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LEARNING PARTNERSHIP FOR SUSTAINABLE SHORT FOOD SUPPLY

Module title	Trainer's handbook and guide for the module **'Environmental sustainability in short supply chains'**
Prepared by	Anna Payr
Introduction (general)	**The key to successful training: active participation and openness** The training will be truly successful if both trainers and participants are actively involved. During the training, participants not only acquire theoretical knowledge, but also have the opportunity to apply their newly acquired knowledge to their own projects. It is important to help them think creatively and critically. This trainer's manual assists with the curriculum and recommends a methodology for PowerPoint presentations and suggested tasks. If the training is conducted in person, the recommended methods for dividing the group are: • by drawing lots (cards, slips of paper, coloured sheets, serial numbers, etc.), • the quick 'counting' method (everyone counts from 1 to 4, for example, and then groups themselves according to their number). It is advisable to form new groups for each task, so that participants have the opportunity to get to know as many of their colleagues as possible and hear as many different points of view as possible. It is also recommended to encourage participants to change seats after breaks. For online training, it is a good idea to use breakout rooms, in the case of Zoom, for small-group tasks. The use of a flipchart can be replaced, for example, with a Miro board in the online space.
The name of the chapter (and subchapter, if necessary) and the information contained therein to which the distributed material refers	**Introduction** To encourage active participation, it is worth clarifying the structure of the module and expectations with learners at the start of the training. This will be discussed in this short chapter.
Duration	5 minutes
Reference to	**[PPT Slide 1] The trainer presents the aim of the course and of this module**

relevant PPT slides related to the given knowledge, description of related tasks and their methodology, expected outcomes	This module offers a comprehensive and practical approach to understanding the relationship between SFSC channels and sustainability, as well as how to apply tools and methods to improve environmental sustainability in practice. The aim of the training is to enable participants to develop sustainable, efficient and innovative systems, whilst taking into account environmental protection, economic efficiency and social responsibility. **[Slide 2 of the PPT] The trainer briefly introduces themselves** and may say a few words about the training centre. **[Slide 3 of the PPT] Presentation of the module structure** The trainer uses the slide to explain the structure of the course material and the timetable: each chapter lasts 45 minutes, with 15-minute breaks in between. **Guidelines for participation, methodology** The trainer emphasises that the training will be successful if participants are actively involved and participate openly in the learning process. The theoretical part will be accompanied by tasks in each chapter, and participants will also have the opportunity to apply the knowledge gained through their own projects. The trainer should encourage participants to ask questions and share their thoughts during the modules! Depending on the structure and delivery of the entire training, a brief introductory round or an icebreaker exercise may be needed at the start of the module to help participants feel more at ease. The most important information can be written on a whiteboard/flipchart (which can be prepared in advance) and displayed in the classroom, so that participants can refer to it at any time. The trainer should supplement this information with details and group rules appropriate to the occasion/venue.
Supplementary materials (with links, if available)	

The name of the chapter (and sub-chapter, if necessary) and the information contained therein to which the handout refers	Chapter 1: Sustainable development goals

Duration	45 minutes
Reference to relevant slides in the PPT presentation, description of related tasks and their methodology, expected outcomes	[Slide 4 of the PPT] Exercise 1. (5 minutes): List the SFSC sales channels! The SFSC channels listed by the participants are noted down (by the teacher or by the students) on a flipchart. This is a warm-up exercise in which participants recall and revise what they have learnt previously. After brainstorming together, they look at the channels that appear when they click on the slide. If necessary, the trainer points out the sales opportunities that were omitted from the participants' list and what other channels the participants listed. [PPT Slide 5] Exercise 2. (5 minutes): Choose one of the SFSC channels listed together and, if necessary, the trainer or one of the students should add a few sentences to clarify it. Answer the following question together: What environmental and sustainability criteria does the selected SFSC channel meet? Write the answers on a flipchart. The aim of the task is to encourage students to think about this question based on their existing knowledge. For the teacher, this provides feedback on what the concepts of 'environmental protection' and 'sustainability' mean to the students. *(E.g. when examining the SFSC channel of shopping communities, we can conclude that it meets the following criteria: lower CO2 emissions and reduced fuel consumption due to shorter transport distances, less or no packaging, less food waste, customer demand for organic farming methods, etc.)* [PPT Slides 6–8] Theory (15 minutes): Sustainability objectives [PPT slide 9] Exercise 3. (5 minutes): Which sustainability goals does the previously selected SFSC channel meet? The SFSC channel identified in Task 2 is examined together with regard to its compliance with the UN SDGs *(e.g. the operation of shopping communities corresponds to SDG goals 1, 2, 3, 8, 11, 12, 13, 15 and 17)* If you have time, you can also examine another SFSC sales channel in this way. [PPT Slide 10] Exercise 4. (10 minutes): What are the practical short-term benefits of sustainability and environmental protection efforts? To begin with, only the question appears on the slide. If you have time, give participants 5 minutes to think and note down what benefits might apply to their own activities/businesses. Ask them to share their thoughts with the whole group. If you are short of time, discuss the question together. After the discussion, click to see the listed answers. See if there is anything new among them and what they thought about what was not listed. (I have summarised the thoughts related to the question in the supplementary materials.)
Supplementary materials (with links,	During online training, alternatives to flipcharts include:

where available): - articles, - illustrations, - infographics, - YouTube (high-quality) videos any freely accessible supplementary material that helps to understand and explore the topic in greater depth.	www.miro.com ***Short-term practical benefits of sustainability and environmental protection efforts for SFSC stakeholders:*** ● ***Cost reduction****: more efficient use of resources (such as water, energy, fertilisers or packaging materials) reduces production costs. For example, the introduction of energy-efficient technologies can lead to immediate savings.* ● ***Increased consumer confidence and demand****: more and more consumers are seeking products from sustainable sources. This approach can make a business more attractive to environmentally conscious consumers, increasing market share.* ● ***Support for local communities****: short supply chains and sustainable practices strengthen ties with local communities, which can lead to customer loyalty.* ● ***Compliance with regulations****: Regulations and standards are often becoming stricter in the area of sustainability. By taking environmental considerations into account, food producers can avoid penalties and adapt more quickly to future changes.* ● ***Gaining a competitive advantage****: businesses that embrace sustainability early on can gain an edge over their competitors, positioning themselves more effectively in the marketplace and in tenders.* ● ***Improving brand image****: brands that champion sustainability appear more credible, which strengthens the company's reputation and increases customer loyalty.*
Knowledge check questions *These are usually multiple-choice questions (e.g., select the correct answers).*	1. What are the three fundamental pillars of sustainability? a) Economic, social and political b) Economic, social and environmental c) Economic, technological and environmental d) Social, environmental and educational Correct answer: b) 2. What is the objective of sustainability? a) Meeting current needs at the expense of future generations b) Maximising economic growth at any cost c) Protecting the environment and ensuring quality of life for future generations d) The faster depletion of natural resources Correct answer: c) 3. What is an important advantage of a short food supply chain (SFSC)? a) It increases food waste

	b) Reduces greenhouse gas emissions and transport costs c) Limits the income of local producers d) Increases the use of packaging materials **Correct answer:** b) Reduces greenhouse gas emissions and transport costs **4. How do short food supply chains support sustainable agriculture?** a) They increase production by using large quantities of chemicals b) They help local farmers to cultivate their land using sustainable and environmentally friendly methods c) They support the products of large global corporations d) They increase the amount of food imported **Correct answer:** b)
Self-reflection exercise (e.g. questions or visualisation, during which participants imagine themselves in a future state or situation. This can help them set and achieve their goals).	Take a few minutes to assess where you are now in terms of sustainability. • What have you already achieved, and where is there still room for improvement? • How has your business moved towards sustainability over the past year? • What are the most important areas where you still need to improve? • How can you maintain your motivation in the future?
Questions to reflect on *(With the help of the answers to these questions, participants can already formulate something achievable that they can incorporate into their practice.)*	**Sustainable community initiative** Imagine you are organising an event on the theme of sustainability for the local community. What is the theme of this event and how will you integrate it into the local community? • What sort of programmes will you offer the community? • How can you involve local producers and businesses in the event? • What are the two most important messages you would like all participants to take away?
Appendix (if applicable)	

Name of the chapter (and sub-chapter, if	Chapter 2: Footprints – What is the environmental impact of how food is

applicable) and the information within it to which the guide refers	produced and gets to the table?
Duration	45 minutes
Reference to relevant PPT slides relating to the information provided, description of related tasks and their methodology, expected results	[PPT Slide 11] Introduce the new chapter, click through and explain the basic principles (direct and indirect effects and the importance of considering the entire life cycle)! Exercise 1: Ask participants: Do you know how the environmental impact of food production systems is measured? (Possible answers will appear after you click.) [PPT slides 12–13] Exercise 2: Follow the life cycle of a product together and list the environmental impacts at different stages of the life cycle. (The example uses cheese production. If participants are engaged, they can also analyse another activity together, for example, the activity of one of the participants! [PPT slides 14–19] Theory – explain the meaning and calculation of the ecological footprint, carbon footprint and water footprint, then present ways in which the footprint of each activity can be reduced. When analysing ways to reduce footprints, try to involve the participants as much as possible in listing, brainstorming and thinking together! Exercise 3: Role-play on sustainability (25–30 minutes) 1. Form an even number of groups of 3–5 participants (for example, if there are 10 participants, there can be 2 groups; if there are 17 participants, there can be 4 groups)! One type of group will be the 'sustainability experts group', and the other type of group will be the 'customers or guests group'. 2. Draw cards or choose an activity – a company – from the participants' activities. If you draw cards, prepare a brief description of the companies in advance – or you can also assign a specific company as a task. If participants can choose, the current owner of the company should provide a brief description of its activities, focusing on sustainability and environmental aspects. 3. Ask the 'sustainability experts' to take on the role of 'sustainability experts' and imagine that they are advising a fictional company. • Note down how they would reduce the company's carbon or water footprint. • What specific measures would they recommend to improve energy efficiency, reduce waste or use local raw materials?

	• How would you encourage the company's employees and partners to be sustainable? 4. Ask clients or guests to imagine the farm or restaurant described in the task from the perspective of a client or guest. Note down their answers to the questions. Questions for the group: • What do I notice first? Does what I see look sustainable? What makes something look sustainable? • How do I feel when I find out that the place is energy-efficient, uses local ingredients and produces minimal waste? • Which sustainability measure would I find particularly appealing? • What is the first thing I notice when I enter the farm? What are the signs that the farm operates in a sustainable way? (e.g. signs of organic farming, animal welfare, soil protection, water use). • What sets this farm apart from others when I look at it from a sustainability perspective? How do I feel when I see that the farmer takes not only profit but also the environment into account in their decisions? • How does knowing that the farmer uses organic methods and fertilisers influence my purchasing decisions? 5. Feedback and discussion: At the end of the exercise, the results of the group work, ideas and any questions that may arise are discussed together in a large circle. Compare the recommendations of the expert group(s) with the characteristics of the ideal business imagined by the guests/customers! *Note: Group work requires and generates a lot of interaction, which can help participants work together later on. However, if for any reason you feel that group work is uncomfortable, participants can do the exercise individually. In this case, each person completes the tasks related to their own business and first examines their own business from an expert's perspective and later from a guest/customer's perspective. Role-play offers the opportunity to view problems from a different perspective, to find creative solutions and to discover new opportunities for improving business operations.*
Additional resources (with links, if available): - articles, - illustrations,	

- infographics, - YouTube videos (high quality) any other freely accessible supplementary material that helps to understand and explore the topic in greater depth.	
Knowledge assessment questions *These are usually multiple-choice questions (e.g. select the correct answers)*	1. What does the life cycle assessment (LCA) of food mean? A) Examining the shelf life of food. B) Analysing the environmental impact of the entire life cycle of food. C) Analysing the nutritional content of food. D) A methodology for reducing food waste. **Correct answer:** B 2. What does the carbon footprint indicate? A) The total water consumption of an activity or a product. B) The amount of greenhouse gases emitted by an activity or a product. C) The amount of land occupied by an activity. D) The energy consumption of a product during its manufacture. **Correct answer:** B 3. What are the three components of the water footprint? A) Blue water, green water, grey water. B) Colourless water, clean water, polluted water. C) Drinking water, irrigation water, rainwater. D) Blue water, brown water, clear water. **Correct answer:** A 4. Which method can help reduce energy waste in the food industry? A) Intensive soil cultivation. B) The use of single-use plastic packaging. C) Economical use of fuel and optimisation of transport processes. D) The use of artificial growth stimulants in agriculture. **Correct answer:** C 5. What are the benefits of composting organic waste? A) It reduces methane emissions and produces valuable compost. B) It reduces the water footprint. C) Eliminates the carbon footprint. D) Reduces the demand for fertilisers.

	Correct answer: A 6. Why is it important to reduce your water footprint? A) Because the water footprint only measures the amount of polluted water. B) Because water is a limited resource and requires sustainable management. C) Because reducing your water footprint always reduces carbon dioxide emissions as well. D) Because it frees up more land for food production. Correct answer: B
Self-reflection exercise (e.g. questions or visualisation, during which participants imagine themselves in a future state or situation. This can help them set and achieve their goals).	**What kinds of new solutions or technologies would I introduce to make my farm more sustainable?** How could I use renewable energy sources or energy-efficient solutions to reduce greenhouse gas emissions? **Imagine that you have succeeded in reducing your farm's carbon and water footprint. How has this affected your business and the environment?** How have customer interactions and consumer preferences changed, and how do you perceive your contribution to the sustainability of your farm? **How can you achieve your sustainability goals in the future whilst remaining successful in the market?** What can help you maintain both economic stability and environmental responsibility? **What specific indicators or metrics can you use to track the success of sustainable changes in your business?** How can you measure changes such as reducing emissions, optimising energy consumption or reducing water consumption?
Questions for reflection *(With the help of the answers to these questions, participants can already formulate something feasible that they can incorporate into their practice.)*	Topics for reflection for farmers What farming methods do you use that can reduce the impact on soil, water and energy? How could you develop these further? Do you use alternative energy sources (e.g. solar or geothermal energy) that can reduce your farm's carbon footprint? What other options would you consider? How could you optimise transport to reduce fuel consumption and pollutant emissions? How could you minimise organic waste on your farm, for example through composting or other recycling methods? Could you grow plant varieties that require less water or are better suited to local conditions? Food for thought for catering service providers Which ingredients do you use that could have a significant environmental

	impact in terms of production and transport? How could you prioritise locally sourced products? How could you reduce your restaurant's energy consumption, for example in terms of cooling, lighting or cooking? Could you switch to renewable energy? What measures would you take to reduce food waste (e.g. optimising portion sizes, reusing leftovers)? How would you communicate to customers that the food you offer comes from more sustainable sources? Could you encourage guests to make sustainable choices, for example by choosing local or seasonal dishes?
Appendix (if applicable)	

Chapter title (and sub-chapter, if applicable) and the information within it to which the guide refers	Chapter 3: Sustainable agriculture and packaging *Subchapters:* • *Sustainable agriculture* • *Sustainable packaging*
Duration	45 minutes
Reference to relevant slides in the PPT presentation, description of related tasks and their methodology, expected outcomes	[PPT slides 20–26] Theory: Sustainable crop cultivation and sustainable animal husbandry [PPT slides 27–28] Exercise 1: What do the markings on eggs mean? Before showing slide 27, ask participants if they look at the markings on eggs when shopping. Do they know what the numbers and letters printed on eggs mean? Look at the slide together and check. Slide 28 shows the different types of egg storage. Ask participants what they think each type of storage means in practice and discuss this with them! (The supplementary materials contain further information on this topic, specifically regarding egg labelling, and have been prepared for the discussion at .) [Slide 29 of the PPT] Exercise 2: Work with the participants to find answers to the questions on the slide! [Slide 30 of the PPT] Exercise 3: Look at the biodegradable packaging materials

	shown on the slide. Ask the question: what is the difference between biodegradable and compostable certification? (The questions will appear on the projector when you click on them.) Discuss the participants' answers. The correct answer appears when you click: compostable means it breaks down within 12 weeks. Click to move to the next slide. Ask participants what they think composting means. Who composts these packaging materials, where and how? The two possible answers appear when you click. Discuss the fact that industrial composting is a very useful activity, as it produces valuable organic materials, but it only works if both composting and waste collection are implemented. (see teaching material) [PPT slide 33] Exercise 4: What packaging-free alternatives do participants know of? Ask the question and, only after they have answered, click to display the images showing the vegetable section of a community farm and a packaging-free shop. If participants have not listed these SFSC channels, discuss them!
Additional resources (with links, if available): - articles, - illustrations, - infographics, - YouTube videos (high quality) any freely accessible supplementary material that helps to understand and explore the topic in greater depth.	https://portal.nebih.gov.hu/-/amit-a-tojas-jeloleserol-tudni-kell Information on chicken rearing methods: 0 – Organic farming: The chickens are reared in an organic environment, where they can roam freely outdoors and live in a natural setting. Their feed is certified organic, meaning it contains no synthetic chemicals, pesticides or genetically modified ingredients. The animals have more space than with other rearing methods. This is the most organic and animal-friendly rearing method. 1 – Free-range: The hens are free to roam and move about outdoors. The outdoor areas are covered with grass or sand, where they can scratch around and take dust baths. Their feed is traditional, but not necessarily organic. Although they have more freedom, the rearing method is less strict than in organic farming. 2 – Deep-litter housing: The hens are kept in an enclosed building, where they can move about freely but cannot go outside. The floor of the building is covered with litter (usually straw or wood shavings), where they can scratch around and build nests. This is a moderately animal-friendly method , but their freedom is more restricted than in free-range farming. 3 – Cage rearing: hens are kept in cages, where their freedom of movement is severely restricted ( ). Usually, several hens share a small space in the cages. The hens cannot behave naturally (scratch, take dust baths, build nests). This is the least animal-friendly form of housing, but it is cost-effective, which is why these eggs are the cheapest on the market. Under European Union regulations, there are strict minimum requirements for cage rearing (e.g. cage size).

	Regulation: Directive 1999/74/EC of the European Parliament and of the Council *Decree 32/1999 (31 March) of the Ministry of Agriculture and Rural Development on the implementation of animal welfare standards* *Decree 140/2007 (28 November) of the Ministry of Agriculture and Rural Development on minimum requirements for the rearing of laying hens* *Decree 46/1998 (24 June) FM on animal husbandry and protection* Compostability of packaging materials: https://www.ecocatering.hu/blog/komposztalas
Knowledge assessment questions *These are usually multiple-choice questions (e.g., select the correct answers)*	1. Why can SFSC encourage the use of sustainable agricultural methods? A) Because it supports monoculture farming. B) Because farmers receive direct feedback from consumers. C) Because SFSC focuses solely on large-scale production. D) Because it reduces the freshness and quality of products. Correct answer: B) 2. Which of the following statements is true regarding the preservation of native animal breeds? A) They require greater use of medication. B) They contribute to the conservation of local genetic heritage. C) They can only be reared on modern feed. D) They have a larger ecological footprint. Correct answer: B) 3. What is the main objective of sustainable food packaging? A) To recycle as much plastic as possible. B) To reduce the negative impact on the environment. C) To make food more expensive. D) To use only biodegradable materials. Correct answer: B) 4. What is one of the problems with biodegradable packaging materials? A) They decompose completely in the natural environment. B) They decompose optimally only in industrial composting facilities. C) They do not contaminate recycling processes. D) Their production always has a lower carbon footprint. Correct answer: B) 5. Why is it beneficial to use local varieties in sustainable agriculture? A) Because they require greater use of chemicals. B) Because they are adapted to local environmental conditions. C) Because they reduce biodiversity.

	D) Because they can only be used in monoculture farming. **Correct answer: B)**
Self-reflection exercise (e.g. questions or visualisation, during which participants imagine themselves in a future state or situation. This can help them set and achieve their goals).	What farming methods do I currently use that help reduce my impact on the environment? (e.g. fewer chemicals, organic production, increasing biodiversity) How can I reduce waste, whether it be packaging or food waste? What are the current packaging solutions I should look out for to be more sustainable?
Questions to encourage reflection *(Using the answers to these questions, participants can already formulate something feasible that they can incorporate into their practice).*	What concrete steps can I take to promote sustainable management? (e.g. using fewer chemicals, introducing soil conservation techniques) How can I reduce the amount of waste? (e.g. selling without packaging, using reusable packaging) How can I encourage customers to choose more sustainable products?
Appendix (if applicable)	

Title of the chapter (and sub-chapter, if applicable) and the information contained therein to which the guide refers	**Chapter 4: Certification schemes** *(as well as a summary and review of what has been learnt so far)*
Duration	45 minutes
Reference to relevant PPT slides relating to	**[PPT slide 35] Exercise 1** (2 minutes): When you purchase a product (or use a service), where do you find information about how sustainable that product (or service) is and what sustainability criteria it meets?

the given knowledge, description of related tasks and their methodology, expected outcomes	Instructions: Ask the question and discuss it with the participants. [PPT slides 35–38] Theory (10 minutes): Ask participants to explain the content of Chapter 4. [PPT slide 39] Exercise 2: Self-reflection exercise – Imagine your sustainable future! This task consists of three interconnected parts. 1. Visualisation exercise: The future of sustainable operation Duration: 10 minutes Ask participants to close their eyes (if they feel comfortable doing so) and imagine themselves in 5 years' time, operating in a fully sustainable way. Read the following questions slowly and allow everyone time to think about their answers: For farmers: • What does a farm look like where all your activities are sustainable? • What does your land look like? What do you see when you look around? • What methods do you use to grow crops or raise livestock? • How do your customers react to your sustainable products? • How do you feel knowing that you are protecting the environment and strengthening your community? For restaurateurs: • Imagine that your restaurant or catering business is already operating sustainably. What ingredients do you use? • What are your kitchen and waste management practices like? • What do your customers say when they find out you offer local, seasonal food from sustainable sources? • How do you feel when you see that you are helping to protect the environment and support your community? Once the visualisation is over, ask participants to open their eyes and note down the images and feelings that came to mind. 2. Questions for self-reflection Duration: 10 minutes Ask participants to write down their answers to the following questions. This will help them set specific goals for achieving sustainability: 1. Which sustainability principle, tool or method from the course material impressed you the most? Why? 2. If you could change one thing in your business or hospitality unit right now to improve sustainability, what would it be? 3. What are you already doing in a sustainable way, and why are you proud of it? 4. What steps would you take in the coming year to move closer to your sustainability goals? 5. Who (family, partners, communities) would you involve in your sustainability efforts, and how could they help you?

	3. Creating a 'Next Step' poster **Duration:** 15 minutes **Materials:** large sheets of paper, coloured markers, sticky notes Ask participants to create a poster or sketch based on the visualisation and self-reflection questions, which should include the following: • Their vision of sustainability (e.g. what will their farm/restaurant look like in 5 years' time? • A specific goal they would like to achieve in the coming year (e.g. switching to organic farming, sourcing local ingredients). • 3–4 specific steps they will take to achieve this goal. They can display this poster in their office, kitchen or somewhere visible, to remind them of their goals.
Additional resources (with links, if available)	
Knowledge check questions *These are usually multiple-choice questions (e.g., tick the correct answers).*	**1. What cannot be used in the cultivation of certified organic crops?** A) Organic fertiliser B) Crop rotation C) Synthetic fertilisers and pesticides D) Compost *Correct answer: C* **2. What type of feed do certified organic animals receive?** A) Feed enriched with synthetic nutrients B) Feed produced from genetically modified plants C) Feed made from organic, GMO-free plants D) Only processed food waste *Correct answer: C* **5. What is one of the main criteria of the Basket community product certification scheme?** A) Minimising production costs B) Strengthening the local economy C) Ensuring low prices for consumers D) Promoting global transport *Correct answer: B*
Self-reflection exercise	1. Which sustainability principle, tool or method from the course material impressed you the most? Why? 2. If you could change one thing in your business or hospitality unit right now to improve sustainability, what would it be?

	3. What are you already doing in a sustainable way, and why are you proud of it? 4. What steps would you take in the coming year to move closer to your sustainability goals? 5. Who (family, partners, communities) would you involve in your sustainability efforts, and how could they help you?
Questions to reflect on	1. What is your vision for sustainability? (e.g. what will your farm/restaurant look like in 5 years' time?) 2. What specific goal would you like to achieve in the coming year? (e.g. switching to organic farming, sourcing local ingredients) 3. What are the 3–4 concrete steps you will take to achieve this goal?
Appendix (if applicable)	