

# THE SCOFI

## SUSTAINABLE CONSUMPTION OF FOOD INDEX



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# WP 5 - The SCOFI: Sustainable Consumption of Food Index

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# Introduction

There are many studies in the literature that reveal the situation of countries and individuals on balanced and adequate nutrition. However, there is not many study or index which measures the sustainable consumption behavior of individuals on food in the local or global level. Therefore, the main aim of this output is to fill this gap in the literature and to put forward a viable, valid, and reliable index at the European level which measures people's sustainable consumption behavior on food.

Within the scope of index development, first, an item pool was constituted. Then, items were asked to experts from each partner country to create a more comprehensive and complete index. The experts evaluated the items in four different levels; “the item is not necessary”, “the item is necessary but major revision required”, the item is necessary but minor revision required”, and "the item is necessary". The answers from the experts were evaluated statistically and some of them were eliminated due to the low-level of mutual acceptance. The latest items and questions measuring the frequency of consumption of basic foods were formed together. The index became its final form with statistical analysis of the data obtained from the pilot studies. Finally, the index was applied in each partner country. The preparation for analysis also includes the following:

Detailed need analysis report and results of the SCOFI lead the mapping sustainable consumption of food at the European level and creating training materials of the project.

The following outcomes resulted from O2:

- 1) Developing Sustainable Consumption of Food Index
- 2) Framework for the design of mapping.
- 3) Structure for mapping.
- 4) Framework and structure for training materials.
- 5) Context and concept of Database
- 6) Launching of SCOFI

Within the scope of the output “O2. SCOFI: The Sustainable Consumption of Food Index”, the partnership performed the following activities:

- A1. Preparing Item Pool for SCOFI
- A2. Assessment of Items in the SCOFI by Experts
- A3. Development of Proposed SCOFI
- A4. Measuring the Validity and Reliability of the SCOFI
- A5. Final Version of the SCOFI and Translation

## The SCOFI

The SCOFI was developed to measure the adults' behavior on sustainable consumption of food. The SCOFI can be used for self-evaluation by adult consumers to be aware of their behaviors. The index provides a total score and sub-scores in three main dimensions and five sub-dimensions of these three main dimensions.

The index, which allows adults to evaluate their own behavior, thus provides a reference point for adults in different dimensions of sustainable food consumption behavior to change their behavior. From this point of view, adults will be able to develop their behaviors in all dimensions with the help of educational materials consisting of a set of triggering information and contents prepared within the scope of the project.

The SCOFI, whose structure was revealed as a result of exploratory and confirmatory factor analysis, consists of three main dimensions and five sub-dimensions. The main dimensions are named "sustainable lifestyle", "food consumption and food waste", and "ecological consumption", respectively. According to the repeated exploratory factor analysis for the Sustainable Lifestyle dimension, this main dimension consists of three sub-dimensions. The sub-dimensions of the Sustainable Lifestyle dimension are called "Consumer Sophistication (CSO), Environmental and Social Impact (ESI) and Nutrition (NUT)". According to repeated exploratory factor analysis for Food Consumption and Food Waste, this main dimension consists of two sub-dimensions. The sub-dimensions of the Food Consumption and Food Waste dimension are named "Planned Behavior (PBE) and Avoiding Food Waste (AFW)".

## Methodology

In the development process of the SCOFI, the literature has been scanned in detail and the findings of the Need Analysis Reports (Output 1) of the SUSCOF Project have been used. At the end of this study, an 83-item question pool was created. The items in the question pool were presented to the opinion of 27 experts who are competent in the field for scope validity and rearranged in line with the suggestions received. Later, the index was presented to the opinion of 98 adults in terms of features such as understandability and easy response. The construct validity of the Index was tested with Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The collected data was divided into two by random method and EFA with the data from the first sample group, and CFA with the data from the second sample group. In the study, it is planned to reach at least five times the sample size of the sample size for both EFA and CFA. In this framework, usable data was collected from 830 adults for EFA and DFA. After a group of analyses, the final version of the index with 37 items and three dimensions was developed. All questions were measured with a five-point Likert scale from 1: totally disagree to 5: totally agree. The scores of each main and sub-dimensions indices are then aggregated into a composite index using some weighting and conversions. Please see technical notes for detail and calculation.

# The SCOFI Questions

1. I encourage my friends to consume eco-friendly food.
2. I search where and how food products are produced.
3. I buy products that have no negative impact on society.
4. I buy animal foods that are produced with respect to animal rights (in accordance with ethical animal husbandry).
5. I buy food products that are not eco-friendly.
6. Food labels influence my purchasing decisions.
7. I buy food products that are sustainable.
8. I have access to information about which foods are more sustainable than others.
9. I use leftovers to avoid food wastage.
10. If there are leftovers from my meals, I eat them myself later.
11. When there are alternatives, I buy fair trade food products.
12. I have access to farms or farmers' markets.
13. I separate my food waste for public recycling.
14. The food I purchase is locally-grown.
15. I make a shopping list before going food shopping.
16. I keep leftover ingredients for cooking at another time.
17. I have sufficient knowledge about food product labeling (e.g., environment, social/working conditions).
18. There are food products that I choose not to buy on ethical grounds (e.g., animal rights, environmental rights, workers' rights).
19. I plan my meals to meet my nutritional needs.
20. When purchasing a food product, I look for less packaging.
21. I behave environmentally sensitively when consuming food products.
22. When buying fruit and vegetables I choose those that are in season.
23. I avoid food and drink products with added sugar.
24. If I will consume them anytime soon, I would buy foods with an upcoming expiration date.
25. I avoid buying processed products.
26. When available, I choose to buy from companies that provide reliable and comprehensive information about their production processes.
27. Even if the recommended consumption date of a packaged food has recently expired, if I find it is still good then I consume it anyway.
28. I try to cook only as much as I can eat.
29. I check the stock status at home before I buy food.
30. I buy products sold by food/agriculture cooperatives.
31. When buying a food product, I read the packaging instructions before I decide.
32. I try to create as little waste as possible while cooking.
33. I keep foodstuffs under recommended conditions.
34. When cooking from previously purchased ingredients, I prioritise based on expiry dates.
35. I buy small quantities of perishable food products to reduce food waste.
36. I do not buy GMO (genetically modified) food products.
37. I throw away food products without checking whether they are consumable.