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Sustainability of food systems in the Mediterranean region

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Abstract

Despite the recurring discourse on food systems and their sustainability in the Mediterranean region, comprehensive studies are hard to find. Therefore, this article provides an overview on the challenges and perspectives of food systems in the Mediterranean. In particular, the paper addresses the main challenges (environmental, economic, socio-cultural and nutrition-health) facing Mediterranean food systems; analyses the multifaceted relations between sustainable food systems (SFS) and sustainable diets by exploring the example of the Mediterranean diet; and briefly presents the relevance of the innovation for Mediterranean food systems. The paper highlights the urgency of action to move towards sustainable and resilient food systems in the Mediterranean area. This is particularly relevant in the context of the COVID-19 pandemic. For that, there is a need for shared policy, governance, practice and research agenda. In this respect, the contribution of CIHEAM results fundamental. The paper concludes by highlighting the disruptive potential of the SFS-Med Platform – under co-development by CIHEAM, FAO and the Union for the Mediterranean (UfM) – to foster food systems transformation towards sustainability and accelerate the achievement of SDGs in the region.

Keywords: *Sustainability, Sustainable food system, Sustainable diets, Agriculture, Mediterranean diet, Innovation, COVID-19, SDGs, CIHEAM.*

1. Introduction

More and more scholarly literature shows that human activity has profoundly modified the functioning of planetary biological and physical processes and that well-being and development are closely linked to the availability of natural resources, the services offered by ecosystems and the resilience of the Earth (Steffen *et al.*, 2015). In this context, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development (United Nations Gen-

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eral Assembly, 2015) contribute to harmonising policy with scientific knowledge and orienting government strategies towards a new development paradigm that improves the well-being of future generations while ensuring the sustainable management of the planet's natural resources. All this is even more important if viewed in the context of food systems, whose sustainability is paramount for sustainable development.

There is a wide agreement that transforming food systems is among the most powerful ways to change course and make progress towards sustainable development (United Nations General Assembly, 2015). Indeed, the sustainability of food systems is strongly linked to most of the SDGs (United Nations, 2021b). Rockström and Sukhdev (2016) argue that food connects all the SDGs and position them in a hierarchy to be delivered on within a safe operating space for humanity. In this context, food systems are high on the international agenda as shown by the United Nations' Food Systems Summit to be held in September 2021. The Summit aims to unleash the power of food and deliver progress on all SDGs and is part of the Decade of Action to achieve the SDGs by 2030 (United Nations, 2021a).

The analysis of the multifaceted relation between food systems and sustainable development is particularly important in regions such as the Mediterranean one. Indeed, the sustainability of food systems represents, above all in the Mediterranean, a tangible and concrete way to implement the priorities and objectives of sustainable development. The sustainability of the Mediterranean food systems is under a pressing threat (UNEP/MAP, 2005). Moreover, the Mediterranean area is passing through a 'nutrition transition' in which malnutrition problems (protein–energy under-nutrition and micronutrient deficiencies) coexist with over-nutrition problems (overweight, obesity), and food-related non-communicable diseases (CIHEAM and FAO, 2015). The most recent report on the State of Food Security and Nutrition in the World (FAO *et al.*, 2020) shows that food insecurity and malnutrition are still pressing issues, especially in Southern and Eastern Mediterranean countries. The prevalence of undernourishment in the total population ranges from <2.5% in many Northern Mediterranean countries to 5.7% in Lebanon and 6.8% in Cyprus. Meanwhile, the prevalence of moderate or severe food insecurity in the total population ranges from less than 10% in several countries of the North Mediterranean (e.g. Bosnia and Herzegovina, France, Italy, Malta, Spain) to more than 30% in some Balkan countries (e.g. Albania) and Near East and North Africa (e.g. Egypt, Libya). Another alarming indicator is that the prevalence of obesity in the adult population is higher than 20% in all Mediterranean countries, except Bosnia and Italy.

All the above makes the Mediterranean area a unique 'laboratory' for work on sustainable food systems. However, despite the recurring discourse on food systems and their sustainability in the Mediterranean region, comprehensive studies are hard to find. Hence, this review provides an overview on the sustainability challenges and perspectives of food systems in the Mediterranean region. In particular, the article addresses the main challenges (environmental, economic, socio-cultural and nutrition-health) facing the Mediterranean food systems; analyses the relations between sustainable food systems and sustainable diets by exploring the example of the Mediterranean diet; and sheds light on innovation in Mediterranean food systems and its relation with tradition and sustainability.

2. Sustainability of food systems in the Mediterranean

More than ever before, the Mediterranean region is facing unprecedented and interdependent environmental, economic and social challenges (Table 1) that affect food security, health, nutrition and sustainability, and thus the livelihoods of all Mediterranean people (CIHEAM and FAO, 2015; Dernini and Capone, 2021; Lacirignola *et al.*, 2012). The Mediterranean is today a region in which growing ecological, economic, socio-cultural, health and nutritional challenges coexist with unresolved regional and national tensions. At the crossroads of three continents, the Mediterranean is undergoing rapid and drastic changes and is expected to be among the regions most impacted by climate change, with an anticipated acceleration of land degradation and

Table 1 - Challenges facing the Mediterranean region and its food system.

Sustainability dimension	*Examples of challenges*
Environment	Chemical contamination Climate change Desertification and drought Environmental degradation Fish stocks depletion Intensive and industrial agriculture and fisheries Land degradation Loss of biodiversity Marine invasive species Marine pollution Over-exploitation of natural resources Urban sprawl Water scarcity
Economy	Unequal economic drift between Northern and Southern-Eastern Mediterranean countries Changing food procurement Economic shock due to the COVID-19 pandemic Increased food demand Internationalization of markets Lack of efficient rural development policies Lack of innovation Low profitability for smallholders Mismatch between education and job market Population growth Poverty and unemployment (especially among young people) Predominance of imported food and import dependency
Society and culture	Changes in Mediterranean societies and roles of women (cf. gender equality and inclusion) Emerging unsustainable lifestyle behaviours Erosion of food cultures and traditional knowledge Lack of social and cultural innovation Migration from rural areas to urban areas and other countries Poverty (especially in rural areas) Progressive urbanization Unemployment (especially among the young)
Health and Nutrition	Malnutrition and nutrition transition (undernutrition, hidden hunger and obesity) Animal welfare Diffusion of new pandemic diseases Erosion of the Mediterranean diet heritage Food insecurity Food safety Growing public health expenditures (cf. non-communicable diseases) Sedentary lifestyles and lack of physical activity Unsustainable and unhealthy dietary shifts

desertification (MedECC, 2019). Furthermore, significant discrepancies in economic and industrial development as well as social inequalities between countries, together with regional conflicts, raise more challenges for the sustainable future of the Mediterranean region. The Mediterranean is marked by the heterogeneity among its countries and a growing gap between the advanced economies on the Northern shores and the less developed ones on the Southern/Eastern ones. Mounting economic, social, and environmental strains and their resultant implications on livelihood security make the situation unsustainable particularly in the NENA (Near East

and North Africa) countries. Population growth with demographic changes, urbanization and globalization, are all driving increased food demand and influencing food choices, which have resulted in profound changes in food production/processing systems, as well as in food consumption patterns and lifestyles in the Mediterranean region. Eating habits have shifted away from the Mediterranean diet, which has in turn resulted in an epidemic of overweight, obesity and diet-related non-communicable diseases (NCDs). The impacts of poverty and unemployment have contributed to social marginalization, which is further compounded by income disparities and migrations from rural areas and from countries in conflicts. Urban agglomerations on the Mediterranean coasts, along with tourist infrastructure, have resulted in the development of large and mega-cities, with consequent increase in pollution, ecosystem degradation and habitat fragmentation. The Mediterranean marine resources and ecosystems have come under increasing pressure in recent decades, driven by demographic and economic growth as well as by fish stocks depletion and intensification of marine and maritime activities, which have adverse impacts, not only on the marine ecosystems, but also on the well-being of Mediterranean coastal communities and riparian countries.

Despite progress made, Mediterranean countries also face several challenges in their implementation of the 2030 Agenda for Sustainable Development (El Bilali *et al.*, 2020b; Riccaboni *et al.*, 2020). The 2020 SDG Dashboards for the Mediterranean region (Riccaboni et al., 2020) show that it has a general score of 73.5 (meaning that SDG targets are achieved by 73.5%); the SDG index shows better performance in Europe West (78.5)[1] and lower values in Europe East (74.8)[2], North Africa (70.2)[3] and Middle East (70.2)[4].

Food systems are central in the regional strategies such as the Mediterranean Strategy for Sustainable Development (MSSD 2016-2025) (UNEP/MAP, 2016), CIHEAM Strategic Agenda and Action Plan for the Mediterranean (CAPMED) 2025 (CIHEAM, 2016b, 2016a) as well as the European Green Deal (European Commission, 2019) and the Farm to Fork Strategy (European Commission, 2020d) of the European Union.

Much of today's discourse about environmental problems revolves around reducing GHG emissions and water usage. In the Mediterranean, immediate action is required to address environmental degradation that is mainly driven by changes in population and consumption. Increasing stress on biological as well as social systems is put by unsustainable consumption patterns; in particular, food consumption patterns are important drivers of environment degradation (Lacirignola *et al.*, 2014). The development of the Mediterranean region cannot be 'sustainable' unless the fundamental common goods are protected and improved. Protection of the coast, sea, climate and air quality, soil and biodiversity, water resources, cultural and landscape heritage, and traditional knowledge of nature, are the priorities to be focused on. In this context, it is very important to break the joints that make economic development reliant on an intensive exploitation of natural resources and to promote changes in consumption and production patterns (UNEP/MAP, 2005). Indeed, the Mediterranean Strategy for Sustainable Development 2016-2025 (MSSD) (UNEP/MAP, 2016) aims at decoupling economic growth and natural resources use in the Mediterranean region. Transformation of food systems is vital to achieve this goal as food systems are strongly related to all work areas of the MSSD.

The sustainability of food systems is strongly linked to the thematic priorities of the 2025 Strategic Agenda of the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM, 2016b) and its Action Plan 2025 for the Mediterranean - CAPMED 2025 (CIHEAM, 2016a). Protecting the Planet, achieving the sus-

[1] France, Greece, Italy, Malta, Portugal and Spain.
[2] Albania, Bosnia & Herzegovina, Croatia, Cyprus, Montenegro, North Macedonia and Slovenia.
[3] Algeria, Egypt, Libya, Morocco and Tunisia.
[4] Israel, Jordan, Lebanon, Palestine, Syria and Turkey.

tainability of food security, improving nutrition and well-being of populations, being aware of the importance of agriculture for the economic development of developing countries, managing interaction with ecosystems and the use of natural resources, etc. are objectives and priorities that, especially in the Mediterranean region, have as their common denominator transition to sustainable food systems.

Sustainable food systems are also among the key elements of the European Green Deal, which cannot be achieved without addressing the issue of food sustainability, as stressed in the EU Farm to Fork Strategy. Recently, the European Commission (EC) decided to accelerate the processes of change underway by launching a new growth strategy, called 'European Green Deal', which proposes a real economic transition for Europe towards a sustainable development model. The European Green Deal (European Commission, 2019, 2020a) goes in the direction of a green and inclusive transition to help improving people's well-being and securing a healthy planet for the generations to come. The European Green Deal strategy has several components (e.g. biodiversity, agriculture, energy, industry, construction, mobility, climate change) and one regards food, namely 'Farm to Fork' (European Commission, 2020b), which aims to accelerate the transition to sustainable agri-food systems. With the Farm to Fork strategy, the EU aims to significantly reduce the use of chemical pesticides and the associated risks, reduce the use of fertilizers and antibiotics, create a circular economy, reduce the environmental impact of food processing and retail/trade, as well as food losses and waste (European Commission, 2020d). The need for such a strategy has been made even more urgent by the COVID-19 pandemic, which has highlighted the importance of having resilient agri-food systems within a sustainable and circular bio-economy, to respond to global shocks and mitigate their socio-economic impacts. Indeed, the Farm to Fork strategy aims at building a food chain that works for consumers, producers, climate and the environment by, among others, ensuring sustainable food production; ensuring food security; stimulating sustainable food processing, wholesale, retail, hospitality and food services practices; promoting sustainable food consumption and facilitating the shift to healthy, sustainable diets; reducing food loss and waste; and combating food fraud along the food supply chain (European Commission, 2020b).

3. Sustainable diets in sustainable food systems: case of the Mediterranean diet

To address food and nutrition security challenges, food systems have to undergo radical transformation, including transitioning towards sustainable diets (IPES-Food, 2015). The concept of sustainable diets can play a key role in maintaining nutritional well-being and health while ensuring the sustainability for future food security (Berry *et al.*, 2015; Capone *et al.*, 2019). Sustainable diets concept started to be explored in early 80s to recommend diets healthier for consumers as well as for the environment. The interest in sustainable diets has been recently raised by many UN agencies (e.g. FAO, UNEP). In 2010, FAO and Bioversity International organized an international scientific symposium on "Biodiversity and sustainable diets". As one of the major outcomes of the symposium, a consensus position was reached on a definition of sustainable diets (FAO, 2011). The definition encompasses aspects related to biodiversity protection, nutrition and health, food availability and affordability, optimisation of natural and human resources, and cultural relevance (Burlingame and Dernini, 2012). Sustainable diets are considered as an important element for a shift towards sustainable food consumption patterns (UNEP, 2017) and central component of sustainable food systems (Meybeck and Gitz, 2017). Nevertheless, it is clear nowadays that success of sustainable diets won't depend only on whether they deliver environmental outcomes, but also on whether they address a broad range of societal challenges (e.g. fair trade, animal welfare, sustainable agriculture, social acceptance and everyday adoptability) (Dibb, 2013).

In recent years, within the international debate on the sustainability of food systems and diets, the Mediterranean diet (MD), acknowledged worldwide as one of the healthiest diets in the world, has started to be recognized also as a sus-

tainable diet model, with multiple benefits, connecting the nutritional well-being of the individual and the community to the sustainability of natural resources, and reaffirming the notion that the health of humans cannot be isolated from the health of ecosystems. Indeed, the Mediterranean diet is considered as an example of sustainable diets (Dernini *et al.*, 2017; HLPE, 2017b). It was first presented by Ancel Keys in the 1960s (Keys *et al.*, 2017). It includes lots of olives and olive oil, fruits, vegetables and wholegrain cereals, low-fat dairy, fish, nuts, and legumes but relatively little red meat (Bach-Faig *et al.*, 2011; Serra-Majem *et al.*, 2020). The concepts of seasonality, fresh and locally grown products, culinary activities, biodiversity, traditional, local and eco-friendly products, of variety of colours for fruits and vegetables as well as conviviality and physical activity are integral elements of the Mediterranean diet (Bach-Faig *et al.*, 2011). The Mediterranean diet, acknowledged by UNESCO as an intangible cultural heritage, has been scientifically well characterized also as a healthier dietary pattern, and is a recommended plant-based dietary pattern (Bach-Faig *et al.*, 2011). It has also been analysed in many surveys and appreciated for its lower environmental impact (Burlingame and Dernini, 2011; Sáez-Almendros *et al.*, 2013).

In 2010, the inscription of the Mediterranean diet on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity was approved (UNESCO, 2010). The Mediterranean diet is the alive and evolving result of the millennial history of the Mediterranean (Berry *et al.*, 2011). The Mediterranean diet is characterized by its links to the various food cultures and traditions of the different countries of the Mediterranean area. It is transmitted from generation to generation and constantly recreated by communities and groups in response to the change of their environment and their history. The general term '*Mediterranean diet*' implies a common dietary pattern in Mediterranean countries; however, there are differences in the dietary patterns of the Mediterranean populations (Keys *et al.*, 2017). Indeed, Mediterranean diets are far from homogeneous; they involve a wealth of typical products and are extremely varied. This 'dietary polymorphism' partially reflects religious and cultural differences (Berry *et al.*, 2011).

The Mediterranean diet not only offers considerable health benefits (Estruch *et al.*, 2013; Kastorini *et al.*, 2011) but also respects the environment (Dernini *et al.*, 2017; Galli *et al.*, 2017). The Mediterranean diet, as highlighted in the Med Diet 4.0 framework (Dernini *et al.*, 2017), has multiple sustainable benefits, with country-specific variations: 1) recognized and well-documented major health and nutrition benefits, in the prevention of chronic diseases and in reducing public health costs as well as in the overall improvement of well-being; 2) low environmental impacts and richness in biodiversity, appreciation of biodiversity value, reduction of pressure on natural resources and mitigation of climate change; 3) high positive local economic returns, sustainable territorial development, reduction of rural poverty, and high performance in reduction of food waste and loss; 4) high social and cultural value of food, growth of mutual respect, identity recovery, social inclusion and consumer empowerment.

Despite the well-documented health and environmental benefits of the Mediterranean diet, data show a decline in adherence in Mediterranean countries (Naja *et al.*, 2021). The evolution of food consumption in the Mediterranean countries is not encouraging, as these countries have followed the trend towards higher proportions of energy-dense foods (Alexandratos, 2006). Paradoxically, just as the Mediterranean diet is becoming more popular in the world and increasingly recognised by the international scientific community, the Mediterranean populations are moving away from this dietary model (Lacirignola and Capone, 2009; Naja *et al.*, 2021). In this context, Dernini *et al.* (2017), and more recently Dernini and Capone (2021), called for a revitalization of the Mediterranean diet by improving its current perception (especially among the young) not only as a healthy diet but also as a sustainable lifestyle model.

The Mediterranean diet has been jointly identified by CIHEAM and FAO as a case study for its assessment as a sustainable diet model (CIHEAM and FAO, 2015; Lacirignola *et al.*, 2012). The Mediterranean diet has

nutritional, economic, environmental and socio-cultural characteristics that make it particularly relevant for such a case study for the characterization of sustainable diets in different agro-ecological zones. CIHEAM pays a particular attention to the safeguarding and revitalisation of the Mediterranean diet heritage (CIHEAM, 2012). Indeed, the Mediterranean diet is one of the thematic priorities of the CIHEAM Strategic Agenda 2025.

4. Innovation in Mediterranean agri-food systems

Innovation has become a key issue in the discussion about the relation between agriculture and sustainability (El Bilali, 2018; FAO, 2013). The critical role of innovation to make agriculture and food systems not only more competitive but also more sustainable is widely recognised. Agricultural innovation is considered vital for meeting the challenges of agriculture development, adapting to climate change and improving food security (IAASTD, 2009; UNCTAD, 2017). The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD, 2009) highlighted that agricultural knowledge, science and technology (AKST) are crucial to address different sustainable development issues such as food insecurity and poverty. Innovations and modern techniques/technologies can strengthen food system resilience, improve resource efficiency in agriculture, and secure social equity thus contributing to the achievement of sustainable food security (HLPE, 2017a). For instance, the European Union has placed emphasis upon innovation as a key element in achieving transformation towards sustainable agriculture (Dwyer, 2013; European Commission, 2020c). However, IAASTD (2009), suggests that future agricultural innovation needs to address not only simple technological and technical issues but also social ones and to innovate in scales of thinking and action in order to contribute more effectively in addressing pressing challenges such as climate change and food security. The potential role of innovation in making agriculture and food systems more sustainable is also highlighted in the Mediterranean region. Guerrero Lara *et al.* (2019) put that "*Innovative approaches are needed to shift towards more sustainable, equitable and healthy agri-food systems*". Referring to olive growing in Calabria region (Southern Italy), Iofrida *et al.* (2018) highlight that "*Calabrian olive growing requires innovation, especially to respond to new sustainability requirements, currently claimed by public policies (eco-conditionality), and consumers and citizens increasingly concerned with environmental quality, human health and social liveability*" (p. 46). However, Mediterranean countries still have a low propensity to innovation. Indeed, the most recent edition of the Global Innovation Index (Cornell University *et al.*, 2020) shows that Mediterranean countries, especially southern and eastern ones (except Israel), have low rankings (Table 2); the rankings of Mediterranean countries range from 12/131 (France) to 121/131 (Algeria).

Innovations that are contributing to the sustainability of food systems include alternative food networks, such as short food supply chains (Yacamán Ochoa *et al.*, 2020), as well as alternative agriculture models, such as urban and peri-urban agriculture (Yacamán Ochoa *et al.*, 2020) and agro-ecology (Vidal *et al.*, 2020). While most of the focus has been put on technical innovation, also social innovation (Marini Govigli *et al.*, 2020) and organisational innovation (Sanz Cañada and Macías Vázquez, 2008) are important for the transformation of food systems and rural livelihoods in the Mediterranean. Digitalisation of agriculture with the increase in the use of information and communication technologies (ICTs) represent one of the most important transformations in modern agriculture and food systems. Indeed, some authors claim that ICTs can not only increase the efficiency of the agri-food sector but also contribute to improving its sustainability (El Bilali *et al.*, 2020a; Poppe *et al.*, 2013). However, to increase the impact of agricultural innovation, there is a need for a new generation of innovation policies. In this regard, Cvejić *et al.* (2020) argue that "Future agricultural innovation policies should extend actions beyond the financial to those facilitating the establishment of multidisciplinary agricultural innovation teams with corresponding infra-

Table 2 - Mediterranean countries in the Global Innovation Index (GII) 2020.

Mediterranean country	*Score (0–100)*	*Rank (out of 131 countries)*
France	53.66	12
Israel	53.55	13
Malta	46.39	27
Italy	45.74	28
Cyprus	45.67	29
Spain	45.60	30
Portugal	43.51	31
Slovenia	42.91	32
Croatia	37.27	41
Greece	36.79	43
Montenegro	35.39	49
Turkey	34.90	51
Tunisia	31.21	65
Bosnia and Herzegovina	28.99	74
Morocco	28.97	75
Albania	27.12	83
Lebanon	26.02	87
Egypt	24.23	96
Algeria	19.48	121

Source: Adapted from Cornell University et al. (2020).

structures to better enable the mutual exchange of knowledge, learning and development of a transparent institutional framework".

While innovation and traditional knowledge are often addressed separately, more and more scholars call for their integration to address the current sustainability challenges. For instance, Guerrero Lara *et al.* (2019) argue that the integration of traditional agro-ecological knowledge (TAeK) and social-ecological innovations can foster transition towards more sustainable agri-food systems in Spain. Capone *et al.* (2016) call for combining tradition, innovation and sustainability in order to achieve an effective valorisation of typical agro-food products, which are the cornerstone of the Mediterranean diet.

The agri-food sector can play a central role in the transition of Mediterranean economics towards more environmentally sustainable and climate-neutral economic models such as bio-economy, blue economy, green economy and circular economy. For instance, Fava *et al.* (2021) argue that the sectors of excellence of bio-economy in Italy are food and bio-based products.

5. Conclusions

The 2030 Agenda clearly shows that the transformation of food systems is fundamental for achieving sustainable development. Indeed, food systems are strongly linked to many SDGs. Therefore, it is crucial to foster transition towards sustainable, inclusive, nutritious, healthy and resilient food systems that achieve sustainable food security for the present and future generations. Indeed, the global commitment for a shift towards more sustainable food systems has increased significantly over the recent years, as part of the collective efforts for achieving the ambitious goals of the 2030 Agenda. Transition towards sustainable food systems implies addressing problems in the

consumption side of the food chain while considering linkages between production and consumption. In fact, changes in both production and consumption are necessary to ensure more sustainable food systems and contribute to food and nutrition security. For that, the adoption of a 'food system' approach – that considers and operationalises consumption-production linkages – is vital. This is particularly true in the Mediterranean region, which is passing through a 'nutrition transition' in which problems of under-nutrition coexist with overweight, obesity and food-related NCDs.

Indeed, the interlinked and interdependent environmental, economic and social challenges faced by the Mediterranean food systems as well as the pressing issues of food insecurity and malnutrition highlight the urgent need for a shared policy, governance, practice and research agenda on food systems transformation towards sustainability in the Mediterranean region. In this respect, generation and dissemination of knowledge and innovation can play a central role in addressing the multidimensional challenges faced by food systems in the Mediterranean. The promotion of the Mediterranean diet, which is widely recognised as a model of sustainable diets, is a concrete step in this direction. The unsustainability of the food systems in the Mediterranean contributes to the erosion of the cultural food heritage of the region represented by the Mediterranean diet. Moreover, the transformation of food systems in the Mediterranean calls for multi-stakeholder partnerships, with intergovernmental organisations, governments, academia, private sector and civil society working together. Furthermore, given the heterogeneity of food systems among Mediterranean countries, there is a need to adopt of a context specific, yet integrated, approach to better understand food systems as a whole and to address all elements across the entire food system, rather than their separate pieces, in order to assess their impacts and trade-offs.

Transition towards sustainable food systems is a prerequisite to achieve food and nutrition security, protect the livelihoods of millions of people and preserve the unique social fabric and cultural heritage of the region. Sustainable, inclusive and resilient food systems are the key for better production and consumption, better nutrition, a better environment, and a better life quality as well as an effective tool to boost green, circular and blue economies in the Mediterranean region. Indeed, the sustainability of food systems is an important prerequisite for achieving not only food and nutrition security but also social, economic and environmental sustainability of the Mediterranean area. More sustainable food systems will offer economic and social opportunities in the Mediterranean region, driving more sustainable development. Therefore, the COVID-19 pandemic should be seized as an opportunity to redesign tomorrow's food systems and to trigger collective, multi-stakeholder actions for the transformation of food systems in the region.

Transition towards sustainable food systems in the Mediterranean area requires coordinated actions at local, national and regional levels. In this regard, the multi-stakeholder platform on sustainable food systems in the Mediterranean (SFS-Med Platform) – under co-development under co-development by FAO, CIHEAM and UfM – can serve as a catalyser of multi-actor initiatives on food systems in the region. In fact, the SFS-MED Platform – conceived as a collaborative, multi-stakeholder endeavour – offers a unique opportunity to bring together different technical, scientific and political mandates for mobilizing stronger partnerships towards more resilient sustainable food systems in the Mediterranean. The Platform will respond to regional and national needs, priorities and circumstances, by taking into account the multi-dimensional nature of food systems on both Northern and Southern/Eastern shores. Its planned activities span across several technical areas, such as sustainable management of land and water resources, sustainable fisheries, climate-smart and organic agriculture, food environments and healthy diets, sustainable value chain development, and food loss and waste reduction.

The characteristics of the Mediterranean region makes it an interesting 'laboratory', a 'living lab', for work on sustainable food systems whose results can also be useful for other world regions.

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