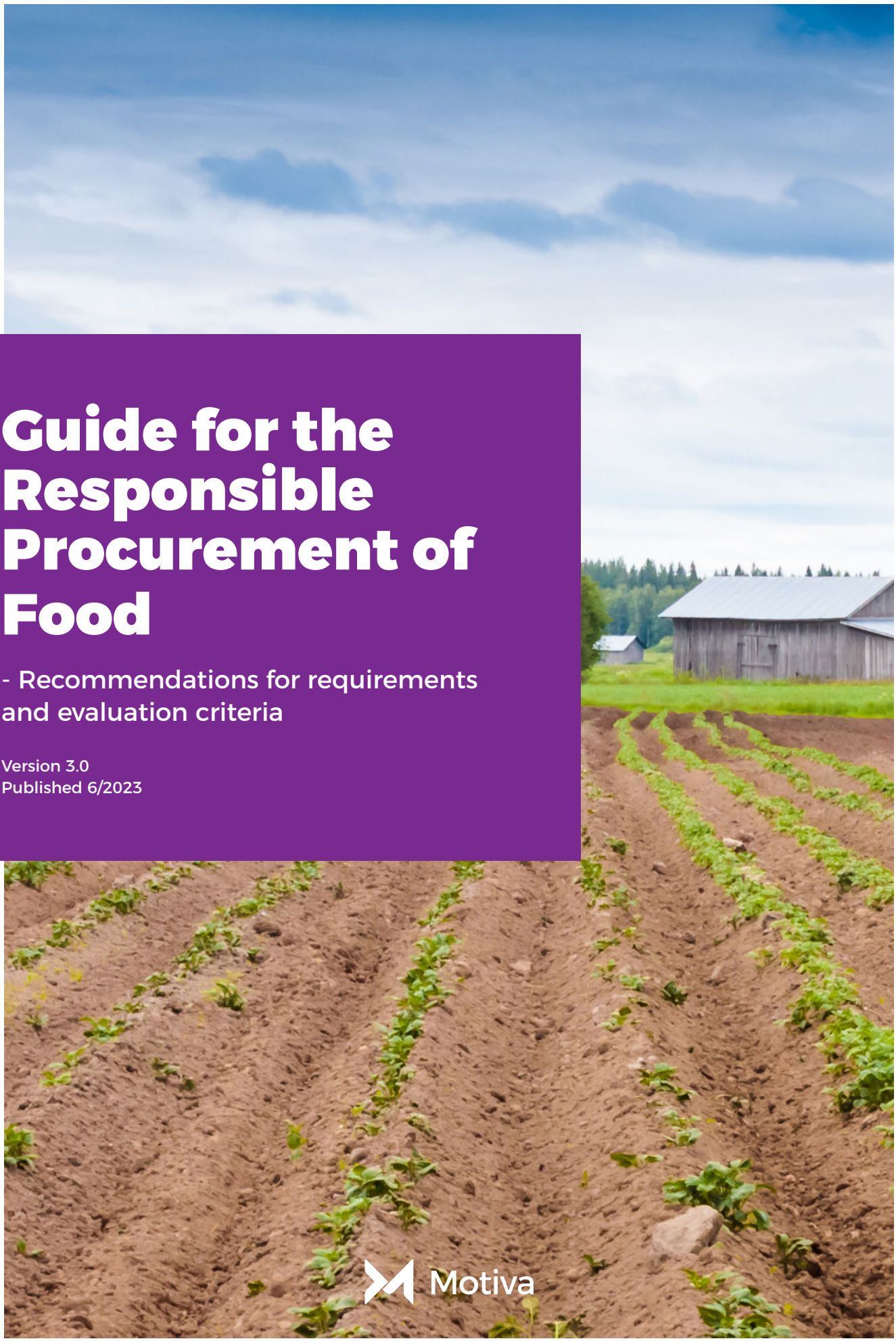

Guide for the Responsible Procurement of Food

- Recommendations for requirements and evaluation criteria

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Contents

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The 6/2023 update to the guide was made by Motiva Ltd. The participants in the previous update (12/2020) and the production of background materials included Natural Resources Institute Finland, the Finnish Food Authority, the Finnish Institute for Health and Welfare, Fairtrade Finland and the Ministry of Agriculture and Forestry. Public procurement units, food industry companies, research institutions, environmental organisations and other industry stakeholders have had the opportunity to comment on the responsibility criteria in connection with the updating of the guide.

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1. Introduction

The sustainable and responsible procurement of food and food services is an objective set out in the National Public Procurement Strategy (2020). In addition, the Government Resolution on the National Public Procurement Strategy (2020) includes a more detailed definition of the goals of responsible food procurement and how those goals will be achieved.

A sustainable food system is the foundation of food security. Climate change, biodiversity loss and crises can significantly weaken food security, even in Finland. Maintaining a good security of supply ensures the self-sufficiency of food production necessary for crisis situations. The procurement of food and food services should be based on procurement criteria that promote environmentally sound agricultural practices, food safety, nutrition, animal welfare and animal health, which are priorities that simultaneously promote sustainable food supply and ecological sustainability.

1.1. The structure and contents of this guide

This guide helps public sector procurement personnel to purchase responsibly produced foodstuffs. The guide is also a useful tool for municipal decision-makers, food producers and private sector entities. This is an updated version of the guide that was first published in 2017 and subsequently updated in 2020.

The guide is structured as follows:

- Section two contains information on the use, application and monitoring of the guide and the responsibility criteria.
- Section three provides background information on the key sustainability impacts of food production: environmental impacts, animal welfare and health, food safety, nutritional quality and social responsibility.
- Section four sets out suggested procurement criteria for the different product categories, including more detailed responsibility information for each category.

This guide contains responsibility criteria and purchasing guidance relating to the following product categories:

- vegetables, berries, fruit, grains, oils and edible fats
- coffee, tea and cocoa
- pork and pork products
- poultry, poultry products, eggs and egg products
- beef and beef products
- milk and dairy products
- fish and fish products

1.2. Using the guide in the tendering of food services

The guide can also be used in the tendering of food services so that the fulfilment of the criteria set out in the guide is evaluated as part of the monitoring of the contract during its term. It is recommended that the criteria in the guide be linked to the contractual terms for the procurement of food services as part of menu planning. A call for tender can also include a preliminary menu plan as one element, either as a scoring criterion or as a minimum requirement. Menu planning can contribute to the responsibility of food procurement to a significant extent. Menu planning can include a stronger focus on the proportion of plant-based food, seasonality and local food culture.

Additional information can be found in the following guides:

- Local food procurement guide (in Finnish)
- Procurement Guide for Responsible Food Services (Ministry of Agriculture and Forestry 12/2021)

2. Using the responsibility criteria and this guide

The guide sets out recommendations for responsibility criteria that can be used for the following purposes:

- as minimum requirements in a call to tender
- for comparison criteria concerning the price-quality ratio
- as contractual provisions

The responsibility criteria in the guide are divided into two levels: basic level criteria and forerunner level criteria.

The Public Procurement Act and taking environmental impacts into consideration

Pursuant to the Act on Public Procurement and Concession Contracts (1397/2016) that is currently in force, the consideration of environmental impacts in public procurement should be based on life cycle assessment. This means that the contracting entity may consider factors in a particular stage of the life cycle of the subject of procurement – such as the production process – even when the factors in question are not part of the subject of procurement (section 94).

However, for such factors to be taken into consideration, the environmental requirements concerning processes and methods need to be related to the subject of the procurement, and they must be proportionate to the value of the contract and the objectives to be achieved. This means that the contracting entity may, for example, require an environmentally friendly production method when that requirement is related to the subject of the procurement. According to the case law of the Court of Justice of the European Union, such acceptable requirements concerning production methods include, for example, producing foodstuffs using organic cultivation methods, and producing electricity using renewable energy sources.

The contracting entity is responsible for applying the responsibility criteria. It is recommended that legal advice be sought on a case-by-case basis. Free legal advice on procurement law is available from the Public Procurement Advisory Unit.

2.1. Selecting criteria

Procurement bodies should themselves always check and set the levels for the criteria according to their objectives, needs, resources, market surveys and market dialogue.

1. First select the criteria that are relevant and important to you.

The responsibility criteria in this guide relate to products' most significant impacts.

Procurement bodies may select one, several or all of these suggested criteria, considering, for instance:

- What are your organisation's most important objectives and impacts with regard to responsibility? What characteristics are particularly important to you?
- Experience and expertise: Are you just starting to use responsibility criteria, or do you already have some experience?

If you are only beginning to use responsibility criteria, we would recommend starting with just a few criteria initially, to build up experience. During the next procurement round, you may then adopt further criteria relating to other aspects of responsibility, and/or make the targets for existing criteria more demanding.

2. **Define target levels and specifications for the criteria you have selected.**

The criteria presented in the tables and the related parameters are recommendations that may be adjusted upwards or downwards according to your own objectives and needs or the market situation. You should also reword the criteria as necessary to make them suitable for your specific call for tender.

3. **Conduct a market dialogue before issuing a call for tender.**

When engaging in a market dialogue you should find out whether potential suppliers will be able to verifiably comply with your planned purchasing requirements for the specific procurement in the market area concerned, while also discovering what alternative products or services are available, and whether there are sufficient potential suppliers in the market, etc. Market situations may vary greatly from place to place, or depending on the scale of the procurement or other purchasing requirements. Market dialogue enables potential suppliers to learn about possible objectives and criteria in advance, which makes it easier for them to prepare to verifiably comply with planned requirements, for instance by ensuring that they can get the necessary certification downstream in the value chain. For these reasons, we recommend that you do not simply copy and paste the suggested criteria set out in these guidelines for use in your calls for tenders, without first conducting market surveys to check how they may need to be adapted.

Preliminary calls for tenders may be sent out to potential suppliers for comment well in advance of the actual launch of the tendering process. If their comments indicate that the levels of requirements are in this case too high or too low, or that verification may be problematic, the requirements can then be adapted as necessary.

Forerunner level criteria, in particular, should be used selectively with regard to the nature and value of the procurement, and quality considerations. The use of excessively strict criteria for smaller-scale procurements may conflict with the principles specified in public procurement legislation.

4. **Plan how you will verify compliance with requirements and include information on this in your call for tender.**
5. **Draft and circulate your call for tender.**

2.2. Criteria levels and how they should be justified and verified

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
Implementation of the procurement The basic level is a recommendation concerning responsibility criteria for foodstuffs. These criteria should: 1) Address the most significant issues pertaining to responsibility. 2) Be easy to use and verify. 3) Be applied for products and services that generally have good availability.	Implementation of the procurement **Applying stricter requirements for the procurement body or the company, depending on the case.** A procurement body may choose to aim higher than the basic level. There are two types of responsibility criteria at the forerunner level: a) Criteria concerning the same issues as the basic level, but with more challenging targets. b) New criteria that are not yet covered at the basic level. Such responsibility criteria • Are suitable for purchasing bodies wishing to purchase the best products available on the market. • Restrict markets more than the basic level criteria and require more effort and active dialogue with suppliers already during the procurement planning phase to assess the market situation. Purchasing bodies may define parameters to be used to assess quality in relation to price, concerning qualitative, social, or environmental aspects, or innovative characteristics. The factors used in such comparisons must be linked to the subject matter of the contract, as specified in the Finnish legislation (section 94); they must not give the purchasing body unlimited freedom; and they must be non-discriminatory and enable genuine competition. Purchasing bodies should define such factors in ways that enable potential suppliers to provide the verified information required for the purpose of comparing tenders.	Justification for the selection of criteria The factors justifying the selection of criteria are explained in this part of the table. The criteria may, for instance, be based on regulations defined by the EU Council or Commission, as specified here. Background information on specific aspects of responsibility and their importance in relation to procurement is also included here.	Verification of criteria The defined procurement criteria must be reliably verifiable. More information on verification and its different levels is provided in section 7.3 Verification.

2.3. Verification

The verification of the requirements and comparison criteria used in public procurement is important. Verification may be required at different stages of procurement: in the call for tender, when requesting verification from the winning supplier, or by establishing a scheduled verification condition at a certain point during the contract period. Determining the appropriate means of verification requires dialogue between the procurement body and the supplier. The supplier must provide information on how the requirements will be fulfilled during the tendering stage, when the contract is concluded, and in connection with monitoring during the contract period. This is recommended to prevent the tendering process from creating an excessive administrative burden on suppliers and the contracting entity.

The following means of verification are proposed in the criteria in this guide:

1. **Assurance provided by the supplier**: The supplier simply assures that the requirement will be met, for instance by ticking a box marked "Yes".
2. **Description provided by the supplier**: The supplier explains in writing how the requirement will be met to their best knowledge.
3. **Verifiable claim**: The supplier provides information that can be verified without revealing business secrets, e.g. information from a national data register or a product declaration. Such information may also include self-declared claims classified as Type II environmental labels under the ISO 14021 standard.
4. **Third-party certification**: An independent third party provides written assurance to guarantee that the product, service or process in question meets or exceeds the desired standards.
5. **Accredited third-party certification**: An accredited independent party provides written assurance to guarantee that the product, service or process in question meets or exceeds the desired standards. Such certification may cover a single product or an organisation's entire quality management system.

The costs to the supplier of different types of verification vary. The ease of certification in the food supply chain also varies due to factors including the size of the company. The verification requirement levels should be set with regard to the importance of the criteria concerned.

2.4. Monitoring during the contract period

In food procurement, in addition to considering individual procurement criteria, it should particularly be noted that the aim of a call for tender is to have the best possible contract – one that establishes the framework for cooperation between the supplier and the client, what the cooperation concerns, what the client wants to order, and how potential disputes will be resolved. The contract must enable the use of food or food services that the contracting entity has specified in its own objectives or strategy.

As the contract period is usually several years long, it is important for the contract to be good and suitable for its purpose. Everything that will be monitored during the contract period must be mentioned in the contract. Contracts include special provisions, and the monitoring of environmental impacts is one of the aspects covered by those provisions. The contract should clearly specify which of the criteria for the product or product category laid out in the call for tender will be subject to verification during the contract period. To facilitate monitoring and verification during the contract period, the call for tender should include a description of the cooperation model, monitored information, schedules and the related division of responsibilities between the client and the supplier during the contract period.

It is recommended that a more detailed follow-up monitoring form be included as an appendix to the contract to provide more information on the verification of the criteria laid out in the call for tender with regard to the following issues, for example:

- By when: Here, a transitional period can be applied or, to address the administrative burden, verification for different products can be scheduled at different times over a longer period of time.
- How: In writing, using a method defined by the client; for example, in accordance with a particular label or standard, or by establishing a direct requirement for the label or standard in question.
- Appropriate preparation for cooperation meetings and follow-up meetings, including the presentation and verification, at the supplier's own initiative, of products that are new and/or satisfy alternative criteria.
- Consequences: What are the consequences if verification cannot be carried out as specified above.

The key is to operate in accordance with the contract and to use the monitoring form as part of the cooperation during the contract period. This serves as a valuable source of information when subsequent calls for tender are prepared.

3. The sustainability impacts of food production

3.1. The environmental impacts of food production

In this guide, environmental impacts refer to the relevant and typical life-cycle environmental impacts arising from food supply chains. Environmental impacts are multifaceted and vary by production region, for example. In comparisons of the environmental impacts of foodstuffs, it is also important to take into account differences in the uses and nutritional quality of products. This guide aims to describe the key environmental impact perspectives of different product categories and highlight key environmental aspects for use as background information and a starting point for procurement.

The environmental impacts of the production of different foodstuffs can be measured by various indicators. The most relevant environmental indicators for food production can be considered to be the climate impact – measured in terms of the carbon footprint – and the eutrophication of water bodies, loss of biodiversity and the water footprint. These aspects are discussed briefly in this guide. Other potential environmental impacts of production can include acidification, eco-toxicity, particulate matter emissions and the formation of tropospheric photochemical ozone, the depletion of the ozone layer, ionising radiation and the consumption of natural resources, for example. Plant protection products and plant protection are discussed as a separate issue in this guide. Animal welfare issues are not included in environmental impacts, as they are also discussed separately.

The environmental impacts of food production mainly arise in primary production from various production-related biological processes. Nitrous oxide emissions are released into the air and nutrient emissions into water bodies from cultivated land, along with methane emissions resulting from ruminants' digestion, rumen fermentation, and manure processing. The greatest global threat to biodiversity loss associated with agriculture arises from changes in land use, particularly the conversion of ecologically valuable land – such as rainforests – into agricultural use for food production. This also has a major impact on greenhouse gas emissions. After primary production, the most significant impact on the environmental footprint of products (e.g., climate, eutrophication, water footprint) is determined by how efficiently valuable raw materials from primary production are processed into end products and transferred to consumption, while minimising raw material and food waste at all stages of the supply chain. Environmental impacts also arise from the packaging and transportation used in the production chain, but their significance in terms of the environmental impacts of food products is relatively small.

3.1. Over a quarter of Finland's greenhouse gas emissions arise from food production

The food supply chain gives rise to an estimated 25–30 per cent of Finland's total greenhouse gas emissions. Approximately a quarter of global greenhouse gas emissions are caused by the food supply system, and climate change is one of the most critical environmental threats facing society. Examples of the consequences of climate warming include rising sea levels, precipitation changes, glacier retreat and the increased occurrence of extreme weather phenomena.

The conditions for agriculture may also change as a result of the environmental changes caused by greenhouse gas emissions. Climate change is also a significant factor with regard to biodiversity, as it can lead to the warming of habitats and extreme weather events, for instance. Consequently, procurement practices that mitigate climate change can also be seen to have a positive impact on biodiversity.

The climate impacts of food production, i.e. the carbon footprint, measures and describes the combined greenhouse gas emissions associated with the underlying supply chains of products, starting from the production of the primary inputs, such as fertilisers, all the way to catering service providers, retailers and consumption.

Greenhouse gas emissions include carbon dioxide, methane and nitrous oxide, as well as emissions from refrigerants, each of which is converted into carbon dioxide equivalent kilograms (kg CO_2e) per a specific unit of product.

As a general guideline, it can be said that the smaller the absolute carbon footprint of the product's primary production, the relatively greater significance the industrial processing, long-distance transportation, and packaging within the supply chain have in the formation of the product-specific carbon footprint. However, even in such cases, the share of primary production remains significant. The amount and source of energy used in the supply chain also affect the carbon footprint, which is particularly significant in greenhouse cultivation.

Half of the climate impacts of Finnish agriculture arise from peatlands, even though they represent only just over 10 per cent of Finland's total arable land. Efforts are under way in Finland to develop grassland production and carbon farming methods aimed at the soil sequestration of carbon released from mineral grasslands and mineral soil. The emissions from the land use sector are not reflected in the product-specific carbon footprint calculations. Peatlands or other similar changes in carbon reserves in the soil are also not addressed in the product cards for beef and dairy products, or the related environmental criteria, in this guide.

Because the emissions of the land use sector are not yet taken into account in the calculations, carbon footprint comparisons between conventional and organic products are not straightforward.

3.2. The use of carbon footprint comparisons as an evaluation criterion in food procurement is still challenging

Companies and supply chains are increasingly assessing the carbon footprints of their food products, feedstuffs or fertilisers, but the comparability of the provided figures is a challenging issue. Some of the carbon footprint determinations for foodstuffs are highly detailed and based on actual input data from various farms and processes within the chains, for example. However, some calculations are at a more general level and based on varying secondary sources of information. The variability in the descriptive quality and accuracy of the input data used in calculations is a significant problem with regard to comparisons, as it also leads to variations and inaccuracies in the results. As a rule, the carbon footprints of food products determined in different studies are not directly comparable with each other due to significant differences in calculation methodologies with regard to their system boundaries, the allocation of emissions to by-products, carbon offset calculations, calculation models for primary production, input data and, in particular, the assessment of changes in land use and the carbon reserves in soil.

Current carbon footprint calculations typically do not account for changes in carbon reserves in soil nor the significant emissions from peatlands or the potential carbon sequestration that may occur in certain circumstances in mineral soil, for example.

3.3. Agriculture accounts for half of the eutrophying emissions into Finland's waterways

The impact of food production on the eutrophication of waterways is largely caused by field cropping. Water eutrophication accelerates the growth of blue-green algae, for example, and leads to oxygen depletion in waterways. Over 50 per cent of the nitrogen and phosphorus load causing eutrophication in Finnish waterways is

estimated to originate from agriculture. Most of the environmental impact of agriculture is caused by the extensive cultivation of feed crops required for animal production.

Energy production processes and the nitrogen oxide (NOx) emissions of transport operations, as well as the release of ammonia from animal waste, also contribute to the eutrophication effects of food production on waterways.

Eutrophication is a very local and regional problem, which means it is even more difficult than the carbon footprint to compare globally between different products and production forms.

The national methods used in Finland to calculate the eutrophication effects of food production, taking into account the local production conditions, differ significantly from the generally used international calculation methods, as do the results published in accordance with the methods. In Finland, the eutrophication of the Archipelago Sea is particularly caused by phosphorus from agricultural fields. Among inland waters, smaller lakers also suffer from eutrophication.

One of the keyways to address the nutrient load in the catchment area of the Archipelago Sea is to reduce phosphorus levels in agricultural fields. Although fertiliser use has decreased to less than half of the 1990 level, it will take time for the concentrations to decrease on agricultural fields. Fertilising fields based purely on the nutrient requirements of crops is an effective way to permanently reduce the environmental risk posed by soluble phosphorus.

3.4. Food production has an impact on biodiversity

Over one-third of the Earth's total land area is used for food production, and a majority of that land is used for the production of animal feed. Food production is one of the biggest threats to biodiversity, which is declining at an alarming rate.

Globally, one of the significant causes of biodiversity loss is deforestation, which is primarily driven by activities such as the clearing of land for agriculture. These changes in land use are particularly critical for biodiversity when unique and highly diverse habitats – such as rainforests or other environments of similar high value in terms of biodiversity – are cleared for food production purposes.

In Finland, the negative impacts on biodiversity are particularly evident when it comes to the consumption of meat whose production has involved the clearing of rainforests for grazing purposes, or when animals are raised and fed with soya grown in rainforest areas. Palm oil, coffee and cocoa are also often produced in areas where rainforests have been cleared, leading to deforestation and loss of biodiversity.

In Finnish meat production, soya has already been partially replaced with other protein sources in pork production, and the use of soya has been almost entirely phased out in cattle feeding. Monitoring the use of soya and its impacts on biodiversity throughout the meat supply chain is not simple despite the development and fairly widespread adoption of various standards and quality certifications that aim to address these issues.

Soil health and the diversity of soil organisms is enhanced by the use of agroecological practices that increase carbon reserves in the soil, such as diverse crop rotation and the utilisation of cover crops and catch crops. Other measures to enhance biodiversity in primary production include, for example, grass strips and field edges, buffer zones and biological pest control. In addition, reducing and targeting the use of pesticides, reducing the use of antibiotics and minimising the use of other environmentally harmful substances – such as heavy metals and hormones – reduce the impact of food production on biodiversity.

Grazing animals also help to maintain habitats that are important for numerous species.

Biodiversity loss occurs at multiple levels, involving the decline of not only ecosystem diversity and species diversity, but also the decline of diversity at the genetic level. This can be addressed by using a diverse range of plant varieties and by protecting indigenous breeds and traditional biotopes.

The assessment of biodiversity differs methodologically from the previous categories of environmental impacts. Collecting monitoring and research data on biodiversity is challenging because the availability of statistical data on the entire value chain is often very limited. This complicates the consideration and assessment of biodiversity in public procurement. With this in mind, developing the quality, quantity and availability of data on biodiversity is an important area for improvement.

The transparent flow of information throughout the entire value chain of a product is particularly important in promoting biodiversity. Without the ability to verify the country or region of origin, as well as the choices made in primary production, the food procurement body does not have sufficient visibility into the attributes of the product. Various certification systems can be helpful in facilitating transparent procurement, but the certificates used must be reliable and based on transparent criteria. The criteria can also be developed gradually by initially requiring transparency for certain identified high-risk product or raw material supply chains. As the procedure becomes more widespread and the availability of information improves, targets can be established for broader transparency in the supply chains of raw materials.

3.5. Water scarcity is an increasingly important issue for global food security

Water plays an important role in the processes that sustain life. Water is required in all of the processes on our planet that are essential for human well-being. Water scarcity is one of the key issues for global food security. Water crises are one of the major environmental challenges threatening our planet. The food supply system already accounts for 70 per cent of the global consumption of freshwater. The concept of the water footprint, which includes water scarcity, measures the amount of water used relative to the local water resources and water availability. The terms "water scarcity" and "water stress" both describe the relationship between water use and water resources.

From the water footprint perspective, the most crucial aspect is the availability of water resources in food production areas and agriculture. Water scarcity and droughts have increasingly caused concerns in Europe during this decade, particularly due to the threat of a long-term imbalance between water demand and availability. However, Finland's water resources are among the most abundant in the world. Currently, there is limited availability of product-specific data on the water footprint of food products incorporating the water scarcity factor in accordance with the AWARE method. For this reason, product-level water footprint comparisons between food products from different origins are challenging at present.

3.6. Primary production and production efficiency are key to reducing the environmental impacts of food production

Primary production and its sustainable efficiency are central issues when it comes to the generation and reduction of environmental impacts. The key is to determine the most efficient feed conversion ratio to ensure the health and well-being of production animals. This involves finding the optimal composition and quantity of feed to produce meat and milk while minimising the environmental impacts. It is also important to consider how efficiently, and in how timely a manner, food and feed crops can utilise the nutrients provided by fertilisers and cover crops. It is also important to keep the fertility of the soil as good as possible in order to achieve high yields and minimise the environmental impacts of production.

The aforementioned factors all have indirect effects on the carbon footprint and eutrophication arising from the supply chain. Another significant factor affecting the size of the carbon footprint of primary production is the proportion of renewable energy – and fossil energy sources – used at the various stages of the supply chain. The greatest changes that can be made to minimise the environmental impacts of food and its consumption are the development of production methods in primary production and increasing the diverse use of plant-based products while reducing meat consumption.

3.7. Organic production has positive impacts on biodiversity

Organic production is a strictly regulated and certified production method based on European organic legislation. The National Public Procurement Strategy and the National Programme for Organic Production aim to increase the share of organic products to 25 per cent of public food procurement by 2030. This goal is in line with the European Commission's objectives for promoting organic production.

Organic primary production is based on nutrient recycling, maintaining soil health and biodiversity, and avoiding the use of non-renewable natural resources. In organic animal production, the aim is to enable species-appropriate behaviour and prevent diseases.

Organic animal production observes national animal welfare legislation and adheres to the conditions for organic animal production, which may involve stricter standards than general animal welfare legislation.

The benefits of organic production for production animals primarily relate to the available space for animals, the absence of tethering, the opportunity for outdoor access, restrictions on certain procedures performed on animals, and the feeding practices concerning young animals. For example, the minimum space requirement per animal is larger in organic production than the requirement stipulated by the national legislation, and the animals' resting area must always include appropriate bedding. Animals in organic production must have access to pasture or outdoor areas during the summer or throughout the year, depending on the species. The aim is to avoid procedures performed on animals, and in painful procedures that are deemed to be unavoidable (such as disbudding and piglet castration), appropriate pain relief is always used. The diet of young animals should include natural milk.

In organic production, efforts are made to prevent animal diseases and injuries through good rearing conditions and management practices. As in conventional production, sick animals used in organic production must be treated appropriately and without delay. The terms established for organic production have been criticised for having an annual limit on the number of medical interventions. If the limit is exceeded, the animal loses its organic status and must restart the transitional phase.

The use of industrial fertilisers and feeds, synthetic pesticides, genetically modified (GM) ingredients and product irradiation are prohibited in organic production. For example, the ecotoxicological load on the environment resulting from organic production is lower than that of conventional products, which has a positive impact on the biodiversity of agricultural environments. Strict restrictions have been established for the use of food additives, processing aids and chemically produced synthetic ingredients in the processing of organic food.

The basic principle is to prioritise naturally occurring substances and protect the well-being of the environment, people and animals. Based on these principles, it could be thought that organic production is categorically and automatically an alternative with less adverse environmental impacts, but the matter is not as simple as that. The climate and eutrophication impacts of organic production are typically lower per unit of land area than those of conventional production. A lower impact per unit of land area is, indeed, positive for nearby waterways or water bodies requiring special protection. However, in organic production, crop yields and productivity are typically much lower than in conventional production. As a result, the environmental impact indicator per unit produced – such as the carbon footprint or eutrophication potential – of organic products may be at the same level, or even higher, when compared to conventional products. Including changes in soil carbon reserves in the calculations may potentially alter the perception of the carbon footprints, or at least make the comparisons more evenly balanced in favour of organic farming. In organic farming, the crop rotation used also affects the overall plant species selection and the yield of the entire rotation, which typically does not show in the carbon footprint or eutrophication calculations of specific products. The good crop rotation practices used in organic farming can also be utilised on conventional farms to improve soil fertility and reduce dependency on chemical plant protection products. Sustainably increasing crop yields would improve the environmental efficiency of organic farming.

4. Animal welfare and health

The Farm Animal Welfare Council defines animal welfare as animals' perceptions of their own physical and mental conditions. The concept of animal welfare refers to the well-being of an animal, which can vary from good to bad. The well-being of an animal is influenced by its opportunities to adapt to the events and conditions in its environment. An animal's welfare declines if the adaptation is not successful or if the adaptation attempts cause the animal constant or significant stress, strain, behavioural disorders or harm to health. Animal welfare can be influenced by housing conditions, care, handling and breeding.

According to the Welfare Quality Network, the assessment criteria for animal welfare can be listed as follows:

Principles	**Criteria**
Good feeding	1. Absence of prolonged hunger
	2. Absence of prolonged thirst
Good housing	3. Comfort around resting
	4. Thermal comfort
	5. Ease of movement
Good health	6. Absence of injuries
	7. Absence of disease
	8. Absence of pain induced by management procedures
Appropriate behaviour	9. Expression of social behaviours
	10. Expression of other behaviours
	11. Good human–animal relationship
	12. Positive emotional state

Different production methods are characterised by different animal welfare problems. Animal welfare encompasses the entire life cycle of animals, including transportation and slaughter. In all animal production, the question of how humans treat and manage animals is crucial for animal welfare. Discussions about animal welfare are often complicated by the fact that representatives of the animal industry and consumers may prioritise different aspects of welfare. Comparing the level of animal welfare between different countries is also challenging due to the difficulties in obtaining data that enables such comparisons.

As a rule, hunger and thirst are not a problem in Finnish animal production. According to the Finnish legislation currently in effect (247/1996), animals that are being cared for must be provided with suitable feed and drink of good quality. In certain forms of production, animals do not always have access to drinking water. In some stages of production, feeding may be insufficient to meet the needs of the animal (broiler breeders and idle sows). In Finland, the Parliament approved the legislative proposals included in Government proposal HE 186/2022 vp on 1 March 2023. Consequently, the current Act (247/1996) will be replaced by a new Animal Welfare Act. The legislative provisions will enter into effect on 1 January 2024.

The minimum requirements for animal rearing conditions are also set out in national legislation. They do not always correspond to the wishes of consumers and the needs of animals. The main reason for this is that, for example, providing more space and improving comfort around resting require investments. Ideally, economic efficiency and animal welfare go hand in hand. For example, rearing beef cattle in non-isolated and therefore cost-effective buildings is a good option from an animal welfare perspective, but it requires effective bedding management.

It is important to strive for species-appropriate social and other behaviours so that animal welfare is appropriately realised in the rearing conditions. This means that animals exhibit minimal aggressive behaviour, abnormal behaviour or fear reactions. The relationship between animals and their attendants has a crucial impact on the occurrence of fear reactions in animals. In recent times, increasing emphasis has been placed on the importance of

allowing animals to experience positive emotional states, which can be promoted through the enrichment of their living environment, for example. These factors also reduce the need for medication.

It is difficult to compare the level of welfare between different animal species. Different welfare-related factors are emphasised for different species, and their valuation is difficult. Similarly, there are challenges involved in comparing different production methods for a given species.

4.1. The animal disease situation in Finland is good and the use of antibiotics is low

In Finland, voluntary measures within the industry have contributed to the fact that we do not have many animal diseases that are commonly found elsewhere. Livestock in Finland are treated with medicines such as antibiotics to a much lesser extent than in Southern and Central Europe, where such treatments are also routinely used as preventive medication. The association Animal Health ETT monitors the welfare and health of livestock on a voluntary basis, applying standards that are stricter than those stipulated by law. The tools used include the Naseva health monitoring system for cattle farms, the Sikava health classification register for pig farms, and expert groups on poultry health (separate groups for meat and egg production).

Over 95% of the milk, beef and pork produced in Finland is produced on farms belonging to Naseva or Sikava. Both systems have an ISO 9001 quality management certificate.

5. Food safety

Food control consists of self-monitoring by operators and official control by the authorities. In Finland, food industry operators are responsible for ensuring the safety and regulatory compliance of the food they produce, handle, manufacture, package, transport, import, store and sell. For this purpose, the operators are required to have a suitable self-monitoring system in place for their operations. The task of the control activities by the authorities is mainly to ensure the effectiveness of self-monitoring and to support businesses in matters pertaining to safety.

Examples of food-related risks:

- Food or drinking water can carry microbes or micro-organisms that can cause infectious diseases or food poisoning.
- Food can contain natural harmful substances, such as lectins found in legumes.
- Food can also contain various environmental pollutants or chemical substances, such as dioxins, methylmercury, food additives, pesticide residues, etc.

Food safety in these criteria refers to microbiological food safety, chemical and physical food safety, as well as food safety related to production methods and the composition of food products.

To ensure consumer safety, EU member states annually implement a contaminant monitoring programme for food of animal origin (referred to as the national contaminant monitoring programme).

The programme ensures that prohibited substances are not used in the rearing of livestock and that food products do not contain residues of permitted veterinary drugs exceeding the limits set out in legislation. The programme also monitors the presence and concentrations of environmental toxins in food products.

According to the report Food Safety in Finland 2019, chemical risks are well under control in foodstuffs production in Finland, and traces of pesticides, veterinary medicines, environmental toxins or other chemicals do not occur at levels harmful to human health. The microbiological safety levels of foodstuffs produced in Finland are high by international standards.

In international comparison, Finnish food production has many verifiable strengths, including the low use of antibiotics in the medical treatment of livestock and the almost non-existent presence of salmonella. In addition, the good situation regarding animal and plant diseases stands out as an advantage for Finland in international comparison. Due to the low prevalence of plant diseases, there is less need for pesticide use in Finland compared to large European food-producing countries, for example.

The FINRES-Vet antibiotic resistance monitoring programme has been implemented in Finland since 2002. The antibiotic susceptibility of zoonotic bacteria, certain bacteria causing diseases in animals, and indicator bacteria is investigated within the framework of the programme. In recent years, the prevalence of resistant bacteria has increased, and resistance mechanisms have rapidly diversified. Increasing antibiotic resistance contributes to higher rates of illness, mortality and health care costs for both people and animals. Consequently, antibiotic resistance has emerged as one of the most serious threats in human and veterinary medicine.

Globally, antibiotic resistance is also a significant threat to biodiversity. Antibiotic-resistant microbial strains can alter natural microbial communities and impact various microbial processes in soil and water systems, for example.

The key measures for managing antimicrobial resistance are considered to be the controlled use of antimicrobials and minimising the need for antimicrobial treatment. The first recommendations concerning the use of antimicrobials to treat the most significant inflammatory and infectious diseases in animals were issued in Finland in 1996. In Finland, it is prohibited to feed antibiotics to livestock in their feed, and medications are prescribed to animals only by a veterinarian and when there is a verified need. Outside the EU, however, the excessive use of antibiotics in intensive farming facilities is common. The United States and China are the most significant users of antimicrobial agents in livestock farming.

Harmful substances such as pesticides, mycotoxins or pathogenic microbes can be transmitted to animals and animal-derived products through feed. In Finland, animal feed must not contain harmful substances exceeding the limits set out in legislation. Salmonella bacteria must not be present in animal feed. Animal-derived feedstuffs are required to meet hygiene requirements.

The accumulation of harmful substances in soil jeopardises the quality of food and contributes to the pollution of waterways. The cadmium present in phosphorus fertilisers is the most significant harmful metal that can transfer into food supply chains, especially when sedimentary phosphorus minerals, including those mined from North Africa, are used.

5.1. Salmonella monitoring programme

Infections caused by salmonella bacteria are a serious public health problem around the world. However, the Nordic countries are an exception to this rule. The situation in Finland, Sweden and Norway has remained much more favourable than elsewhere in the world.

In Finland, the low prevalence of salmonella is ensured in part through a national salmonella control programme. The salmonella control programme covers cattle, pigs and poultry, as well as the meat and eggs derived from them. Within the framework of the programme, Finland is committed to maintaining the salmonella level below one per cent for each animal species.

5.2. Food safety risks related to the use of plant protection products

Plant protection is an essential part of crop production. Plants are protected from pests (vermin, plant diseases, weeds) and other environmental factors that are detrimental to growth. Responsible plant protection ensures a quantitatively and qualitatively good harvest that is free from pests that are harmful to food use, as well as the associated compounds, such as mycotoxins or pesticide residues, which could be harmful to consumers. Responsible plant protection entails considering the health of both humans and the environment.

The use of pesticides has negative impacts on biodiversity, and the effects depend on the substances used and their rates of application. By using pesticides in a controlled and targeted manner, it is possible to mitigate the adverse impacts without significantly compromising crop yields. In organic farming, the use of synthetic pesticides is prohibited, leading to reduced negative environmental impacts.

In the EU, plant protection must be implemented according to the principles of integrated pest management (IPM). This requirement has been in effect since 2014. IPM refers to the judicious and planned combination of all available pest management methods according to the prevailing situation. The aim is to prevent the development of pest populations, maintain the use of plant protection and other management methods at an ecologically and economically acceptable level, and minimise risks to human health and the environment.

Non-chemical pest management methods in accordance with the IPM principles include, for example:

- Preventive measures: e.g. crop rotation, certified propagation material, pest-resistant varieties, proper sowing time, cover crops, trap crops, and soil cover plants, maintaining soil fertility, fallowing, flowering plants to attract pollinators and beneficial organisms, and other companion plant patches and habitat patches that increase biodiversity.
- Non-chemical control methods: e.g. biological control agents and bio-based pest control products, mass trapping, nets to prevent pests from accessing crops, weed control by means of hoeing, flame weeding, steam treatment or (biodegradable) mulches, and robotic weeders.
- Verification of the need for chemical control through methods such as predictive models or monitoring.

The use of chemical pesticides is permitted under the IPM principles, but only when there is a verified need. The use of chemical pesticides can have adverse effects on the environment and organisms through the spread of the substances beyond the target plants. Residues should not remain in the protected plants themselves, as this could pose risks to human health.

The maximum residue levels for pesticides must not be exceeded in food or in the environment under any circumstances. In the EU, several pieces of legislation have been issued to govern the use of pesticides, and their implementation is monitored by various authorities. In Finland, food safety is governed by legislation and closely monitored in cooperation between authorities and companies' self-monitoring practices.

6. Nutritional quality

Responsible food procurement includes promoting human well-being and health, as well as enabling the implementation of a healthy diet in public food services. The public procurement of food and food services plays a key role in promoting good nutrition, health and well-being among the population. A diverse, plant-based diet, as defined in the dietary guidelines, also supports sustainability goals. Healthy food and sustainability go hand in hand.

The nutritional quality of meal components, as defined in the dietary recommendations for different target groups, must be verified and set as mandatory minimum requirements in food procurement. This helps to ensure that the food provided meets the nutrient content requirements set out in the dietary recommendations.

Safe nutrition for the population consists of a varied, health-promoting diet, high-quality and safe food, as well as their hygienic and proper handling. It also involves individualised food choices and appropriate portion sizes based on each person's circumstances. Diet can help prevent the risk factors associated with national diseases, such as cardiovascular diseases. The biggest nutritional and health concerns in Finland are related to excessive intake of salt, saturated fat, added sugar and excess energy. The intake of dietary fibre is also lower than recommended, and increasing its consumption would improve the overall diet, benefit sugar and fat metabolism, and help prevent the development of colorectal cancers. One key issue is the consumption of diets that contain excessive amounts of energy, as well as the insufficient intake of vegetables and the high consumption of red meat.

The sustainability objectives for food purchasing presented in this procurement guide would largely be achieved in practice by following dietary recommendations. This could be achieved, for example, by increasing the consumption of vegetables, root vegetables, mushrooms, legumes and berries (taking into account seasonal produce), potatoes, fish (especially freshwater fish), rapeseed oil, plant-based margarine (considering the sustainability of the palm oil used), whole grain products (fibre-rich, nutrient-dense domestic grains, especially rye, oats, and barley, and their derived meal components), and by moderating the consumption of red meat and processed meat products (see APPENDIX 1). More information is available in the dietary recommendations cited below. The key is to align the dietary recommendations with the sustainability criteria developed for different food groups.

Food procurement is guided by dietary recommendations for early childhood education, basic education, vocational and upper secondary education, higher education catering, as well as catering in health care services and care services: Recommendations of the National Nutrition Council of Finland >>

The Heart Symbol: criteria for granting product certification rights: Information on criteria defined for specific product categories in relation to the nutritional quality of foodstuffs >>

In addition to Heart Symbol products, all foods that meet the equivalent criteria of Heart Symbol products but have not been granted the Heart Symbol by the manufacturer are accepted as components of a recommended meal.

7. Social responsibility

In developing countries, agriculture is an important source of income, and over two-thirds of the population in low-income countries work in the agricultural sector. Global supply chains can generate growth, employment, knowledge, and technology transfer when companies produce necessary goods and services, create jobs and pay taxes. On the other hand, supply chains can involve violations of the rights of children, farmers, workers and communities. Supply chains in developing countries involve human rights violations, such as the exploitation of child labour, forced labour, discrimination and inadequate wages for a decent living.

7.1. Global agriculture involves various human rights violations

The exploitation of child labour refers to work performed by underage children that is harmful to their health or interferes with, disrupts, or prevents their education. Agriculture is the sector in which the use of child labour is the highest: approximately 98 million children work in agriculture. For low-income families, the exploitation of child labour remains one means of survival in the rural areas of low-income countries. Children who work typically lack access to education, adequate nutrition and proper care.

Forced labour refers to work or service to which a person is coerced against their will, under the threat of punishment. Forced labour may also involve trafficking in human beings. In the agriculture and fishing sectors, an estimated 2.7 million people are believed to be engaged in forced labour. Trafficking in human beings and forced labour occur, among other contexts, in the harvesting and production of seasonal crops, where harvest seasons are short and there is a temporary need for labour. The risk of falling into forced labour is particularly high for migrant workers who have temporarily moved to another country in search of employment. Migrant workers, especially those from poor countries who often lack language skills, are in a highly vulnerable position in their new place of residence, as they lack both personal and societal safety nets. For example, Haitian migrant workers represent up to 65 per cent of the banana plantation workers in the Dominican Republic.

The most common violation in global agriculture is inadequate wages that do not provide a decent standard of living. Wages should be sufficient to provide nutritious food, housing and other basic needs, with the ability to save a little as well. For a large proportion of workers in developing countries, their wages are inadequate for a decent living. Approximately one in ten people in the world live in poverty, despite being employed.

Women make up a significant proportion of the agricultural workforce in developing countries. In spite of this, women face challenges in accessing leadership positions, land ownership, and having their voices heard. Women also experience sexual harassment and violence at work.

Conflicting interests related to land use between local government, large corporations and the local population often lead to land conflicts and land grabbing. Land grabbing refers to the long-term acquisition or leasing of land, which involves serious abuses or violations of human rights against the population previously using the land. Land grabbing cases are often characterised by the absence of voluntary and informed prior consent from the affected local communities, and the lack of consideration or assessment of social, economic and environmental impacts. The agreements concerning land acquisition or lease are typically not public, and the individuals affected by the land use have not been given the opportunity to participate in the development of the agreements.

In Europe, the most significant social problems are often related to the working conditions and wages of imported or migrant labour. The employment contracts of migrant workers are often verbal, and their lack of language skills and vulnerable position expose them to exploitation.

7.2. Social responsibility certifications and audit systems should be used in procurement

The public sector has a responsibility to ensure that human rights and fundamental labour rights are increasingly and comprehensively respected in business activities. This responsibility has been clarified by the UN Guiding Principles on Business and Human Rights, which were adopted in 2011. According to the principles, states have a duty to protect individuals from human rights abuses committed by business enterprises and other parties. To fulfil the obligations of the public sector, it is important to strive to avoid negative human rights impacts throughout the entire supply chain in procurement processes. This is also taken into account in the National Public Procurement Strategy, where one indicator of social sustainability is procurement bodies that promote the recognition of human rights and fundamental rights in procurement processes.

The growing demand for sustainably certified products has led to an increase in the proportion of agricultural land subject to certification. Globally, approximately a quarter of the total land area used for coffee and cocoa cultivation is certified in accordance with sustainability standards. Social responsibility certifications and audits aim to address shortcomings in the ratification or implementation of international conventions on human rights, and labour rights in particular. At the same time, certain social responsibility certifications, such as the Fair Trade framework, also include environmental requirements and criteria related to biodiversity.

Social responsibility auditing and certification systems should be increasingly utilised in public procurement. However, there are differences in responsibility certifications, and it is important that public procurement bodies are familiar with the criteria of different systems and can require compliance with the criteria of the most ambitious systems.

Third-party certification is the most reliable tool for monitoring social responsibility in high-risk countries. Third-party audit and certification systems have several advantages: their criteria are usually public, they reduce overlapping audits on monitored farms and factories, and they provide stakeholders with various opportunities to file complaints and have their voices heard.

7.3. The employment effect of procurement

Employment is one aspect to be assessed when considering social perspectives in public procurement. Public procurement can serve as a tool to increase employment rates and promote the employment of individuals in vulnerable labour market situations by including employment requirements in procurement contracts.

An employment condition refers to a specific requirement included in a call for tender and purchasing agreement in public procurement, which obliges the contracting party to employ individuals who are in a difficult position in the labour market, such as people with partial work ability or young people in the early stages of their careers.

Setting an employment condition is a specific requirement in accordance with the Procurement Act (section 98), and the condition must be stated in the procurement notice, negotiation invitation or documents included in the call for tender.

The employment condition has also been piloted, particularly in the procurement activities of the cities of Helsinki, Vantaa, Espoo and Oulu, since 2015. It has been applied in over 50 procurements for services, contracting and goods.

The employment condition is best suited for sufficiently large and long-term contracts.

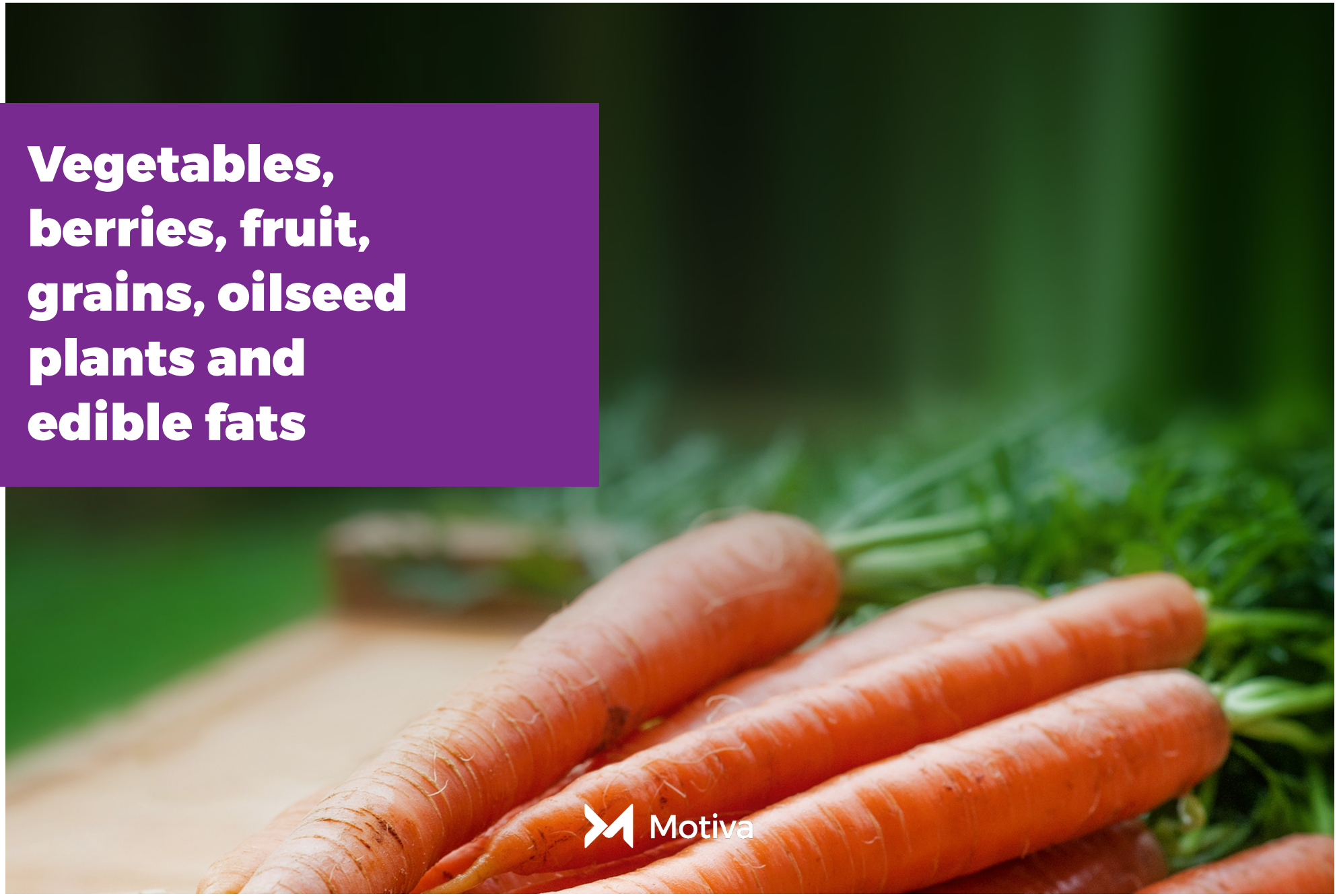
Collaboration between the implementing parties of the procurement and employment services plays an important role in successful implementation. The experiences gained so far have shown that service providers respond to the calls for tender according to expectations. However, market dialogue prior to the call for tender is crucial for the success of the procurement from this perspective as well. As a rule, companies take an understanding and practical stance towards the application of the employment condition.

One of the objectives of the National Public Procurement Strategy is to promote the employment of those in weaker positions in the labour market when applicable in the context of the procurement in question. The following indicators have been set for this in the National Public Procurement Strategy: 1. Procurement bodies that apply the employment condition in their procurement activities, 2. Jobs and apprenticeships created through the use of the employment condition.

Self-study material on the subject is available on the website of the KEINO competence centre for sustainable and innovative public procurement.

A programme for promoting employment through public procurement was implemented under the leadership of the Ministry of Economic Affairs and Employment. The aim was to support employment more effectively through public procurement. The project was coordinated by the Association of Finnish Municipalities.

Vegetables, berries, fruit, grains, oilseed plants and edible fats



THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Various plant-based products should be increasingly incorporated into diets for both health-related and environmental reasons.

As for all food production, the most significant environmental impacts of vegetable production include eutrophying emissions, greenhouse gas emissions and the water footprint. In addition, production can have impacts on biodiversity, especially when tropical forests of high biodiversity are cleared for crop cultivation. Furthermore, plant-based products can contain significant amounts of pesticide residues, and in intensive production areas, the impacts of pesticides may be evident in soil and water systems.

The aforementioned environmental impacts vary for different products and product groups, and also depending on where the production is located and how the production is carried out in practice. Open-field cultivation, greenhouse cultivation and wild-harvested berries or mushrooms have very different environmental impacts.

Natural products typically have the lowest emissions among food products in terms of climate emissions and eutrophication. Among carbohydrate sources and side dishes, potatoes are an environmentally friendly choice.

The growing demand for specific globally cultivated products can sometimes lead to the clearing of a significant amount of rainforests, for example, to make way for new agricultural land, which can significantly increase the environmental impacts. Avocados and palm oil are good examples of this.

By optimising the use of production inputs (e.g. liming, fertilisation and pesticides) and promoting soil fertility and carbon sequestration in the soil, crop yields remain high while the environmental impacts are reduced.

Climate impacts

In open-field cultivation, the carbon footprint is typically caused by primary production, soil nitrous oxide emissions, and the supply chains of fertilisers and fuels. Nitrous oxide emissions are influenced by various factors, such as climate, soil, production inputs use, cultivation techniques, etc. Sometimes the processes in the food industry can have a significant impact; for example, the baking of bread in an oven can significantly increase the carbon footprint of the bread depending on the energy sources used. It is generally not possible to compare the average carbon footprint of plant production between Finland and other countries with current data.

The largest carbon footprint in greenhouse vegetable production is caused by the energy consumption required for greenhouse heating and lighting. The carbon footprint of greenhouse vegetables produced in Finland can be two to four times higher when compared with those imported from Spain. If Finnish cucumbers, tomatoes or bell peppers are produced using renewable energy, their carbon footprint can be as low as those imported from Southern Europe. Renewable energy sources have begun to be used increasingly in the heating of greenhouses in Finland. The carbon footprint depends primarily on the specific energy sources used by a farmer and the efficiency of energy consumption.

Impacts on biodiversity

From the perspective of biodiversity, the most relevant factor is the production environment from which the products originate. The greatest loss of biodiversity occurs when tropical rainforests of rich biodiversity are cleared for agricultural purposes. The geographic concentration of production in a specific area not only leads to a narrowing of the cultivated crop variety but also a reduction in the number of wild species and habitats in the region in question.

For example, the production of palm oil may involve the clearing of rainforests, which reduces biodiversity and significantly increases the climate impacts of palm oil and the margarine products derived from it. Cocoa and coffee cultivation involve similar issues.

The European Commission has published draft regulations aimed at preventing the entry into the EU market of certain products contributing to deforestation, and developing their supply chains. Among categories of food products, the scope of the new regulations would include soya, palm oil, coffee, cocoa, and beef. According to current information, these products will be subject to a requirement for the supplier's declaration stating that the product has not caused deforestation.
Requiring information on the country of origin and traceability, and avoiding products from high-risk areas, are measures to understand and mitigate the risks related to the loss of biodiversity.

In Finland, the key measures to maintain biodiversity include increasing the total area of managed traditional biotopes, as well as the amount of field edges and open and semi-open habitats outside actively used fields. Primary production methods that are beneficial for soil fertility, such as crop rotation, cover crops and catch crops, generally contribute to improving the biodiversity of soil organisms as well.

Eutrophying nutrient emissions caused by agriculture, in turn, undermine the biodiversity of aquatic ecosystems. Therefore, it is important to reduce nutrient runoff and the entry of pesticides into waterways by reducing the use of fertilisers and pesticides, improving their targeting, implementing various buffer zones and vegetation cover, as well as restoring wetlands and estuaries.

Water footprint

In terms of the water footprint and water scarcity, the key issue to consider is the availability of regional water resources for crop cultivation. There are very significant regional differences. For example, Finland, Sweden and Central Europe generally have reasonably good water resources, resulting in a significantly lower water footprint for crop production in these regions compared to the Mediterranean region, Central America, North America, Africa and the Middle East.

Finnish tomatoes are a better choice in terms of the water footprint than tomatoes imported from Southern Europe. For example, the water footprint of Spanish tomatoes is up to 90 times higher than that of tomatoes produced in Finland.

The depletion and contamination of groundwater due to primary production is a significant threat in regions with low rainfall. In regions where irrigation is extensively used, such as the Mediterranean countries, special attention must be paid to the use of groundwater resources.

Eutrophying emissions into waterways

The amount of nutrient emissions into waterways is primarily influenced by the location of the cultivation areas. Open field production, the cultivation of grains, oilseeds and open field vegetables contribute to diffuse nutrient emissions into waterways, and globally, the largest eutrophication impact comes specifically from field cropping. In greenhouse cultivation, the recovery of nutrients is possible. However, this is not yet very common except in countries like the Netherlands where it is mandatory.

Food safety

Finnish greenhouse vegetables have been proven to have significantly fewer residues than imported products (e.g., from Spain or the Netherlands), even though the latter also comply with the permitted residue limits. In vegetables, multiple residues are more common in imported products, particularly from countries located further south. In the EU, plant protection must be implemented according to the principles of integrated pest management (IPM) (see introduction).

If plant protection is not properly managed, the product may contain plant pests that are harmful to food use, as well as their associated compounds such as mycotoxins, which can be harmful to consumers.

The use of chemical pesticides is highest in countries where specialty crops such as fruits and grapes are extensively cultivated. These crops often require more intensive plant protection measures, leading to multiple applications of plant protection agents throughout the growing season. The rates of pesticide use are the highest in China and Israel.

Per-hectare usage rates are the lowest in the Nordic countries, where the need for pest control is generally lower compared to Central Europe. Spanish, Italian and Dutch tomatoes contain pesticide residues more frequently than Finnish tomatoes.

The proportion of products with multiple residues increases as you move further south, but even in those cases, the maximum limits for pesticide residues are not exceeded. In terms of the frequency of pesticide residues, Finnish tomatoes are a better choice compared to those from southern Europe and even the Netherlands.

However, according to current knowledge, the residues in tomatoes from southern Europe and the Netherlands are also considered to be at a safe level, at least when looking at the levels of individual substances. The maximum residue are most commonly found to have been exceeded in strawberries, apples and lettuce. Vegetables grown in Finland have low levels of pesticide residues.

Post-harvest chemical treatments of vegetables and fruits are permitted in many countries. These treatments can increase the risk of pesticide residues. Chemical treatments are not permitted in Finland. Instead, proper harvesting methods, appropriate storage conditions or bio-based treatments are used to ensure the storage life of vegetables and fruits.

In organic production, the use of synthetic chemical pesticides is not allowed. Plant protection is based on preventive measures as well as the use of bio-based plant protection products and beneficial organisms for pest control.One key measure to ensure food safety is requiring origin information and traceability.

Social responsibility

The production and harvesting of vegetables, fruits, berries and oilseeds are associated with various social issues, such as poor working conditions, low wages and even conditions resembling forced labour. The cultivation of several tropical fruits provides employment opportunities for millions of plantation workers and small-scale farmers. The majority of the production is uncertified, and uncertified farms involve numerous problems.

The challenge in ensuring the realisation of workers' rights and improving living conditions is the insufficient wages in many countries.

The legally mandated minimum wage often does not cover the basic needs of workers and their families. The decline in banana prices on the global market has been transferred to the producers, whose received prices have plummeted while production and living costs have significantly increased.

Even in Finland, there have been cases of blatant labour exploitation in berry picking and other seasonal agricultural tasks, where foreign workers are often used.

Focus on bananas

Bananas are the most popular fruit in Finland. Banana production, both on plantations and small-scale farms, requires a greater amount of external labour compared to many other commodities. Many employers continuously hire workers on short-term contracts, which allows them to avoid paying legal benefits and prevents workers from organising and collectively negotiating for better working conditions and benefits. Many banana plantations employ large numbers of impoverished migrant workers who often lack official documentation and therefore rarely dare to complain about low wages or report misconduct, and they are unable to negotiate for better wages. The use of child labour has also been observed in banana cultivation.

Women often work at banana plantations in discriminatory conditions, holding unskilled positions and receiving low wages. The proportion of women at Latin American banana plantations has fallen to a level as low as under 10% of the workforce because the employers do not provide maternity benefits. Women can be dismissed from their jobs due to pregnancy, and in Costa Rica and Peru, a woman must prove that she is not pregnant in order to be employed on a banana plantation.

Small-scale farmers are the most vulnerable to unfair trading practices. They are often compelled to accept the terms set by buyers, and export companies frequently impose additional costs on them. Prices and contracts are often negotiated for a short term, and many importers use contract clauses that allow them to terminate the agreement, shifting the risk of unsold bananas from the buyer to the exporters and, in particular, the producers.

Pesticides are extensively used in banana plantations for pest and disease control, resulting in significant exposure of agricultural workers and small-scale farmers to these chemicals. Due to inadequate training, illiteracy or foreign language labels on chemical containers, workers have very limited knowledge about the health risks associated with pesticides. Many of the chemicals used are banned in the EU due to being hazardous.

Although large amounts of pesticides are used on banana plantations, they do not pose a risk to consumer health. The banana peel is thick, and even if there are pesticide residues on the peel, it does not affect the edible parts of the fruit.Pesticides also have harmful effects on biodiversity and they increase soil ecotoxicity. In organic farming, the use of synthetic pesticides is prohibited, leading to reduced negative environmental impacts. The health hazards to farmers are also reduced.

Focus on palm oil cultivation

Palm oil production requires a significant amount of land and labour. Production takes place in countries with a tropical climate: Indonesia and Malaysia together account for over 85% of the global production volume of palm oil. In Indonesia alone, oil palm production provides a livelihood for 16 million people.

Production is associated with deforestation and violations of indigenous land rights, and child labour and forced labour are used on plantations, with wages paid at illegally low levels.

With increasing demand, the cultivation area for palm oil is constantly expanding. However, the available land suitable for production is limited: palm oil competes for land with rainforests and local communities. The conflicting interests of large corporations, local communities and local governments have led to numerous land conflicts and land grabs

In Malaysia, the majority of workers on palm oil plantations are migrant workers, and their take-home pay is often reduced by high recruitment fees.

Many workers take on debt in their home countries to pay the employment agent and cover the travel expenses, which they believe they can repay soon from their wages. In reality, it takes years to repay the debts. Workers coming to Malaysia often do not know their wages, as they are not provided with employment contracts at all or in their own language. Their passports may be confiscated, and they are prevented from forming unions or otherwise organising. The situation of migrant workers is further complicated by the fact that they are often completely dependent on their employers.

Criteria: Vegetables, berries, fruit, grains, oils and edible fats

1. FOOD SAFETY

PERUSTASO	EDELLÄKÄVIJÄTASO	PERUSTELUT	TODENTAMINEN
1.1 Indicating the country of origin for vegetables, berries and fruit			
1.Information on the country of origin of a vegetable/berry/fruit must be indicated. The country of origin refers to the country in which the product was cultivated.	2. The supplier agrees to: provide, during the contract period, batch-specific information on the origin of vegetables/berries/fruits, which must be traceable to the farm where the product was cultivated.	The country of origin of foodstuffs must be indicated on the packaging if omitting the country of origin may mislead consumers. For example, frozen berries can be packaged in Finland but cultivated abroad. The traceability of raw materials used in the provided products, e.g., their origin, must be possible to determine in accordance with the principles and requirements stipulated by food legislation. Pursuant to section 14 of the Food Act (297/2021), the product must be traceable to the packaging facility. Indicating the farm where the product originates from takes the traceability of the supply chain one step further. Requiring information on the country of origin improves the opportunities to ensure the food safety of the product.	1 & 2. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example
1.2 Indicating the country of origin of grains			
1. Information on the country of origin of grains must be indicated. The country of origin refers to the country in which the product was cultivated. OR Information on the country of origin must be indicated for all grain	2. The supplier agrees to: provide, during the contract period, batch-specific information on the origin of all grain ingredients, which must be traceable to the mill.	The country of origin of foodstuffs must be indicated on the packaging if omitting the country of origin may mislead consumers. For example, frozen berries can be packaged in Finland but cultivated abroad. The traceability of raw materials used in the provided products, e.g., their origin, must be possible to determine in accordance with the principles and	1 & 2. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.

1.2 Indicating the country of origin of grains			
ingredients in a product. The country of origin refers to the country in which the product was cultivated.		requirements stipulated by food legislation. Pursuant to section 14 of the Food Act (297/2021), the product must be traceable to the packaging facility. Indicating the mill takes the traceability of the supply chain one step further. Requiring information on the country of origin improves the opportunities to ensure the food safety of the product.	
1.3 Indicating the country of origin of plant-based products			
1.For plant-based products, the country of origin of the primary plant-based ingredient must be indicated. The country of origin refers to the country in which the product was cultivated.		The country of origin of foodstuffs must be indicated on the packaging if omitting the country of origin may mislead consumers. For example, frozen berries can be packaged in Finland but cultivated abroad. The traceability of raw materials used in the provided products, e.g., their origin, must be possible to determine in accordance with the principles and requirements stipulated by food legislation. Pursuant to section 14 of the Food Act (297/2021), the product must be traceable to the packaging facility. Indicating the farm where the product originates from takes the traceability of the supply chain one step further. A plant-based product can be, for example, an oat-based beverage.	2. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.

1.4 Use of water in plant production			
	2. The consumption and quality of irrigation and wash water are monitored. Water usage does not jeopardise water resources, both in terms of water intake and the water discharged from production.	The use of clean water for irrigation and production consumes a significant portion of the available water resources in many countries. The significance of the water discharged from production (as excess irrigation water, greywater or wastewater) in polluting water resources can be significant.	2.The supplier's description of the water resources used, and the treatment of water discharged from production. The description includes risk assessments and an action plan to be observed if risks materialise. The description can also be verified by means of quality management or certification systems whose scope includes the use of water (e.g., Laatutarha, IP Sigill Kasvikset or GLOBALG.A.P.).
1.5 Use of berries without heating			
1. The selection should also include berries that can be used without heating or cooking.	2. The berries should be usable without heating or cooking.	The Finnish Food Authority recommends using imported frozen berries only after they have been sufficiently heated to prevent viral infections. Viruses can enter berries through contaminated water, for example. Freezing keeps viruses alive and infectious. If the berries are used as they are or only lightly heated after thawing, any viruses are not destroyed.	1 & 2. Supplier's assurance.
1.6 Post-processing of fresh products			
1. Fresh root vegetables/potatoes are not treated with radiation, chemical waxes or pesticides after harvesting.	2. Fresh vegetables, berries and fruit are not treated with radiation, chemical waxes or pesticides after harvesting.	Various post-harvest processing methods can be used to protect certain fruits, potatoes and root vegetables from infections, such as fungal diseases. In addition, during transportation and storage, post-harvest processing methods can be employed to improve shelf life. Organically certified oils are permitted in Finland. This criterion only applies to fresh products.	1 & 2. Certification or quality management system, such as Laatutarha or equivalent.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 Reducing the environmental impacts of primary production			
1. The supplier should have indicators and monitoring systems based on reducing environmental impacts and/or measures to reduce environmental impacts in at least three of the following categories: waste management, biodiversity, energy consumption, nutrient emissions, soil quality and carbon reserves, and water usage.		Reducing environmental impacts requires the monitoring and assessment of operations. Documentation allows for the detection of deviations and enables corrective actions to be taken. There are various indicators for measuring the environmental impacts of production, such as waste management, biodiversity, energy consumption, nutrient emissions, soil quality and carbon reserves, and water usage. Producers should identify issues that are critical for them and pursue development in those areas.	1. Certification or quality management system, such as Laatutarha, IP Sigill Kasvikset, organic certification, GLOBAL G.A.P. or equivalent.
2.2 The renewable energy consumption of a greenhouse operator			
1. At least XX% of the greenhouse operator's heating energy is produced from renewable energy sources.	2. The greenhouse operator's electricity is produced from renewable energy sources. If necessary, the procurement body may request a declaration of the origin of electricity during the contract period.	In greenhouse production, the most significant climate impact is caused by energy consumption (electricity and heating). Heating is needed in greenhouses all year round, but especially in winter. Energy choices can influence the CO_2 footprint of products produced in greenhouses. Lighting systems are the main driver of electricity consumption in year-round greenhouse cultivation. Other automated systems also consume electricity. The percentage share must be	1. Supplier's assurance. 2. Verification of the origin of electricity by means of a certificate of origin, for example.

2.2 The renewable energy consumption of a greenhouse operator			
		specified on a case-by-case basis through market dialogue with the procurement body. For an individual company, the percentage of electricity from renewable sources can be as high as 100%.	
2.3 Safe use of fertilisers in cultivation			
1. The cadmium content of the phosphorus fertiliser used complies with the concentration requirement of <137 mg Cd/kg phosphorus as stipulated by the EU Regulation on fertilising products (2019/1009).	2. The cadmium content of the phosphorus fertiliser used corresponds to the derogation applied in Finland (<50 mg Cd/kg phosphorus). No sewage sludge-based fertiliser has been used within the past five years on the field from which the vegetables/berries originate.	Along with nutrients, fertiliser products can transfer compounds to people, soil and the environment. Harmful metals in inorganic fertilisers originate from the minerals used in their manufacturing process. Organic fertiliser products can carry harmful metals and organic contaminants present in their raw materials. Among harmful metals, the most significant threat to food quality and the environment can be considered to be cadmium, which is transferred to the food supply chain through phosphorus fertilisers with high cadmium content. Pursuant to the EU Regulation on fertilising products (2019/1009), inorganic primary nutrient fertilisers can be labelled as low-cadmium when their cadmium content is less than 20 mg Cd/kg phosphorus. The significance of organic contaminants in recycled fertilisers is a topic of discussion, and the use of fertiliser products derived from sewage sludge is generally prohibited in the production of vegetables and berries.	1. Supplier's assurance. On request, purchase information on fertilisers purchased and used outside the EU. 2. Supplier's assurance and purchase information on fertilisers purchased and used, if the country of production allows the use of high cadmium concentrations, i.e. >50 mg Cd/kg P inorganic fertilisers.

2.4 Use of responsible plant protection methods			
1. The producer of the vegetables/berries/grains adheres to the principles of integrated plant management (IPM). In the cultivation of the contract product, the producer uses **at least one** preventive and/or non-chemical plant protection method.	2. The producer of the vegetables/berries/grains adheres to the principles of integrated pest management (IPM). In the cultivation of the contract product, the producer uses **at least two** preventive and/or non-chemical plant protection methods.	In EU countries, carrying out plant protection in accordance with the principles of integrated pest management (IPM) is a legal requirement aimed at preventing harm to human health and adverse impacts on the environment. The core principles of responsible plant protection are prevention, prioritising non-chemical methods, and the judicious and targeted use of pesticides only when necessary. **Note**: if you want the product to be cultivated without any synthetic pesticides, you need to require certified organic products.	1 & 2. The supplier has a self-monitoring description or plan that documents the plant protection plan, related measures and indicators (such as a list of non-chemical methods, pesticide usage amounts compared to permitted maximum levels, results of residue samples, measures to protect beneficial organisms). OR The supplier is committed to a quality management system or certification framework (e.g., Laatutarha, IP Sigill Kasvikset, GLOBALG.A.P.) or equivalent, which includes requirements and/or indicators concerning the sustainability of plant protection measures, as described above. OR The supplier is committed to the Finnish environmental compensation payment system, which includes requirements and/or indicators concerning the sustainability of plant protection measures, as described above.
2.5 Measures to promote biodiversity in primary production			
	2. The selection must include products that are produced, in the primary production stage, using measures that promote biodiversity and have been verified by means of audits or third-party certification.	The most significant effects of food production that weaken biodiversity occur during primary production. On the other hand, natural diversity can be significantly enhanced through activities such as crop rotation, the	2. Third-party certification, e.g., organic certification, IP Sigill Kasvikset, GLOBAL G.A.P.'s BioDiversity Add-on, Sustainably Grown, or equivalent, or Laatutarha audit certificate if the audit is based on Laatutarha version 2023 or

2.5 Measures to promote biodiversity in primary production			
		use of cultivar mixtures, soil improvement, and the implementation of catch crops. These practices increase the diversity of soil organisms, thereby promoting soil growth, soil carbon sequestration, and storage. Grass strips, small fields, protection zones, forest islands, and hedgerows provide habitats for many animals and insects. Moreover, the presence of diverse pollinator species improves the ecological efficiency of production systems. Many of the aforementioned actions also contribute to erosion prevention. In Finland, precipitation increases as a consequence of climate change, leading to heightened leaching of solid matter and nutrients into waterways.	newer.
2.6 Prohibition of the use of palm oil in food products			
1.The product does not contain palm oil or palm kernel oil.		Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils. In margarines, the concentration of palm oil is proportional to the magnitude of its climate impact. It is important to identify, through market dialogue, the product categories and more specific products for which the criterion is intended to be applied. For example, certain spreads or specific bakery products on a selective basis. Also see criterion 2.7,	1.Supplier's assurance.

2.6 Prohibition of the use of palm oil in food products			
		which provides a proposal on how to ensure the sustainability of palm oil for products that contain it.	
2.7 The use of certified palm oil in food products			
1. If the product contains palm oil or palm kernel oil, it must originate from a production system that promotes the implementation of the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected. The supplier ensures this either by purchasing certificates that support the production of responsible palm oil (Book and Claim model) or by purchasing the necessary amount of certified palm oil (Mass Balance model).	2. If the product contains palm oil or palm kernel oil, the production process must implement the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected. This is ensured by a separate supply chain (Segregated or Identity Preserved models)	Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils. In margarines, the concentration of palm oil is proportional to the magnitude of its climate impact. For example, RSPO certification criteria take into account aspects such as transparency, environmental responsibility, the conservation of biodiversity and a commitment to continuous improvement and long-term economic sustainability. RSPO certification includes four different monitoring mechanisms: 1. Book and Claim: By purchasing these certificates, companies support the production of sustainable palm oil, but the palm oil used in the product may be uncertified palm oil. 2. Mass Balance: A part of the palm oil used is sustainably produced palm oil. The supplier commits to purchasing the necessary amount of certified palm oil for the products, even if the entire certified quantity is not used in the product. 3. Segregated: All palm oil used is sustainably produced. The oil	1. Certification system, e.g., Roundtable on Sustainable Palm Oil (RSPO): Book and Claim or Mass Balance or equivalent 2. Certification system, e.g., Roundtable on Sustainable Palm Oil (RSPO): Segregated or Identity Preserved or equivalent

2.7 The use of certified palm oil in food products			
		not be traceable to the plantation level because the palm oil used in the product is mixed with other certified palm oil stocks. 4. Identity Preserved: The supply chain is traceable directly to the certified plantation from which the palm oil is also directly purchased.	
2.8 The use of certified soya in a food product			
	2.The soya-based ingredient in the product must be verifiably traceable throughout the supply chain, or certified to ensure that at least the following conditions are met: • Pesticides and water resources are used sustainably. • Local and national legislation is duly observed. • Good working conditions for farm workers (see criterion 3.1). • The rights of indigenous peoples and traditional farming methods are duly respected and considered.	Soya is produced all over the world. Only a fraction of the soya produced globally is produced for direct human consumption. Most of it is produced for use in animal feed, through which it also ends up on the consumer's plate. The production of soya for use in food involves the same risks as the production of animal feed. For example, in tropical regions, soya cultivation can cause land use changes and deforestation. These can lead to consequences such as biodiversity loss and erosion. The country of origin and the supply chain of soya produced for food use may be easier to ascertain than that of soya produced for use in animal feed.	2.Certification under the Round Table on Responsible Soy (RTRS), ProTerra or some other system that guarantees the requirements of the criteria are fulfilled.
2.9 Variation in plant varieties			
1. At least XX% of the products are variable plant varieties		Genetic diversity is one dimension of biodiversity. It can be supported by sourcing different species/varieties and products made from them. In addition, the procurement body can prioritise the use of local and heirloom varieties	1.Supplier's assurance.

2.9 Variation in plant varieties			
		specific to the production area in their food procurement. This requirement can be applied, for example, in the procurement of various fruits, such as apples. The percentage share should be specified through market dialogue with wholesalers.	
2.10 Organic production			
	2. The vegetable/fruit/berry/grain is organically produced according to the definition provided in EU Organic Regulation 2018/848/EU.	Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the	2. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

2.10 Organic production			
		origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	
2.11 Oilseed plant-based product – organic production			
	2.The vegetable oil used in the product is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU).	Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It	2.Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

2.11 Oilseed plant-based product – organic production			
		can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	1. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 2.Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

Coffee, tea and cocoa

SOCIAL RESPONSIBILITY

The social responsibility challenges associated with coffee, tea and cocoa are very similar to each other. This product information card focuses on coffee.

Coffee is cultivated on approximately 10 million hectares worldwide. Coffee is one of the most traded commodities in the world and, in economic terms, it is considered to be one of the most important raw materials. The largest producers are Brazil, Vietnam, Indonesia and Ethiopia. The majority of coffee produced worldwide is still non-certified, which poses various social, human rights and environmental risks. The risks vary to some extent depending on whether coffee is produced on large-scale plantations or smallholder farms. Coffee farming provides income and livelihoods for many people but, unfortunately, many of them live and work in poor conditions.

A large portion of the tea sold in Finland comes from plantations where underpaid labour works in very challenging conditions.

The majority of the cocoa we consume comes from West Africa. Smallholder farmers of cocoa are often very poor and may not have the means to hire labour for their farms. Consequently, the children of farmers may not have the opportunity to attend school and instead have to work on the family farm. The exploitation of child labour exploitation is common on cocoa farms.

The conditions of workers on large farms

The social risks associated with large-scale farms include precarious employment, limited rights for seasonal workers, low wages, long working hours, and health and safety risks. Due to the need for a significant amount of labour during harvest seasons but less demand during other times, the use of seasonal workers is common. In some cases, seasonal workers are required to pay a recruitment fee, which can sometimes be as high as one-third of their wages. Due to the lack of job security and employment contracts, seasonal workers are often reluctant to complain, report issues or negotiate wages. In addition, chemical pesticides are used on farms, and the unsafe use of these chemicals poses significant risks of toxicity to both humans and the environment.

Large-scale farms also have significant risks of child labour and forced labour, as well as significant gender inequalities in the workforce, such as significantly lower wages for female workers. Coffee plantation workers can also end up in a situation called debt bondage, where a worker becomes indebted to the owner or recruiter of the plantation and is forced to work to repay the debt. Many employers impose unreasonable fees for housing, food, work clothing and other necessities. Plantations often have only one shop where the owner can charge high prices due to the lack of competition. This means that workers often buy on credit and never get rid of their debts. chickens are raised in large flocks, which can cause problems if the flock size is not in the right proportion to the available space. Free range chickens have the opportunity for outdoor access, which improves their environmental enrichment compared to barn-type hen houses. However, outdoor access can also increase the risk of diseases. In organic production, lower stocking densities are maintained, and chickens have the opportunity for outdoor access.

The conditions of workers small farms

Approximately 60–70% of the coffee destined for export markets is grown on small farms. Due to the concentration of profits higher up in the coffee supply chain, small-scale farmers often lack the ability to negotiate prices. As a result, coffee farmers' income levels frequently fall below the poverty line, and their earnings fluctuate with the volatility of the global market.

Families suffer from malnutrition and illiteracy1, and there is a risk of child labour on the farms. Among the different sectors of production, coffee cultivation ranks fourth globally in the use of child labour2. Small-scale farmers do not earn enough to cover basic needs, and they have little to no ability to invest in their farms, new coffee trees or the development of more efficient and sustainable cultivation methods. It is typical of today's small-scale coffee cultivation that the younger generation and men leave the farms because they do not see a future in coffee cultivation. The cultivation is continued by the older generation, women and children. At the same time, women are more vulnerable than male farmers. They are often excluded from negotiations and have limited access to information and markets, which results in even poorer income opportunities compared to male farmers, making it harder for them to meet their basic needs.

How can the realisation of social responsibility be promoted?

Increasing transparency and information is an essential requirement for improving the conditions in the supply chain. The growing demand for sustainably certified products has led to an increase in the proportion of agricultural land subject to certification. Globally, approximately a quarter of the total land area used for coffee and cocoa cultivation is certified in accordance with sustainability standards.

Social responsibility certifications and audits aim to address shortcomings in the ratification or implementation of international conventions on human rights, and labour rights in particular. Many social responsibility certifications also include requirements pertaining to environmental

responsibility, as well as the preservation of biodiversity and cultural diversity.

Third-party certification is the most reliable tool for monitoring social responsibility in high-risk countries. Third-party audit and certification systems have several advantages: their criteria are usually public, they reduce overlapping audits on monitored farms and factories, and they provide stakeholders with various opportunities to file complaints and have their voices heard.

Criteria: Coffee, tea and cocoa

1. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	1. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 2.Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 Organic production			
	2. The coffee/tea/cocoa is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU).	Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	2. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

Pork and pork products

THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Climate impacts

For pork, the climate impacts per kilogram of product are lower than those of beef, but slightly higher than those of chicken meat. The climate impacts of pork primarily arise from the cultivation of feed, including soil nitrous oxide emissions, the supply chains of fertilisers and fuels, as well as emissions from manure processing and the energy consumption of animal production buildings and the corresponding emission sources in pork production.

In Finnish pig farming, the use of soya as a raw material in feed has been successfully reduced. Soya of foreign origin is replaced in pig feeding with Finnish protein-rich crops – such as rapeseed, peas, and broad beans – as well as food industry by-products. The emissions related to land use and deforestation associated with Finnish pork production have decreased following the discontinuation of soya imports from South America. North American soya, which has lower climate impacts, is now also being used as a replacement for South American soya. The average carbon footprints of pork production in Finland and other countries are not yet comparable.

Impacts on biodiversity. The most significant adverse biodiversity impact of pig production is caused by the use of soya in feed, if the soya originates from the South American regions where forests have been cleared for soya production. In Finland, efforts have been made to reduce the use of soya in animal feed and shift towards more responsible sourcing practices. A significant amount of the soya used in animal feed in Finland is currently sourced from North America. Finnish feed industry operators have played a role in driving this development.

Water footprint

In terms of the water footprint, which includes water scarcity, the availability of water resources in the areas where feed crops are cultivated is the key consideration. For example, Finland, Sweden and Central Europe generally have reasonably good water resources, resulting in a significantly lower water footprint for pork production in these regions compared to regions with water scarcity, such as the Mediterranean region.

Eutrophying emissions into waterways

The eutrophication effect of pork production per kilogram is slightly higher than that of poultry meat, but lower than that of beef. The eutrophication caused by pork production is mainly due to the nitrogen and phosphorus released into the soil through the cultivation of feed crops and the use of manure. Manure is typically applied to fields. In areas with a high concentration of animal farms, the amount of manure can exceed the nutrient demands of crops, leading to eutrophying nutrient runoff into waterways. The eutrophication impacts are local and difficult to compare, especially globally.

Animal welfare

Due to good animal health, the use of antibiotics in Finland is lower compared to other countries, and pigs reach slaughter weight more efficiently. Under the legislation in effect, Finnish fattening pigs have more space in their stalls compared to Central European fattening pigs.

The tail is an important means of communication for pigs. In Finland and Sweden, fattening pigs keep their tails intact throughout the entire rearing period, and tail docking is prohibited by legislation in Finland. In other EU countries and around the world, tail docking – which is a painful procedure for pigs – is a common practice in pig farming to prevent tail biting. Tail biting also occurs at Finnish pig farms to varying degrees if the animals' needs are not adequately met.

In pig production, welfare problems can arise from factors such as a lack of enrichment materials and occasional high stocking densities or crowded conditions. In Finland, legislation requires that pigs have more space than the minimum requirements set by the EU. Variations in conditions and feeding – including the rationing and composition of fodder – also pose risks to animal welfare. Welfare problems can increase piglet mortality, tail biting, skin lesions, and stereotypic behaviours. In natural conditions, pigs spend a significant portion of their time foraging for food. Pigs have an inherent need for rooting and exploration, but this need is poorly fulfilled in current production systems. Pigs are naturally clean animals that use different areas of their environment for sleeping, eating and defecating.

The structure, conditions, and enrichment requirements of pig houses are stipulated by law and decrees. The legally stipulated level is a minimum requirement. Pig welfare can be improved by paying attention to the opportunities for species-appropriate behaviour that is not covered by the legal requirements. For example, in many pig farms, sows are still kept in gestation crates that restrict their movement from weaning to pregnancy. A large number of sows are also kept in crates during the farrowing and lactation period. There is an ongoing transition in Finland towards cage-free housing for pregnant and farrowing sows to enable species-appropriate behaviour.

In addition to conventional and organic production, there are production methods that involve different breeding conditions, group sizes, bedding materials, outdoor access or farrowing practices. Piglets are born in farrowing houses. In conventional production, piglets are weaned from their mothers at approximately four weeks of age and continue

their growth in the nursery section. Fattening pigs are slaughtered at the age of about six months.

In organic production, piglets are weaned at a minimum of six weeks of age, and the pigs grow at a slower rate to reach slaughter weight. In deep litter systems and in organic production, pigs have better opportunities for species-appropriate behaviours such as rooting, but these production methods are rare in Finland. In organic production, sows are able to farrow freely, they have more space in their stalls, and during the summer months, they have free access to outdoor areas. However, in organic production, feeding pigs according to their nutritional needs and maintaining good rearing conditions is more challenging.

Food safety

Examples of bacteria that are typical for pigs include Yersinia enterocolitica and Trichinella. Salmonella can also be transmitted to pigs. Methicillin-resistant Staphylococcus aureus (MRSA), which is resistant to antibiotics, has become more common around the world in pigs used for meat production.

In Finland, the slaughter process for pigs is carried out in a way that prevents Yersinia from contaminating meat intended for consumption. Trichinella, salmonella and MRSA infections are prevented through good production and feed hygiene, as well as maintaining cleanliness in the pig rearing environment.

Trichinella has not been detected in Finnish pork for decades. Some isolated cases of salmonella are reported on pig farms each year, but it has not been found in pork. MRSA findings occur in only a few per cent of fattening pigs annually in Finland. Heating pork to above +70˚C (temperature must be verified) destroys Trichinella, salmonella, and MRSA in the meat.

Criteria: Pork and pork products

1. FOOD SAFETY, ANIMAL WELFARE AND HEALTH

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Reporting the country of origin of pork			
1. Information on the country of origin of pork must be reported.	2. Suppliers should be able to provide, on request and in writing, information to indicate in which **country** the meat-producing animal was: • born • raised • slaughtered • processed and packed OR Suppliers should be able to provide, on request and in writing, information to indicate at which **farm** the meat-producing animal was: • born • raised and where they were • slaughtered (slaughterhouse) • processed and packed (processor).	The country of origin must always be indicated for beef, which has its own labelling system (Regulation 1760/2000/EC of the European Parliament and of the Council; Commission Regulation 1825/2000/EC), and for meat of swine, sheep, goats and poultry (Regulation 1337/2013/EU of the European Parliament and of the Council). For animal products, the concept of "country of origin" refers to the country where the product is wholly obtained. Applied to meat, this means the country where the animal was born, raised and slaughtered. If the production of a foodstuff has involved processes taking place in multiple countries, the concept refers to the country in which the last significant and economically justified phase of production or product processing occurred. Requiring information on the country of origin improves the opportunities to ensure the food safety of the product.	1. Supplier's assurance. 2. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.

1.2 Reporting the country of origin of meat based product			
1. For products containing at least 10% meat by weight, the country of origin of the meat(s) must be indicated.	2.For products containing over 10% meat by weight, the country of origin of the meat(s) must be indicated. Suppliers should be able to provide, on request and in writing, information to indicate in which **country** the meat-producing animal was: • born • raised • slaughtered • processed and packed	Pursuant to Commission Regulation 1337/2013, the country of origin must always be indicated for beef, which has its own labelling system, and for meat of swine, sheep, goats and poultry. For animal products, the concept of "country of origin" refers to the country where the product is wholly obtained. Applied to meat, this means the country where the animal was born, raised and slaughtered. If the production of a foodstuff has involved processes taking place in multiple countries, the concept refers to the country in which the last significant and economically justified phase of production or product processing occurred. Requiring information on the country of origin improves the opportunities to ensure the food safety of the product.	1. Supplier's assurance. 2. Supplier's description.
1.3 Freedom from salmonella			
1. Pork and pork products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I–III, or comparable legislation. (Not applicable to Finland and Sweden).	2. Pork and pork products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I– III, or comparable legislation. (Not applicable to Finland and Sweden). AND Suppliers should be able to provide, on request and in writing, details of the	EU Commission Regulation (EC) 1688/2005 covers the special salmonella guarantees required for consignments of certain types of meat and eggs destined for Finland and Sweden. Infections caused by salmonella bacteria are a serious public health problem around the world. However, the Nordic countries are an exception to this rule. The situation in Finland, Sweden and Norway has remained much more favourable than elsewhere	1.1 Certification proving membership of the Finnish pig farming facilities' health classification register Sikava OR 1.2 A commercial document or certificate in accordance with EU Commission Regulation (EC) 1688/2005, annex IV OR

1.3 Freedom from salmonella			
	salmonella monitoring programme observed in the country of production, including at least the following details: • how salmonella is monitored • what salmonella serotypes are covered by the monitoring obligation, and • the occurrence of salmonella in the country of production (%). (Not applicable to Finland and Sweden)	in the world. In Finland only just over 1,000 cases of salmonella infection are reported annually, of which only about 15–20% are contracted in Finland. More than 2,000 different salmonella serotypes are generally tested for in Finland. The Finnish pig farming facilities' health classification register Sikava is ISO 9001 certified, and the Finnish Food Authority has approved it as a national quality management system. Sikava meets the criteria of Article 47 of EU Regulation 2022/126.	1.3 Other details provided by the supplier to show that products are free from all salmonella serotypes. 2. In addition to the above, suppliers should, on request, be able to provide reports in writing covering the salmonella monitoring programme applied in the country of production, to fulfil the requirements defined in criteria
1.4 Use of microbial medicines in the treatment of animals			
1. Microbial medicines such as antibiotics must only be used to treat sick animals under veterinary supervision. Records must be kept of the use of microbial medicines and made available on request. The following microbial medicines that are of critical importance to people have not been used to medicate pigs: • (Fluoro)quinolones • 4th generation cephalosporins Colistin • New broad-spectrum and slowly eliminated macrolides.		The medication of animals in the EU is governed by EU regulations effective from 28 January 2022. Finnish national legislation supplements and specifies the implementations applied in Finland Act on the Medical Treatment of Animals (387/2014, updated on 28 January 2022) to ensure that microbial medicines are used responsibly when treating animals. Certain medicines used to treat serious bacterial infections in people may not be used at all to treat animals. Certain critically important antibiotics may only be used if tests show that other alternative treatments have not been effective. Legislation also requires that the need to use an antibiotic must be confirmed by a veterinary professional.	1. A third party-certified quality management system guaranteeing that this criterion is fulfilled. This may consist of a certificate of membership of the Finnish pig farming facilities' health classification register Sikava, or other equivalent verification.

1.4 Use of microbial medicines in the treatment of animals			
		Owners or attendants of animals have an obligation to keep records of all medicines used to treat livestock animals.	
1.5 Pig tail docking			
1. Pork must originate from pigs that have not had their tails docked to prevent tail biting.		EU Directive 2008/120/EC stipulates that pigs' tails should not be docked routinely, but only when evidence indicates that the teats of sows or other pigs' ears and tails have been injured. Before such measures are taken, all other possible measures should be taken to improve the pen environment and animal densities to prevent tail biting and other abnormal behaviours. This requirement is only systematically observed in Finland, Sweden and Norway. Registration with the Finnish pig farming facilities' health classification register Sikava, for instance, guarantees that pigs' tails are not docked for preventive reasons. Registration with Sikava also guarantees that pigs are given sufficient stimulation in their environment to reduce stress and decrease the tendency for pigs to bite each other's tails.	1. A third party-certified quality management system guaranteeing that this criterion is fulfilled. This may consist of a certificate of membership of the Finnish pig farming facilities' health classification register Sikava, or other similar guarantee.

1.6 Stunning animals prior to slaughtering			
1. Pigs destined for slaughter must be stunned before blood draining begins and should remain unconscious and insensate until their death.		The measures needed to stun livestock effectively are set out in Finland's Animal Welfare Decree (396/1996) and EU Council Regulation 1099/2009. From an animal welfare perspective, the purpose of stunning is to make the animal insensate prior to blood draining and related actions. Animals should subsequently remain unconscious and insensate until they die, from stunning through to the end of blood draining. Using correct and proper stunning methods also improves workplace safety for slaughterhouse staff, facilitates jabbing to kill the animal, enhances blood drainage, and improves the quality of the carcass by preventing convulsions, bruising, blood spots, clotting and bone fractures.	1. Supplier's assurance.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 The use of soya in fodder			
	2.If livestock are fed with feedstuffs containing soya, the country of origin of the soya must be indicated and the supplier must be able to provide, on request, a written report containing at least the following details: • What efforts have been made to reduce the use of feedstuffs containing soya. and/or • How farms intend to reduce their use during the contract period by replacing them soya with other protein-rich plant products, for instance.	Soya is produced all over the world. Soya used in animal feed in Europe is cultivated in several regions, including South America, North America and Europe. In tropical regions, soya cultivation can be associated with land use changes and deforestation. These, in turn, can lead to as biodiversity loss and erosion. Soya in animal feed can replaced by other protein-rich crops, such as broad beans or peas.	2. The selected supplier must submit a report at the beginning of the contract period or, **for instance,** within six months of the commencement of the contract
2.2 The use of sertified soya in fodder			
	2. If livestock are fed with feedstuffs containing soya, the origins of the soya should be verifiably traceable throughout the supply chain, or certified to ensure that at least the following conditions are met: • Pesticides and water resources are used sustainably. • Local and national legislation is duly observed. • Good working conditions for farm workers (see criterion 3.1). • The rights of indigenous peoples and traditional farming methods are duly respected and considered.	Soya is produced all over the world. Soya used in animal feed in Europe is cultivated in several regions, including South America, North America and Europe. In tropical regions, soya cultivation can, however, be associated with land use changes and deforestation. These, in turn, can lead to problems such as biodiversity loss and erosion. Standards set by the Round Table on Responsible Soy (RTRS) and the ProTerra organisation, for instance, define principles and criteria for the responsible production of soya.	2. Certification under the Round Table on Responsible Soy (RTRS), ProTerra or some other system that guarantees the requirements of the criteria are fulfilled.

2.2 The use of sertified soya in fodder			
		These standards ensure that soya is produced giving due consideration to good working conditions, environmental responsibility and sustainable farming practices.	
2.3 The use of palm oil in fodder			
	2. Palm oil or palm kernel oil has not been used in the feeding of animals.	Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils. Furthermore, clearing rainforests for palm oil cultivation reduces biodiversity.	2. Supplier's assurance.
2.4 The use of certified palm oil in fodder			
2.If palm oil or palm kernel oil is used in feeding animals, it must originate from a production system that **promotes** the implementation of the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 4.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	2. If palm oil or palm kernel oil is used in feeding animals, the production process must **implement** the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 4.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	For example, RSPO certification criteria take into account aspects such as transparency, environmental responsibility, the conservation of biodiversity and a commitment to continuous improvement and long-term economic sustainability. RSPO certification includes four different monitoring mechanisms: 1. Book and Claim: By purchasing these certificates, companies support the production of sustainable palm oil, but the palm oil used in the product may be uncertified palm oil. 2. Mass Balance: A part of the palm oil used is sustainably produced palm oil. The supplier commits to purchasing the necessary amount of certified palm oil for the products, even if the entire certified quantity is not used in the product.	1.Third-party certification, for example a certification system such as the Roundtable on Sustainable Palm Oil or equivalent. The supplier ensures this either by purchasing certificates that support the production of responsible palm oil (Book and Claim model) or by purchasing the necessary amount of certified palm oil (Mass Balance model). 2.Third-party certification, for example a certification system such as the Roundtable on Sustainable Palm Oil (RSPO) or equivalent. This is ensured by a separate supply chain (Segregated or Identity Preserved models).

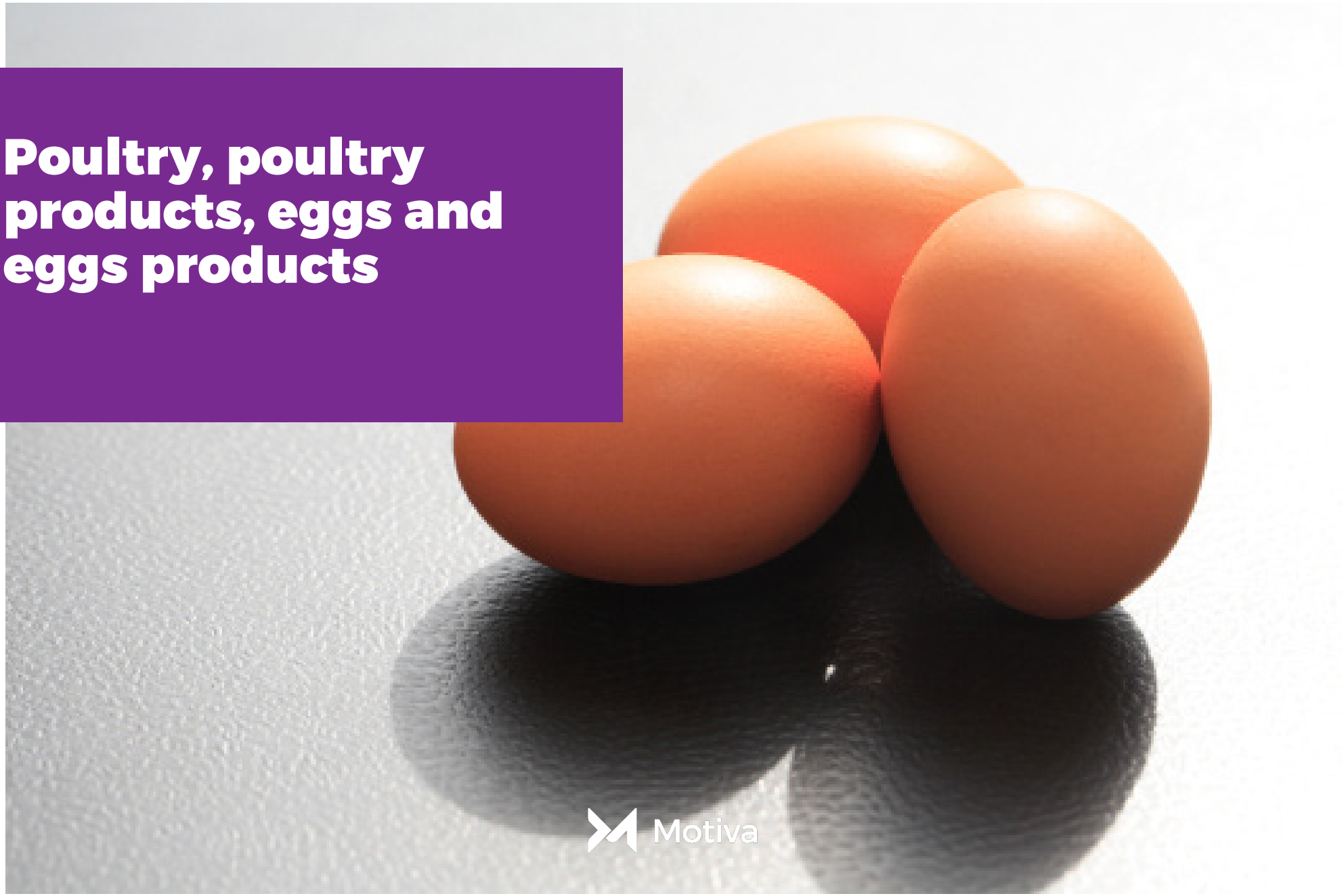
2.4 The use of certified palm oil in fodder			
		3. Segregated: All palm oil used is sustainably produced. The oil may not be traceable to the plantation level because the palm oil used in the product is mixed with other certified palm oil stocks. 4. Identity Preserved: The supply chain is traceable directly to the certified plantation from which the palm oil is also directly purchased.	
2.5 Energy efficiency improvement plan for a foodstuff processor			
	2.Foodstuffs processors should have energy efficiency improvement plans set out in writing for each specific facility, including at least the following details: • The name of the person responsible for energy efficiency issues. • Details of energy use at each facility categorised by energy form (electricity, heat, fuels). • An energy saving target (MWh) has been set until 2025. • An annual plan for monitoring the achievement of the energy saving targets. **This criterion can be applied as a request for additional information or potentially as a contractual condition if it has been discussed during market dialogue.**	Using energy responsibly and efficiently reduces the carbon dioxide emissions that cause climate change. The annual energy consumption of the Finnish foodstuffs industry in 2020 was estimated to be 4 TWh. Compliance can be demonstrated through participation in the voluntary energy efficiency agreement for the foodstuffs industry, for example. Energy efficiency agreements promote the efficient use of energy in various sectors in Finland, as part of national efforts to meet the objectives set out in the EU Energy Efficiency Directive (EED). For more information >>	2. The chosen supplier must submit a foodstuffs producer's energy efficiency improvement plan at the beginning of the contract period, or, **for instance,** within six months of the commencement of the contract OR The existence of an energy efficiency improvement plan may be proven, for instance, by providing documentation verifying participation in the industry's energy efficiency agreement.

2.6 Organic production			
1. The pork, or the pork contained in the product, is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU)		Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	1. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	1. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 2. Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

Poultry, poultry products, eggs and eggs products



THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Poultry meat and eggs are diverse sources of nutrients.

Climate impacts

For poultry meat and eggs, the climate impacts per kilogram of product are somewhat lower than those of pork. Compared to beef, the climate impacts of poultry meat are significantly lower. The per-kilogram climate impacts of eggs are lower than those of poultry meat. The climate impacts of poultry meat and eggs primarily arise from the cultivation of feed, including soil nitrous oxide emissions, the supply chains of fertilisers and fuels, as well as emissions from manure processing and the energy consumption of animal production buildings and the corresponding emission sources in breeder production and hatcheries.

The climate impacts of the production of poultry meat and eggs depend on the production form. The carbon footprint of floor and free-range chicken housing systems, including organic production, is slightly higher than that of enriched cage systems when it comes to egg production. This is due to the higher feed efficiency in enriched cage systems. The climate emissions of organic production are also increased by the lower efficiency in the cultivation of feed crops. In broiler production, slower-growing breeds have greater climate impacts compared to fast-growing breeds due to the lower feed efficiency.

In Finnish poultry production, the use of soy from South America in fodder has been successfully reduced, resulting in decreased emissions related to land use and deforestation. Nevertheless, poultry production is still dependent on the use of soya. The soya used in fodder in Finland is nowadays largely sourced from North America, where significant land use changes have not occurred to the same extent as in South America. The average carbon footprints of poultry production in Finland and other countries are not yet comparable with currently available data.

Impacts on biodiversity. The most significant adverse biodiversity impact of poultry production is caused by the use of soya in feed, if the soya originates from the South American regions where forests have been cleared for soya production. In Finland, the use of soya has moved in a more sustainable direction as sourcing has shifted from South America to North America. Finnish feed industry operators have played a role in driving this development.

Water footprint

In terms of the water footprint, which includes water scarcity, the availability of water resources in the areas where feed crops are cultivated is the key consideration. For example, Finland, Sweden and Central Europe generally have reasonably good water resources, resulting in a significantly lower water footprint for poultry production in these regions compared to regions with water scarcity, such as the Mediterranean region.

Eutrophying emissions into waterways

The eutrophication effect of poultry meat and egg production per kilogram is, as a rule, slightly lower than that of pork, and significantly lower than that of beef. The eutrophication impact of eggs is lower than that of poultry meat. The eutrophying emissions from the production of poultry meat and eggs mainly arise from the cultivation of fodder and the nitrogen and phosphorus emissions arising from the processing and use of manure. The eutrophication impact of organic production is usually higher than that of conventional production due to differences in efficiency in the use of fodder and the production of feed crops. The eutrophication impact of slower-growing broilers is also higher than that of fast-growing broilers due to the lower feed efficiency.

Manure is typically applied to fields. In areas with a high density of animals, the amount of manure can exceed the nutrient demands of crops, leading to eutrophying nutrient runoff into waterways. The eutrophication impacts are very local and regional, which makes them difficult to compare, especially globally.

Animal welfare

Poultry farming is regulated by both EU and national legislation. In Finland, broilers are commonly provided with peat as bedding material, which improves the health of their foot pads. The poultry farming method used in Finland, where all birds in a flock are brought to the rearing facilities and slaughtered simultaneously (all-in all-out), promotes poultry health because different flocks are not in contact with each other, preventing the transmission of microbes between flocks. Due to the good rearing conditions, Finland has a relatively low mortality rate in poultry farming compared to other countries.

In addition to Europe, Finland imports poultry meat from Asia and South America, with Thailand and Brazil being the most significant countries of origin. It is difficult to obtain information on the differences in legislation between different countries. In some countries, the beaks of laying hens are trimmed to address issues caused by poor housing conditions. In Finland, beak trimming is prohibited.

Feeding, conditions and care have a significant impact on the welfare of birds in poultry farming. For example, poor air quality and inappropriate humidity can expose birds to welfare problems such as foot pad lesions, respiratory infections, feather pecking and even cannibalism.

Bedding material, access to perches and platforms, pecking,

dust bathing and flying opportunities, as well as nesting access for laying hens, contribute to the extent to which species-appropriate behavioural needs such as grooming, and exploration are met. High animal stocking density, crowded conditions and lack of environmental enrichment can lead to significant welfare problems. Familiarisation with humans and the behaviour of the attendant play a significant role in the potential fear response of poultry towards humans, which can, in the worst case, lead to panic reactions.

The foundation of poultry production is the parent generation, which refers to the chicken and turkey breeders that lay eggs to produce the actual production animals. To ensure successful egg laying, broiler breeders, in particular, are grown on restricted feeding. This causes the feeling of hunger. The hatching of eggs is carried out in incubators, as the breeder hens do not hatch the eggs themselves. In egg production, male chicks are culled after hatching. The hatchlings are transported from the hatchery to the rearing farms.

Meat-producing birds, such as broilers, are raised in flocks that can consist of tens of thousands of birds. Broilers are typically slaughtered at the age of five to six weeks, while turkeys are slaughtered at the age of 14 to 17 weeks. In conventional production in Finland, in good conditions, the rapid growth of birds can lead to weaknesses in the skeletal system and cardiovascular development. Therefore, broiler farms closely monitor growth, health and feed consumption and, if necessary, restrict excessively rapid growth through adjustments in feed composition. In organic production and outdoor farming, slow-growing animal breeds are used. In Europe, some farms have transitioned to using slow-growing breeds to improve animal welfare. The environmental impact of slow-growing breeds is generally higher due to the longer rearing period.

In egg production, hens are raised to the point of lay (15–17 weeks) in pullet rearing farms, from where they are transported to laying facilities. Hens typically lay eggs for about a year, after which they are usually culled at the laying facility.

The production method has a decisive impact on the welfare of chickens. In enriched cages, which are decreasing in number in Finland, chickens live in small wire-floored cages. Space limitations and the difficulty of meeting behavioural needs cause significant welfare problems in enriched cages. In barn-type hen houses, chickens are raised in large flocks, which can cause problems if the flock size is not in the right proportion to the available space. Free range chickens have the opportunity for outdoor access, which improves their environmental enrichment compared to barn-type hen houses. However, outdoor access can also increase the risk of diseases among the chickens. In organic production, lower stocking densities are maintained, and chickens have the opportunity for outdoor access.

Food safety

Due to good animal health, the use of antibiotics in Finland is lower compared to other countries, and production is efficient. The salmonella situation in Finland and the other Nordic countries is significantly better than in most other EU countries.

The low prevalence of salmonella is ensured by means of a national salmonella control programme. This means that Finnish eggs can safely be eaten raw. Nevertheless, it is important to maintain good hygiene when handling raw meat.

Salmonella and Campylobacter infections are rare in Finnish poultry. Both can cause serious health effects when transmitted to humans, but in birds, the infections generally result in mild symptoms or even remain asymptomatic.

Consequently, while Campylobacter or salmonella infections do not pose a direct threat to the well-being of the birds, infections in poultry are closely monitoreda nd controlled in poultry production due to the potential health risks to people.

To prevent avian influenza infections, the Ministry of Agriculture and Forestry has imposed a ban on keeping poultry outdoors during the spring to prevent contact between poultry and wild birds (migratory birds). Avian influenza viruses can be transmitted to people. Humans can be infected through contact with an infected bird or from materials or environments contaminated with bird feces.

Social responsibility

Brazil is the world's largest exporter of poultry meat, and its production has increased due to the growing international demand. Brazil is also one of the world's largest producers of soya, and Brazilian soya meal is also used to meet the protein needs of poultry.

Rainforests are cleared illegally in Brazil for the purpose of soya cultivation on reservations and areas populated by indigenous communities. This not only affects the climate but also has negative consequences for local communities who lose their land as a result.

Land grabbing often involves violence, intimidation and harassment. Indigenous peoples and the original inhabitants of protected areas live in fear and, in the worst cases, are forced to flee their homes and do not dare to return.

Violations of labour rights are common. Many workers lack a legal contract of employment and health insurance. Some migrant workers live in debt bondage and work in exchange for food and accommodation.

Workers in the broiler meat industry also suffer from diseases caused by the stress associated with their work. Up to a quarter of workers in the industry suffer from occupational diseases and accidents. In the worst cases, pain and degenerative diseases in the upper limbs can lead to disability.

Criteria: Poultry, poultry products, eggs and egg products

1. FOOD SAFETY, ANIMAL WELFARE AND HEALTH

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Reporting the country of origin of poultry meat			
1. Information on the country of origin of poultry meat must be reported.	2. Suppliers should be able to provide, on request and in writing, information to indicate in which **country** the meat-producing animal was: • born • raised • slaughtered • processed and packed. OR Suppliers should be able to provide, on request and in writing, information to indicate at which **farm** the meat-producing animal was: • born • raised and where they were • slaughtered (slaughterhouse) • processed and packed (processor).	Pursuant to Commission Regulation (EC) 1337/2013, the country of origin must always be indicated for beef, which has its own labelling system, and for meat of swine, sheep, goats and poultry. According to the Regulation, for animal products, the concept of "country of origin" refers to the country where the product is wholly obtained. In the case of meat, this means the country in which the animal is born, raised and slaughtered. If the production of a foodstuff has involved processes taking place in multiple countries, the concept refers to the country in which the last significant and economically justified phase of production or product processing occurred.	1. Supplier's assurance. 2. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.
1.2 Reporting the country of origin of meat based product			
1. For products containing at least 10% meat by weight, the country of origin of the meat(s) must be indicated.	2. For products containing meat or ingredients comparable to meat exceeding 10% of the product weight, the country of origin of the meat(s) must be indicated. Suppliers should be able to provide, on request and in writing, information to indicate in which **country** the meat-producing animal was:	Pursuant to Commission Regulation 1337/2013, the country of origin must always be indicated for beef, which has its own labelling system, and for meat of swine, sheep, goats and poultry. For animal products, the concept of "country of origin" refers to the country where the product is wholly obtained.	1.Supplier's assurance. 2.Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.

1.2 Reporting the country of origin of meat based product			
	• born • raised • slaughtered • processed and packed	Applied to meat, this means the country where the animal was born, raised and slaughtered. If the production of a foodstuff has involved processes taking place in multiple countries, the concept refers to the country in which the last significant and economically justified phase of production or product processing occurred. Requiring information on the country of origin improves the opportunities to ensure the food safety of the product.	
1.3 Freedom from salmonella			
1. Poultry and poultry products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I–III, or comparable legislation. (Not applicable to Finland and Sweden).	2. Poultry and poultry products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I–III, or comparable legislation. (Not applicable to Finland and Sweden) AND Suppliers should be able to provide, on request and in writing, details of the salmonella monitoring programme observed in the country of production, including at least the following details: • How salmonella is monitored, • what salmonella serotypes are covered by the monitoring obligation, and • the occurrence of salmonella in the country of production (%). (Not applicable to Finland and Sweden)	EU Commission Regulation (EC) 1688/2005 covers the special salmonella guarantees required for consignments of certain types of meat and eggs destined for Finland and Sweden. Infections caused by salmonella bacteria are a serious public health problem around the world. However, the Nordic countries are an exception to this rule. The situation in Finland, Sweden and Norway has remained much more favourable than elsewhere in the world. In Finland only just over 1,000 cases of salmonella infection are reported annually, of which only about 15–20% are contracted in Finland. More than 2,000 different salmonella serotypes are generally tested for in Finland.	1.1 A commercial document or certificate in accordance with EU Commission Regulation (EC) 1688/2005, annex IV OR 1.2 Other details provided by the supplier to show that products are free from all salmonella serotypes. 2. In addition to the above, suppliers should, on request, be able to provide reports in writing covering the salmonella monitoring programme applied in the country of production, to fulfil the requirements defined in criteria.

1.4 Freedom from salmonella, egg and egg products			
1. Eggs and egg products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I–III, or comparable legislation. (Not applicable to Finland and Sweden).	2. Eggs and egg products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I–III, or comparable legislation. (Not applicable to Finland and Sweden). AND Suppliers should be able to provide, on request and in writing, details of the salmonella monitoring programme observed in the country of production, including at least the following details: • How salmonella is monitored, • what salmonella serotypes are covered by the monitoring obligation, and • the occurrence of salmonella in the country of production (%). (Not applicable to Finland and Sweden)	EU Commission Regulation (EC) 1688/2005 covers the special salmonella guarantees required for consignments of certain types of meat and eggs destined for Finland and Sweden. Infections caused by salmonella bacteria are a serious public health problem around the world. However, the Nordic countries are an exception to this rule. The situation in Finland, Sweden and Norway has remained much more favourable than elsewhere in the world. In Finland only just over 1,000 cases of salmonella infection are reported annually, of which only about 15–20% are contracted in Finland. More than 2,000 different salmonella serotypes are generally tested for in Finland.	1.1 A commercial document or certificate in accordance with EU Commission Regulation (EC) 1688/2005, annex IV OR Other details provided by the supplier to show that products are free from all salmonella serotypes. 2. In addition to the above, suppliers should, on request, be able to provide reports in writing covering the salmonella monitoring programme applied in the country of production, to fulfil the requirements defined in criteria.
1.5 Use of microbial medicines in the treatment of animals			
1. Microbial medicines such as antibiotics must only be used to treat sick animals under veterinary supervision. The following microbial medicines that are of critical importance to people have not been used to medicate poultry flocks: • (Fluoro)quinolones • and 4th generation cephalosporins. • Colistin.		In Finland, the responsible use of microbial medicines when treating animals is ensured by legislation (Act on the Medical Treatment of Animals, 387/2014). Records must be kept of the use of microbial medicines and made available on request. Certain medicines used to treat serious bacterial infections in people may not be used at all to treat animals. Certain critically important antibiotics may only be used if tests	1. Supplier's assurance, for example, accounting of antimicrobials administered to production animals.

1.5 Use of microbial medicines in the treatment of animals			
• New broad-spectrum and slowly eliminated macrolides.		show that other alternative treatments have not been effective. Legislation also requires that the need to use an antibiotic must be confirmed by a veterinary professional.	
1.6 Foot pad lesion evaluation			
1. The poultry meat used in products must come from birds living in flocks where foot pad lesions are monitored.	2. The poultry meat used in products must come from birds living in flocks where foot pad lesions are monitored and the evaluation index score is less than 40. This score is obtained using the following formula: 4) Foot pad evaluation rating J J=100 x (n1×0.5+n2×2)/ntot where • n1 is the number of class 1 feet • n2 is the number of class 2 feet • ntot is the total number of feet evaluated.	The occurrence of foot pad lesions in poultry flocks is monitored to assess the welfare of the birds. The evaluation system is based on EU Council Directive 2007/43 on the protection of chickens used in meat production, and on national Finnish legislation on animal protection. The formula used to calculate the score is based on the related Finnish government decree (375/2011). Three categories have been defined for the foot health of poultry flocks: flocks with scores of less than 40 points, 40–80 points, and more than 80 points. Less than 40 points per flock is considered to be a good score. Evaluations are conducted at slaughterhouses for all flocks from which birds are slaughtered. Foot pad lesion scores are based on evaluations of a single foot of at least 100 birds.	1. Supplier's assurance. 2. Monitoring data on the foot pad lesion score, provided on request.
1.7 Beak trimming for broilers and laying hens			
1. The poultry meat used in products must come from birds living in flocks where birds' beaks are not treated, e.g. by trimming them.		In some countries certain behavioural problems occurring due to the conditions in which poultry flocks live may be reduced by procedures such as beak trimming.	1. Supplier's assurance.

1.7 Beak trimming for broilers and laying hens			
		EU Council Directive 2007/43 prohibits the implementation of any surgical procedures on chickens for purposes other than health care or disease diagnosis, which damage or remove sensitive parts of their bodies, or alter their bone structure. EU member states may, however, still permit beak trimming in cases where all other possible measures to prevent problems with feather pecking and cannibalism have been taken. Finland, Sweden and Norway have banned beak trimming completely.	
1.8 Beak trimming for laying hens			
1. Eggs/egg products must come from farms where laying hens' beaks are not treated, e.g. by trimming them.		In some countries certain behavioural problems occurring due to the conditions in which poultry flocks live may be reduced by procedures such as beak trimming. EU Council Directive 2007/43/EC prohibits the implementation of any surgical procedures on chickens for purposes other than health care or disease diagnosis, which damage or remove sensitive parts of their bodies, or alter their bone structure. EU member states may, however, still permit beak trimming in cases where all other possible measures to prevent problems with feather pecking and cannibalism have been taken. Finland, Sweden and Norway have banned beak trimming completely.	1. Supplier's assurance.

1.9 Production method			
1. In raising a batch of chickens, the principle" all-in all-out" is applied, meaning that all fledgling chickens are taken to a slaughtering facility together and slaughtered simultaneously, instead of being thinned out as they grow. In between the raising of separate batches of chickens, facilities must be duly emptied, cleaned, dried and disinfected.		The" all-in all-out" method means that poultry farms operate by moving entire batches of chickens from one part of a facility to another. All the fledgling chickens from a single batch are taken to a slaughtering facility together and slaughtered simultaneously. In between the raising of separate batches of chickens, the facilities must be duly emptied, cleaned, dried and disinfected. This prevents the possible spread of harmful microbes (e.g. campylobacter) between separate batches of chickens, and enables facilities to be duly cleaned and disinfected between batches. In many countries, a method known as "thinning out" is widely used. This involves either moving some birds between separate halls or sending them to slaughter at different times. Moving birds from one place to another while they are being raised increases the risk of spreading disease, causes additional stress and may also increase the risk of people contracting illnesses.	1. Supplier's assurance.
1.10 Stunning animals prior to slaughtering			
1. Poultry must be stunned before blood draining begins, and birds should remain unconscious and insensate until their death.		The measures needed to stun livestock effectively are set out in Finland's Animal Welfare Decree (396/1996) and EU Council Regulation 1099/2009. From an animal welfare perspective, the purpose of stunning is to make the animal insensate prior to blood draining and related actions. Animals	1. Supplier's assurance.

1.10 Stunning animals prior to slaughtering			
		should subsequently remain unconscious and insensate until they die, from stunning through to the end of blood draining. Using correct and proper stunning methods also improves workplace safety for slaughterhouse staff, facilitates jabbing to kill the animal, enhances blood drainage, and improves the quality of the carcass by preventing convulsions, bruising, blood spots, clotting and bone fractures.	

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 The use of soya in fodder			
1.If livestock are fed with feedstuffs containing soya, the country of origin of the soya must be indicated and the supplier must be able to provide, on request, a written report containing at least the following details: • What efforts have been made to reduce the use of feedstuffs containing soya. and/or • How farms intend to reduce their use during the contract period by replacing them soya with other protein-rich plant products, for instance.	2.If livestock are fed with feedstuffs containing soya, the origins of the soya should be verifiably traceable throughout the supply chain, or certified to ensure that at least the following conditions are met: • Pesticides and water resources are used sustainably. • Local and national legislation is duly observed. • Good working conditions for farm workers. • The rights of indigenous peoples and traditional farming methods are duly respected and considered.	Soya is produced all over the world. Fodder soya used in Europe is cultivated in various regions, including South America, North America and Europe. In tropical regions, soya cultivation can, however, be associated with land use changes and deforestation. These can lead to consequences such as biodiversity loss and erosion. Standards set by the Round Table on Responsible Soy (RTRS) and the ProTerra organisation, for instance, define principles and criteria for the responsible production of soya. These standards ensure that soya is produced	1. The selected supplier must submit a report at the beginning of the contract period or, for instance, within six months of the commencement of the contract. 2. Certification under the Round Table on Responsible Soy (RTRS), ProTerra or some other system that guarantees the requirements of the criteria are fulfilled.

2.1 The use of soya in fodder			
		standards ensure that soya is produced giving due consideration to good working conditions, environmental responsibility and sustainable farming practices. Soya in animal feed can replaced by other protein-rich crops, such as broad beans or peas.	
2.2 The use of palm oil in fodder			
	2. Palm oil or palm kernel oil has not been used in the feeding of animals.	Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils.	2. Supplier's assurance.
2.3 The use of certified palm oil in fodder			
1. If palm oil or palm kernel oil is used in feeding animals, it must originate from a production system that promotes the implementation of the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	2.If palm oil or palm kernel oil is used in feeding animals, the production process must **implement** the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	For example, RSPO certification criteria take into account aspects such as transparency, environmental responsibility, the conservation of biodiversity and a commitment to continuous improvement and long-term economic sustainability. RSPO certification includes four different monitoring mechanisms: 1. Book and Claim: By purchasing these certificates, companies support the production of sustainable palm oil, but the palm oil used in the product may be uncertified palm oil. 2. Mass Balance: A part of the palm oil used is sustainably produced palm oil. The supplier commits to purchasing the necessary amount of certified palm oil for the products, even if the entire certified quantity is not	1.Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil or equivalent. The supplier ensures this either by purchasing certificates that support the production of responsible palm oil (Book and Claim model) or by purchasing the necessary amount of certified palm oil (Mass Balance model). 2.Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil (RSPO) or equivalent. This is ensured by a separate supply chain (Segregated or Identity Preserved models).

2.3 The use of certified palm oil in fodder			
		used in the product. 3. Segregated: All palm oil used is sustainably produced. The oil may not be traceable to the plantation level because the palm oil used in the product is mixed with other certified palm oil stocks. 4. Identity Preserved: The supply chain is traceable directly to the certified plantation from which the palm oil is also directly purchased.	
2.4 Energy efficiency improvement plan for a foodstuff processor			
	2. Foodstuffs processors should have energy efficiency improvement plans set out in writing for each specific facility, including at least the following details: • The name of the person responsible for energy efficiency issues. • Details of energy use at each facility categorised by energy form (electricity, heat, fuels). • An energy saving target (MWh) has been set until 2025. • An annual plan for monitoring the achievement of the energy saving targets.	Using energy responsibly and efficiently reduces the carbon dioxide emissions that cause climate change. The annual energy consumption of the Finnish foodstuffs industry in 2020 was estimated to be 4 TWh. Compliance can be demonstrated through participation in the voluntary energy efficiency agreement for the foodstuffs industry, for example. Energy efficiency agreements promote the efficient use of energy in various sectors in Finland, as part of national efforts to meet the objectives set out in the EU Energy Efficiency Directive (EED). For more information >> It is important to discuss the possibilities of applying this criterion in market dialogue in order for the procurement body to identify the applicable product categories.	2. The chosen supplier must submit a foodstuffs producer's energy efficiency improvement plan at the beginning of the contract period, or, **for instance**, within six months of the commencement of the contract OR The existence of an energy efficiency improvement plan may be proven, for instance, by providing documentation verifying participation in the industry's energy efficiency agreement.

2.5 Organic production			
1. The egg/egg product is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU).		Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	1. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	1. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 2. Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

Beef anf beef products

THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Beef is a versatile source of dietary nutrients. The advantage of beef is that cattle can utilise grass that is unsuitable for human consumption, as well as by-products from the food industry, allowing food production in more challenging areas where crop cultivation may be less successful compared to grass production.

Climate impacts

Compared to the climate impacts of pork and chicken, beef has a significantly larger carbon footprint per kilogram of meat. The larger carbon footprint of beef is particularly due to the methane emissions produced during the digestion process of ruminant animals, as methane is a potent greenhouse gas. Additionally, beef production requires a greater amount of feed per unit of product compared to other livestock. The production of feed gives rise to significant greenhouse gas emissions. They arise from soil nitrous oxide emissions, the supply chains of fertilisers and fuels, as well as emissions from manure processing and the energy consumption of animal production buildings and the corresponding emission sources in breeder cow production. The production of feed for cattle requires a relatively large amount of arable land. Globally, the clearing of forests for the purpose of cattle feed production and manure spreading releases carbon from the soil. In particular, the clearing of rainforests for the cultivation of soya used in fodder and for cattle grazing significantly increases the carbon footprint of beef production. In Finnish beef production, the use of soy in fodder is minimal. However, forests are still cleared to some extent in Finland for the purpose of converting them into fields for beef production. This increases the carbon footprint of production, especially if the cleared areas are peatlands.

The carbon footprint of dairy cattle meat is significantly smaller than that of beef cattle because in the case of dairy cattle, a proportion of the emissions is allocated to milk production. Some 80% of Finnish beef comes from dairy cattle, whereas meat from beef cattle breeds is more typical in South America, for example. Beef is mainly imported to Finland from Germany, Poland, Denmark, Sweden and the Netherlands. There is no comprehensive and comparable research evidence available to compare the carbon footprints of Finnish and imported beef. There is research evidence indicating that beef imported from rainforest areas (such as Brazil) or countries with lower yields and quality in feed production has a higher carbon footprint compared to European beef. Intensive grazing-based production in South America also contributes to increased emissions of nitrous oxide and digestive methane due to the slower growth of the cattle. However, there also can be significant differences between European and Finnish beef, for example, due to differences in feed composition. The average carbon footprints of Finnish beef and imported beef are not yet based on current data.

Impacts on biodiversity Cattle grazing outdoors can have positive effects on biodiversity. Currently, only a small proportion of cattle in Finland graze on outdoor pastures. Grazing is more common among beef cattle breeds. Organic legislation requires that organic cattle, such as organic dairy cows or organic cattle raised for beef production, have daily access to grazing during the period between June and September. Denmark has introduced mandatory access to grazing for all cattle as a measure to protect biodiversity, among other objectives. Globally, beef production often involves adverse impacts due to factors such as overgrazing and its impact on biodiversity, as well as the widespread use of South American soya as a protein source in cattle feed and the use of corn silage in many countries. In Finland, the use of soya and corn silage in cattle feed is minimal, which contributes to a better situation in terms of biodiversity compared to many other countries. To improve biodiversity, promoting managed grazing practices is important. Research suggests that the biodiversity of farmland bird species is higher on organic farms compared to conventional production. Even conventional grassland cultivation, where the soil is not repeatedly tilled, promotes the habitat conditions for certain bird species and soil organisms.

Water footprint

In terms of the water footprint of beef, which includes water scarcity, the availability of water resources in the areas where feed crops are cultivated, and cattle are raised is the key consideration. For example, Finland, Sweden and Central Europe generally have reasonably good water resources, resulting in a significantly lower water footprint for beef production in these regions compared to regions with water scarcity, such as the Mediterranean region. Brazil does not suffer from water scarcity either, but beef production there involves the clearing of rainforests to create large grazing areas. Rainforest clearing alters evaporation and precipitation patterns, thereby affecting the continent's water cycle and climate.

Eutrophying emissions into waterways

The nutrient runoff from beef production, mainly arising from the cultivation of feed and the release of nitrogen and phosphorus through manure processing and application, contributes to eutrophication. Beef typically has a higher eutrophication impact per kilogram of meat than other types of meat. This is due to the higher feed consumption of cattle and the lower feed conversion efficiency. The use of grass by cattle helps to prevent erosion and nutrient runoff better than annual plants. As eutrophication impacts are highly local, it is challenging to carry out global comparisons based on current data between Finland and imported

products, for example. In areas where cattle are raised in particularly large quantities, such as North America, the risk of erosion and nutrient runoff increases.

Animal welfare

A wide range of beef production methods are used around the world. Beef is produced using pure pasture-based systems, a combination of grazing and intensive feeding (known as feedlot production), as well as using intensive feeding systems in beef cattle operations. Intensive feeding in fully slatted or partially bedded solid-floor housing systems is the predominant production method for beef cattle in Europe. In North America, combination feeding is the most common production method for beef cattle. The use of growth-promoting hormones in livestock is prohibited in EU countries, but it is a common practice in North America.

Organic beef production has features that promote animal welfare, such as larger minimum space requirements, a requirement for a dry bedding area and requirements concerning outdoor access/grazing. In organic production, there is an annual limit on the number of medical interventions. If the limit is exceeded, the animal loses its organic status. Different production methods are characterised by different animal welfare issues.

Common causes of welfare issues in beef production include high stocking density, hard and slippery flooring, excessive group sizes, poor air quality and painful procedures. The consequences can include impaired growth, increased injuries and illness, reduced rest, difficulty in movement, increased aggression and other changes in behaviour. The EU has common regulations that govern slaughter, transport of animals for slaughter, and the rearing of calves. In other respects, the rearing of beef cattle is guided by national legislation in each member state. It can be challenging to obtain information about the legislative differences between countries.

Species-appropriate behaviour for cattle is best enabled by allowing the animals to graze freely. In Finnish beef production, this is best achieved at cow-calf farms that raise beef cattle. The animals have the opportunity to graze, and the calves get to spend the summer being nursed by their mothers. The bond between the dam and offspring is important for the well-being of the animal. Bull calves born on cow-calf farms are transferred to the finishing phase at the age of six months. Dairy calves born on dairy farms are separated from their mothers at a very young age, and the bull calves are transported to intermediate rearing facilities at around two weeks of age. In the intermediate rearing facilities, the calves are kept in group pens until they reach six months of age. Initially, they are fed with milk replacer, and later transitioned to a diet consisting entirely of solid feed. The young bulls are further raised in groups for approximately one year, either in slatted floor pens or partially bedded solid floor pens. The latter option is considered better for animal welfare.

A national electronic monitoring system for cattle health called Naseva is used in Finland. In Naseva, animal welfare is part of preventive health care, and being a part of Naseva ensures that an annual veterinary visit is carried out to the farm and an assessment of animal welfare is conducted in accordance with the principles of the Welfare Quality® index.

Food safety

The disease situation of beef cattle in Finland is among the best in the world when it comes to infectious diseases, and the use of antibiotics is well managed. In Finland, Sweden, Norway, and Iceland, the total amount of antibiotics sold for the treatment of production animals is very low compared to other European countries. Antibiotics should be used only for the treatment of sick animals.

All use of antibiotics, especially excessive and inappropriate use, increases the risk of developing antibiotic resistance. Antibiotic resistance is the ability of bacteria to withstand the effects of antibiotics.

Finland and Sweden are committed to salmonella-free production, and the processing and use of domestic meat in Finland are considered safer than those of imported meat. Finland has a national salmonella control programme for animals and animal-derived products, as well as salmonella control for animal feed.

In feed production in the EU, the same principles of integrated pest management (IPM) must be followed as in other crop production. The use of chemical pesticides is permitted under the IPM principles, and this may pose risks to food safety and environmental safety. Chemical pesticides must be used correctly. The maximum residue levels for pesticides must not be exceeded in food or in the environment under any circumstances. This also applies to the production of animal feed. In pasture-based production, the per-hectare use of pesticides is generally lower compared to most annual crop production. More information on this is provided in the product cards for vegetables.

Social responsibility

Brazil is the world's largest exporter of beef, and its production has increased due to the growth of international demand. Meat production in Brazil provides a livelihood for about 60 million people.

Brazilian beef production is associated with large-scale land grabbing and violations of labour rights, and the working conditions in the meat industry expose workers to occupational diseases.

Rainforests are cleared illegally in Brazil for the purpose of cattle grazing and soya cultivation on reservations and areas populated by indigenous communities. This not only affects the climate but also has negative consequences for local communities who lose their land as a result. Land grabbing often involves violence, intimidation and harass ment. Indigenous peoples and the original inhabitants of protected areas live in fear and, in the worst cases, are forced to flee their homes and do not dare to return.

Violations of labour rights are common. Some cattle farms do not comply with Brazilian labour laws. Many workers lack a legal contract of employment and health insurance. Some migrant workers live in debt bondage and work in exchange for food and accommodation.

Workers in the beef industry also suffer from diseases caused by the stress associated with their work. Up to a quarter of workers in the industry suffer from occupational diseases and accidents. In the worst cases, pain and dege- nerative diseases in the upper limbs can lead to disability.

Criteria: Beef and beef products

1. FOOD SAFETY, ANIMAL WELFARE AND HEALTH

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Reporting the country of origin of beef			
1. Suppliers should be able to provide, in writing, information to indicate in which **country** the meat-producing animal was: • born • raised • slaughtered • processed and packed.	2. Suppliers should be able to provide, on request and in writing, information to indicate at which **farm** the meat-producing animal was: • born • raised and where they were • slaughtered (slaughterhouse) • processed and packed (processor).	A registration system is required for beef pursuant to Regulation (EC) 1760/2000 of the European Parliament and of the Council. Beef must be traceable between facilities and supply chain participants, and throughout all stages of meat processing and production in food establishments. At each production and sales stage, operators must have a system in place to ensure that the connection between a batch of beef and the corresponding animal or group of animals is maintained. Requiring origin information improves the ability to verify the food safety of a product and the potential impacts on biodiversity, particularly in cases where production occurs in areas where rainforests are cleared for cattle pasture.	1 & 2. Supplier's assurance. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.
1.2 Freedom from salmonella			
1. Beef and beef products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I -III, or comparable legislation. (Not applicable to Finland and Sweden)	2. Beef and beef products must be free of all salmonella serotypes, as demonstrated by testing foodstuffs in accordance with EU Commission Regulation 1688/2005, annexes I –III, or comparable legislation. (Not applicable to Finland and Sweden). AND	EU Commission Regulation (EC) 1688/2005 covers the special salmonella guarantees required for consignments of certain types of meat and eggs destined for Finland and Sweden. Infections caused by salmonella bacteria are a serious public health problem around the world. However,	1.1 A commercial document and/or certificate in accordance with EU Commission Regulation (EC) 1688/2005, annex IV OR 1.2 Other details provided by the supplier to show that products are free from all salmonella

1.2 Freedom from salmonella			
	Suppliers should be able to provide, on request and in writing, details of the salmonella monitoring programme observed in the country of production, including at least the following details: • How salmonella is monitored, • what salmonella serotypes are covered by the monitoring obligation, and • the occurrence of salmonella in the country of production (%). (Not applicable to Finland and Sweden)	the Nordic countries are an exception to this rule. The situation in Finland, Sweden and Norway has remained much more favourable than elsewhere in the world. In Finland only just over 1,000 cases of salmonella infection are reported annually, of which only about 15–20% are contracted in Finland. More than 2,000 different salmonella serotypes are generally tested for in Finland.	serotypes. 2.In addition to the above, suppliers should, on request, be able to provide reports in writing covering the salmonella monitoring programme applied in the country of production, to fulfil the requirements defined in criteria.
1.3 Use of microbial medicines in the treatment of animals			
1. Microbial medicines such as antibiotics must only be used to treat sick animals under veterinary supervision. Records must be kept of the use of microbial medicines and made available on request.		In Finland, the responsible use of microbial medicines on animals is ensured by legislation (Act on the Medical Treatment of Animals, 387/2014). Certain medicines used to treat serious bacterial infections in people may not be used at all to treat animals. Certain critically important antibiotics may only be used if tests show that other alternative treatments have not been effective. Legislation also requires that the need to use an antibiotic must be confirmed by a veterinary professional. Owners or attendants of animals have an obligation to keep records of all medicines used to treat livestock animals.	1. Third-party certification, for example a certificate of membership of Naseva, or other equivalent verification that fulfils the requirements of this criterion.

1.4 Health care measures			
1. Beef must originate from animals that have undergone an annual veterinary health check, which includes an assessment of animal welfare. Beef that fulfils this criterion must account for at least 70% of the total meat content. The farm has a health care agreement with a veterinarian and a written health care plan. The disbudding of calves, if performed, is carried out using sedation, local anesthesia and pain relief measures.	2. Beef must originate from animals that have undergone an annual veterinary health check, which includes an assessment of animal welfare. Beef that fulfils this criterion must account for 100% of the total meat content. The farm has a health care agreement with a veterinarian and a written health care plan. The disbudding of calves, if performed, is carried out using sedation, local anesthesia and pain relief measures.	Monitoring the health of production animals is required under the Animal Welfare Act (1996/247). In Finland, this practically means belonging to the Naseva cattle health monitoring system. In Naseva, animal welfare is part of preventive health care, and being a part of Naseva ensures that the Annual General Meeting veterinary visit is carried out to the farm and an assessment of animal welfare is conducted in accordance with the principles of the Welfare Quality® index. Through health care and systematic measures, diseases and injuries are prevented, striving for the healthiest possible animals, avoiding infectious diseases and production-related illnesses, while also reducing the need for antibiotic use. The data collected in Naseva contributes to promoting the health and well-being of animals. In addition, it guides and ensures the quality and safety of food. Disbudding, which is the removal of calf horn buds, most commonly done by hot iron cautery, is a routine procedure on dairy farms and farms raising dairy-breed bull calves for beef. After disbudding, the animal will not grow horns. The procedure is performed for the safety of both the attendant and the animals themselves. Not all pain associated with disbudding can be completely eliminated, but the procedure is carried out with the least pain when the animal is sedated, the nerves around the horn buds and the	1 & 2. Certificate of membership of Naseva, or other equivalent verification that fulfils the requirements of this criterion.

1.4 Health care measures			
		surrounding skin are numbed and the animal receives pain medication for postoperative pain management.	
1.5 Slaughter and related transport			
1. Cattle destined for slaughter must be stunned before blood draining begins and should remain unconscious and insensate until their death.		The measures needed to stun livestock effectively are set out in Finland's Animal Welfare Decree (396/1996) and EU Council Regulation 1099/2009. From an animal welfare perspective, the purpose of stunning is to make the animal insensate prior to blood draining and related actions. Animals should subsequently remain unconscious and insensate until they die, from stunning through to the end of blood draining. Using correct and proper stunning methods also improves workplace safety for slaughterhouse staff, facilitates jabbing to kill the animal and enhances blood drainage.	1. Supplier's assurance.
1.6 Slaughter transport			
1. The supplier's statement indicating the proportion of beef slaughter transports with a duration of at most 8 hours, and the proportion with a duration exceeding 8 hours.		A shorter duration of slaughter transportation is better for the welfare of the animals. As the transport time increases, the risk of prolonged hunger, thirst, heat stress and more severe welfare problems (mobility issues, exhaustion and mortality) also increases. The EU has defined long journeys as lasting more than 8 hours (EC 1/2005).	1. Supplier's description.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 The use of soya in fodder			
	2. If livestock are fed with feedstuffs containing soya, the country of origin of the soya must be indicated and the supplier must be able to provide, on request, a written report containing at least the following details: • What efforts have been made to reduce the use of feedstuffs containing soya. and/or • How farms intend to reduce their use during the contract period by replacing them soya with other protein-rich plant products, for instance.	The majority of the soya used in Europe is imported from South America. Soya cultivation can cause land use changes and deforestation, among other impacts. These can lead to consequences such as biodiversity loss and erosion. Soya in animal feed can replaced by other protein-rich crops, such as broad beans or peas.	2. The selected supplier must submit a report at the beginning of the contract period or, **for instance,** within six months of the commencement of the contract.
2.2 The use of certified soya in fodder			
	2. If livestock are fed with feedstuffs containing soya, the origins of the soya should be verifiably traceable throughout the supply chain, or certified to ensure that at least the following conditions are met: • Pesticides and water resources are used sustainably. • Local and national legislation is duly observed. • Good working conditions for farm workers (see criterion 3.1). • The rights of indigenous peoples and traditional farming methods are duly respected and considered.	The majority of the soya used in Europe is imported from South America. Soya cultivation can cause land use changes and deforestation, for example. These can lead to consequences such as increased greenhouse gas emissions, biodiversity loss and erosion. Standards set by the Round Table on Responsible Soy (RTRS) and the ProTerra organisation, for instance, define principles and criteria for the responsible production of soya. These standards ensure that soya is produced giving due consideration to good working conditions,	2. Certification under the Round Table on Responsible Soy (RTRS), ProTerra or some other system that guarantees the requirements of the criteria are fulfilled.

2.2 The use of certified soya in fodder			
		environmental responsibility and sustainable farming practices.	
2.3 The use of palm oil in fodder			
	2. Palm oil or palm kernel oil has not been used in the feeding of animals.	Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils.	2. Supplier's assurance.
2.4 The use of certified palm oil in fodder			
1. If palm oil or palm kernel oil is used in feeding animals, it must originate from a production system that promotes the implementation of the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	2. If palm oil or palm kernel oil is used in feeding animals, the production process must implement the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	For example, RSPO certification criteria take into account aspects such as transparency, environmental responsibility, the conservation of biodiversity and a commitment to continuous improvement and long-term economic sustainability. RSPO certification includes four different monitoring mechanisms: 1. Book and Claim: By purchasing these certificates, companies support the production of sustainable palm oil, but the palm oil used in the product may be uncertified palm oil. 2. Mass Balance: A part of the palm oil used is sustainably produced palm oil. The supplier commits to purchasing the necessary amount of certified palm oil for the products, even if the entire certified quantity is not used in the product. 3. Segregated: All palm oil used is sustainably produced. The oil may not be traceable to the plantation level because the palm oil used in the product is mixed with other certified palm oil stocks.	1.Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil or equivalent. The supplier ensures this either by purchasing certificates that support the production of responsible palm oil (Book and Claim model) or by purchasing the necessary amount of certified palm oil (Mass Balance model). 2.Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil (RSPO) or equivalent. This is ensured by a separate supply chain (Segregated or Identity Preserved models).

2.4 The use of certified palm oil in fodder			
		4. Identity Preserved: The supply chain is traceable directly to the certified plantation from which the palm oil is also directly purchased.	
2.4 Energy efficiency improvement plan for a foodstuff processor			
	2. Foodstuffs processors should have energy efficiency improvement plans set out in writing for each specific facility, including at least the following details: • The name of the person responsible for energy efficiency issues. • Details of energy use at each facility categorised by energy form (electricity, heat, fuels). • An energy saving target (MWh) has been set until 2025. • An annual plan for monitoring the achievement of the energy saving targets.	Using energy responsibly and efficiently reduces the carbon dioxide emissions that cause climate change. The annual energy consumption of the Finnish foodstuffs industry in 2020 was estimated to be 4 TWh. Compliance can be demonstrated through participation in the voluntary energy efficiency agreement for the foodstuffs industry, for example. Energy efficiency agreements promote the efficient use of energy in various sectors in Finland, as part of national efforts to meet the objectives set out in the EU Energy Efficiency Directive (EED). For more information >> It is important to discuss the possibilities of applying this criterion in market dialogue in order for the procurement body to identify the applicable product categories.	2. The chosen supplier must submit a foodstuffs producer's energy efficiency improvement plan at the beginning of the contract period or, **for instance,** within six months of the commencement of the contract The existence of an energy efficiency improvement plan may be proven, for instance, by providing documentation verifying participation in the industry's energy efficiency agreement.

2.5 Organic production			
1. The beef is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU).		Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	1. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	3. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 4. Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

Milk and dairy products

THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Milk and dairy products are a versatile source of dietary nutrients.

Cattle can utilise grass that is unsuitable for human consumption, as well as by-products from the food industry. This enables food production in more challenging areas where crop cultivation may be less successful compared to grass production. In Finland, even in the northern regions, the climate conditions are favourable for grass cultivation.

Climate impacts

Milk and dairy products account for approximately 20 per cent of the climate impact of the Finnish diet. The carbon footprint of dairy products is influenced particularly by methane emissions from cow digestion and nitrous oxide emissions from soil related to feed production. Emissions are also generated by the supply chains of fertilisers and fuels, as well as the processing of manure. Naturally, the carbon footprint of dairy products also includes the corresponding emission sources in animal breeding operations.
It is difficult to compare the carbon footprint or other environmental impacts of milk and dairy products from different origins based on current data. To the extent that soya from areas that are sensitive to land use changes is used in feed, it increases the carbon footprint of the dairy products in question. In Finnish dairy production, the use of soya in fodder is minimal. Other factors, such as genetic improvements in animals and animal health, also have an impact on productivity and thereby influence environmental impacts, including the carbon footprint.

In terms of the climate impacts of dairy products per kilogram of protein, the impacts are lower than those of beef but roughly in the same range as those of pork and poultry meat.

Impacts on biodiversity Globally, biodiversity decline is caused by dairy production that relies heavily on South American soya from rainforest areas as a protein source for cows. In Finland, the use of soya in cattle feed is minimal, which contributes to a better situation in terms of biodiversity compared to many other countries.

As grass-based dairy farming with extensive crop rotation promotes biodiversity, dairy cattle that utilise pasture have a positive impact on biodiversity. There is preliminary research evidence regarding the positive impact of grazing on biodiversity, but there is limited scientific knowledge specifically on the biodiversity effects of grazing in conventional dairy production. Currently, only a small proportion of dairy cows in Finland graze on outdoor pastures.

Water footprint

In terms of the water footprint, which includes water scarcity, the availability of water resources in the areas where feed crops are cultivated is the key consideration. For example, Finland, Sweden and Central Europe generally have reasonably good water resources, resulting in a significantly lower water footprint for dairy production in these regions compared to regions with water scarcity, such as the Mediterranean region.

Eutrophying emissions into waterways

The majority of the nitrogen and phosphorus load that causes eutrophication in Finnish waterways is generated through the cultivation of feed crops for animal production. In relative terms, the highest eutrophying emissions from milk and dairy products are specifically caused by the cultivation of feed crops – including grains, grass and silage – for the needs of cows, as well as the release of nitrogen and phosphorus from the processing and use of manure. The eutrophication impacts of production are very local and regional, which makes them difficult to compare, especially globally.

Animal welfare

Dairy cows can be kept in three different ways: they can be tethered in tie stall barns, be raised freely in a loose housing system, or primarily graze on outdoor pastures. Cows are typically milked 2–3 times per day. In loose housing systems, cows can also be milked using automatic milking, allowing the cow to decide when to be milked. Grazing is often associated with tethered and loose housing systems, but purely pasture-based production is limited and does not exist in Finland due to environmental conditions.

The primary housing systems for cattle are tie stall or loose housing barns. In Finland, there are more tie stall barns in terms of quantity, but based on herd size, the majority of cows are housed in loose housing systems. In Europe, the extent of tie stall housing varies by country. In some countries, there are large-scale loose housing units with thousands of animals. In Finland, herd sizes have remained moderate. Organic dairy production has features that promote animal welfare, such as a minimum space requirement, a requirement for a dry bedding area and requirements concerning outdoor access and grazing. In organic production, there is an annual limit on the number of medical interventions. If the limit is exceeded, the animal loses its organic status.

In dairy production, typical causes of welfare issues include hard and slippery flooring, painful procedures, tethered housing, metabolic stress caused by milk production, and early separation of calves. Welfare issues manifest in various forms of injuries, such as skin lesions and lameness, illnesses, and changes in behaviour, such as reduced rest.
Species-appropriate behaviour for cattle is best realised

by allowing the animals to graze freely. In Finnish and European production, this is best achieved through loose housing systems combined with seasonal grazing. In a tie stall barn, the cow stands and lies tied to its designated spot. In a loose housing barn, cows move freely in a group and rest either in cubicles or in a deep litter resting area. Both tie stall barns and loose housing barns with hard flooring surfaces can cause skin injuries and strain on cows' hooves.

Milk production, especially in the early stage of lactation, causes significant metabolic changes in cows. As a result, cows are more susceptible to illness during the early stage of the production cycle. However, this can be prevented through good care and animal health management.

One of the most significant ethical issues in dairy production is the early separation of calves, which causes stress for both the mother and the calf and affects the calf's development. Nevertheless, the practice of allowing calves to stay with their mother or nurse cow for an extended period is not used much at present. The majority of female calves are usually used for herd replacement purposes within the same farm. Male calves are sold for beef production.

Disbudding, which is the removal of calf horn buds, most commonly done by hot iron cautery, is a routine procedure on dairy farms and farms raising dairy-breed bull calves for beef. After disbudding, the animal will not grow horns. The procedure is performed for the safety of both the attendant and the animals themselves. Not all pain associated with disbudding can be completely eliminated, but the procedure is carried out with the least pain when the animal is sedated, the nerves around the horn buds and the surrounding skin are numbed and the animal receives pain medication for postoperative pain management.

A national electronic monitoring system for cattle health called Naseva is used in Finland. In Naseva, animal welfare is part of preventive health care, and being a part of Naseva ensures that the Annual General Meeting veterinary visit is carried out to the farm and an assessment of animal welfare is conducted in accordance with the principles of the Welfare Quality® index.

Food safety

In Finland, there are stricter hygiene requirements for milk compared to other European countries, and compliance with these requirements is regularly monitored. Only raw milk that meets the hygiene requirements is approved for consumption.

In other parts of the world, milk that may not meet all the requirements for being considered fit for consumption in Finland and the other Nordic countries is still consumed. In such countries, the cell counts of milk may be higher than in Finnish or Norwegian milk, for example. Low cell and bacterial counts indicate good udder health in cows and high-quality milk.

In Finland, the cell and bacterial counts of a farm's raw milk are examined at least twice a month. On automatic milking farms, regardless of the farm size, the cell and bacterial counts of raw milk are higher compared to farms using tie stall or parlour milking systems. On organic farms, the cell and bacterial counts of raw milk are slightly higher on average compared to conventional production farms. However, the organic farming method itself does not have a significant impact on the cell and bacterial counts of raw milk. The larger average size of organic farms explains this difference.

Milk that contains traces of antimicrobial substances, such as antibiotics, is not used for food purposes in Finland. Producers strictly adhere to the withdrawal periods specified for veterinary drugs and, if necessary, perform testing for antimicrobial residues in milk on their farms. In addition, every batch of milk received by the dairy is tested for the presence of antimicrobial residues.

In Finland, the low prevalence of salmonella is ensured through a national salmonella control programme.

Criteria: Milk and dairy products

1.FOOD SAFETY, ANIMAL WELFARE AND HEALTH

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Reporting the country of origin of milk			
1. Information on the country of origin of milk must be reported.		The country of origin of foodstuffs must be indicated on the packaging if omitting the country of origin may mislead consumers. For example, cheeses can be packaged in Finland, so simply checking the name of the business without verifying the country of origin is not enough. The traceability of raw materials used in the provided products, e.g. their origin, must be possible to determine in accordance with the principles and requirements stipulated by food legislation. Section 14 of the Food Act (297/2021). Requiring information on the country of origin improves the ability to verify the food safety of a product and the potential impacts on biodiversity, particularly in cases where production occurs in areas where rainforests are cleared for cattle pasture.	1. Supplier's description. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.
1.2 Traceability information of milk			
1. The supplier agrees to provide batch-specific information on the origin of milk, which must be traceable to the packaging facility.	2. The supplier agrees to provide batch-specific information on the origin of milk/milk ingredient, which must be traceable to the dairy.	The legal requirement is that the product must be traceable to the packaging facility. Indicating the farm takes the traceability of the supply chain one step further.	1 & 2. Supplier's assurance. The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.

1.3 Use of microbial medicines in the treatment of animals			
1. The milk/dairy product must be free from antimicrobial residues. Microbial medicines such as antibiotics must only be used to treat sick animals under veterinary supervision. Records must be kept on the use of antibiotics, and those records must be made available on request.		In Finland, the responsible use of microbial medicines on animals is ensured by legislation (Act on the Medical Treatment of Animals, 387/2014). Certain medicines used to treat serious bacterial infections in people, such as antibiotics, may not be used at all to treat animals. Certain critically important antibiotics may only be used if tests show that other alternative treatments have not been effective. Legislation also requires that the need to use an antibiotic must be confirmed by a veterinary professional. Owners or attendants of animals have an obligation to keep records of all medicines used to treat livestock animals.	1. The supplier may verify the situation of its contract producers electronically through the Naseva system. OR The supplier's other written assurance of the criterion being met.
1.4 Health care measures			
1. Milk must originate from animals that have undergone an annual veterinary health check, which includes an assessment of animal welfare. Milk that fulfils this criterion must account for at least 90% of the total milk content. The farm has a health care agreement with a veterinarian and a written health care plan. The disbudding of calves, if performed, is carried out using sedation, local anesthesia and pain relief measures.	2. Milk must originate from animals that have undergone an annual veterinary health check, which includes an assessment of animal welfare. Milk that fulfils this criterion must account for 100% of the total milk content. The farm has a health care agreement with a veterinarian and a written health care plan. The disbudding of calves, if performed, is carried out using sedation, local anesthesia and pain relief measures.	Monitoring the health of production animals is required under the Animal Welfare Act (1996/247). A national electronic monitoring system for cattle health called Naseva is used in Finland. In Naseva, animal welfare is part of preventive health care, and being a part of Naseva ensures that the Annual General Meeting veterinary visit is carried out to the farm and an assessment of animal welfare is conducted in accordance with the principles of the Welfare Quality® index. Through health care and systematic	1 & 2. Certificate of membership of Naseva, or other equivalent verification that fulfils the requirements of this criterion.

1.4 Health care measures			
		measures, diseases and injuries are prevented, striving for the healthiest possible animals, avoiding infectious diseases and production-related illnesses, while also reducing the need for antibiotic use. Disbudding, which is the removal of calf horn buds, most commonly done by hot iron cautery, is a routine procedure on dairy farms and farms raising dairy-breed bull calves for beef. After disbudding, the animal will not grow horns. The procedure is performed for the safety of both the attendant and the animals themselves. Not all pain associated with disbudding can be completely eliminated, but the procedure is carried out with the least pain when the animal is sedated, the nerves around the horn buds and the surrounding skin are numbed and the animal receives pain medication for postoperative pain management.	
1.5 Free-range rearing of the animal			
1. At least 60% of the milk must come from animals that have not been raised/kept tethered in a tie stall.	2. 100% of the milk must come from animals that have not been raised/kept tethered in a tie stall.	Free-range rearing generally provides better conditions for animal welfare compared to tethered rearing. Meeting behavioural needs is easier in a loose housing system than in a tie stall barn. In a loose housing system, cows have the opportunity to move freely, choose their resting place, access food and water as desired, socialise with other animals, and groom themselves. Cows have fewer teat injuries, and it is easier to monitor their estrus behaviour.	1 & 2. Supplier's assurance.

1.5 Free-range rearing of the animal			
		Study on the welfare and economic impacts of keeping cattle in tie stalls and loose housing systems.	
1.6 Regural hoof care of the animal			
1. At least 70% of the milk must come from cows with regularly maintained hooves.	2. 100% of the milk must come from cows with regularly maintained hooves.	Regular functional hoof care reduces lameness and hoof diseases. Regular hoof care is achieved when there are at least two hoof care sessions per year. Hoof diseases are painful and can have a negative impact on cows' fertility and well-being. Lameness is an underdiagnosed problem. 23% of Finnish cows experience lameness, and lameness always involves pain.	1 & 2. Supplier's assurance.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 The use of soya in fodder			
1.If livestock are fed with feedstuffs containing soya, the country of origin of the soya must be indicated and the supplier must be able to provide, on request, a written report containing at least the following details: • What efforts have been made to reduce the use of feedstuffs containing soya. and/or • How farms intend to reduce their use during the contract period by replacing them soya with other protein-rich plant products, for instance.		Soya is produced all over the world. Soya used in animal feed in Europe is cultivated in several regions, including South America, North America and Europe. In tropical regions, soya cultivation can, however, be associated with land use changes and deforestation. These, in turn, can lead to problems such as biodiversity loss and erosion. Soya in animal feed can replaced by other protein-rich crops, such as broad beans or peas.	1. The selected supplier must submit a report at the beginning of the contract period or, **for instance,** within six months of the commencement of the contract.
2.2 The use of palm oil in fodder			
	2. Palm oil or palm kernel oil has not been used in the feeding of animals.	Palm oil is cultivated partly on peatlands that have been cleared from rainforests. This makes the climate impact of palm oil two or three times higher than that of other oils.	2. Supplier's assurance.
2.3 The use of certified palm oil in fodder			
1.If palm oil or palm kernel oil is used in feeding animals, it must originate from a production system that promotes the implementation of the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes.	2. If palm oil or palm kernel oil is used in feeding animals, the production process must **implement** the following measures at a minimum: • Good working conditions are guaranteed for farm workers (see criterion 3.1) • Wild rainforests have not been cleared for cultivation purposes. • Endangered animal species	For example, RSPO certification criteria take into account aspects such as transparency, environmental responsibility, the conservation of biodiversity and a commitment to continuous improvement and long-term economic sustainability. RSPO certification includes four different monitoring mechanisms:	1. Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil or equivalent. The supplier ensures this either by purchasing certificates that support the production of responsible palm oil (Book and Claim model) or by purchasing the necessary amount of

2.3 The use of certified palm oil in fodder			
• Endangered animal species are protected in plantation areas. • The living areas and rights of local communities are protected.	are protected in plantation areas. • The living areas and rights of local communities are protected.	1. Book and Claim: By purchasing these certificates, companies support the production of sustainable palm oil, but the palm oil used in the product may be uncertified palm oil. 2. Mass Balance: A part of the palm oil used is sustainably produced palm oil. The supplier commits to purchasing the necessary amount of certified palm oil for the products, even if the entire certified quantity is not used in the product. 3. Segregated: All palm oil used is sustainably produced. The oil may not be traceable to the plantation level because the palm oil used in the product is mixed with other certified palm oil stocks. 4. Identity Preserved: The supply chain is traceable directly to the certified plantation from which the palm oil is also directly purchased.	certified palm oil (Mass Balance model). 2. Third-party certification, for example, a certification system such as the Roundtable on Sustainable Palm Oil (RSPO) or equivalent. This is ensured by a separate supply chain (Segregated or Identity Preserved models).
2.4 Energy efficiency improvement plan for a foodstuff processor			
	Foodstuffs processors should have energy efficiency improvement plans set out in writing for each specific facility, including at least the following details: • The name of the person responsible for energy efficiency issues. • Details of energy use at each facility categorised by energy form (electricity, heat, fuels). • An energy saving target (MWh) has been set until 2025. • An annual plan for monitoring	Using energy responsibly and efficiently reduces the carbon dioxide emissions that cause climate change. The annual energy consumption of the Finnish foodstuffs industry in 2019 was estimated to be 4 TWh. Compliance can be demonstrated through participation in the voluntary energy efficiency agreement for the foodstuffs industry, for example. Energy efficiency agreements promote	2.The chosen supplier must submit a foodstuffs producer's energy efficiency improvement plan at the beginning of the contract period or, **for instance**, within six months of the commencement of the contract. The existence of an energy efficiency improvement plan may be proven, for instance, by providing documentation verifying participation in the industry's energy efficiency agreement.

2.4 Energy efficiency improvement plan for a foodstuff processor			
	the achievement of the energy saving targets.	the efficient use of energy in various sectors in Finland, as part of national efforts to meet the objectives set out in the EU Energy Efficiency Directive (EED). For more information >> It is important to discuss the possibilities of applying this criterion in market dialogue in order for the procurement body to identify the applicable product categories.	
2.5 Organic production			
1. The milk/raw milk in the product is organically produced according to the provisions of the EU Organic Regulation (2018/848/EU).		Regulation (EU) 2018/848 on organic production and labelling of organic products defines organic production as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards. The reduction in livestock grazing and the use of pesticides in crop cultivation decrease biodiversity and compromise the living conditions of insects and birds. Organic production requires outdoor grazing and prohibits the use of synthetic pesticides. Organic production also requires crop rotation, which improves soil biodiversity and protects against plant diseases. The abundance of plant species in organic production also has a positive effect on	1. Certification that meets the definition of organic according to the Regulation, such as the EU organic logo or an organic certificate from a supervisory authority.

2.5 Organic production			
		the number of pollinators. Organic certification also serves to verify multiple sustainability criteria. It can be used to verify, for example, the origin of the product as well as environmentally friendly and biodiversity-enhancing practices in primary production, including the requirement for crop rotation. More information on the procurement of organic products.	

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	5. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 6. Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

Fish and fish products

THE MOST SIGNIFICANT CLIMATE AND ENVIRONMENTAL IMPACTS OF THE PRODUCT CATEGORY

Fish is a versatile source of dietary nutrients, but it is currently consumed in insufficient quantities compared to dietary recommendations. Approximately half of the fish consumed in Finland is produced through various aquaculture methods, while the other half is obtained through various fishing methods, resulting in significant differences in their environmental impacts.

Climate impacts

The carbon footprint of fish, especially when considering the nutritional value produced, is often smaller compared to other forms of animal production, particularly in the case of wild-caught fish. The climate impact of farmed salmon and rainbow trout is in the same magnitude per edible kilogram as that of chicken meat.

For most wild-caught fish, especially those caught in large quantities at once, the carbon footprint can be very low. For example, Baltic herring has a very low carbon footprint, and its availability is good. The climate impact of wild-caught fish mainly arises from the fuel consumption of fishing vessels and the subsequent stages of the supply chain, including storage, transportation, processing and the cold chain. A key factor in the carbon footprint of wild-caught fish is the amount of fuel used in relation to the amount of fish caught.

The carbon footprint of farmed fish, on the other hand, is largely attributable to the production of fish feed. The feedstuffs used in fish farming have high protein and fat content, which means they include ingredients such as fish oil, fish meal, soya and vegetable oils. The feed conversion efficiency of fish is higher than that of other production animals, which helps to reduce the climate impacts and other environmental impacts. The carbon footprint of certain farmed shellfish can be exceptionally high, and in some cases, fish raised using recirculating aquaculture systems can have a substantially larger carbon footprint compared to other fish.

The air transportation of fresh products, such as fresh tuna, significantly increases the carbon footprint of the fish. If the catches and shipment quantities of domestic fish species are very small, their carbon footprint also increases.

Eutrophying emissions into waterways

In the production of farmed fish, nutrient-rich emissions are generated into water bodies from fish sludge. Nutrient emissions from fish farming are a localised problem in the Baltic Sea region, but not as much in the open oceans. In Finland, the nutrient emissions from fish farming have been successfully reduced through the development of feedstuffs and feeding practices. During the 2000s, the nutrient load from fish farming has been reduced by approximately 70%.

Partial nutrient recovery is possible with recirculating aquaculture systems. For example, as much as 70% of phosphorus can be recovered. Natural fish populations do not contribute to nutrient pollution, but instead remove nutrients from waterways when they are caught, as fish consume nutrients that are already present in the food web. Therefore, domestic fish are particularly recommended as food from the perspective of addressing eutrophication. The eutrophication balance of domestically farmed rainbow trout is also negative now that a large proportion of the feed for rainbow trout is made from fish caught in the Baltic Sea.

Among other seafood products, the environmental impacts of shrimp farming can also be locally significant.

Food safety

The levels of environmental pollutants (such as dioxins, mercury, cadmium and lead) in Finnish wild fish have significantly decreased during the 2000s. Only salmon, trout and large Baltic herring caught in the Baltic Sea exceed the recommended levels of environmental pollutants. According to the Finnish Institute for Health and Welfare, the health benefits of consuming fish outweigh the potential adverse effects. Due to the methylmercury accumulated in pike, it is not recommended to consume it more than 1–2 times per month, and it is not recommended at all for pregnant women.

The concentrations of environmental toxins in farmed fish are low because harmful substances are removed from the feed during the production process. The production of feedstuffs is also subject to monitoring. The use of antibiotics has been almost completely discontinued, especially in Finland and also in Norway.

Global fish stocks and overfishing

Overfishing is a significant issue globally when it comes to natural fish populations. Overfishing refers to fish being caught at a rate that exceeds their ability to replenish their populations. There are also endangered fish stocks in Finland, but they are not caught for food purposes. Some fishing methods, such as bottom trawling, can be considered unsustainable because they cause damage to habitats and impact not only fish but also other organisms. However, this is not an issue in Finland.

MSC (Marine Stewardship Council) is a certificate that ensures that wild-caught fish has been caught in an ecologically sustainable manner. Sustainable fishing means leaving enough fish in the ocean, respecting habitats and ensuring that the livelihoods of people dependent on fishing are preserved.

Trawl and gillnet fishing for herring and European sprat have achieved MSC certification for sustainable fishing in Finland. This can be used to produce MSC-certified feed. Most Finnish fish stocks are sustainable, and their fishing does not need to be restricted. That is why there has been no need to seek sustainable fishing certifications for them. Consequently, it is not necessary to require MSC certification for domestic fish species in procurement activities either. For foreign wild-caught fish, however, it is important to ensure responsible sourcing by requiring certifications.
For example, the most common type of canned tuna is skipjack tuna (Katsuwonus), which has healthy populations. However, even highly endangered species are still being used, so it is advisable to ensure the sustainability of tuna by requiring MSC certification. For saithe, which is a commonly used fish, it is also advisable to request information on the fishing area and fishing method. This ensures the traceability of the fish supply chain.

There is significant potential for increasing the use of wild-caught fish in Finland, as only about 4% of the over 100 million kilograms of Baltic herring catch is used as food in Finland. In addition, the fishing of underutilised fish species such as European sprat, European smelt, cyprinids, small perch and vendace could be increased sustainably to a significant extent.

Globally, aquaculture is the only production method that can sustainably meet the increased demand for fish, as the fishing of wild fish stocks can not be increased much further.

ASC (Aquaculture Stewardship Council) is a certificate granted for aquaculture and farmed fish. It demonstrates that the aquaculture operations are carried out in a socially and environmentally sustainable manner. Sustainable aquaculture aims to minimise adverse environmental impacts and prevent the negative effects of farmed fish on wild populations. The current ASC criteria are not applicable to brackish water aquaculture, such as that practiced along the coast of Finland. Therefore, Finnish farmed rainbow trout is not yet ASC-certified in spite of being sustainably produced.

The WWF Fish Guide serves as a valuable source of information for monitoring changes in fish stocks and other aspects of dietary recommendations. According to the WWF Fish Guide, Finnish farmed and wild-caught fish are, as a rule, environmentally responsible and recommended options.

Biodiversity
The biodiversity impacts of fishing depend significantly on the fishing method and intensity, as well as the state of the targeted fish population. More selective fishing methods that target specific sizes and species of fish, such as line fishing, can be sustainable when the quantity of the catch is controlled. From a biodiversity perspective, it is crucial to maintain the balance of fish stocks in aquatic ecosystems.
When sourcing farmed fish, it is also important to ensure that the impacts of production on the environment including biodiversity are minimised. There are specific certifications for sustainable aquaculture, and some listings also provide information on the sustainability of farmed fish species on a country-specific basis.

Social responsibility
Fishing globally provides employment for 60 million people. The majority of them are small-scale Asian fishermen and fishing industry workers. The share of developing countries in the international fish trade has increased to 60 per cent in terms of the quantity of fish, and to 54 per cent in terms of export value.

Human rights abuses in the fishing industry are a global problem. Regulatory violations and the global demand for cheap seafood are among the major causes of human rights abuses in the fishing industry.

Focus on tuna
About two-thirds of the tuna caught globally is fished in Southeast Asia. The largest fish-producing countries are China, Norway, Vietnam, India, Chile and Thailand. The majority of the products are exported to Western markets. Serious human rights violations occur on fishing vessels and fish processing plants in Thailand, for example. These include forced labour, slave labour, trafficking in human beings and the exploitation of child labour.

A large portion of the workforce in Thailand's fishing industry consists of migrant workers from the neighbouring countries. The working and living conditions on Thai fishing vessels are often inhumane. There is limited space, water, and food available, and some of the vessels are old and dangerous. Fishing trips can last for weeks.

In the worst cases, the confined conditions on fishing vessels exacerbate workplace conditions to the extreme, and workers face violence and exploitation. Health care is not available, and there is no opportunity to leave the vessel during fishing trips.

Criteria: Fish and fish products

1. FOOD SAFETY, ANIMAL HEALTH

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
1.1 Indicating the country of origin of the fish or fish product			
1. The country of origin/body of water of origin/fish farming area of fresh/frozen fish must be indicated.	2. The country of origin/body of water of origin/fish farming area of the fish used in the fish product must be indicated.	According to Regulation (EU) No 1379/2013, the origin must be indicated as follows: • For products caught in freshwater, the body of water of origin and the member state or third country from which the product originates must be indicated. For products caught in the sea, the sea area from which the product originates must be indicated. • For farmed products, the country where the farming (aquaculture) took place must be indicated.	1 & 2. Supplier's assurance The country of origin can also be verified by means of a certificate that includes the required information on the country of origin, for example.
1.2 Traceability of fish			
1. For each consignment of fresh or frozen fish, information must be available on request indicating at least the following details: • The trade name and scientific name of the species. • Production method (wild caught/farmed). • The area where the fish were caught or farmed gear type. • The date on which the fish were caught or removed best before date.	2. For each consignment of fresh or frozen fish, information must be available on request indicating at least the following details: • The fish species and the fish stock from which the fish was caught. • Production method (wild caught/farmed). • The body of water or area where the product was caught or farmed. • Fishing method. • Date of catch/date of harvest. • Best before date. • Trade name.	Regulation (EU) No 1379/2013 on the common organisation of the markets in fishery and aquaculture products sets out the required information for a batch of seafood. The labelling requirement applies to fresh or frozen fish, shellfish and molluscs, as well as dried, salted, smoked and grilled fish, shellfish and molluscs.	1 & 2. Supplier's assurance

1.3 Traceability of fish in fish products			
	2. If the product contains over XX% of fish, information on the batch of fish used for the product must be available on request indicating at least the following batch-specific details: • Production method (wild-caught/farmed). • The area where the fish were caught or farmed. • The trade name and scientific name of the species The percentage share (xx) must be specified on a case-by-case basis through market dialogue with the procurement body.	Commission Implementing Regulation (EU) No 404/2011 on a Common Fisheries Policy is aimed at the sustainable use of fisheries resources in the EU's marine areas. The traceability requirements apply to the catches made by fishing vessels and fishermen from the sea, as well as to fish farmed in the sea and supplied as food. The regulations ensure that the caught and cultivated fish are legally and sustainably produced.	2. Supplier's description.
1.4 Preventing the spread of animal diseases			
1. Fresh/frozen fish: The aquaculture plant (primary producer) must have: a written self-monitoring description that includes, at a minimum, a description of the following measures: **Measures:** • To prevent the spread of animal diseases to the fish farms, • to monitor disease symptoms and mortality, • to prevent the spread of diseases within the fish farms, and • to prevent the spread of diseases from the fish farms to other fish farms or wild fish populations.		Pursuant to the Finnish Animal Disease Act (441/2013), primary producers such as fish farmers should have information available describing the self-monitoring procedures they apply, including measures designed to prevent the spread of diseases.	1. Supplier's description – for example, a self-monitoring description – must be provided on request.

2. ENVIRONMENTAL IMPACTS

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
2.1 WWF Fish Guide			
1. The fish, or the fish used for the offered fish product, must be from the **yellow** or **green** list of the WWF Fish Guide.	2. The fish, or the fish used for the offered fish product, must be 100% from the **green** list of the WWF Fish Guide.	The recommendations of the WWF guide are based on the status of fish stocks and the sustainability of fishing methods. For farmed fish, the recommendations in the guide take into account the environmental impacts. The recommendations in the guide may change based on the development of fish stocks and the latest research findings. According to the guide, fish from the green list should be prioritised in sourcing. These fish species have healthy populations, and their capture or farming does not cause significant adverse environmental impacts.Species from the yellow list should be purchased with discretion: the sustainability of these fish stocks varies by region, and fishing and farming methods can have negative environmental impacts. Species from the red list should be avoided: these species are either endangered or heavily overfished, and their capture or farming methods can have devastating environmental impacts. **Note**: farmed Norwegian salmon, for example, is not on the green or yellow list of the WWF Fish Guide. If the decision is made in menu planning to offer farmed Norwegian salmon, it is important to ensure it is produced as sustainably as possible. See criterion 2.2 for an example.	1 & 2. Toimittajan vakuutus.

2.1 WWF Fish Guide			
		For more information >>	
2.2 Sustainability of wild fish stocks			
1.Wild-caught fish must be obtained in a manner that meets at least the following criteria: • The fishing activities comply with local and international laws. • The fishing efficiency is at a level that is sustainable for the fish stock and avoids overfishing. • The fishing activities support the maintenance of biodiversity in the ecosystems on which fishing relies.	2. The wild-caught fish material in a fish product must be obtained in a manner that meets at least the following criteria: • The fishing activities comply with local and international laws. • The fishing efficiency is at a level that is sustainable for the fish stock and avoids overfishing. • The fishing activities support the maintenance of biodiversity in the ecosystems on which fishing relies.	Fishing is a significant livelihood worldwide, but overfishing poses a threat to the entire ecosystem. For example, the MSC eco-label helps ensure that the origin of the product is traceable, and the fishing methods adhere to sustainable fishing practices.	1. & 2. Supplier's assurance (domestic wild fish, excluding herring) or certification that meets criteria such as MSC certification or other documentation that verifies compliance with the requirement.
2.3 Sustainable aquaculture			
	2. The farmed fish/fish product must be farmed in a manner that takes into account at least three of the following considerations: • The aquaculture operations comply with local and national laws. • If more than 1% of the raw materials used in fish feed come from wild-caught fish, it must be traceable. • Records are kept of the use of antibiotics. • Soya used in feed is responsibly produced.	The eutrophication impact of fish farming primarily stems from the feeding associated with fish farming operations, which includes fish faeces and, to some extent, leftover feed. For example, ASC certification aims to reduce the adverse environmental impacts of fish farming. Soya is produced all over the world. Soya used in animal feed in Europe is cultivated in several regions, including South America, North America and Europe. In tropical regions, soya cultivation can, however, be associated with land use changes and deforestation. These can lead to consequences such as biodiversity loss and erosion.	2. certification that meets criteria such as MSC certification or other documentation that verifies compliance with the requirement.

2.4 Use of wild-caught fish in fish mass products			
1. At least XX% of the fish used in the fish mass product is sourced from wild fish stocks.	2.The fish used in the fish mass product is sourced from wild fish stocks.	Wild fish, such as roach, pike and herring, should be utilised more in the food industry. Currently, on the large scale, it is an underutilised ingredient. This enables the use of fish material that would otherwise often end up as animal feed or waste, for example. The percentage share can be 80%, for example. The procurement body needs to specify this through market dialogue. If the procurement body so wishes, it can also specify the fish species to be used.	1. Supplier's assurance.

3. SOCIAL RESPONSIBILITY

BASIC LEVEL	FORERUNNER LEVEL	JUSTIFICATION	VERIFICATION
3.1 Labour rights and human rights			
1. The supplier should have policies or established practices aimed at preventing and/or reducing social impacts in at least three of the following categories: working conditions, working hours, wage levels, workers' right to organise, forced labour, trafficking in human beings, and the exploitation of child labour.	2. The producer is paid a price that covers the costs of sustainable production, including a wage level that complies with laws and progressively moves towards a living wage, safe working conditions, and the right to join a trade union.	The social criterion can be used to promote the realisation of workers' rights and human rights in production. It is often difficult to verify the working conditions on farms when it comes to imported food products, for example. The procurement body may reserve the right to verify the selected supplier's compliance with the set conditions also during the contract period.	7. The supplier's assurance, in which the contract supplier is required to report, upon request, the measures it takes to prevent and/or reduce adverse social impacts. 8. Third-party certification, such as a fair-trade label or an equivalent certificate or declaration.

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APPENDIX 1 **Selection of raw materials**

Foodstuff category/foodstuff	**Recommended choices**
Vegetables, root vegetables, fruit and berries Legumes and vegetable protein components Mushrooms Potato	A variety of seasonal products as such and cooked Legumes (peas, beans), other plant-based sources of protein (e.g., products based on broad beans, peas and oats).
Grain-based foods and side dishes	A variety of whole grain side dishes (barley, oats, rye, grain blends, whole grain pasta) and whole grain porridges
Bread	Diverse low-sodium (soft bread with max. 0.9 g of salt/100 g, crispbread with max. 1.2 g of salt/100 g) whole grain alternatives (min. 6 g of fibre/100 g, crispbread min. 10 g of fibre/100 g). The bread selection should be varied: in addition to the basic assortment, include local products and homemade rolls, for example
Milk, lactose-free or low-lactose milk drink and sour milk Other liquid dairy products/cultured dairy products	Fat-free and vitamin D fortified product. Prioritise unflavoured yogurt, curdled milk and quark. Choose fat-free and maximum 1% fat options, as well as unsweetened and minimally added sugar alternatives. Limit sugars to max. 10 g/100 g in yogurt and quark, and max. 12 g/100 g in curdled milk.
Plant-based beverages and snacks/food preparation products that can be used as alternatives to dairy products.	Choose fortified (with calcium, vitamin D, vitamin B12, iodine) unsweetened plant-based beverages (such as oat, soy, etc.) In plant-based beverages, the fat content should be max. 2%, saturated fat content should be max. 0.4%, and sugar content should be max. 5%. In spoonable plant-based products, the fat content should be max. 5%, saturated fat content should be max. 1%, and sugar content should be max. 10%. In flavoured plant-based beverages, the fat content should be max. 3%, saturated fat content should be max. 0.4%, and sugar content should be max. 6%.
Cheese	Choose low-fat options (max. 17% fat) and options with reduced salt content (max. 1.2 g of salt/100 g). Note: Plant-based cheese-like products often contain high amounts of saturated fat.
Fish*	Use a variety of fish species, lake fish is preferred, including herring, as part of a diverse selection. In procurement, prioritise sustainable fisheries, environmental systems and certified fish (e.g., WWF/MSC**).
Chicken and turkey	Prioritise white poultry meat.
Red meat (beef, pork, lamb) and minced meats Processed meat and sausages	Use red meat less often than white meat. Choose processed meat products with lower fat and salt content Cold cuts and cooked sausages: Fat content should be max. 12 g/100 g. Saturated fat max. 40% of total fat. Salt max 1.5 g/100 g. Whole meat products: Fat max. 4 g/100 g. Salt max 2.0 g/100 g.

Fats (spreadable fats, cooking and baking)	Spreadable fats, min. 60% fat containing vegetable fat spread with a saturated fat content of max. 30% of total fat. Vegetable oils, liquid vegetable oil products and margarines containing min. 60% fat.
Nuts, almonds and seeds***	Uncoated, unsalted, and unsweetened products of various types. The maximum total recommended daily intake is 30 g.

* Recommendations on dietary fish intake: Observe the Finnish Food Authority guidelines on choosing fish species and the frequency of consumption for young women, women of reproductive age, as well as pregnant and breastfeeding women.

** WWF fish guide

*** Limiting the quantity is justified, particularly because nuts, almonds and seeds are high in energy due to their high fat content. Some oilseed plants (such as flaxseed, sunflower, pumpkin, sesame, hemp and chia) can accumulate heavy metals from the soil in their seeds. For this reason, the recommended maximum daily intake of seeds of oilseed plants is 2 tbsp (15 g). Finnish Food Authority: Safe use of foodstuffs

APPENDIX 2 **Joint development of the criteria 2017**

In January 2017, Motiva organised product category-specific joint development workshops to review the first draft of the criteria. The criteria were developed further based on the workshops. The criteria were sent for an open comment round on 6 February 2017. The commenting period ended on 24 February 2017.

The following organisations participated in the joint criteria development workshop "Grains and grain products, edible fats and vegetable oils" on 10 January 2017:
Avena Nordic Grain Oy, EkoCentria, Fazer Leipomot Oy, Hansel Oy, City of Loviisa, Natural Resources Institute Finland, the Central Union of Agricultural Producers and Forest Owners,
North Karelia Procurement Office, Raisio, City of Rovaniemi, Ruokatieto Yhdistys ry, Finnish Institute for Health and Welfare, City of Vantaa, Wihuri Oy Aarnio.

The following organisations participated in the joint criteria development workshop "Vegetables and berries" on 10 January 2017: Apetit Ruoka Oy, EkoCentria Fazer Food Services Oy, Hansel Oy, Public Procurement Advisory Unit/Association of Finnish Local and Regional Authorities, Kauppapuutarhaliitto ry, Kimmon Vihannes Oy, Natural Resources Institute Finland, the Central Union of Agricultural Producers and Forest Owners, North Karelia Procurement Office, Pohjolan Peruna Oy, City of Rovaniemi, Ruokatieto Yhdistys ry, Svenska lantbruksproducenternas centralförbund SLC r.f., University of Turku / Brahea Centre, City of Vantaa, Österbottens svenska producentförbund r.f.

The following organisations participated in the joint criteria development workshop "Pork and pork products" on 11 January 2017:
Atria Suomi Oy, EkoCentria, Eläinten hyvinvointikeskus, Eläinten terveys ETT ry, Evira, Fazer Food Services Oy, HKScan Oyj, Public Procurement Advisory Unit, Natural Resources Institute Finland, Ministry of Agriculture and Forestry, the Central Union of Agricultural Producers and Forest Owners, North Karelia Procurement Office, City of Rovaniemi, Ruokatieto ry, City of Vantaa, WWF Finland.

The following organisations participated in the joint criteria development workshop "Poultry meat and poultry products, eggs and egg products" on 11 January 2017:
Atria Suomi Oy, EkoCentria, Elintarviketeollisuusliitto ry, Eläinten hyvinvointikeskus, Etelä-Pohjanmaan sairaanhoitopiirin ky, Evira, Fazer Food Services Oy, HKScan Oyj, Natural Resources Institute Finland, Ministry of Agriculture and Forestry, the Central Union of Agricultural Producers and Forest Owners, City of Rovaniemi, Ruokatieto ry, Suomen Broileryhdistys ry, Suomen Siipikarjaliitto ry, City of Vantaa.

The following organisations participated in the joint criteria development workshop "Beef and beef products, milk and dairy products" on 12 January 2017:
Atria Suomi Oy, EkoCentria, Elintarviketeollisuusliitto ry, Eläinten hyvinvointikeskus, Eläinten terveys ETT ry, Evira, HKScan Oyj, Public Procurement Advisory Unit/Association of Finnish Local and Regional Authorities, Natural Resources Institute Finland, Ministry of Agriculture and Forestry, Maitovaltuuskunta, Motiva Oy, the Central Union of Agricultural Producers and Forest Owners, Osuuskunta Maitosuomi/ETT ry, PATU palvelutukkurit/Kanta-Hämeen Tuoretuote Oy, Pihvikarjaliitto, North Karelia Procurement Office, City of Rovaniemi, Ruokatieto Yhdistys ry, Finnish Institute for Health and Welfare, City of Vantaa.

The following organisations participated in the joint criteria development workshop "Fish and fish products" on 13 January 2017: Apetit Ruoka Oy, the Finnish Parliament, EkoCentria, Eläinten hyvinvointikeskus, Evira, Fazer Food Services Finland, Public Procurement Advisory Unit/Association of Finnish Local and Regional Authorities, Federation of Finnish Fisheries Associations, Natural Resources Institute Finland, Motiva Oy, North Karelia Procurement Office, Pro Kala, Ruokatieto Yhdistys ry, Suomen Kalankasvattajaliitto ry, City of Vantaa and WWF Finland.