



Objective

Food systems face the challenge to achieve nutrition security, food safety and healthy diets for an increasing global population and at the same time minimise their impact on the limited natural resources available thus protecting human well-being and social equity. There is rising interest in transforming the world into a more competitive and resource-efficient economy. The food sector has been at the forefront of this strategy, striving to make food systems healthier, fairer, and more protective of social equity and the environment, as well as more resilient to unanticipated shocks.

Sustainability has become the focal point of research activities and is an important part of companies' corporate social responsibility programmes. The efforts and initiatives made to develop more sustainable food systems, together with the discussions on possible metrics, have highlighted the need for further work to be done to define a suitable set of indicators for countries and stakeholders to measure progress in the transformation of their food systems.

The course will provide a comprehensive look at the different methodologies that, so far, have been based on alternative perspectives and conceptual approaches. The course will also provide an opportunity to engage with experts on different aspects of food systems in exploring the possibility of including and monitoring sets of feasible and measurable indicators for assessing the sustainability of food systems. Special emphasis will be placed on the complexity of food systems and the resolution of conflicts arising from trade-offs among indicators.

At the end of the course, participants will:

- have an overview of the interaction between food systems and sustainability in the international policy context;
- be aware of the importance of good governance in food system transformation;

- understand key aspects and steps to design a food system sustainability assessment;
- be acquainted with updated and upgraded environmental, socio-economic, and nutritional assessment methodologies and with the criteria necessary to apply them in different contexts;
- be aware of the potential conflicts between indicators and know how to deal with them;
- have practical skills in implementing specific assessment methodologies.

Organisation

The course is organised by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), through the Mediterranean Agronomic Institute of Zaragoza (CIHEAM Zaragoza) with the technical support of the Food and Agriculture Organization of the United Nations (FAO) within the framework of the FAO-CIHEAM MoU.

It will be held with face-to-face participation and through online, live sessions transmitted from the Mediterranean Agronomic Institute of Zaragoza, in morning and afternoon sessions for one week from 21 to 25 October 2024, and will be given by well qualified lecturers from international organisations, universities and research centres from different countries. The programme will be delivered in English.

The course requires personal work and interaction among participants and with lecturers. The international characteristics of the course favour the exchange of experiences and points of view. Formal lectures are illustrated by applied examples and practical exercises. The focus of the practical work will be the calculation of the environmental and water footprints in a seafood product and a drink, respectively, and the use of participatory tools for trade-off management.



Programme

0. Opening session and programme presentation (1 hour)
1. Introduction (2 hours)
 - 1.1. Concepts and analytical framework
 - 1.1.1. What is a food system? Why is sustainability important? What are sustainability assessments?
 - 1.1.2. Impact of food production and consumption and food system resilience to shocks and threats
 - 1.2. International and national policy context
 - 1.2.1. The SDGs and The UN Food System Summit
 - 1.2.2. European framework: European Green Deal, Farm to Fork Strategy, New Circular Economy Strategy, Single Market for Green Products: Product Environmental Footprint
2. Food systems governance (3 hours)
 - 2.1. Stakeholder mapping
 - 2.2. Coordination mechanisms and power relations
 - 2.3. Prioritisation of outcomes and dimensions, and defining criteria
3. Measuring sustainability (2 hours)
 - 3.1. State of the art in measuring sustainability
 - 3.2. Defining system boundaries
 - 3.3. Designing measurable sustainable objectives
 - 3.4. Quantitative and qualitative approaches
 - 3.5. Issues in data availability: simple vs complex indicators
 - 3.6. Creating and maintaining monitoring systems
4. Assessment methodologies (16 hours)
 - 4.1. Global food systems sustainability indicators: types of indicator. True cost accounting (TCA)
 - 4.2. Environmental assessment
 - 4.2.1. Life Cycle Analysis
 - 4.2.2. Environmental footprint
 - 4.2.3. Water footprint
 - 4.2.4. Carbon footprint
 - 4.2.5. Practical exercise: assessment of the environmental footprint of a seafood product and the water footprint of a drink
 - 4.3. Socio-economic assessment
 - 4.3.1. Life Cycle Cost Analysis
 - 4.3.2. Extended Cost-Benefit Analysis
 - 4.4. Food and nutrition composite indicators
5. Synergies and trade-offs among environmental, social, economic and nutritional assessments. Resolution of conflicts (4.5 hours)
 - 5.1. Synthetic indicators
 - 5.2. Participatory tools
 - 5.3. Mathematical tools
 - 5.4. Practical exercise on resolution of conflicts
6. The example of the water-energy-food nexus (4 hours)
 - 6.1. Why consider the water-energy-food nexus
 - 6.2. State of the art of indicators to measure the water-energy-food nexus in rural and urban areas
7. Round table discussion: how to engage public and private actors in assessing sustainability of food systems? (2 hours)

Guest lecturers

Aldaya, Maite M. - ISFOOD-UPNA, Pamplona (Spain)
Arslan, Aslihan - FAO, Rome (Italy)
Cidra, Maite - AZTI, Derio (Spain)
Bojic, Dubravka - FAO, Rome (Italy)
Gil, José Maria - CREDA-UPC-IRTA, Barcelona (Spain)
Gil, Sergio - FRS, Barcelona (Spain)
Kallas, Zein - CREDA-UPC-IRTA, Barcelona (Spain)
Rhouma, Ali - PRIMA Foundation, Barcelona (Spain)
Valls, José - FAO, Rome (Italy)

With the technical support of



Food and Agriculture Organization
of the United Nations



Av. Montañana 1005 - 50059 Zaragoza (Spain) • www.iamz.ciheam.org • (+34) 976 71 60 00



Admission

The course is designed for professionals with a university degree, and is specially oriented towards public and private planners and decision-makers, administration officers, food producers, managers and marketers, technical advisors, researchers and NGO professionals working on or concerned with assessing the sustainability of food systems.

- 25 places will be available for face-to-face participation with access to lectures, round table discussion and practical work (34.5 hours).
- 30 places will be available for online participation with access to lectures via live streaming and round table discussion (30 hours).

Knowledge of English will be valued in the selection of candidates.

Registration

- Candidates may apply online at the following address: <http://www.admission.iamz.ciheam.org/en/>
- Applications must include the curriculum vitae and a copy of the support documents most related to the subject of the course. The deadline for the submission of applications is 9 June 2024. The deadline may be extended for candidates not applying for a scholarship if there are free places available.
- Applications from candidates requiring authorisation to attend the course may be accepted provisionally.
- Registration fees for the course amount to 500 euro for face-to-face participation and 350 euro for online participation. This sum covers tuition fees only.

Scholarships

Candidates from Mediterranean CIHEAM member countries (Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Türkiye) may apply for scholarships covering fees, and for scholarships covering the cost of travel and full board accommodation in Zaragoza. If you wish to request a scholarship, please complete the relevant section when you make your application online to participate in the course. Candidates from other countries who require financial support should apply directly to other national or international institutions.

Insurance

It is compulsory for participants in face-to-face modality to have medical insurance valid for Spain. Proof of insurance cover must be given at the beginning of the course. Those who so wish may participate in a collective insurance policy taken out by the Organisation, upon payment of the stipulated sum.

Contact: Anamaria, Mario

Academic coordinator
iamz@iamz.ciheam.org

<https://edu.iamz.ciheam.org/FoodSustainability/en/>

