



SAFETY AND SECURITY OF FOOD SUPPLY



This project is financed
by the European Union



REAC-OR
research in action



This edition of policy papers is developed to assist the civil society and citizens, in general, engage in an informed debate and have access to expert knowledge, views and opinions on topics of importance for EU integrations. Areas in which the Republic of North Macedonia will lead its EU accession negotiations are both complex and diverse, while reforms that need to be implemented will open many dilemmas that necessitate an expert debate. For more contents produced under the project “CSO Dialogue – Platform for Structural Participation in EU Integrations”, visit the website: **www.dijalogkoneu.mk**

■ Author: Frose Gjorgievska

■ This edition is available only in electronic format.

TABLE OF CONTENT

Introduction	4
Diverse and sustainable agriculture systems	4
Sustainable agriculture and natural resource management	6
The economic, social and political context	8
Sustainable agriculture production and legal regulations	8
Safety and security of food supply	10
Conclusions and recommendations	11

INTRODUCTION

Access to sufficient amounts of healthy and safe food is key to sustaining the life and wellbeing of people and animals. Unsafe food containing bacteria, viruses, parasites or chemical substances causes more than 200 diseases, ranging from diarrhoea to cancer. It is estimated that around 600 million people in the world (almost 1 in 10 people) fall ill and around 420,000 of them die due to having consumed contaminated and unsafe food (WHO).[1]

Increased world population growth, as well as intensification and industrialization of agriculture and animal-based food production in order to meet the increased demand for food create opportunities and challenges in the production of quality and safe food. Climate change is another factor that affects food safety and quality. These challenges increase the responsibility of all participants in food production.

EU hygiene rules for food products provide a high level of food safety. In the capacity of candidate country for EU membership, the Republic of North Macedonia continuously follows recommendations and demonstrates a good level of preparedness in the field of food safety, veterinary and phytosanitary policy, and has made some progress in agriculture and rural development.[2]

DIVERSE AND SUSTAINABLE AGRICULTURE SYSTEMS

Modern agriculture has an impressive history of productivity that results in relatively acceptable food outputs – for domestic use and as animal feed. In that, farmers produce more food by spending less energy. However, expansion of conventional agricultural production techniques (monoculture, use of agro-chemicals) causes an intensive environmental crisis everywhere in the world, leading science and scientists to face new unprecedented challenges, such as the need to assess, in environmental protection terms, efficiency of rural production systems (agriculture, livestock, forestry) in the context of sustainability. In the last decades, self-governance of rural eco-systems has been reassessed and awareness is raised about the need for reorientation of agriculture production systems and the development of alternative models for use of land. This does not only mean development of new social and political awareness but proposal of new conceptual approaches that ensure attainment of new goals. Hence, the emphasis is put on expansion and consolidation of agro-environmental principles, and revaluation of practices applied by rural agricultural holdings.

In the past years, the concept of sustainable development underwent a series of processes and changes.[3] Today, sustainable development is based on ethical principles such as respect for and harmony with nature, political values such as participative democracy and social equity, and moral norms such as environmental rationality. Sustainable development is egalitarian, neutral and self-managed, able to satisfy basic needs of people, respecting cultural diversity, and improving the quality of life. The concepts of agriculture and sustainable development refer to the need for minimizing degradation of fertile land, while working to increase production. They include agricultural activities such as soil and water management, crop management, and conservation of biodiversity, taking into account provision of food and raw materials.

Sustainability of agriculture production systems refers to capacity of the system to maintain its productivity in spite of economic and natural, external or internal, limitations. Sustainability is a function of natural features of the system and pressures and interventions it experiences, as well as social, economic, and technical interventions that are carried out to fight negative pressures, highlighting the system's resilience.

[1] [Food safety \(who.int\)](http://www.who.int)

[2] Commission Staff Working Document, 2021 Country Progress Report for North Macedonia, Chapter 12

[3] https://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S0379-39822016000500070#t1

Practitioners of sustainable agriculture aim to integrate three main goals in their work: healthy environment, economic profitability, and social and economic equity.[4],[5]



Figure 1: Sustainable agriculture assigns equal importance to all three main goals

Different philosophies, policies and practices [6] have contributed to development of these goals. In spite of diverse participants and perspectives contributing to development of this vision, these topics are best represented in definitions of sustainable agriculture.

Sustainability lies on the principle of satisfying needs in the present without endangering the possibility for future generations to satisfy their own needs. On that account, natural and human resource management is of primary importance.

Human resource management involves due consideration of societal responsibilities such as, for example, living and working conditions for labourers, needs of rural communities, and consumer health and safety. Land and natural resource management involve maintenance or improvement of this vital base of resources in the long run that necessitates systemic approach to understanding sustainability, which provides us with tools to research mutual connections between agriculture and other aspects of our environment. This systemic approach allows a more thorough overview of consequences from agricultural practices on environment, but also on human communities.

Transition to sustainable agriculture is a process. For farmers, transition to sustainable agriculture requires a series of small, but real and decisive steps, while the speed and scope of such transition depends on many factors, most important of which include family economy and personal goals and strives. Any decision can make a difference and contribute to promotion of the overall system. Also, studies on different types of natural and human systems show that systems striving in the course of time are usually able to do that because of their resilience, adjustability and diversity.

Resilience is critical because most agro-systems are facing conditions that are highly unpredictable and rarely stable in the long run. These refer to climate, pest populations, political contexts, etc. Adaptability is key component of resilience because it is not always possible or desirable for an eco-system to regain the form and function it had before a disturbance, but it can adjust and take new form according to newly emerging conditions or needs. Diversity often helps in conferring adaptability, because the greater diversity within the food system, irrespective of the types of crops or cultural knowledge, the more tools and opportunities will be available to the system to adjust itself to changes.

The agro-system and food system approach also implies multi-pronged efforts in research, education and operation. Not only researches from various disciplines, but also farmers, labourers, retailers, policy-makers and others who have a stake in agricultural and food systems have a key role to play in moving toward greater agricultural sustainability.

[4] <https://www.nature.com/scitable/knowledge/library/sustainable-agriculture-23562787/>

[5] <https://www.ucsusa.org/resources/what-sustainable-agriculture>

[6] <https://www.mdpi.com/2071-1050/12/9/3853/pdf>

SUSTAINABLE AGRICULTURE AND NATURAL RESOURCE MANAGEMENT

When production of food and fibre degrades the natural resource base, ability of future generations to produce and prosper decreases. Unfortunately, the world – our country included – is facing the risk of increasingly limited natural resources, such as land and water. The sustainable agriculture approach seeks to utilize natural resources in a way that allows regeneration of their productive capacity and minimization of harmful impacts on eco-systems beyond the field's edge. One way in which farmers try to reach these goals is by considering how to capitalize on existing natural processes or how to design their agricultural systems to incorporate crucial functions of natural eco-systems. By designing biologically integrated agricultural eco-systems that rely more on the internal cycle of nutrients and energy, it is often possible to maintain an economically viable production system with fewer potentially toxic interventions. Reflections on this matter have given rise to the concept of good agricultural practice (GAP).

The good agricultural practice (GAP) is a certification system for agriculture, specifying procedures (and accompanying documentation) that must be implemented to create food for consumers or further processing that is safe and wholesome, using sustainable methods.[7] Many farmers from developed and developing countries are already implementing good agricultural practices through sustainable agriculture measures such as: integrated plant protection, integrated food production management, and environmental protection. GAP is officially recognized in the international regulations on risk mitigation and is particularly desirable in the case of excessive use and abuse of agriculture pesticides.[8] The governments seek to reduce use of pesticides (“sustainability”) by introducing alternative methods for pest management, while also providing stable production of safe and healthy food, having in mind the health of producers and the society as a whole, environmental protection and compliance with safety regulations.

Care for safe and quality food in the entire production chain was initiated by COAG (Committee on Agriculture, which is governing body within FAO providing overall policy and regulatory guidance on issues related to agriculture, livestock, food safety, nutrition, rural development and natural resource management),[9] and implies accepting responsibility to ensure quality of food that is also safe for the health of those consuming it, should be applied across the entire food system and by all participants, starting with primary production, retail and wholesale, and ending with consumers. Such rise shows that good agricultural practices should be implemented across the entire food chain because each individual involved in the food system – agriculture producers, food processors, distributors, traders, consumers, and waste managers – have a role to play in ensuring a sustainable agriculture system, with main focus on primary production and food processing.

Moreover, good agriculture practices concern land and water management, plant production and protection, livestock breeding and health and wellbeing of animals, product processing and storage, waste management, etc. (FAO)[10] Sustainable agricultural production and good agricultural practices involve different approaches and strategies. Specific strategies must take into account topography, soil features, specific pests, and goals of individual agriculture producers. However, in spite of the specific nature of sustainable agriculture, there are general principles that could be applied in order to help farmers choose adequate management practices. In general, some of these practices include selection of adequate types and species adjusted to farm location and conditions; efficient and human use of inputs; diversification of crops and practices to improve the farm's biological and economic stability, and setting goals and choices for farmer's way of life.

[7] https://en.wikipedia.org/wiki/Good_agricultural_practice

[8] <https://www.pravdiko.mk/wp-content/uploads/2021/01/Zakon-za-fitofarmatsija-18-12-2020.pdf>

[9] [Committee on Agriculture \(COAG\) | Food and Agriculture Organization of the United Nations \(fao.org\)](https://www.fao.org/3/i6677e/i6677e.pdf)

[10] <https://www.fao.org/3/i6677e/i6677e.pdf>

More specifically, good practices for **soil management** are aimed at establishing accurate procedures within agriculture production processes that will minimize threats of degradation and loss of this limited natural resource, and they include measures and procedures for preservation and promotion of soil fertility, as follows:[11]

- proper and timely land preparation;
- introduction of crop rotation and leguminous forage crops;
- implementation of anti-erosion measures;
- proper fertilizers and care for crops, etc.[12]

Good agricultural practices related to **water management and irrigation** are those that maximize water porosity and prevent, i.e. minimize, overflow of surface waters. Proper surface and underground water management, precise irrigation planning and rational use of water, drainage and melioration when needed, application of irrigation methods that monitor water cycle of plants, terrain inclination, etc., as well as supply of clean and safe water for livestock, are just a few of good agricultural practices.[13],[14]

As regards **protection of plant production**, good agricultural practices include procedures such as:[15],[16] - selection of new types and species that are well adjusted to farm location and conditions; when possible, these should include selection of pest-resistant plants that are tolerable to existing land or location conditions;

- diversification of crops (including livestock) and practices to improve the farm's biological and economic stability – diversified farms are economically and environmentally more resilient. While monocrop agriculture has its own benefits in terms of efficiency and ease of management and protection, loss of harvest for one year might exclude the farm and/or seriously disturb stability of communities that are dependent on such crops. By growing different crops, farmers expand the boundaries of their economic risk and are less susceptible to radical fluctuations in prices imposed by changes in demand and supply;
- carefully planned crop rotation that will contribute to optimal use of labour and work means, thereby allowing maximum biological benefit from control over weeds and pests;
- use of attractive plants, which is aimed at attracting attention of pests;
- soil management to improve and protect its quality. A common philosophy among practitioners concerns the fact that key component of sustainable agriculture is “healthy” soil, meaning that healthy soil will yield healthy plants with optimum energy and less susceptible to pests. Sustainable systems perceive soil as fragile and vibrant medium that must be protected and cherished to ensure its long-term productivity and stability;
- efficient and human use of inputs in plant protection;

Many inputs and practices used by farmers in conventional agriculture are also used in sustainable agriculture. However, farmers that practice sustainable agriculture maximize dependence from natural, renewable agriculture inputs. Equally important is environmental, social and economic impact of particular strategies. Transition to sustainable practices does mean simple replacement of inputs, although it often includes replacement of chemical inputs that are harmful to the environment.

Nevertheless, the goal is to develop efficient biological systems that would not need too many inputs. Sustainable approaches are the least toxic and least energy intensive, while maintaining productivity and profitability. Preventive strategies and other alternatives need to be explored before deciding to use chemical inputs of any origin.

[11] <https://agencija.gov.mk/wp-content/uploads/2014/12/%23U0412%23U043e%23U0434%23U0438%23U0447-%23U0437%23U0430-%23U0414%23U0417%23U041f.pdf> - Manual on good agricultural, i.e. hygiene practice for agricultural holdings, 2. Soil and plant nutrition

[12] <https://dejure.mk/zakon/pravilnik-za-pravilata-za-dobra-zemjodelska-praksa-za-upotreba-na-gjubrinjata>

[13] <https://www.cahfsa.org/2-uncategorised/38-good-agricultural-practices-irrigation> (irrigation)

[14] <https://agencija.gov.mk/download/%D0%A0%D0%B5%D0%B3%D1%83%D0%BB%D0%B0%D1%82%D0%B8%D0%B2%D0%B0/1316587162VodiczaDZP.pdf> - Manual on good agricultural, i.e. hygiene practice for agricultural holdings, 3. Waters

[15] <https://agencija.gov.mk/download/%D0%A0%D0%B5%D0%B3%D1%83%D0%BB%D0%B0%D1%82%D0%B8%D0%B2%D0%B0/1316587162VodiczaDZP.pdf> - Manual on good agricultural, i.e. hygiene practice for agricultural holdings, 4. Plant protection

[16] Manual on good agricultural practice in the Osogovo Region, 2 Plant protection, 2.2. Methods for plant protection:

<http://www.mes.org.mk/PDFs/Popular%20issues/Priracnik%20GAP.pdf>

As regards **livestock production**, recommendations for good agricultural practices concern methods and procedures that avoid long-term harmful effect on land, water and air as a result of livestock activities.[17], [18],[19] When the agriculture system includes livestock breeding, economic and biological relations become rather complex. Sources of such complexity include: stock mobility, daily feed, seasonal food and feed sources, possible health problems, breeding practices and complex marketing. That is why livestock breeders need to carefully plan their activities and adhere to stipulated measures and recommendations, such as:

- livestock traceability, identification and registration;
- livestock density;
- livestock health and wellbeing;
- livestock facility maintenance;
- livestock feed management;
- removal of dead livestock and other by-products of animal origin;
- manure management, etc.

ECONOMIC, SOCIAL AND POLITICAL CONTEXT

In addition to preservation of natural resources and change of production practices, sustainable agriculture requires change of public policy, economic institutions and social values. Change strategies must take into consideration the complex reciprocal and changing relation between agriculture production and the broader society. The “food system”[20] stretches way beyond the farm and includes interaction between individuals and institutions that have conflicting and oftentimes competitive goals, including farmers, researchers, input suppliers, agriculture production advisors, processors, retailers, consumers and policy-makers. Relations among these actors change in the course of time because new technologies bring about economic, social and political progress. Broad variety of strategies and approaches are needed for creation of more sustainable food systems. They range from necessary and concerted efforts to change specific policies and practices, to long-term reform at key institutions, re-examining priorities and challenging commonly established values in the society.

SUSTAINABLE AGRICULTURE PRODUCTION AND LEGAL REGULATIONS

In addition to efforts to increase production and quality thereof, agriculture production must also comply with a series of legal provisions that exist within the Macedonian legislative system and concern health protection of people, animals and plants, implementation of provisions on animal wellbeing and environmental protection. Moreover, daily operations of farmers must comply with and enforce the principles of good agricultural practice that contribute to attainment of better and sustainable agriculture.

Government of the Republic of North Macedonia, in cooperation with the Ministry of Agriculture, Forestry and Water Economy and the Agency for Financial Support to Agriculture and Rural Development, and together with farmers, aims to[21] achieve agriculture production of greater scope and efficiency, but also production that would not have problems in complying with legal provisions whose implementation is of general interest. Under the Program for Rural Development, attainment of this goal is supported with the measure on direct payments, as well as other measures that support adequate investments in agriculture. The connection between compliance with specific minimum requirements for good agriculture practice and payment of subsidies under this measure is called cross-compliance. By complying with and applying law-stipulated measures, farmers work in line with majority of legal regulations in effects and qualify for full payment of subsidies.

[17] <https://agencija.gov.mk/download/%D0%A0%D0%B5%D0%B3%D1%83%D0%BB%D0%B0%D1%82%D0%B8%D0%B2%D0%B0/1316587162VodiczaDZP.pdf> - Manual on good agricultural, i.e. hygiene practice for agricultural holdings, 6. Livestock breeding

[18] <https://zelenaberza.com.mk/prakticni-upatstva-i-preporaki-za-dobra-zemjodelska-praksa-vo-stocarskoto-proizvodstvo/>

[19] http://www.fznh.ukim.edu.mk/images/stories/rezultati/mtrajcev/sistemi_za_bezbednost_pred.1_slajd_1-30.pdf

[20] <https://www.ifpri.org/topic/food-systems#:~:text=Food%20systems%20are%20the%20sum,foods%20to%20consumption%20and%20disposal.>

[21] <https://vlada.mk/node/22511>

Conditioning direct payments in agriculture with implementation of mandatory requirements and conditions is regulated under Article 49 of the Law on Agriculture and Rural Development (“Official Gazette of the Republic of Macedonia” no. 49/10, 53/11, 126/12 and 15/13, 69/13, 106/13, 177/14, 25/15, 73/15 and 83/15).[22], [23]

The purpose of cross-compliance is to help implementation of practices for food and feed production that minimize negative impact on the environment and prevent depletion and irrational use of resources and means used in agriculture production, i.e. soil, water, animals and plants.[24] Good agricultural practices are based on application of agro-technical and other measures that ensure:

- high level of health protection for consumers;
- protection of the environment;
- responsible land management, maintenance of soil fertility, structure and nutrient contents;
- responsible use and protection of water;
- safe use and storage of plant protection products and accompanying equipment, and safe work methods;
- manure management;
- record keeping on activities at the agriculture property.

Implementation of enlisted agricultural practices is of increasing importance and benefit, primarily for health of farmers, but also of consumers and others involved in the production system, and for ensuring conditions for performance of agriculture activities and production in the future, while preserving natural resources like water, soil and air.

Farmers that have applied for funding under the Program for Financial Support to Agriculture and Rural Development need to fully implement the obligation on cross-compliance. Starting from 2013, all applicants for financial support are required to submit statement confirming their familiarity with conditions from the list of specific minimum requirements for good agricultural practice and environmental protection published in the form of rulebook and indicating their preparedness to comply with and implement these requirements.[25] These conditions must be fulfilled on all agriculture land within the agricultural holding, independent of its production capacity (land area, number of livestock, beehives, etc.), which is subject of the application for financial support, throughout the entire year.

In our country, agriculture is an exceptionally important strategic branch and the second biggest contributor in gross national income. Agriculture is essential for development of rural areas and the economy in general.

In the last two years, under conditions of global pandemic caused by COVID-19, the entire world, including our country, has felt the need for the population to be supplied with healthy, quality, safe and diverse food.

What is particularly important for citizens in our country is to be supplied sufficient quantities of domestically produced food. In that, food should be healthy, quality and safe for consumption. Equally important is agriculture product processing that provides an added value and ability to compete on domestic and European markets, and broader. This moment is very important for economic development in the country. Hence, the Government of the Republic of North Macedonia aims to achieve increased production and improved quality of Macedonian agriculture products by creating conditions for sustainable agriculture and modernization of primary and secondary agriculture production, protect the environment, ensure food safety and animal wellbeing, i.e. create competitiveness and added value of agriculture products, and ensure that market demand is matched by domestic production. To attain these goals, agriculture needs to adjust to global climate change that requires investment in adequate innovative measures that will have positive impact on harvest and quality of agriculture products. In that, farmers need to be regularly informed, educated and advance their knowledge and practices.

[22] <http://zpis.gov.mk/Upload/Documents/Zakon%20za%20zemjodelstvo%20i%20ruralen%20razvoj%20mart%202017.pdf>

[23] <https://www.slvesnik.com.mk/besplatno-pristap-do-izdanija.nspix#>

[24] [Priracnik za vkrstena soobraznost.pdf](Priracnik%20za%20vkrstena%20soobraznost.pdf) (zpis.gov.mk)

[25] <https://ipard.gov.mk/wp-content/uploads/2020/02/%D0%9F%D1%80%D0%B0%D0%B2%D0%B8%D0%BB%D0%BD%D0%B8%D0%BA-%D0%B7%D0%B0-%D0%B7%D0%B5%D0%BC%D1%98%D0%BE%D0%B4%D0%B5%D0%BB%D1%81%D0%BA%D0%B0-%D0%BF%D1%80%D0%B0%D0%BA%D1%81%D0%B0%D0%A1%D0%BB.%D0%92%D0%B5%D1%81%D0%BD%D0%B8%D0%BA.pdf>

This effort must include the state advisory body, i.e. the National Extension Agency (NEA),[26] whose primary goal is to ensure transfer of information and knowledge and quality implementation thereof by agricultural holdings, in order to improve quality and quantity of agriculture production that is cost-effective, competitive on domestic and EU markets and beyond, ensure sustainable development and provide support for agriculture policy development and implementation, by keeping the database of agricultural holdings, including through field visits to such holdings, in coordination with other competent institutions such as the Food and Veterinary Agency, the Agency for Financial Support to Agriculture and Rural Development, etc.

Government of the Republic of North Macedonia has created a series of activities and measures as direct support for creation of SUSTAINABLE AND COMPETITIVE AGRICULTURE PRODUCTION SYSTEM.[27]

SAFETY AND SECURITY OF FOOD SUPPLY

According to the United Nations Food and Agriculture Organization (FAO), food quality is a “complex characteristic of food that determines its value or acceptability for consumers”.[28] Nutritional value of food contributes to its organoleptic and functional properties. Another element of quality is food safety. Safe food does not contain any substances that might endanger the health of people (FAO). Today, food safety has become a global concern. Fast growth of international trade in foodstuff has exposed consumers in many countries to greater food variety. At the same time, such trade may introduce new or unknown risks to food safety, making the chain of responsibility longer and more complex. In order to keep pace with the food supply chain extension, food safety management systems need to be continuously improved to ensure that people are provided safe food products (Gorris, 2005; Unnevehr & Huirne, 2002). Examples of food safety management systems include hazard analysis critical control points (HACCP), good manufacturing practices (GMP), etc. The intergovernmental working group tasked with developing a set of voluntary guidelines to support “progressive realization of the right to adequate food in the context of national food security” was formed in the aftermath of the World Food Summit in 1996 (convened by FAO). FAO adopted these guidelines in 2003. While they are voluntary, the guidelines provide an additional instrument to fight hunger and poverty and thereby help accelerate attainment of the Millennium Development Goals[29] and encourage world nations to establish governmental controls designed to ensure food safety and protect consumers.

At its 70th jubilee session in 2015, the UN General Assembly adopted the document titled “Sustainable Development Goals”,[30] approved by 193 member states, including Macedonia. This document represents continuation of achievements under the UN Millennium Development Goals and takes a step further by setting new goals and priorities. In particular, the document outlines 17 goals that anticipate specific measures to fight poverty, inequality and climate change, and pave the path for the next 15 years.

The Republic of North Macedonia and United Nations Sustainable Development Cooperation Framework[31] under which a total of 18 agencies have committed to work together in the next 5 years to help the country attain the Sustainable Development Goals is the key strategic document that outlines work of United Nations Agencies in North Macedonia and was developed in close partnership with the Government of North Macedonia and other important partners. It is in line with national developmental priorities, international human rights, gender equality commitments and 2030 Agenda. [32] Moreover, the cooperation framework seeks to ensure full alignment with the EU integration process.

Sustainable Development Goals are actually a global call for action to end poverty, protect the environment and climate, and for all people to live in peace and prosperity.

SDG2[33] aims to end hunger, achieve food security and improve nutrition, as well as to promote sustainable agriculture. In order to attain this goal, several targets are defined, as follows:

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

[26] <https://agencija.gov.mk/>

[27] [Agriculture Policy, Government of the Republic of North Macedonia \(vlada.mk\)](https://www.vlada.mk/en/agriculture-policy)

[28] <https://www.fao.org/3/x1845e/x1845e.htm>

[29] <https://www.mdgmonitor.org/>

[30] <https://northmacedonia.un.org/mk/sdgs>

[31] https://northmacedonia.un.org/sites/default/files/2020-11/UN-SDCF-MK_macedonian_signed.pdf

[32] <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

[33] <https://northmacedonia.un.org/mk/sdgs/2>

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

2.3 By 2030, double the agricultural productivity and income of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

2.A Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.

2.B Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.

2.C Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

CONCLUSIONS AND RECOMMENDATIONS

Use of sustainable agricultural practices is not an end in itself. In economic, social and environmental terms, they represent an idea and process that is subject to different changes in contemporary values and perspectives. For example, climate change and adaptation of agriculture to such changes was not an issue twenty years ago, but today it represents an actual problem and challenge that gains increasing attention, studies, research, etc. Hence, it cannot be said that agricultural systems are moving by default from unsustainable to very sustainable.

Attainment of sustainable agricultural system and provision of healthy, quality and safe food is a shared responsibility of all participants, i.e. farmers, policy-makers, labourers, researchers, retailers, waste managers and consumers. Each group has to make its own contribution to strengthening the sustainable agriculture community.

According to EU recommendations, the Republic of North Macedonia has achieved good progress, especially in respect to improving control over plant health and has shown good preparedness in the field of food safety and veterinary policy.

As regards general food safety, the Food and Veterinary Agency adopted the new Strategy on Food Safety for the period 2021-2025.[34] FVA works in compliance with quality assurance standard ISO 9001:2015 and implements consumer protection measures.

[34] https://drive.google.com/file/d/12j1gj1-ByEEBJp1iBvkXJ4z6_CWuIH0C/view

In respect to veterinary policy, national legislation on implementation of the control system of the internal market and on import and export of live animals and animal products, on certification system, the computer system and the border control posts is aligned with the EU acquis. Good progress is also noted in respect to control measures for animal diseases.

Good progress and legislation alignment with EU acquis was made in respect to placing of food, feed and animal by-products on the market, food safety rules and phytosanitary policy.

Despite good progress in this field, all recommendations are not fully implemented. Hence, the need for enhanced dynamics in implementation of recommendations and greater attention to capacity building at relevant institutions, primarily the Food and Veterinary Agency, concerning data collection, analysis and verification, improving the system of livestock identification and registration, and implementing adequate measures for sustainable use of pesticides.[35]

Since 2013, the country has introduced good agricultural practices as legal obligation for all farmers that apply for direct payments (subsidies). Underway is development of the rulebook that will define provisions and sanctions for owners of agricultural holding that do not implement cross-compliance standards.

Moreover, promotion and integration of diversity in agro-systems across the farms requires targeted and simultaneous measures at local, national and EU level, both in terms of institutional support and in terms of policy and market development. As regards institutional support, all government institutions affected by this problem, such as FVA, in coordination with other relevant agencies and ministries, need to make efforts aimed at awareness raising and education of farmers on proper implementation of standards.

[35] Commission Staff Working Paper, 2021 Country Progress Report for North Macedonia, Chapter 12.

THROUGH
DIALOGUE

