

Contents lists available at ScienceDirect

Food Policy

journal homepage: www.elsevier.com/locate/foodpol



Sustainable food systems for healthy diets in Europe and Central Asia: Introduction to the special issue



Eleonora Dupouy^a, Mirjana Gurinovic^{b,*}

- ^a Food and Agriculture Organization of the United Nations, Italy
- b Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, National Institute of Republic of Serbia, University of Belgrade, Serbia

ARTICLE INFO

Keywords: Europe and Central Asia Healthy diets Nutrition Governance Food systems Sustainability

ABSTRACT

This Special Issue highlights various good practices and food policy discussion in relation to the transformation of current food systems toward their social, environmental and economical sustainability. The papers describe policies, programmes and initiatives in developing and advanced economies of Europe and Central Asia that refer to the core elements of food systems, such as food supply, food environments, and consumers. The shared opinions, analyses, studies and approaches, experiences and insights contribute to a better understanding of regional specificities and support the efforts to guide the complex food systems' transformation for their improved capacity to deliver healthy diets.

1. Background

Progressive reforms require innovation, both gradual and transformative in their pace, to enable the necessary change. This Special Issue highlights various good practices and food policy discussion in relation to the transformation of current food systems into systems that are socially, environmentally and economically sustainable. The papers describe policies, programmes and initiatives in developing and advanced economies of Europe and Central Asia that refer to different elements of food systems, including food supply, food environments, consumers. The shared opinions, analyses, studies and approaches, experiences and insights contribute to a better understanding of regional specificities and support the efforts to guide the complex food systems' transformation toward their sustainability and improved capacity to deliver healthy diets. This Special Issue also facilitates the understanding of interconnections and consequences of food policies for food security and healthy diets in the region of Europe and Central Asia. It promotes a holistic food systems approach, policy coherence across government jurisdictions and inter-sectoral collaboration to address all forms of malnutrition present in the region. This Special Issue shares options to consider for addressing multiple challenges under global pressures and competing priorities, and highlights trends and opportunities for achieving the common goal of sustainable food systems for healthy, diversified and balanced diets for all.

The particularity of the region of Europe and Central Asia (ECA) is its heterogeneity: it includes some of the richest countries in the world, European Union countries, one low-income and a number of uppermiddle and lower-middle income countries with developing economies.

Over the last three decades, the countries in Central and Eastern Europe, Balkans, and Central Asia faced significant structural societal and economic transformations after the dissolution of the Soviet Union and the Socialist bloc. The subsequent dismantlement of collective farms, closure of most industrial enterprises and disruption of trade led to unemployment and migration of active population both from rural areas to cities and to foreign countries in search of better livelihoods. The newly created independent states and the new governments had to cope with the challenges of the transition from a socialist to a market agriculture.

New development opportunities for emerging private farms, food processing and retail firms, new institutions setting and civil society development were opened by the land reform with fragmentation and distribution of land plots to all adult rural population, land privatization and consolidation of farmland, liberalization of entrepreneurship and trade, and EU accession. These processes resulted in market development with associated diversification of local food production, intensification of intra-regional and international food trade, increase in incomes, welfare and sensible improvements in food diversity, food availability and nutrition.

E-mail address: mirjana.gurinovic@gmail.com (M. Gurinovic).

^{2.} Europe and Central Asia: A dynamic regional context

^{*} Corresponding author.

The key challenges faced by most advanced economies relate to rising immigration and urbanization, agri-food production intensification and the reorganization of national food control systems based on the whole food chain approach "from farm-to-fork" and on risk analysis principles. Together with the development of industrial agriculture and the intensification of crop and animal production, innovative alternative production technologies confirm their viability across the region. The trend to revive and protect the production of traditional foods and support short value chains development are part of the ongoing processes of agricultural innovation and food systems transformation in the region. The goals are to advance food systems' inclusiveness, resilience and sustainability, as well as their capability to deliver appropriate quantities of safe foods for healthy diets.

Today, food systems experience tremendous global challenges and the path of reforms shall continue both through incremental and transformative actions for further improvements in food and nutrition security at local, country and regional levels. These reforms shall find inspiration and align with international agreements, policies and targets, including the FAO/WHO Second International Conference on Nutrition (ICN2) outcomes (FAO/WHO, 2014a and 2014b), the 2030 Agenda for Sustainable Development (United Nations, 2015a) and the Paris Agreement (United Nations, 2015b). These agreements require that stakeholders across food systems operate coordinated inter-disciplinary transformative changes, such as the implementation of nutrition-sensitive and low footprint agriculture, mobilisation of higher and sustained investments for food systems' research and innovations, widespread promotion of dietary change and the transition towards circular economies - all to enable more stable and healthy diets. The evolving structural transformation of food and agriculture in the region is continuously searching options to multiple and complex global trends and regional challenges. Sustainable, resilient and inclusive food systems together with promoting agroecology and related good practices these two areas are recognized as central priorities for the regional food policy (FAO, 2019). Traditional and modern food production and distribution coexist and complement each other in Europe and Central Asia, both offering particular opportunities for achieving better nutrition and contributing to more sustainable food systems and both having aspects to be further developed.

3. The concept of sustainable food systems

The concept of food systems became central in food policy as a guiding framework for strategic thinking towards achieving diverse, safe and nutritious food for all. The food system "encompasses all actors, activities, actions and processes involved in the continuum of food production to consumption, including production, storage, processing and manufacture, distribution, marketing, retail, consumption and disposal of goods that originate from agriculture, forestry or fisheries, including the inputs needed and the outputs generated at each of these steps. Food systems involve people and institutions that initiate, sustain or inhibit changes as well as the socio-political, economic and technological environment in which these activities take place" (FAO, 2019). A sustainable food system is defined as "a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised" (HLPE, 2014). "Sustainable food systems shall generate favourable outcomes related to the three dimensions of sustainability and as such be economically profitable, bring balanced and more equitable benefits for the society, and have a positive or neutral environmental impact" (FAO, 2018).

Sustainable food systems emphasize the role of diets as a core link between foods, human health and nutrition outcomes. Sustainable food systems for healthy diets feature in the Rome Declaration on Nutrition¹, are at the heart of the Sustainable Development Goals (SDGs) and are

identified as the first pillar of the UN Decade of Action on Nutrition², encouraging countries' commitment and responsibilities for joined-up reforms. Food systems transformation is key to increasing food security, providing healthy diets for all, reducing the incidence of non-communicable diseases (NCDs) and strengthening the sustainable management of natural resources in the face of climate change. For effectively achieving the nutritional objectives it is necessary and essential to adopt a holistic approach of sustainable food systems that considers their entirety, completeness and how they relate to environmental, social and economic dimensions and that all key sectors and actors embrace the same vision, align their policies and coordinate their actions for the needed nutritional outcome. More than ever before policymakers need to understand the utility of a holistic, systemic approach when designing food policies, as well as advantages of identifying trade-offs and maximizing synergies.

Food supply, food environments and consumer behavior are essential elements of food systems that determine the nutrition and the connection to health (HLPE, 2017). Following this structure of food systems, Kawabata et al. (this issue) demonstrate the utility of applying the analysis of food systems elements (i.e. food supply, food environment, and consumer behaviors) to derive insights essential to understand the complexity and interconnectedness of factors when formulating policy options to eradicate hunger, achieve food security and improved nutrition at country level.

4. Governance, cooperation and coordination for sustainable food systems and healthy diets

Food systems are dynamic, in continuous change and influenced by policies in other systems and domains, such as education, health, economic development, social protection, and environment. Across countries and territories, many types of food systems have evolved with various potential to respond to food security and nutritional needs of populations. Over the last decades, while adjusting to pressures from demographic, economic and social trends, food systems became more industrial, commercial and globally connected. Furthermore, alternative niche initiatives and policy frames demonstrated their capacity to provide value addition to the industrial models and proved to be critical for the transition toward more sustainable food systems.

The stringency of the food security and nutrition challenges requires a sustainable food system holistic approach as a frame to consider, guide and enable stronger policy coherence across sectors and actors. Poor dietary habits are associated with a range of chronic diseases and can potentially be a major contributor to the non-communicable disease (NCD) mortality in all countries worldwide. This highlights the urgent need for coordinated efforts to improve the quality of human diet, and requires active collaboration of a variety of actors throughout the food system, along with policies targeting multiple sectors of the food system.

Policy measures often involve multilevel, multisectoral, and multicomponent actions. A major constraint for a comprehensive food system approach in policy-making is often the lack of awareness and to certain degree the thin evidence about the actual and potential impacts, spillovers of policy and programmatic action that crosses traditional sectoral boundaries. To enable effective reforms, food system oriented policies should "take the shape of comprehensive packages" that would enhance at the same time beneficial spillover effects in co-lateral sectors. De Schutter et al. (this issue) advocate for a deep policy integration between different policy areas (agriculture, trade, health, environment protection, etc) to promote healthy diets and capture synergies to comprehensively address other inter-connected challenges in food

¹ See Rome Declaration on Nutrition. http://www.fao.org/3/a-ml542e.pdf

 $^{^2}$ See the Report of the Secretary on "General Implementation of the United Nations Decade of Action on Nutrition (2016–2025)". <u>https://undocs.org/en/A/74/794</u>

systems (climate change, biodiversity loss, food poverty). The same paper proposes an innovative view on governance suitable for the transition to sustainable food systems. A policy framework that links the policy cycle to transition theories analyzing the evolution of food and nutrition security aspects in various cycles of the Common Agricultural Policy is proposed and discussed by Galli et al. (this issue).

Food systems approach necessitates a good understanding, institutional innovation, capacity development and knowledge sharing for facilitating multiple sectors engagement. Gurinovic et al. (this issue) showcase the contribution of non-state actors (research, academia, civil society) to capacity building in nutrition and awareness raising on food systems approach. The paper highlights the challenges related to the multi-sectoral nutrition governance and working mechanisms in developing economies, better linkages needed between the research and public policy, and the need in adequate budget allocation to bring the national nutrition policies into life.

In particular, a dietary survey to collect and analyse in a harmonized way the food consumption data is a needed capacity to build in the region. Ioannidou et al. (this issue) call for robust evidence needed on the actual intakes of various foods and nutrients that would enable better definition of the existent gaps in current diets relative to benchmarks of healthy diets. Knowledge of food composition and food consumption serves multiple purposes and is essential for planning food production, trade policy design, food safety risk assessment, nutritional risk assessment and determining dietary preferences for adequate policies and actions to improve nutrition. An approach is described to promote data comparability across countries and harmonization of data collection methodologies.

A comprehensive multi-sectoral approach to achieve nutritional objective through sustainable food systems must ensure as well that food safety is an integral part of food and nutrition policies. Food safety is a prerequisite of food security and adequate nutrition - what is not safe, is not food and it is not fit for human consumption. Food safety is a critical condition for achieving nutritional goals and protecting public health. Food systems fail on their major duty if the food is not safe. Nutritional goals cannot be achieved without safe food due to foodborne illness, children being affected by stunting caused by diarrheal disease and impossibility to alleviate poverty since unsafe food cannot be traded. Key actions and strategies to address current and future challenges to food safety in the context of on-going changes in food systems were identified by the two international food safety conferences held in 2019.3 Due to interlinkages, it is essential the efforts to ensure food safety are integrated with those targeting to improve food security, dietary quality and nutrition. This has been highlighted in many important global policy initiatives, including at the ICN2. A special attention is required to adopting and promoting the "One Health" approach for coordinated and integrated actions on food safety, animal health and antimicrobial resistance from both food chain and human health perspectives⁴, considering as well other relevant policy areas, such as plant health and environment protection to reconnect agriculture, food, environment, and health for sustainable food systems.

The systems approach also facilitates the identification of interrelations and the minimization of trade-offs, anticipating unintended consequences of various policy options and helping to grasp the available opportunities for cooperation among actors. Based on a case study on food environment in kindergartens and schools, Kovacs et al. (this issue) provide an analysis of a set of interconnected policies, concluding that it is essential that actions build on synergistic and mutually reinforcing policies to improve food environment. Lakerveld et al. (this issue) propose a new approach to developing new knowledge through

appropriate design, methods and tools. Authors present a multidisciplinary evaluation framework and a methodology for assessing two policy indexes that relate to the food and physical activity environments, respectively.

5. Food systems in the region of Europe and Central Asia: Challenges for nutritional health

While recognizing the merit and multiple positive features of modern food systems, such as providing food availability for the vast majority of world population and supporting the livelihoods of over one billion people, these advantages comes at high environmental and social costs expressed in environmental degradation and increasing prevalence of diet-related non-communicable diseases. Current food systems may be inefficient, unsustainable and not able to deliver healthy diets (GLOPAN, 2016). This section features the major regional challenges for achieving nutritional health covered in this Special Issue.

Improvements in agricultural production and productivity associated with economic and incomes growth and overall increase in food availability, stability and access have nearly eliminated hunger and undernutrition in Europe and Central Asia. Yet, pockets of food insecurity, micronutrient deficiencies, overweight and obesity co-exist in varying degrees in all countries of the region (FAO, 2019), and most countries are exposed to a nutrition transition. Diet-related NCDs affect all countries in the region with higher prevalence in Eastern Europe and Central Asia, with a regional average of about 43% of disability adjusted life years (DALYs) caused by modifiable dietary risk factors and physical inactivity (FAO, 2015). Frison and Clément (this issue) provide, through sustainability lenses, an overview of the severe consequences generated by the current food systems, evidencing sectoral policy inconsistencies with respect to the nutritional goals and identifying a range of conditions that are critical to address within the positive transformative process of the current food systems.

The monitoring of policies by the member countries of the WHO European Food and Nutrition Action Plan 2015-2020 shows numerous improvements in the food and drink environment, such as school food policies and product reformulation for salt reduction. However, the process is far from being complete. Breda et al. (this issue) focus on the areas in need for more policy action, and refer to front-of package labelling, restrictions on food marketing to children, promotion and support to exclusive breastfeeding and appropriate complementary feeding practices. The same paper emphasizes the need for more standardized and harmonized health surveillance. The largest gaps in health surveillance and monitoring policy implementation that limit the data comparability across the region and trends identification are in countries of Central and Eastern Europe, and in Central Asia.

Healthier food environments require more determined policy and action on food reformulation beyond cost-reducing purpose. Particular relevance is attached to the elimination of industrial trans-fatty acids. Stender (this issue) shows a decreasing trend over the last five years in the content of industrial trans-fats in local foods of several countries of South-Eastern Europe, Caucasus and Central Asia, and points out at remaining gaps of various degree relative to the WHO recommendations. Public regulation of industrial trans-fats content in Denmark proved to be an effective food policy with significant benefits for public health. Nutrition-sensitive food reformulation can be successful only combining private sector engagement with government oversight and monitoring.

The 2018 estimates of food insecurity obtained by using the Food Insecurity Experience Scale (FIES) – a methodology based on perceptions of the surveyed population - indicate that 11 percent of the population (over 100 million people) faced difficulties in accessing nutritious and sufficient food, meaning their exposure to moderate or severe food insecurity. The FIES indicator complements the information provided by the prevalence of undernourishment, bringing additional details on food access. The regional average for the prevalence of severe

³ FAO and WHO. 2020. The Future of food safety – Transforming knowledge into action for people, economies and the environment. Technical summary by FAO and WHO. Rome. https://doi.org/10.4060/ca8386en

⁴ Recommendations #53-57, ICN2 Framework for Action (FAO, 2016)

food insecurity (meaning the likelihood for a person of running out of food, experiencing hunger and, at the most extreme, going for days without eating) was estimated at 1.8 percent, or about 16.5 million people of the total regional population (FAO, 2019). The prevalence of stunting in children under age of five years ranges across the region between 1.1 and 26.7% and the prevalence of wasting between 0.2 and 10.0%. In some countries in Central Asia, stunting among the poorest groups in rural areas was nearly twice as high as in cities. This underscores the importance of addressing the underlying conditions in poor rural areas, including poverty, long-term insufficient nutrient intake, poor diets, and frequent infections (FAO, 2019). Another facet of malnutrition in the region is the high and continuously rising proportion of population of all ages that is overweight or obese (Inchley et al., 2017). There is a constant increase in the prevalence of obesity among adults of all sub-regions during the period between 2000 and 2016. The highest rates of increase are in Central Asia (42.1 percent), Caucasus (37.6 percent), Western Balkans and Turkey (31.6 percent). In children under five years, the prevalence of combined overweight and obesity is even higher, representing over 30 percent in many countries (FAO, 2015). The prevalence of child overweight is high or very high in almost all countries in the region with higher increasing trend in Montenegro, Serbia, Turkey and Caucasus countries (FAO, 2019). Exposure of young generations to healthy food environments is critical for their health and wellbeing in adult age. Creation of healthy food environments in schools and education of the future generation of consumers are discussed in the papers of Kovacs et al. (this issue), Gwozdz et al. (this issue) and Hyska et al. (this issue).

At the same time, millions in the region are anaemic, or suffer from iodine, zinc, or vitamins A and D deficiencies. The estimates of regional prevalence of iron deficiency anaemia is at 20-40%. Significant levels of micronutrient deficiencies, overweight and obesity found in the region, along with substantial variability between countries, age groups and gender indicate the need for country-specific and targeted approaches to address malnutrition. Policy options, multi-sectoral contributions and good practices for transforming food systems to provide healthy diets and improved nutrition in a collaborative and coherent manner have been discussed in-depth at the FAO/WHO Regional Symposium on Sustainable Food Systems for Healthy Diets in Europe and Central Asia held in December 2017 in Budapest, Hungary, in collaboration with the United Nations Children's Fund (UNICEF) and the World Food Programme (WFP).5 Important highlights and key messages that emerged from the symposium's deliberations referring to nutrition governance, partnerships, cooperation and capacity development in the region are addressed to governments and major non-state actors and were brought at the political level by informing the 31st FAO Regional Conference for Europe (ERC-2018) held in May 2018 in Voronezh, Russian Federation⁶.

6. Agriculture and the environment–fundamental basis for good nutrition

Industrial crops and livestock production is associated with important freshwater withdrawal from the natural circuits and its pollution, and greenhouse gas emissions. The environmental impact of agriculture also stems from deforestation and related loss of biodiversity, genetic resources and ecosystems services, from land degradation and the dual problem of either excess, or insufficiency of

agricultural inputs used. Frison and Clément (this issue) showcase advantages and potential of diversified agroecological systems for health and nutrition while simultaneously addressing the environmental, social and economic issues. The impact of food consumption pattern on the environment shall not be underestimated. Over the last two decades there have been significant changes in food consumption structure and it is expected that income growth in middle-income countries would deepen the dietary transition towards higher consumption of resource-intensive animal-origin food adding further pressure on natural resources. A domain with potential to both enhance the environmental sustainability and reduce micronutrient deficiencies is to apply measures to reduce the high food and nutrient losses and waste throughout the food system. Some 180 kg/inhabitant of food is wasted in the EU countries alone. Specific, differentiated policies and strategies are mobilized to address these flaws in the region (FAO, 2014).

7. Healthy diets' role in overcoming emergencies

Emergencies of any nature have the potential to impact food supply and diets. The unprecedented COVID-19 global health crises has affected food supply, food trade, food demand and consumption with unfavourable impact on food security and nutrition. The pandemic revealed the fragility of food systems and underscored the importance of the timely provision of science-based advice and knowledge sharing. The inter-sectoral and multi-stakeholders policy dialogue and technical collaboration proved essential for keeping food supply ongoing, able to deliver and ensure enough quantities of nutritious and safe food reach people through various distribution channels, such as domestic markets, international trade, humanitarian aid and through emergency food assistance, while avoiding the loss of high-value nutritious perishable food. The pandemic stressed once more the value of collaboration, solidarity, responsibility, importance of surveillance, communication and adherence to common goal to ensure food security, food safety, nutrition, income and welfare of people around the world. Learnings from COVID-19 pandemic inform the preparedness for future emergencies with solutions extending to the need of diversifying food production methods and scale, promoting agroecology and short value chains, building resilience of smallholder producers, micro-, small and medium food processing enterprises, embedding digitalization and food safety into the food supply chains.

Unhealthy diets and malnutrition are the leading causes of ill health. The pandemic reminded that strong immunity, resistance to communicable diseases build on healthy diets. It is well-established that nutritional inadequacy greatly impairs the functioning of the immune system. People with diet-related NCDs are at a heightened risk of becoming severely ill with COVID-19. Now it is more important than ever to consume healthy diets to ensure good functioning of all physiological systems and strengtehning the immunity. The current nutrition challenges in ECA region with identified triple burden of malnutrition, high prevalence of NCDs and poor diets urge countries to mobilize policies to strengthen food systems' resilience and the immunity of population through healthy diets.

8. Wrapping up

This Special Issue provides a resource for a broad circle of stake-holders to guide the analysis, development, implementation and evaluation of policies for improving food production, food choice, enhancing physical activity and ultimately improving nutrition and health of the population in the region, stimulating thoughts on disrupting "business as usual" and supporting the identification of priority points

⁵ FAO Regional Office for Europe and Central Asia Regional Symposium: Sustainable Food Systems for Healthy Diets in Europe and Central Asia. http://www.fao.org/europe/events/detail-events/en/c/1034293/

⁶ FAO Regional Conference for Europe -Thirty-first Session: Outcome of the Regional Symposium on Sustainable Food Systems for Healthy Diets in Europe and Central Asia; Voronezh, Russian Federation, 2018. http://www.fao.org/3/mw166en/mw166en.pdf

 $^{^7}$ Food Environments in the COVID-19 Pandemic: Impacts and positive policy actions to deliver sustainable healthy diets for all. <u>https://mailchi.mp/unscn/covid19andnutrition?e=68f8be2516</u>

in the food system where well devised and targeted actions would be most appropriate and efficient.

The major common nutritional challenges in the region are raising overweight and obesity, micronutrient deficiencies and diet-related non-communicable diseases. Knowledge of local, national and regional contexts, capacity for research and innovations, pertinent data generation, strengthened governance, and partnerships are necessary to address regional challenges in an effective inter-sectoral manner. Sustainable food system perspective and a holistic approach are to be achieved in policy-making with broader thinking beyond one policy sector and with joint consideration of three dimensions of sustainability and analysis for the possible non-intended undesirable effects and acceptable trade-offs. The ability of line sectors to apply a systemic inclusive approach may be variable, therefore capacity to adopt sustainable food systems thinking and adapt to changes, formulate innovative multi-objective policies is a priority, especially for low- and middleincome countries. Innovations are needed beyond the productivity, extending to reducing food losses and waste, motivating the demand for more nutritious food with less environmental footprint, and also to innovating in social, institutional and governance domains. Better governance of food systems at all levels, facilitated by high-level political support, is needed to build a common vision, to support evidencebased policies, and to promote effective coordination and collaboration through integrated, multisectoral action.

Acknowledgments

The authors, as Guest Editors of this Special Issue, would like to thank all those who contributed to this volume: authors, peer reviewers and the Food Policy Co-editor-in-Chief, Mario Mazzocchi.

References

- Breda, J., Castro, L.S.N., Whiting, S., Williams, J., Jewell, J., Engesveen, K., Wickramasinghe, K., Mikkelsen, B. (this issue). Towards better nutrition in Europe: evaluating progress and defining future directions. Food Policy.
- De Schutter, O., Jacobs, N., Clément, C. (this issue). A 'Common Food Policy' for Europe: How governance reforms can spark a shift to healthy diets and sustainable food systems. Food Policy.
- FAO, 2015. European Commission on Agriculture, Thirty-Ninth Session. Addressing social and economic burden of malnutrition through nutrition-sensitive agricultural and food policies in the region of Europe. Budapest, Hungary. (ECA/39/15/5). FAO Regional Office for Europe and Central Asia. http://www.fao.org/3/a-mo398e.pdf.
- FAO, 2018. Sustainable food systems: Concept and framework. http://www.fao.org/3/ca2079en/CA2079EN.pdf.

- FAO, 2019. Regional Overview of Food Security and Nutrition in Europe and Central Asia 2019: Structural Transformations of Agriculture for Improved Food Security, Nutrition and Environment. Budapest. FAO: Budapest, http://www.fao.org/3/ ca7153en/ca7153en.pdf.
- FAO/WHO, 2014a. Second International Conference on Nutrition: Rome Declaration on Nutrition. Rome, Italy, 2014.
- FAO/WHO, 2014b. Second International Conference on Nutrition: Framework for Action. Rome, Italy.
- Frison, E., Clément, C. (this issue). The potential of diversified agroecological systems to deliver healthy outcomes: Making the link between agriculture, food systems & health. Food Policy.
- Galli, F., Prosperi, P., Favilli, E., D'Amico, S., Bartolini, F., Brunori, G. (this issue). How can policy processes remove barriers to sustainable food systems in Europe? Contributing to a policy framework for agri-food transitions. Food Policy.
- Global Panel on Agriculture and Food Systems for Nutrition, 2016. Food systems and diets: Facing the challenges of the 21st century. London, UK. http://glopan.org/sites/default/files/ForesightReport.pdf.
- Gurinovic, M., Milesevic, J., Zekovic, M., Kadvan, A., Ranic, M., Glibetic, M. (this issue).
 Capacity development in food and nutrition in Central and Eastern Europe: A decade of achievements. Food Policy.
- Gwozdz, W., Reisch, L., Eiben, G., Hunsberger, M., Konstabel, K., Kovacs, E., Luszczki, E., Mazur, A., Mendl, E., Saamel, M. and Wolters, M. (this issue). The effect of smileys as motivational incentives on children's fruit and vegetable choice, consumption and waste: A field experiment in schools in five European countries. Food Policy.
- HLPE, 2014. Food losses and waste in the context of sustainable food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. Rome. http://www.fao.org/3/a-i3901e.pdf 26.
- HLPE, 2017. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. http:// www.fao.org/3/a-i7846e.pdf.
- Hyska, J., Burazeri, G., Menza, V., Dupouy, E. (this issue). Assessing nutritional status and nutrition-related knowledge, attitudes and practices of Albanian schoolchildren to support school food and nutrition policies and programmes. Food Policy.
- Inchley, J., Currie, D., Breda, J., Bucksch, J. (Eds.), 2017. Adolescent obesity and related behaviours: trends and inequalities in the WHO European Region, 2002–2014. WHO Regional Office for Europe. Copenhagen. Denmark.
- Ioannidou, S., Horváth, Z., &Arcella, D. (this issue). Harmonized collection of national food consumption data in Europe. Food Policy.
- Kawabata, M., Berardo, A., Mattei, P., de Pee, S. (this issue). Food security and nutrition challenges in Tajikistan: Opportunities for a systems approach. Food Policy.
- Kovacs, V.A., Messing, S., Sandu, P., Nardone, P., Pizzi, E., Hassapidou, M., Brukalo, K., Tecklenburg, E., Abu-Omar, K (this issue). Improving the food environment in kindergartens and schools: An overview of policies and policy opportunities in Europe. Food Policy.
- Lakerveld, J., Woods, C., Hebestreit, A., Brenner, H., Flechtner-Mors, M., Harrington, J. M., Kamphuis, C.B.M., Laxy, M., Luszczynska, A., Mazzocchi, M., Murrin, C., Poelman, M., Steenhuis, I., Roos, G., Steinacker, J.M., Stock, C.C., van Lenthe, F., Zeeb, H., Ahrens, W. (this issue). Advancing the evidence base for public policies impacting on dietary behaviour, physical activity and sedentary behaviour in Europe: The Policy Evaluation Network promoting a multidisciplinary approach. Food Policy.
- Stender, S. (this issue). Trans fat in foods in Iran, South-Eastern Europe, Caucasia and Central Asia: a market basket investigation. Food Policy.
- United Nations, 2015a. Transforming our World: the 2030 Agenda for Sustainable Development. Geneva.
- United Nations, 2015b. Adoption of the Paris Agreement. Geneva.