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SSPICE IT!

Sustainability Skills Program for International Catering
operators and Entrepreneurs through Integrated Training

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Submodule n°5: The Sustainable Diet

THEMATIC AREA	Relationships between food, people, and environment	
SUB AREA OF REFERENCE	Sustainable Food	
HOURS	4	
LEARNING OBJECTIVES		
<div>1. Understand the environmental impact of food.</div> <div>2. Comprehend the concept of sustainable food.</div> <div>3. Understand the correlation between health and sustainable food.</div>		
LEARNING ACTIVITIES		
Theoretical		Practical
<div>✓ Reading</div> <div>✓ Web research</div> <div>✓ Case study</div>		<div>✓ Composing innovative menus following sustainability principles</div>

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SUBMODULE 5: The Sustainable Diet

1. Introduction

In recent years, we have been faced with a new challenge: how to align human health with the health of the planet?

While the questions are straightforward, the answers are not. Are we eating too much meat? What is the right quantity? Are dairy products good for our health? And for the planet? Should humans have a predominantly plant-based diet? Should it be the same everywhere? What about fish? And what are the consequences for the environment?

2. What is a sustainable diet?

The FAO defines sustainable food consumption as: *"Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources."*

Talking about sustainable food is addressing the question of access to quality food that respects health, the environment, and humanity. However, there is no official European certification for "sustainable" food. Here are the principles of sustainable consumption:

1. **Fight food waste**, which involves using appropriate storage techniques for products, using leftovers in the fridge, cooking whole vegetables, and more.
2. **Buy local and seasonal products**, prioritize local producers, and consume seasonal fruits and vegetables through short supply chains.
3. **Favor plant-based proteins**, which means consuming more grains and legumes and reducing meat consumption.
4. **Choose high-quality fats** and use cold-pressed **vegetable oils**, eat fatty fish, and more.
5. **Use and consume whole or semi-processed products** such as grains, pasta, rice, and artisanal bread.

6. **Use fresh, unprocessed products**, which means buying non-industrial vegetables, meats, fish, etc., and taking the time to cook them.
7. **Eating homemade dishes** helps avoid processed, industrial products that are detrimental to health and enrich agro-food industries.

Below is a summary of the key elements of a sustainable diet:

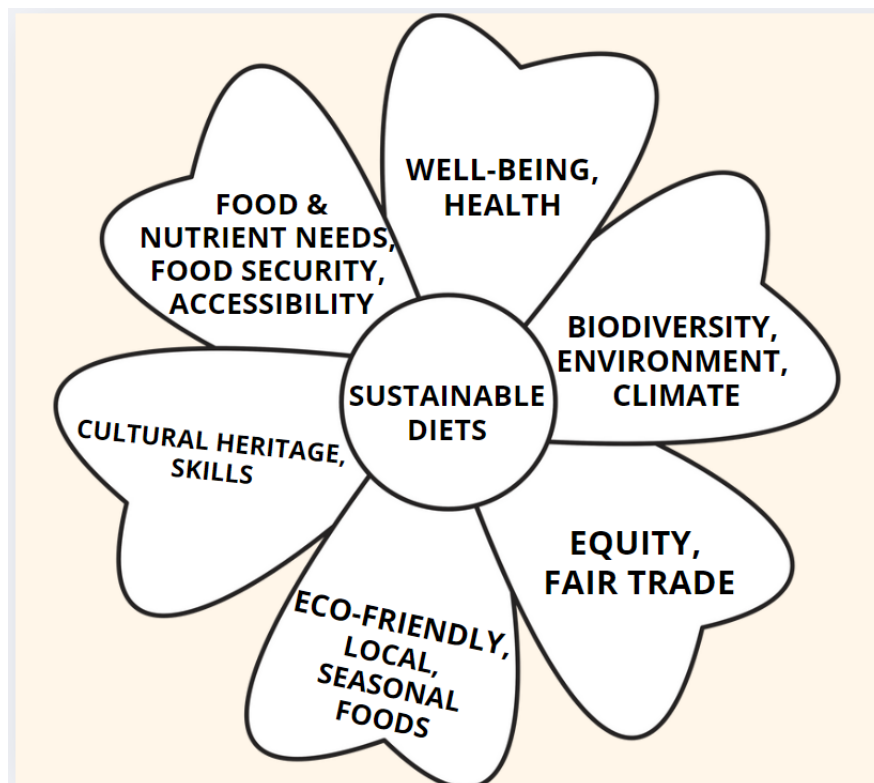


Fig. 9 – Copy of Key elements of a sustainable diet¹

¹ Burlingame, B., Dernini, S. (Eds.). (2010). *Sustainable diets and biodiversity: Directions and solutions for policy, research, and action. Proceedings of the International Scientific Symposium Biodiversity and Sustainable Diets United Against Hunger*, Nutrition and Consumer Protection Division, FAO. Retrieved from <https://www.fao.org/3/i3004e/i3004e.pdf>, p.34.

3. The benefits of a sustainable diet

Consuming sustainably and making responsible food choices require changes in habits. Sustainable food has benefits at different levels: health, social, environmental, and economic.

- In terms of health, our diet has evolved significantly in recent decades. Industrial, processed food bought in supermarkets has contributed to the development of diseases like obesity, cardiovascular problems, diabetes, and food allergies.
- From a social perspective, access to sustainable and quality food is a fundamental right that is not yet recognized for everyone. Several studies show that low-income households tend to choose less expensive, low-nutrient foods. The challenge of sustainable food is also to ensure that everyone has access to quality, healthy, and balanced food at socially acceptable prices. It is necessary to raise awareness and guide consumers toward socially responsible choices.
- Regarding environmental issues, sustainable food helps mitigate the negative consequences of industrial agriculture, as we discussed earlier.
- Economically, the right to sustainable food implies ensuring decent incomes for producers in both the Global South and the Global North. It means supporting economic actors who produce services based on local, ecological, and sustainable production.

4. What is a healthy diet?

Diet has a significant impact on health. An optimal diet leads to increased life expectancy, a significant reduction in the risk of chronic diseases, and improvements in gene expression. It is proven that a diet that is minimally processed, close to nature, and plant-based can prevent diseases, improve health, and align with different dietary approaches².

One of the most important international sources of information related to diet and nutrition is The Nutrition Source from the Harvard T.H. Chan School of Public Health.

² Katz D., Meller, S. (2014), *Can We Say What Diet Is Best for Health?*, Annual Review of Public Health; 35:1, 83-103. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/24641555/>

According to Harvard, a healthy diet is primarily plant-based, with half the plate consisting of fruits and vegetables, a quarter consisting of whole grains and their by-products, and a quarter consisting of proteins like beans, nuts, fish, and lean meats.

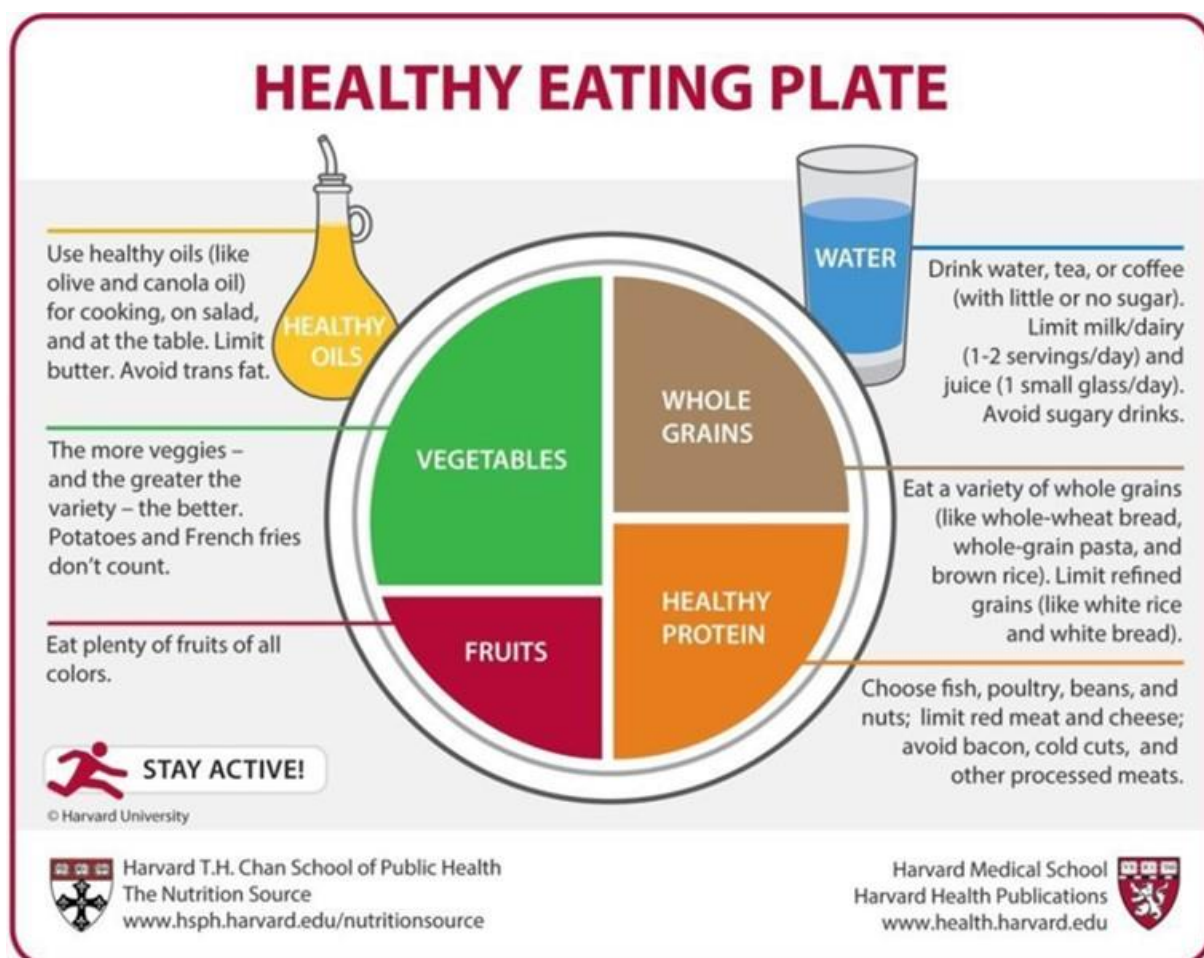


Fig. 10 – A healthy eating plate

Adopting a **diet low in meat** is an ideal solution for both our health and the planet. In fact, the main contribution we can make to combating climate change through changes in our diet is to substantially reduce the amount of meat we consume.

A report from the United Nations (UN) in 2010 stated, "*A substantial reduction of impacts [on the environment] would only be possible with a substantial worldwide diet*

change, away from animal products."³ According to the UN and the Food Climate Research Network (FCRN) at the University of Oxford, current food systems and habits jeopardize food production and fail to adequately nourish the population⁴.

Another area of research⁵ explores dietary recommendations from both a nutritional and environmental sustainability perspective. The study compares six diets and concludes that **a vegan diet** is the healthiest and most environmentally sustainable, making it the most sustainable choice.

In its conclusions and to propose a compromise acceptable to the general public, the study suggests promoting **a strict Mediterranean diet**, which is based on plant-based foods, eggs, dairy, fish (twice a week), and meat (on occasion).

5. Sustainable and healthy: the Mediterranean diet

Thus, at this point the best choice could be the Mediterranean Diet, a sustainable diet model for the environment and health. It is based on foods traditionally consumed in the Mediterranean: pasta, bread, legumes, lots of vegetables and fruits, little meat, fish, cheese, eggs, olive oil. It is also scientifically proven that it reduces the risks of cardiovascular disease, obesity, diabetes.

On the basis of the findings that correlate food and the environment, the same food pyramid of the Mediterranean diet can be read backwards to illustrate how the environmental impact of foods that are good for health (placed at the base of the food pyramid) is lower, while the impact of the consumption of foods most harmful to health (top of the food pyramid) is the highest.

³ United Nations Environment Programme, & International Resource Panel (2010). *Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials - Summary*. <https://wedocs.unep.org/20.500.11822/8572>.

⁴ Gonzalez Fischer C., Garnett T. (2016) *Plates, pyramids, planet Developments in national healthy and sustainable dietary guidelines: a state of play assessment*. Food and Agriculture Organization of the United Nations and The Food Climate Research Network at The University of Oxford. Retrieved from <https://www.fao.org/3/I5640E/i5640e.pdf>.

⁵ Van Dooren C., Marinussen M., Blonk H. et al. (2014), *Exploring dietary guidelines based on ecological and nutritional values: A comparison of six dietary patterns*, Food Policy, Vol. 44. <https://doi.org/10.1016/j.foodpol.2013.11.002>.



Fig. 11 – Food pyramid proposed at the first world conference on the Mediterranean Diet as a healthy and sustainable model.

The Mediterranean diet, as well as being certified by UNESCO for its cultural value, is now also recognized as a model for sustainable development.

The principles of sustainability on which the Mediterranean diet is based are essentially linked to the fact that producing fruits, legumes, vegetables, and cereals requires a use of natural resources and greenhouse gas emissions lower than the production of meat and animal fat.

It is estimated that, in order to obtain one hundred calories, the Mediterranean diet has an environmental impact of about 60% lower than a diet based to a greater extent on meat and animal fat, such as the northern European diet.

Also, the themes of seasonality, consumption of local products and biodiversity are concretely translated into sustainable behaviours such as the reduction of crops in greenhouses, zero transport costs for incoming goods from distant countries or crop rotation.

In addition to environmental benefits, a sustainable diet must also bring health, economic and social benefits. The adoption of dietary models and lifestyles such as the Mediterranean one improves the state of health resulting in a reduction in national health spending. Not only: by favouring seasonal and low-cost ingredients (such as legumes and cereals), "Mediterranean spending" is also economic for families.

The consumption of local and seasonal raw materials, therefore, involves the enhancement of companies and territories with the relative gastronomic offer. Among the social benefits, in addition to health, food awareness and the link with the territory, the Mediterranean diet promotes social integration. Given the positive effects on the social, economic, and environmental spheres, this can be considered a highly sustainable model and therefore choose the Mediterranean diet, marrying its lifestyle in its entirety, means to become aware of the planet and take care of it.

Exercise: <i>Healthy and sustainable menu</i>	
Pre-requisites	Knowledge of the bases of healthy diet and sustainable diet.
Time	2 hours
Tools	Pc, internet connection, optional kitchen tools
Objectives	<ol style="list-style-type: none"> 1. To recognize factors, habits and food choices influencing our health, our planet, and our community. 2. To be informed about alternative ingredients and unconventional food. 3. To recognize well balanced diets according to nutritional needs. 4. To recognize proper information about health and nutritional food.

Instructions

After reading the module and the suggested links about healthy and sustainable diet, create a menu.

Create and optionally cook a menu according to your country with both sustainable and healthy ingredients composed of 4 starters, 4 main courses, 4 "desserts".

All the ingredients and cook techniques must be healthy and, according to the country, as sustainable as possible.

EXTRAS

1. Further readings

General documents:

- ✓ What is Climate change? By the United Nations – a nice introduction about the topic of climate change: <https://www.un.org/en/climatechange/what-is-climate-change>
- ✓ "The State of Food Security and Nutrition in the World 2023" by the Food and Agriculture organization of the United Nations – an update on global progress towards the targets of ending hunger and all forms of malnutrition: <https://www.fao.org/3/CC3017EN/online/CC3017EN.html>
- ✓ "Man, and the Environment: A General Perspective" by Nico Stehr – An history of the changing relations between human and nature, and man perception of it.
- ✓ "An inconvenient truth" by Davis Guggenheim - a documentary film exposing that sensibilize on pollution and climate change caused by man.
- ✓ "Les algues vertes (The Green Algae)" by Pierre Jolivet – a french film showing the repercussions of industrialized agriculture and pesticides/insecticides in Brittany.
- ✓ "What is Climate Change? | Start Here" by Al Jazeera English, a seven-minute YouTube video explaining the basics of climate change: <https://www.youtube.com/watch?v=dcBXmj1nMTQ>

Non-profit organizations:

- ✓ Greenpeace: Provide articles on climate change, human damages to the environment. Fight against ecosystems destruction, fossil energies across the world: <https://www.greenpeace.org/international/>

- ✓ Oxfam International: Produce resources on climate change and disasters and food inequalities. Promote social justice: <https://www.oxfam.org/en>
- ✓ Friends of the Earth Europe: fighting for social and environmental justice and an equal access to food while preventing ecological disasters: <https://friendsoftheearth.eu/>
- ✓ Food and Agriculture organization of the United Nations: A specialized agency of the United Nations that leads international efforts to defeat hunger: <https://www.fao.org/home/en>

Documentaries:

- ✓ Food Security - a Growing Dilemma (documentary): a 30 min documentary that address the future of an agriculture, food production along with sustainability and sovereignty concerns: <https://www.youtube.com/watch?v=wu7PjKawjwI>
- ✓ Human Impact on the Environment : A playlist of short videos questioning the consequences of the human activity on our planet: <https://www.youtube.com/playlist?list=PLL4ByIaW73wgSuZyfdxJUnhhOjDanFteu>
 - Other videos from National Geographic about climate change can be found there: <https://education.nationalgeographic.org/resource/resource-library-climate-change/>

2. Glossary

FAO: The Food and Agriculture Organization of the United Nations (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security.

Green Deal: The European Green Deal, approved in 2020, is a set of policy initiatives by the European Commission with the overarching aim of making the European Union (EU) climate neutral in 2050.

HLPE: HLPE stands for the High-Level Panel of Experts on Food Security and Nutrition, which is a scientific panel established by the United Nations to provide guidance and policy recommendations on food security and nutrition issues.

UN: The United Nations (UN) is an intergovernmental organization whose stated purposes are to maintain international peace and security, develop friendly relations among nations, achieve international cooperation, and serve as a center for harmonizing the actions of nations.

WWF: The Worldwide Fund for Nature (WWF) is a Swiss-based international non-governmental organization founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment.

3. Acknowledgments

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WWF Germany & WWF Food Practice. (2020, August). *ENHANCING NDCS FOR FOOD SYSTEMS: RECOMMENDATIONS FOR DECISION-MAKERS*, retrieved from https://wwfint.awsassets.panda.org/downloads/wwf_ndc_food_final_low_res.pdf