

SESSION 5

MEDITERRANEAN DIET AND SUSTAINABILITY

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Lluís Serra Majem (Barcelona, 1959) is a medical doctor with a Ph.D. specialising in Preventive Medicine and Public Health Nutrition. In 1988, he became Associate Professor of Preventive Medicine and Public Health at the School of Medicine of the University of Barcelona, where he founded and is the Director of the Community Nutrition Research Centre of the University of Barcelona Science Park. In 1995 he became Full Professor of Preventive Medicine and Public Health at the University of Las Palmas de Gran Canaria, where he also holds the UNESCO Chair for Research, Planning and Development of Local Health Systems as well as serves as Director of the Biomedical and Health Research Institute. In 1989 he founded the Spanish Society of Community Nutrition, of which he served as President from 2000 to 2006. He is President and founder of the NGO Nutrition without Borders, as well as of the Nutrition Research Foundation; he also served as President of the Mediterranean Diet Foundation (from 1995 to 2012) where he was leading the candidacy of the Mediterranean Diet as an Intangible Cultural Heritage by the UNESCO, and currently is President of its Scientific Committee. He chairs the Spanish Academy of Nutrition and Food Sciences, and he is Scientific Director of the CIISCAM at Sapienza University in Rome. He has published 65 books and 325 peer reviewed scientific papers with an impact factor over 950 and an H-index of 41.

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Dietary patterns can substantially vary the resource consumption and environmental impact of a given population. Dietary changes such as the increased consumption of vegetables and reduced consumption of animal products reduces the environmental footprint and thus the use of natural resources. The adherence of a given population to the Mediterranean Dietary Pattern (MDP) by consuming the food proportions and composition defined in the new Mediterranean Diet pyramid can thus not only influence human health but also the environment. The aim of the study was to analyze the sustainability of the MDP in the context of the Spanish population in terms of greenhouse gas emissions, agricultural land use, energy consumption and water consumption. Furthermore, we aimed to Compare the current Spanish diet with the Mediterranean Diet and in comparison with the western dietary pattern, exemplified by the U.S.A. food pattern, in terms of their corresponding environmental footprints.

The environmental footprints of the dietary patterns studied were calculated from the dietary make-up of each dietary pattern, and specific environmental footprints of each food group. The dietary compositions were obtained from different sources, including food balance sheets and household consumption surveys. The specific environmental footprints of food groups were obtained from different available life-cycle assessments. The adherence of the Spanish population to the MDP would have a marked impact in all the environmental footprints studied. Adherence to the MDP pattern in Spain would reduce greenhouse gas emissions (72), land use (58) and energy consumption (52), and to a lower extent water consumption (33). On the other hand, the adherence to a western dietary pattern would imply an increase in all these descriptors of between 12 and 72).

The MDP is presented as not only a cultural model but also as a healthy and environmentally-friendly model adherence to which in Spain would have, a significant contribution to increasing the sustainability of food production and consumption systems in addition to the well-known benefits on public health.

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