list) of recommended agricultural products and relevant production technologies for different agro-climatic zones, would be essential for increasing returns from farming and for increasing the productivity of smallholders and family farms. This list would be a volunteer guideline for the selection of the best available technologies in the region. The comparative advantages of certain agricultural practices – including the introduction of new varieties, breeds or non-traditional crops in certain locations – is unquestionable, and the intervention of public bodies in the form of supporting these kinds of practices (including the provision of access to necessary inputs and technologies, production techniques, know-how and ongoing consulting on treatment, pest control, watering and harvesting during the transition stage) is very important.

Regional specialization can be a programme integrated into state policy, and this could be paired with the activities mentioned in Section 4.1.4 related to increasing resilience to the expected impacts of climate change and to investing in climate change mitigation and adaptation measures.

Keeping in mind the importance of maintaining food security in the countries and the risks associated with overly narrow specialization, regional specialization in this context should not be seen as a product-specific specialization but rather as a tool for the voluntary redistribution of the production of different agricultural products among farmers in different regions, based on scientific justifications, and for increasing production potential by improving the efficiency of the use of natural resources. In addition, the regional specialization policy should focus on limited but diverse products to ensure not only regional specialization but also farm diversification options for farmers.

4.1.4 Climate change mitigation and adaptation

Small farms are more exposed and vulnerable to the effects of climate change than are larger farms, as they have fewer resources in all aspects. This is particularly relevant for poorer farms and those who are at higher risk of poverty (such as those with an unfavourable ratio of working persons per dependants, those living in remote areas, and poor single-headed households, among others).

Investments in climate change mitigation (reducing carbon dioxide emissions from agriculture through new practices, for example) and adaptation measures (water management through support to flood protection and drainage systems, for example) are highly recommended due to the observed consequences for agriculture in all countries. The measures must include investment in improved sustainable water management and conservation technologies, including the construction of water reservoirs and irrigation systems, the reduction of water losses, the use of hail protection systems, the use of improved soil management practices, and the increased application of renewable energy resources, especially in greenhouses. The measures also must include investing in applied research on farming adaptation measures for individual agro-climatic zones, such as the development of varieties and breeds more resilient to the specific impacts of climate change that are expected in a given zone.

The experiences of smallholders have shown significant improvements in production when drip irrigation and other water-saving systems were introduced and combined with automatic fertilization systems. The improvements have been noted mostly in terms of lower production costs, more effective utilization of resources and supplements, and decreases in operation time and level of effort.

An important niche area for climate change mitigation is the promotion of the green economy and jobs, especially among young men and young women. These jobs support environmentally friendly enterprise development as an alternative to traditional practices in agriculture and service provision. Green jobs include those that contribute substantially to preserving or restoring environmental quality, that save energy, that produce less carbon emissions or whose core business functions are specialized in green products or services.

INSURANCE

The possibilities of a gradual introduction of agricultural insurance should be on the agricultural development agenda. Important steps already have been made by several governments in this direction, but few farmers use agricultural insurance systems. Pilot projects need to be implemented that demonstrate and test the feasibility of insurance systems, and more aggressive information campaigns need to demonstrate how insurance can be beneficial for farmers. Such campaigns must be coordinated with the wide spectrum of national and international organizations working with rural communities and need to be gender-responsive so they reach both women and men.

Insurance systems also must be linked to national emergency relief measures, since the coverage of voluntary insurance schemes will not be sufficient, particularly in situations with severe natural disasters and damages. Risks associated with climate change include land erosion, devastation, depletion and waterlogging (increased groundwater), low yields, floods, drought, locust and other pest attacks, sudden frosts and more. Therefore, a combined offer could be considered, with private insurance on one hand and public emergency relief aid (disaster compensation payments) on the other.

4.1.5 Diversification

DIVERSIFICATION OF EMPLOYMENT OPPORTUNITIES

Agriculture provides jobs to many people in rural areas. However, structural development – including increasing average farm sizes and increasing the use of mechanization – leads to reduced employment in agriculture and a need for alternative jobs in rural areas. Rural development is inevitably connected to agricultural development, and the development of both sectors should proceed in parallel. Moreover, there could be cases in which rural and community development will foster a shift from economically non-viable and subsistence agriculture to other opportunities that become available as a result of new developments.

As a first step, a more detailed monitoring of beneficiaries of unemployment support from rural areas and the impact of the current support to this particular group is needed. There is no evidence of the effects of active labour market programmes and measures on rural populations and on vulnerable rural groups. The low education level of the inactive rural population implies that an increase in their labour market activity may be possible if they are offered improved programmes of vocational education or training. The widespread practice of delivering general training programmes should be replaced by shifting the focus to practical skills.

Establishment of local employment alternatives is crucial to avoid rapid rural depopulation and mass migration. To make the rural space economically viable and attractive, rural–urban linkages need to be part of the rural development agenda, along with education as the main door opener for skilled non-farm employment. One well-known factor to push rural development is investment into adequate infrastructure (transportation, communication, sewage, water and electricity, as well as the infrastructure needed to develop a business, such as a good Internet connection, banking, and more), which would establish better links to urban areas and other sectors, attract investment in rural areas, and connect farmers to markets.

Investment support is also recommended for diversification into non-agricultural activities. The creation of non-agricultural jobs should be supported in rural areas, including through public support programmes, where the low absorptive capacity and the informality of the rural sector are considered in the design. The creation of non-agricultural jobs also should be supported through the attraction of foreign direct investments and/or through the establishment of public–private partnerships in other manufacturing industries. Investment support is also recommended to newly established small and medium-sized firms creating off-farm jobs in rural areas.

In addressing these challenges, it is crucial that interventions are considered that target job creation for rural men and rural young women, not only in agricultural production but also in its associated value chains (processing, packaging, transport, storage and others).

Financial support is needed for youth in starting their own businesses, especially by funding start-ups in social and innovative entrepreneurship. Also, elderly-care programmes should be stimulated, since they ensure job creation for the unemployed rural population without qualifications or with very low qualifications.

A better variety of employment opportunities would provide youth with an anchor to stay in rural areas and curb their need to migrate to urban areas or farther. Agritourism and rural tourism have particularly good potential for local markets, as more and more people are demanding natural products and would even pay extra to support the creation of such products that they will eventually consume, such as cheese, meat or wine. These initiatives will be especially interesting for young people who know English and other foreign languages and can use new technologies for tracking and navigation and for setting up entertainment facilities in rural areas. Rural tourism also has good potential for women's economic empowerment.

ADVANCING RURAL WOMEN'S ECONOMIC EMPOWERMENT

It is recommended to pay close attention to the particular challenges faced by women in agriculture, given the existing gender-based inequalities in all countries of study.

Advancing women's economic empowerment in agriculture and in rural areas is necessary not only for achieving human rights but also for more competitive and more sustainable agricultural production. Particular attention needs to be paid on equal de facto access to ownership and control over land, on improved access for women to other agricultural resources, decision-making, information, finance, mobility and public services, and on institutional capacity development on gender issues.

It is important to prioritize the employment of women and youth in the formal sector, whenever investments in new businesses are supported by the state budget. With regard to this, childcare services should be offered not only for rural families, but also to unemployed women to enable their active job seeking.

SOCIAL PROTECTION FOR PRODUCTIVE ACTIVITIES

Social protection can support the most vulnerable farmers and agricultural workers in increasing their productive capacity and reducing poverty. Social protection must prioritize the quality and accessibility of social services to rural people, and it must also provide a "safety net" and cover basic needs for those who do not have a job and for elderly people and other vulnerable groups. Social protection, in the form of cash transfers or public works, can help poor households better manage risks and lift liquidity constraints. This helps farmers invest more into their productive activities, which gains relevance because one of the main reasons given by poor households for not cultivating land is the lack of resources. Furthermore, the poorest households have comparatively less access to credit and loans.

International experience and FAO research have shown that having access to a regular cash transfer can support greater access to credit, increase investment in productive assets and inputs, and more efficiently allocate labour between farm and non-farm activities. Thus, linking social protection programmes in rural areas to agricultural/productive programmes can support increased access to technology, knowledge, inputs and factors of production. Such linkages can help poor households increase their agricultural production and income and move out of poverty and food insecurity.

Inclusive systems also should ensure the health and social protection coverage of those contributing family farmers, unpaid agricultural workers, seasonal workers and informal employees who also contribute to agricultural production in rural areas.

Closer cooperation among ministries of agriculture and other line ministries in terms of designing joint productive inclusion programmes is needed to improve the situation. It is recommended that the programmes specifically target poor family farms involved in government monetary social assistance programmes and provide safety against early withdrawal of beneficiary families from those programmes, when such a withdrawal could put a family at risk of returning to poverty and food insecurity.

Bridging the inequalities between urban and rural living standards through the development of social infrastructure in rural areas – such as kindergartens; community centres and services for youth, the elderly and the disabled; sports facilities; adult education and art studios – and the rehabilitation of roads and transport infrastructures, the improvement of water and electricity supply systems, and the improvement of safety conditions for heating and cooking, would contribute to the safety and well-being of rural men and women and to the reduction of time poverty of rural women.

4.2 Recommendations for further supporting smallholders and family farms based on FAO comparative advantages

The recommendations summarized in this section are prepared in the light of the ambition that FAO, through the Regional Initiative and integrated and coherent work programmes, will support smallholders and family farms in all programme countries in the region in which they play important roles in agriculture and rural development. Meeting the needs, constraints and challenges represents a huge task far beyond the capacity of national agricultural ministries. Rural development is per se inter-sectoral and requires effort from various line ministries. The recommendations include: 1) a focus on selected policy areas where FAO has comparative advantages; 2) a more programmatic, multidisciplinary and cross-sectoral approach; and 3) tailoring support to different categories of smallholders and family farms.

Three development paths can be identified through the eight country studies:

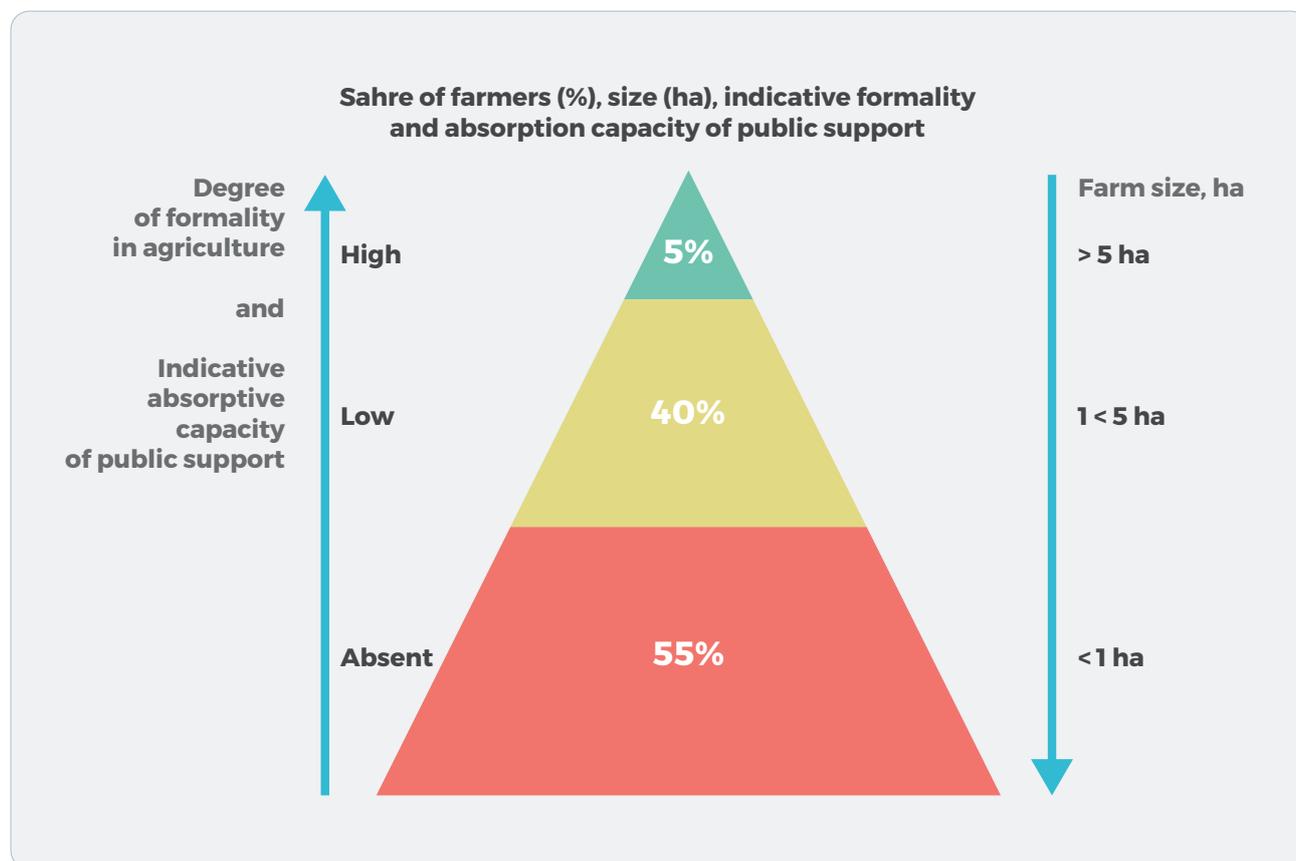
- the agricultural development path;
- the diversification path; and
- the exit path.

Each path requires specific attention and support. This is further detailed in Section 4.2.3.

The point of departure for the elaboration of a set of recommendations is that the dominant share of agriculture in the eight study countries is informal. This is a fact in terms of numbers of farmers, employment, value and volume of production, and hectares of utilized land. It is well-documented in country reports and from other analyses of the situation for smallholders in the region. Figure 21

illustrates the indicative distribution of farms in the eight study countries by farm size and by the degree of formality in agriculture.

Figure 21. Pyramid of farms distributed on size



Source: Elaboration of the authors, 2019.

Figure 21 was prepared using data from the eight country studies. Only 6 percent of the farms, many of them corporations/enterprises and state/collective farms, are bigger than 5 ha and represent a high degree of formality in production. They are registered in national farm registers, are included in the tax and VAT system, and may, to some extent, comply with national minimum standards (NMS), if these standards are implemented and enforced in the national context. Forty percent of the farms are between 1 and 5 ha in size and represent a low degree of formality, according to the characteristics described above. The majority (55 percent) of farms are informal per se. Furthermore, the 55 percent of farms smaller than 1 ha use only 3 percent of the land, while the 40 percent of households with 1 ha to 5 ha use 69 percent of the land. The top 5 percent, with more than 5 ha, use 25 percent of the land. These facts are the point of departure for the formulation of the recommendations.

4.2.1 Areas of work with FAO comparative advantages

The identified policy areas described here represent areas where FAO should focus its efforts related to smallholders and family farms in the eight studied countries as well as in other countries in the region, with variations determined and defined by the specific situation in each country. FAO will match country needs, constraints and challenges as they are summarized in this report based on the individual

country reports, with country priorities reflected in the Country Programming Frameworks, on the one hand, and with documented FAO comparative advantages, on the other hand.²²

The identified areas of work with FAO comparative advantages and documented experiences related to supporting smallholders and family farms in Europe and Central Asia are based on the eight country studies. Based on these comparative advantages, FAO will attempt to match country needs, constraints and challenges through policy dialogue and development. Only a few examples of projects from each of the eight countries are mentioned. In some countries, there are more examples that are not mentioned here:

1. Policy dialogue and development for increased sustainable agricultural production, including agroecology focusing on the promotion of integrated pest management, organic agriculture, conservation of plant genetic resources, livestock production, animal health and competitiveness. Project example: the Republic of Moldova national integrated pest management (IPM) programme, developed and harmonized with the EU regulation and adapted. In Georgia: the European Neighbourhood Programme for Agriculture and Rural Development (ENPARD), with a focus on policy dialogue.
2. Innovative and good practices for increased sustainable agricultural production, including livestock, plant production and aquaculture. Project example: a model fish production farm established in Armenia. Other example: in Republic of Moldova, capacity building for extension services and farmers on integrated pest management and conservation agriculture techniques through farmers field school (FFS).
3. Agricultural and rural development strategy elaboration, including preparation of action plans and rural development programmes and capacity development of ministerial staff in rural development policy, programming, monitoring and evaluation. Good project example: the agricultural and rural development strategy and action plan elaboration in Albania, followed by the development of regulatory framework for marketing standards, organic production and quality products, capacity development of statistics and support to policy design, monitoring and evaluation, and donor coordination.
4. Elaboration of ministerial policy design based on data-driven monitoring and evaluation systems. Good project example: capacity development with the Ministry of Agriculture in Armenia in monitoring and evaluation and in implementation of monitoring and evaluation practices in selected policy areas (funded by EU via ENPARD).
5. Development of land consolidation strategies, land consolidation legislation, an operational national programme, and implementation of land consolidation projects. Good project example: mainstreaming of the National Land Consolidation Programme (MAINLAND) in North Macedonia, including amendment of the legal framework, implementation of field projects and capacity development of Ministry of Agriculture, Forestry and Water Economy staff.
6. Development of investment support measures. Good project example: development and implementation of a local community investment support measure in mountainous areas of Georgia.
7. Developing extension services and technology transfer institutions. Promotion of research, development and innovation through transforming rural institutions. Good project example: elaboration of training needs and assessment of farmers and Agricultural Service Centres (extension services) in Armenia, along with organization of specific training sessions and organization of monitoring and evaluation.

²² It should be emphasized that the comparative advantages referred to here are NOT exhaustive. The summary is based on the national experts and their country study reports and NOT on a full analysis of the comprehensive portfolio of FAO policy areas and technical disciplines.

8. Development of cooperatives and cooperation projects as tools integrating the value chains. Good project examples: support to the capacity development of ministerial departments in Georgia in the elaboration of the regulatory framework for the development of cooperatives; support to the development of by-laws and promotion of the benefits of cooperative membership in Serbia.
9. Support to more efficient and inclusive agrifood chains through development of origin-based labels. Supporting the registration of geographical indications and at better positioning on the domestic and international markets for products with geographical origins and developing quality schemes for creating added value for certain meat products in Serbia.
10. Support to integrated community development, addressing in a gender-responsive and socially inclusive manner the locally prioritized development needs, including local capacity development, mobilization of local human and other resources, and investment support with the help of grants. Good project example: support to capacity building on agriculture and rural development policy and implementation of local community development pilot projects in Republic of Moldova.
11. Climate change adaption and natural resource management, including water management. Good project example: resilience improved through the development of a regulatory framework in Kyrgyzstan. 2018–2022: sustainable natural resource management and resilience to climate change and disasters.
12. Advancing gender equality in agriculture, including inclusiveness of vulnerable groups. Women's economic empowerment in agriculture. Good project example: capacity for strengthening the socially sensitive market economy to reduce rural poverty in women-headed households in Kyrgyzstan.

4.2.2 Achieving the Sustainable Development Goals through a more programmatic approach

Having mapped the areas where FAO in Europe and Central Asia is in a good position to support smallholders and family farms due to the comparative advantage of the Organization, this section of the report will discuss how support can be delivered at the regional and particularly at the country level in a way that further increases the impact.

It is evident that the Sustainable Development Goals (SDGs) are strongly considered when support to smallholders and family farms is designed to ensure maximum impact in achieving the SDGs. The complex nature of the goals also requires a much more comprehensive and integrated approach than what previously usually has been applied. Furthermore, data collection and statistics in each of the countries must be enhanced in order to cover the smallholders and family farms as separate categories of farmers and contributing workers to family farms.

To a large extent, FAO support to smallholders and family farms in the programme countries under the Regional Initiative on smallholders and family farms has earlier been delivered through standalone projects in line with the individual Country Programming Frameworks (CPFs). During the preparations of the work plan for 2018/19, efforts were made to develop a much more programmatic approach with the aim to implement the support to smallholders and family farms as a comprehensive and coherent programme at the country level, supported by regional level activities. It is recommended to continue this process to further enhance impact in the programme countries. As discussed in Section 4.2.1, support should focus on areas identified as clearly within FAO comparative advantage; this should be reflected in the CPFs. In each of the programme countries, it is recommended to develop a FAO

smallholder support programme in which projects and activities complement each other and create synergies, all within the framework of the CPFs.

The need in many cases to apply an integrated, multi-disciplinary and cross-sectoral approach clearly comes out of the eight country studies and this Regional Synthesis Report. The recommended smallholder support will contribute to achieving several SDG targets, including target 5.a (undertake reforms to give women equal rights to economic resources), target 8.6 (reduce the proportion of youth not in employment, education or training), target 1.4 (ensure equal rights to land and other natural resources), target 2.a (increase investment in rural infrastructure, agricultural research and extension services), and SDG 10 (reduce inequalities within and among countries). However, the key target to which FAO smallholder support in Europe and Central Asia contributes is target 2.3 on doubling productivity and income of small-scale food producers. This begins with the formulation of project and other activities where focus should be directly on benefitting smallholders and family farms within the technical areas included in the Regional Initiative. The available (limited) funding from the FAO budget for projects (Technical Cooperation Programme and Multidisciplinary Fund) is recommended to be used in a strategic way, such as for support that has a high potential to be subsequently scaled up with donor funding.

Therefore, FAO needs to continue the strategic cooperation with governments, international organizations, civil society and academia, also including stronger efforts to engage the private sector. The Regional Initiative itself – due to its integrated and multidisciplinary approach – serves as an excellent platform to create synergies with a wide variety of partners, and it is encouraged already to initiate the cooperation for supporting smallholders and family farms during the design of a specific intervention. Strategic partnerships with international organizations that have strong presences in the countries need to be put in focus. The same applies for donors whose support to smallholders and family farms under the programmatic umbrella of the Regional Initiative has strong potential to catalyse resource mobilization from other donors, resulting in enhanced support.

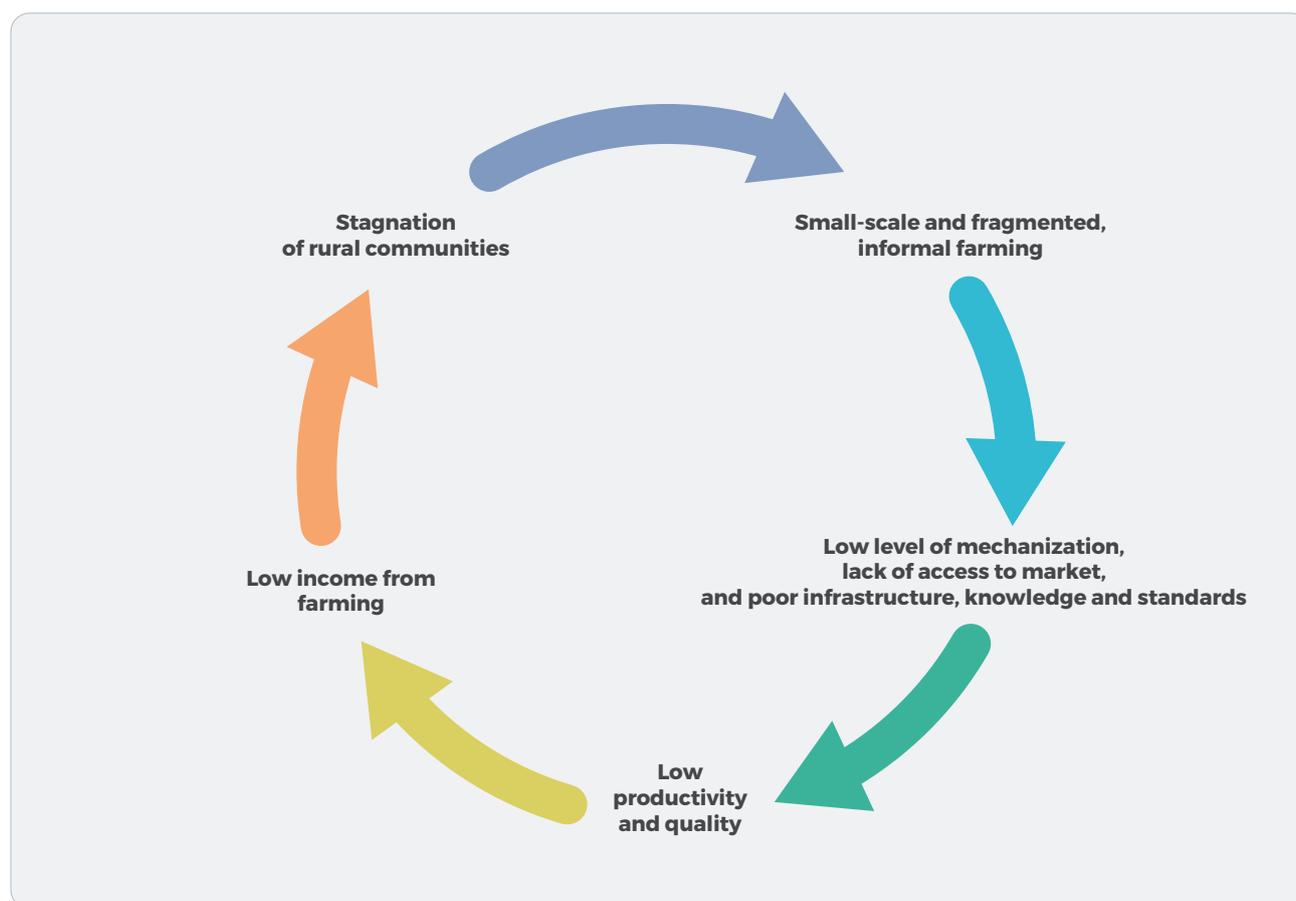
The analysis identified unequal access to land between men and women as an important barrier to agricultural development in all eight countries. Therefore, the various technical recommendations, including in particular access to land, resources and finance, should have a strong gender focus, ensuring equal access to development for both men and women.

4.2.3 Three strategic pathways for smallholders and family farms

SUPPORTING THE DEVELOPMENT OF COMMERCIAL FAMILY FARMS: THE AGRICULTURAL PATH

From an agricultural development perspective, the vicious circle in Figure 22 is an illustration of the challenges with which smallholders and family farms are struggling. The development of commercial family farming will include breaking this vicious circle.

Figure 22. The vicious circle of agricultural stagnation



Source: Elaboration of the authors, 2019.

Small-scale, fragmented and informal farming restrict investments in mechanization, leading to a low level of use of technology and farm machinery. Also, the knowledge base is restricted, as is implementation of national standards for production. The consequence is low productivity and low quality of the produce, which can cause low prices and thus low income from farming.

The stagnation of rural communities is often the result of this chain of factors, constraining smallholders from developing their production and improving their lives.

Breaking the vicious circle of poverty in rural areas demands an integrated approach in which all links in the circle are addressed at the same time. The strategic approach towards supporting smallholders and family farms in choosing the agricultural path as a survival strategy is to determine the key links in the circle and organize a set of interventions that simultaneously target the relevant problems.

The point of departure is formalization. Formalization is important for the commercially oriented part of the agricultural sector. There are no chances for success in the market, neither domestically nor internationally, if the production is not organized in compliance with national and international market requirements. FAO must have the ambition to professionalize smallholders and support their moving up into the formal economy, with all its institutionalized characteristics formulated as eligibility criteria for receiving public support, listed here:

- viability and minimum scale of production;
- formal registration of land market transactions;
- registration of farms;
- identification of livestock;
- market access and integration into value chains;
- educational requirements;
- national (and EU) minimum standards in food safety, hygiene, animal health and welfare, traceability, environment and working conditions; and
- accounting and bookkeeping systems and VAT and other taxes.

Formalization is not only related to the registered farmer as head of the farm, but also to those who contribute to the work of the farm, including family members, agricultural workers and seasonal workers. Formalization can help in improving their access to social protection, health and rights. The creation of the figure of the co-manager by law, as has been done in Belgium and Spain, can help in formalizing the role of the spouse in the farm and to improve his/her access to subsidies, credit, extension services and agricultural inputs, especially in the event of migration of the other spouse (FAO, 2018b; FAO, 2018c).

Formalization requires several interventions also beyond the capacity of FAO. However, it is a basic precondition for any development of the sector to be sure about land ownership, land parcels and borderlines. Therefore, it is essential that land registration is in place as a precondition, that the land tenure rights are recognized, secure and respected for all. In addition to formalization, necessary structural development needs to be supported to develop commercial family farms and reach economies of scale. The farms on the agricultural path will need more land, which can come from available state-owned agricultural land and private land from farms that will not develop into commercial family farms but will instead follow either the diversification path or the exit path.

SUPPORTING THE DIVERSIFICATION PATH

A large group of smallholders will have neither the economic and agricultural potential nor the personal interest or skills to develop into commercially oriented farms, as described earlier. Here, it will make little sense to demand formalization, with all its requirements. On the contrary, this large group of rural dwellers follows another survival strategy not relying on agriculture. This survival strategy may be nominated the diversification path. These rural dwellers have only limited access to public support in the form of grants, subsidies, extension services and others. As a consequence of this lack of access to various types of public agricultural support, these smallholder farms are staying behind in the informal sector, living from subsistence agriculture within a local barter economy.

Therefore, there is also a need to think in directions other than ensuring the formalization and professional commercialization described earlier. There is a need to think of alternative instruments and support measures for diversification that can be implemented without the requirements of full compliance with the traditional eligibility and formality criteria.²³ The tools in the toolbox are the development of knowledge and skills through enhanced extension and rural advisory services, financial

²³ The focus here is on production-oriented support, either diversification on- or off-farm, and thus also production outside of traditional agriculture. However, other policy areas are not covered. These could include policies linked more closely to the social dimension than usually is the case with production-oriented interventions.

support schemes, and the use of new financial instruments (variable aid intensity, interest subsidies, state guarantee loans, payments in tranches, up-front payments, and others), and private financing with in-kind labour.

Diversification may include the on-farm diversification of income-generating activities or off-farm diversification covering investments in other sectors of the rural economy or in the provision of various types of services relevant for the local community. Diversification also includes agritourism and rural tourism. It is the expectation that semi-subsistence smallholders, family farmers and rural dwellers interested in and capable of following the diversification path will move into commercialization and even also to formalization, where mixed agricultural and non-agricultural activities will generate family incomes. For the group of semi-subsistence smallholders and family farmers for whom commercialization and formalization is not an attractive and possible survival strategy, alternative jobs should be generated outside the sector, for example in services or other production sectors.

Also, integrated community development can be an option for supporting the rural dwellers pursuing the diversification path. FAO has had considerable good experience with local community development through project activities in several countries.

SUPPORTING THE EXIT PATH

A gradual and constant decline in total numbers of family farms and an increase in the proportion of households that need to get involved in other gainful activities is a consequence of structural changes. Similar to the life cycle of an organization, the life cycle of small subsistence farms consists of several phases: birth, growth, maturity and decline. More precisely, the process of a farm's exit from agriculture takes place in the following steps: limitation of production, discontinuation (land abandonment), devastation or divestment, and exit through the sale of the farm assets and the use of the land for other purposes (Satola et. al, 2018). These processes take place in all observed countries, at different paces and scopes but also with different impacts on the livelihood strategies of rural households. These livelihood strategies widely vary across individuals, families, groups and regions. However, all country studies point to an increase in the number of vulnerable farmers who gradually exit the sector due to ageing, outmigration, low productivity, poor resources or some combination of these factors.

Although the exit of small farms from agriculture will lead in the long run to the redistribution of land and the increase of farm sizes, in poor regions dominated by small-scale and semi-subsistence agriculture, high rates of exit of small farms may result in overall economic decline, environmental degradation and deterioration of social fabrics. This is particularly the case if the agricultural path and the diversification path have not been followed by semi-subsistence farmers and households. That is why governments should be committed to ensuring decent social protection systems and benefits that combat social exclusion and the poverty of elderly farmers in need and those poor working in agriculture.

Social support from public support schemes outside agriculture will be a precondition for this process. The structural development facilitated by the various measures supporting commercial development, for example leading to bigger and more productive farms, will push elderly and weak farmers out of production, and the social support network must be in place to avoid social de-route. In this regard, it is important that their ownership of small land plots used for subsistence farming does not prevent rural dwellers from having access to social security payments.

With farmers aging, permanent and long-lasting outmigration, and prevalence of traditional patterns of inheritance, it is increasingly important for many countries to accelerate the land and/or farm transfer to young farmers and agricultural workers. It is recommended to consider using early retirement support measures in which older farmers and household owners wanting to leave production and retire are supported. This can make their land available for younger farmers and for farmers with better preconditions to pursue the commercial agricultural path. In parallel, young farmer schemes should be developed to encourage youth to enter the sector and start up their business. The joint use of farm resources and facilities should be facilitated. Although such informal collaboration practices are already in place in some areas, they need to be supported and formalized.

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