

## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

Term	Definition	Source
<b>Antibiotic free</b>	Indicates that the animals were not treated with antibiotics during their lifetime. However, this label does not necessarily mean the animals were raised in organic or free-range conditions. Where the guarantee only concerns a phase of the life cycle (e.g. the last 4 months), it is mandatory to state this specification on the label 'reared without antibiotics in the last 4 months' as is the case in some cases for the pig sector.	CSQA - Publicly controlled certification body <a href="https://www.csqa.it/it-it/certificazioni/agroalimentare/assenza-di-antibiotici-in-allevamento">https://www.csqa.it/it-it/certificazioni/agroalimentare/assenza-di-antibiotici-in-allevamento</a>
<b>Biodiversity Loss</b>	Biodiversity loss refers to the reduction of any aspect of biological diversity (i.e., diversity at the genetic, species and ecosystem levels) in a particular area through death (including extinction), destruction or manual removal; it can refer to many scales, from global extinctions to population extinctions, resulting in decreased total diversity at the same scale.	UNDRR: <a href="https://www.undrr.org/understanding-disaster-risk/terminology/hips/en0008">https://www.undrr.org/understanding-disaster-risk/terminology/hips/en0008</a>
<b>Buffet style</b>	A system of serving meals where students serve themselves choosing quantity and type of food.	SF4C
<b>Cropland</b>	Cropland is defined as a land cover type by the Global Agro-Ecological Zones (GAEZs) and is used in this report to represent cultivated land. Cultivated land is defined as the sum of arable land and land under permanent crops. Arable land is defined as land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens, and land temporarily fallow (less than five years).	FAO: <a href="https://www.fao.org/4/i0132e/i0132e08.pdf">https://www.fao.org/4/i0132e/i0132e08.pdf</a>
<b>Energy efficient kitchen appliances</b>	'Energy Efficiency' means the ratio of output of performance, service, goods or energy to input of energy, in other words the practice of using less energy to provide the same amount of useful output from a service. The EU legislation on Ecodesign is an effective tool for improving the environmental performance of products by setting mandatory minimum standards for their energy efficiency. There are two important tools available for EU consumers: The Energy Label can help consumers to make an informed decision by taking into account the energy efficiency of the product that they are buying. In EPREL (the EU's energy-related products database) consumers can see further features of a product and compare it with the rest of similar products available in the EU market.	EU Portal on Energy Efficient Products: <a href="https://energy-efficient-products.ec.europa.eu/index_en">https://energy-efficient-products.ec.europa.eu/index_en</a>
<b>Fair Trade</b>	Fairtrade is a global system that connects farmers and workers from developing countries with consumers and businesses across the world to change trade for the better. The fair trade movement combines the payment of higher prices to exporters with improved social and environmental standards. The movement focuses in particular on commodities, or products that are typically exported from	Fair Trade: <a href="https://www.fairtrade.net">https://www.fairtrade.net</a> Wikipedia: <a href="https://en.wikipedia.org/wiki/Fair_trade">https://en.wikipedia.org/wiki/Fair_trade</a>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036763.



## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

	developing countries to developed countries. See also “tropical / subtropical food”	
<b>Free range</b>	<p>Free-range is a system for keeping livestock in which the animals are allowed to run free over a field or an area of land. For poultry it means the birds have free access to an outside area during the daytime but are usually housed at night.</p> <p>‘Free range eggs’: to be labeled as free-range (egg label 1), the eggs must be produced in systems of production which satisfy at least the four conditions laid down in Article 4 of Directive 1999/74/EC. These conditions can be found in the ANNEX II of the Commission Delegated Regulation (EU) 2023/2465, in this link: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202302465">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202302465</a></p>	<p>Augère-Granier, M.L. The EU poultry meat and egg sector. Main features, challenges and prospects. European Parliamentary Research Service. PE 644.195 – November 2019 <a href="https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/644195/EPRS_IDA(2019)644195_EN.pdf">https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/644195/EPRS_IDA(2019)644195_EN.pdf</a></p> <p>Commission Delegated Regulation (EU) 2023/2465 of 17 August 2023 supplementing Regulation (EU) No 1308/2013 of the European Parliament and of the Council as regards marketing standards for eggs, and repealing Commission Regulation (EC) No 589/2008: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202302465">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202302465</a> <a href="https://agrinfo.eu/book-of-reports/revised-egg-marketing-standards/">https://agrinfo.eu/book-of-reports/revised-egg-marketing-standards/</a></p>
<b>Full animal</b>	Bought as a full animal instead of precut pieces provided by the seller.	SF4C
<b>GHG Emissions</b>	<p>Greenhouse gases (GHGs) constitute a group of gases contributing to global warming and climate change. The Kyoto Protocol covers a basket of six greenhouse gases produced by human activities: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</p> <p>Human emissions of greenhouse gases are the primary driver of climate change today. CO2 and other greenhouse gases like methane and nitrous oxide are emitted when we burn fossil fuels, produce materials such as steel, cement, and plastics, and grow the food we eat.</p>	<p>Eurostat: <a href="https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Greenhouse_gas_(GHG)">https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Greenhouse_gas_(GHG)</a></p> <p>Our world in data: <a href="https://ourworldindata.org/co2-and-greenhouse-gas-emissions">https://ourworldindata.org/co2-and-greenhouse-gas-emissions</a></p>
<b>Grazing Land</b>	<p>In agriculture, grazing is a method of animal husbandry whereby domestic livestock are allowed outdoors to free range (roam around) and consume wild vegetations in order to convert the otherwise indigestible (by human gut) cellulose within grass and other forages into meat, milk, wool and other animal products, often on land that is unsuitable for arable farming.</p> <p>Farmers may employ many different strategies of grazing for optimum production: grazing may be continuous, seasonal, or rotational within a grazing period. Longer rotations are found in ley farming, alternating arable and fodder crops; in rest rotation, deferred rotation, and mob grazing, giving grasses a longer time to recover or leaving land fallow. Patch-burn sets up a rotation of fresh grass after burning with two years of rest. Conservation grazing proposes to use grazing</p>	<p>Wikipedia: <a href="https://en.wikipedia.org/wiki/Grazing">https://en.wikipedia.org/wiki/Grazing</a></p>

## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

	animals to improve the biodiversity of a site	
<b>Heated green house</b>	See "seasonal"	
<b>Integrated farming</b>	Integrated farming (IF), integrated production, or integrated farm management is a whole farm management system which aims to deliver more sustainable agriculture without compromising the quality or quantity of agricultural products. Integrated farming combines modern tools and technologies with traditional practices according to a given site and situation, often employing many different cultivation techniques in a small growing area.	Wikipedia: <a href="https://en.wikipedia.org/wiki/Integrated_farming">https://en.wikipedia.org/wiki/Integrated_farming</a>
<b>Natural pasture</b>	"Natural" pasture takes many forms, all of which have in common only that the herbage has not been sown. It is usually on land unsuited to arable cropping for some reason: because of stoniness, seasonal waterlogging, slope or a short growing season, or due to pattern of rainfall distribution or temperature.	FAO - Hay and Straw Conservation - For Small-Scale Farming and Pastoral Conditions <a href="https://www.fao.org/4/x7660e/x7660e0b.htm">https://www.fao.org/4/x7660e/x7660e0b.htm</a>
<b>Organic farming</b>	Organic farming is an agricultural method that aims to produce food using natural substances and processes. This means that organic farming tends to have a limited environmental impact as it encourages: responsible use of energy and natural resources; maintenance of biodiversity; preservation of regional ecological balances; enhancement of soil fertility; maintenance of water quality. Additionally, organic farming rules encourage a high standard of animal welfare and require farmers to meet the specific behavioural needs of animals.	European Commission <a href="https://agriculture.ec.europa.eu/farming/organic-farming/organi-c-farming/organi-c-glance_en">https://agriculture.ec.europa.eu/farming/organic-farming/organi-c-glance_en</a>
<b>Plant based meal</b>	Plant based meal: a meal in which the main protein is vegetable. According to WHO, “plant-based diets constitute a diverse range of dietary patterns that emphasize foods derived from plant sources coupled with lower consumption or exclusion of animal products. Vegetarian diets form a subset of plant-based diets, which may exclude the consumption of some or all forms of animal foods”. A plant-based diet is a dietary pattern in which foods of animal origin are totally or mostly excluded. Other types of diets, such as flexitarian and pescetarian diets, could be considered plant-based.	Plant-based diets and their impact on health, sustainability and the environment: a review of the evidence: WHO European Office for the Prevention and Control of Noncommunicable Diseases. Copenhagen: WHO Regional Office for Europe; 2021. Licence: CC BY-NC-SA 3.0 IGO. <a href="https://iris.who.int/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf">https://iris.who.int/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf</a> Plant-based and vegetarian diets: an overview and definition of these dietary patterns. DOI: <a href="https://doi.org/10.1007/s00394-023-03086-z">10.1007/s00394-023-03086-z</a>
<b>Portion</b>	Portion: enough food especially of one kind to serve one person at one meal. A food portion is the amount of food you eat in one serving. This can refer to an entire meal or one food type, such as a portion of vegetables.	Cambridge dictionary and British Nutrition Foundation: <a href="https://www.nutrition.org.uk/creating-a-healthy-diet/portion-sizes/">https://www.nutrition.org.uk/creating-a-healthy-diet/portion-sizes/</a>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036763.



## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

	For portion sizes, there are different recommendations for different ages.	
<b>Pulses</b>	Pulses are the edible seeds of leguminous plants cultivated for both food and feed. Beans ( <i>Phaseolus</i> and <i>Vigna</i> ), chickpeas and peas are the most well-known and commonly consumed types of pulses, but there are several varieties more from around the world, all with great benefits on food security, nutrition, health, climate change, and biodiversity.	FAO: <a href="https://www.fao.org/world-pulses-day/en/">https://www.fao.org/world-pulses-day/en/</a>
<b>Red meat</b>	“Red meat” refers to beef, pork, lamb, and goat from domesticated animals, including that contained in processed foods and in most beefburgers. It does not include poultry or wild game, or offal.	International Agency for Research on Cancer <a href="https://cancer-code-europe.iarc.fr/index.php/en/ecac-12-ways/diet-recommendation/46-red-meat-processed-meat">https://cancer-code-europe.iarc.fr/index.php/en/ecac-12-ways/diet-recommendation/46-red-meat-processed-meat</a>
<b>Regional produce</b>	Food with total travel of 200 km in average (it could be between 0 and about 400km). Certifications examples: France: Label rouge; Estonia: Quality labels + label "Grown in Estonia", the labels are national not regional; Italy: IGP, DOP, DOC, di Montagna (EU reg. 1151/2021, EU reg. 665/2014, EU reg. 664/2004); Hungary: Hungarian product (Magyar termék); Domestic product (Hazai termék); Czech Republic: "Regional product"; "Regional food"; Slovakia: Regional labels; Sweden: "From Sweden".	SF4C
<b>Seasonal</b>	Seasonality refers to the natural rhythm characterising the periods in which products (fruit and vegetables, but also fish products) are born and grow to maturity. For the purpose of using the SF4C Calculator, not only are products grown during its natural season considered seasonal, but in general all production that does not require a greenhouse with cooling or heating. Produce grown in one season and stored in the following months (such as potatoes, carrots, apples, etc.) can only be considered seasonal if the storage does not require heating or cooling. You can check fruits and vegetables seasonality by consulting the seasonality calendars of each country, <a href="#">which can be downloaded here</a> . Otherwise, you can consult the interactive map created by the European Food Information Council (EUFIC), a consumer-oriented non-profit organisation, which contains Europe’s six climatic regions: <a href="https://www.eufic.org/en/explore-seasonal-fruit-and-vegetables-in-europe">https://www.eufic.org/en/explore-seasonal-fruit-and-vegetables-in-europe</a>	SF4C
<b>Small farmers</b>	Below 10 Hectares.	European Commission <a href="https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/additional-schemes/payments-small-farmers_en">https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/additional-schemes/payments-small-farmers_en</a>
<b>Sustainable fishing</b>	A conventional idea of a sustainable fishery is that it is one that is harvested at a sustainable rate, where the fish population does not decline over time because of fishing practices.	Wikipedia: <a href="https://en.wikipedia.org/wiki/Sustainable_fishery">https://en.wikipedia.org/wiki/Sustainable_fishery</a>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036763.



## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

	<p>However, examining aspects of sustainability beyond food production, “we can find little basis for an agreed upon definition of social, economic, or ecological elements of sustainability. The standard in those dimensions depends on what an organization or individual believes is most important. There are some standards in these dimensions that could likely be widely agreed. (...)</p> <p>Given such intractable, unwieldy complexities, it may be prudent to rein in the definition of sustainable fisheries. The Brundtland definition is already widely accepted, sound, and defensible. Consequently, if a management system can provide food for this generation without reducing the ability of future generations to produce food, let us call that “sustainable seafood”. Certainly consumer advice can and should incorporate environmental impacts, human rights, and social equity into their advice on what should be eaten, but either we have to abandon the term “sustainable seafood” in those dimensions or find broad agreement on what is acceptable”. For the use of the calculator, products with the sustainable seafood labels can be considered Sustainable fishing (e.g., MSC, Friend of Sea, FAO37, FAO27, Minimum size CE REG 1967/2006, IUCN endangered species).</p>	<p>Hilborn, Ray, Elizabeth A. Fulton, Bridget S. Green, Klaas Hartmann, Sean R. Tracey, and Reg A. Watson. "When is a fishery sustainable?" <i>Canadian Journal of Fisheries and Aquatic Sciences</i> 72, no. 9 (September 2015): 1433–41. <a href="http://dx.doi.org/10.1139/cjfas-2015-0062">http://dx.doi.org/10.1139/cjfas-2015-0062</a>.</p>
<p><b>Sustainable low-carbon transport</b></p>	<p>Means of transport for transporting meals with lower emissions and lower energy consumption, such as vehicles with electric or hybrid drive, hydrogen, or powered by biofuels, synthetic and paraffinic fuels, natural gas, including biomethane, in gaseous form (compressed natural gas - CNG) and liquefied (liquefied natural gas - LNG) or liquefied petroleum gas (LPG). Collective solutions for warehousing and goods transport activities such as common warehousing, fully loaded vehicle trips, resulting in a reduction in the number of trips for primary transport (transport of raw materials suppliers to the cooking centre) and/or secondary transport (transport of meals from the cooking centre to the meal consumption site).</p>	<p>Minimum Environmental Criteria for Canteens (Italian legislation): 2. Attuazione di soluzioni per diminuire gli impatti ambientali della logistica. Sub criterio a); Sub criterio b) <a href="https://gpp.mase.gov.it/sites/default/files/2022-05/cam_ristorazione.pdf">https://gpp.mase.gov.it/sites/default/files/2022-05/cam_ristorazione.pdf</a></p>
<p><b>Sustainable packaging</b></p>	<p>Returnable packaging or packaging made of recyclable, reusable, biodegradable and compostable or volume-reduced materials. In addition, single-serving packaging (for sugar, mayonnaise, ketchup, mustard, oil and condiment sauces, etc.) must not be used. Reusable containers must be used for storing food at room temperature or in refrigeration. For freezing or deep-freezing, low-density polyethylene (PE-LD) bags or compostable and biodegradable bags conforming to UNI EN 13432 must be used, and for any transport, fully recyclable isothermal containers.</p>	<p>Minimum Environmental Criteria for Canteens (Italian legislation): Punto 4. Prevenzione e gestione dei rifiuti. b. Clausole contrattuali, 4. Prevenzione dei rifiuti e altri requisiti dei materiali e oggetti destinati al contatto diretto con gli alimenti (MOCA) <a href="https://gpp.mase.gov.it/sites/default/files/2022-05/cam_ristorazione.pdf">https://gpp.mase.gov.it/sites/default/files/2022-05/cam_ristorazione.pdf</a></p>
<p><b>Tropical / Subtropical food</b></p>	<p>Banana, sugar, cocoa, coffee, tea. In general, food imported from third countries and found by Fair Trade labelled suppliers. See also “Fair Trade”.</p>	<p>SF4C</p>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036763.



## GLOSSARY – ENVIRONMENTAL IMPACT CALCULATOR

<b>Ultra-processed (UP foods)</b>	<p>Formulations of ingredients, mostly of exclusive industrial use, made by a series of industrial processes, many requiring sophisticated equipment and technology. Examples: Many ready-to-consume products such as carbonated soft drinks; sweet or savoury packaged snacks; chocolate, candies (confectionery); ice-cream; mass-produced packaged breads and buns; margarines and other spreads; cookies (biscuits), pastries, cakes, and cake mixes; breakfast 'cereals', 'cereal' and 'energy' bars; 'energy' drinks; milk drinks, 'fruit' yoghurts and 'fruit' drinks; 'cocoa' drinks; 'instant' sauces.</p>	<p>NOVA food classification system  <a href="https://www.fao.org/3/ca5644en/ca5644en.pdf">https://www.fao.org/3/ca5644en/ca5644en.pdf</a></p>
<b>Unhealthy drink</b>	<p>Healthy drinks are the freshly squeezed juices. Unhealthy drinks are any drink that is not included in the healthy drink, including sweetened beverages (carbonated drinks and/or fruit juices with added sugar).</p>	<p>SF4C</p>
<b>Waste after serving</b>	<p>When food waste occurs after the meal is consumed, e.g. food left over from the meal and thrown away.</p>	<p>SF4C</p>
<b>Waste before serving</b>	<p>When food waste occurs before serving the meal, e.g. during the preparation, when unwanted parts of a food item, such as peelings, are thrown away. This includes the prepared meal that is not served and goes to waste.</p>	<p>SF4C</p>
<b>Waste management</b>	<p>'Waste management' means the collection, transport, recovery (including sorting), and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker.</p>	<p>Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20240218">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20240218</a></p>
<b>Whole grain</b>	<p>Whole grains shall consist of the intact, ground, cracked, flaked or otherwise processed kernel after the removal of inedible parts such as the hull and husk; all anatomical components, including the endosperm, germ, and bran must be present in the same relative proportions as in the intact kernel.</p> <p>A whole-grain food shall contain at least 50% whole-grain ingredients based on dry weight. Foods containing 25–50% whole-grain ingredients based on dry weight, may make a front-of-pack claim on the presence of whole grain but cannot be designated 'whole grain' in the product name.</p>	<p>van der Kamp JW, Jones JM, Miller KB, et al. Consensus, Global Definitions of Whole Grain as a Food Ingredient and of Whole-Grain Foods Presented on Behalf of the Whole Grain Initiative. <i>Nutrients</i>. 2021;14(1):138. Published 2021 Dec 29. doi:10.3390/nu14010138  <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8746580/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8746580/</a></p>