

Guide to the EU-FarmBook metadata

Explaining the metadata used in the EU-FarmBook platform for Knowledge Object description





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1. Preface

The EU-FarmBook platform is the point of reference for agriculture and forestry related content and information targeting the Agricultural Knowledge and Innovation Systems networks (AKIS) that exist at the regional, national, and EU levels. It provides access to outputs of Research and Innovation projects funded by EU Framework Programmes (Horizon 2020 and Horizon Europe), Operational Group projects, as well as material from national and/or regional platforms for practice. These outputs are grouped into seven (7) categories relating to the format in which information is conveyed: (i) text documents; (ii) slideshows/presentations; (iii) videos; (iv) audios; (v) images; (vi) software applications; and (vii) datasets.

This document presents and explains the information needed for the description of each of the content hosted in the EU-FarmBook platform. This information is called metadata and is important for the efficient storage of content in the platform, as well as its search and retrieval by the platform users. In the next section, brief explanations of the need for metadata use are provided. Section 3 describes who is this document useful for and in Section 4 we provide explanations of the terminology used throughout the document. The metadata used to describe and deliver the content available from the EU-FarmBook platform is presented and explained in Section 5. The values of the metadata properties receiving values from predefined value sets are listed in the Annex (Section 6).

There are other guides and manuals that provide complementary information about the EU-FarmBook platform and should be considered by the interested reader. These guides are the EU-FarmBook platform beginner's guide providing information about the platform and its scope, the <u>upload manual</u> explaining how the platform's upload form needs to be used for contributing content to the platform, as well as the <u>public API guide</u> illustrating how bulk upload of content can be made. The <u>Glossary of terms</u> lists all the terminology associated with the EU-FarmBook platform and what each of the terms in it means. The <u>Quality material manual</u> is a useful resource to consider for the effective assignment of values to basic metadata properties (such as title and keywords) of the content provided to the platform.

2. What is metadata and what do we need it for?

Metadata is information about the content available in the EU-FarmBook platform (e.g., documents, presentations, videos, etc.) that helps index it in the EU-FarmBook platform and deliver it to its users. It is background information that the users of the EU-FarmBook platform should be provided with to make decisions about whether the content is relevant to their needs and interests. Describing content with the "correct" metadata is of utmost importance as it can facilitate successful searches in the EU-FarmBook platform.

Examples of metadata include the creator(s) of the content delivered from the platform, the content's title, as well as keywords and topics indicating what the content is about. Metadata should be easily interpreted so as to efficiently categorise content and make it easily findable and accessible.



3. Useful terminology

This section presents and explains the terminology used in the present document. First of all, the information presented in this guide relates to the metadata used to describe the content delivered from the EU-FarmBook platform. We refer to this content with the term "Knowledge Object". Knowledge Object is the term used to refer to the digital, practice-oriented material delivered from the platform with the aim to address the needs of practitioners (farmers, foresters, and advisors). Knowledge Objects can be contributed to the EU-FarmBook platform by using the upload form or a public API (i.e., Application Programming Interface). Contributors are the persons who provide Knowledge Objects to the platform with the help of the upload form or the public API. The Knowledge Objects contributed to the EU-FarmBook platform are available to any user visiting the platform. Detailed descriptions and explanations of the terms used in this document, as well as other terms of relevance and importance to the EU-FarmBook platform, are provided in the Glossary of terms.

4. Who is this document for?

This document is primarily meant to be used and read by Knowledge Object contributors; i.e., the persons having the responsibility of making Knowledge Object contributions to the EU-FarmBook platform. The aim is to provide them with an overview of the pieces of information that is needed to effectively and efficiently describe the breadth and range of Knowledge Objects delivered from the platform. The language used in this document is not technical so as to facilitate a fair understanding of the information provided also from an audience without a technical background. On a second level, users of the platform (i.e., persons visiting the platform with the aim to browse the content available from it) are also encouraged to read this guide in order to acquire knowledge about the metadata used for describing the Knowledge Objects available in the platform.

5. EU-FarmBook metadata for Knowledge Object description

The EU-FarmBook metadata has been identified as the minimum set of information that is considered as a "must have" for the adequate description of the Knowledge Objects hosted in the EU-FarmBook platform. All metadata have been defined using existing and well-known ontologies and vocabularies. In the following subsections, a brief explanation for each of the EU-FarmBook's metadata is provided. Expected values are mentioned, as well as an indication about whether each of our metadata is mandatory or optional.

5.1. Unique identifier

Explanation: A unique identifier is an alphanumeric string assigned to a Knowledge Object with the aim to provide a permanent link to its location on the internet. It ensures stable and reliable access, even if the content's URL changes. A Digital Object Identifier



(DOI) is a typical example of a unique identifier. DOIs are managed by the <u>International DOI Foundation</u>.

Is required: Optional.

Number of values that can be assigned: One.

Expected value(s): A unique identifier (e.g., DOI) of the Knowledge Object.

5.2. Title

Explanation: A sentence or phrase allowing for the quick and easy understanding of the scope and content of the Knowledge Object. Every Knowledge Object is given a title by its creators at the time of its creation. Guidelines for drafting informative and eye-catching titles are provided in the <u>Quality material guide</u>. When submitting a document-based Knowledge Object via the upload form, a title for the Knowledge Object is automatically extracted by the system and suggested to the Knowledge Object contributor.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A short sentence or phrase being the title of the Knowledge Object.

5.3. Short description

Explanation: A textual summary of the content of the Knowledge Object, or what the Knowledge Object is about. A short description is a one-sentence text aimed to be used for the delivery of search results and Knowledge Object scanning.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A one-sentence text providing a short and informative description of the (content of) the Knowledge Object.

5.4. Long description

Explanation: A textual summary of the content of the Knowledge Object, or what the Knowledge Object is about. A long description is a text of 100 to 200 words (or 1 to 2 paragraphs) providing a more detailed overview of (the content of) the Knowledge Object compared to the short description (see Section 5.2). Long descriptions will be used in pages where details about a Knowledge Object are expected to be delivered (i.e., detail page of a Knowledge Object). In the case of document-based Knowledge Objects having an abstract, the long description could be the Knowledge Object's abstract. An adapted Knowledge Object description will be automatically extracted from the long description for people with dyslexia.

Is required: Mandatory.

Number of values that can be assigned: One.



Expected value(s): A text between 100 and 200 words (or 1 to 2 paragraphs) providing an informative description of (the content of) the Knowledge Object.

5.5. Keywords

Explanation: A list of words/phrases providing indications of what the Knowledge Object is about at a fine level of granularity. Keywords need to be indicative of the Knowledge Object's information and content, hence enabling its search and findability by platform users. Keywords are used to provide an indication of what the Knowledge Object is about at a level of detail greater than that of topics and themes (see Sections 5.19 and 5.20 for a detailed presentation and explanation of these properties). Specifically, keywords have a role that is complementary to that of topics and themes. In case that topics and themes do not adequately capture the content and scope of the Knowledge Object, properly defined keywords (or key phrases) can be provided and function complementary to the topic(s) and theme(s) of the Knowledge Object. Keywords are freely provided from the contributor and not selected from predefined lists as in the cases of topics and themes (see Sections 5.19 and 5.20 for details). Guidelines and suggestions for the drafting of informative and eye-catching keywords (and key phrases) are provided in the Quality material guide.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): A short list (not more than 7) of keywords (or key phrases).

5.6. Creator(s)

Explanation: The creator of a Knowledge Object is the entity (or the entities) responsible for the development and creation of a Knowledge Object. It may be a person (or more than one person) or an organisation/institution. In case of document-based Knowledge Objects, the creator(s) is the person (or persons), or organisation/institution, that had the responsibility of authoring the document. The creator of a Knowledge Object is distinct from the contributor of the Knowledge Object (i.e., the person in charge of contributing the Knowledge Object to the EU-FarmBook platform). Nevertheless, a Knowledge Object could be contributed to the EU-FarmBook platform by its creator.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): The name(s) and email address(es) of the person(s) or organisation/institution involved in the creation of the Knowledge Object.

5.7. Collection

Explanation: A group to which a Knowledge Object may belong. It is used to associate a Knowledge Object with a group of Knowledge Objects that have similar characteristics and properties (e.g., a series of podcast episodes). It enables the logical organisation of Knowledge Objects under a shared label (i.e., the name of the collection).



Is required: Optional.

Number of values that can be assigned: One.

Expected value(s): The name of the collection the Knowledge Object belongs to.

5.8. Language(s)

Explanation: The language(s) in which the content of the Knowledge Object is available, or it can be accessed and used (for instance, in the case of software applications). There are cases in which the content of one specific Knowledge Object (e.g., a document or a video) is provided in more than one language. Consider, for instance, a document-based Knowledge Object the content of which is available both in English and Spanish. This property is different from the property "Translation(s)" (see Section 5.9) as we explicitly refer to the language(s) in which the content of a single Knowledge Object is available and not to translations of the Knowledge Object to other languages (which are different Knowledge Objects).

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of language(s) defined according to the ISO 639-2 standard. The list of language values is provided in the Annex (Section 6.1).

5.9. Translation(s)

Explanation: The language(s) in which translations of a Knowledge Object are available. For instance, the language of a document-based Knowledge Object may be English and there may exist translations of the specific documents in Spanish, French, and Finnish. The languages "Spanish", "French", and "Finnish" are the values of the "translation(s)" property English document.

Is required: Optional.

Number of values that can be assigned: Multiple.

Expected value(s): List of language(s) defined according to the ISO 639-2 standard. The list of language values is provided in the Annex (Section 6.1).

5.10. Subtitles

Explanation: The language(s) in which subtitles for a video- or audio-based Knowledge Object are available. This property applies only to the case of audio- and video-based Knowledge Objects.

Is required: Optional.

Number of values that can be assigned: Multiple.

Expected value(s): List of language(s) defined according to the ISO 639-2 standard. The list of language values is provided in the Annex (Section 6.1).



5.11. Date of completion

Explanation: The date on which the creation of a Knowledge Object was completed. It is a useful piece of information considering the pace at which new project results become available and how quickly they get outdated.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A full date provided in the form DD/MM/YYYY. In case a full date is not available, the year of completion, provided in the form YYYY, will suffice.

5.12. Date of submission

Explanation: The date on which the Knowledge Object was contributed to the platform. The date of submission is a property whose value is automatically generated at the time of contribution and is not provided by the Knowledge Object contributor.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A full date in the form DD/MM/YYYY.

5.13. Version

Explanation: The property indicates a specific iteration/release of a Knowledge Object. It is used to distinguish between different iterations/releases reflecting enhancements, updates, corrections, or editions. It aims to provide clarity and traceability by allowing for the identification of the version of the Knowledge Object being accessed.

Is required: Optional.

Number of values that can be assigned: One.

Expected value(s): A string indicating the version of the Knowledge Object (e.g., "1" or "1.0" or "2.1.1").

5.14. Intended purpose

Explanation: The purpose for which the Knowledge Object was created. Starting from the assumption that not all Knowledge Objects have the same purpose, making their purpose known can help the identification of content and information of usefulness to the EU-FarmBook platform users.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of intended purpose values provided in the Annex (Section 6.2).



5.15. Geographic location(s)

Explanation: The geographic location(s) (the content of) a Knowledge Object relates to. For instance, mentions of geographic locations in a document-based Knowledge Object that describes a novel method for potato growing are values that should be considered for the specific property. The metadata property "Geographic location(s)" does not refer to the location of the person or the institution/organisation responsible for the creation of the Knowledge Object. Providing information for the geographic location(s) allows users to access information of relevance to where they are located, and therefore information and content they would be interested in.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of geographic location values provided in the Annex (Section 6.3).

5.16. Knowledge Object URL

Explanation: The link to the web location where the Knowledge Object was initially made available.

Is required: Optional.

Number of values that can be assigned: Multiple.

Expected value(s): A URL directing to the webpage from which the Knowledge Object was initially made available (e.g., the web inventory of the project in which the Knowledge Object has been created, or the platform in which the Knowledge Object has been made initially available).

5.17. Category

Explanation: The category to which the Knowledge Object belongs.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): List of Knowledge Object provided in the Annex (Section 6.4).

5.18. Subcategory

Explanation: Knowledge Object subcategories defined per Knowledge Object category.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of Knowledge Object subcategories provided in the Annex (Section 6.5).



5.19. Topic

Explanation: Describes what the (content of the) Knowledge Object is about at a coarse level of granularity. More specifically, the property "Topic" allows to indicate and specify what (the content of) a Knowledge Object is about at a level of detail lower in comparison to that enabled by the property "Theme" (see Section 5.20) and the property "Keywords" (Section 5.5). Values to this property are provided from a predefined list (as opposed to keywords) to facilitate a standardised Knowledge Object description.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of topics provided in the Annex (Section 6.6).

5.20. Theme

Explanation: It describes what the (content of the) Knowledge Object is about at a level of detail greater than that enabled by the property "Topic" (see Section 5.19) and lower than that enabled by the property "Keywords" (see Section 5.5). Values to this property are provided from a predefined list (as opposed to keywords) to facilitate a standardised Knowledge Object description.

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): List of themes provided in the Annex (Section 6.7).

5.21. License

Explanation: The license under which the Knowledge Object is made available, which specifies terms and conditions of the Knowledge Object's (re-)use.

Is required: Mandatory¹.

Number of values that can be assigned: One.

Expected value(s): The URL of the license (e.g., https://creativecommons.org/licenses/by-sa/4.0/) or the license name (e.g., "Attribution-ShareAlike 4.0 International (CC BY-SA 4.0)"). The license to be assigned to a Knowledge Object by default is CC BY-SA 4.0)"). The license to be assigned to a Knowledge Object by default is CC BY-SA 4.0)"). The license to be assigned to a Knowledge Object by default is CC BY-SA 4.0)"). The license to be assigned to a Knowledge Object by default is CC BY-SA 4.0)"). The license to consider are:

- CC BY-SA (Attribution-ShareAlike 4.0 International)
- <u>CC BY-NC</u> (Attribution-NonCommercial 4.0 International)
- CC BY-NC-SA (Attribution-NonCommercial-ShareAlike 4.0 International)
- CC BY-ND (Attribution-NoDerivs 4.0 International)

¹ This applies to the case in which the physical file of the Knowledge Object is contributed to the EU-FarmBook platform.



• <u>CC BY-NC-ND</u> (Attribution-NonCommercial-NoDerivs 4.0 International)

Details are available at the website of Creative Commons (https://creativecommons.org/share-your-work/cclicenses/).

5.22. Format

Explanation: The file format of the physical file of the Knowledge Object. The format is a property whose value is automatically generated at the time of contribution and is not provided by the Knowledge Object contributor.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A string indicating the format of the physical file of the Knowledge Object (e.g., ".pdf") or any other information that could potentially convey the Knowledge Object's format (e.g., "YouTube video").

5.23. File size

Explanation: The size of the physical file of the Knowledge Object (in KBs, MBs, GBs). The file size is a property whose value is automatically generated at the contribution time and is not provided by the Knowledge Object contributor.

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A numerical value followed by the file size unit (KBs, MBs, or GBs).

5.24. Project name

Explanation: The name of the project that is the source of the Knowledge Object (i.e., the project in the context of which the Knowledge Object was created).

Is required: Mandatory.

Number of values that can be assigned: One.

Expected value(s): A string providing the project's name.

5.25. Project acronym

Explanation: The acronym of the project that is the source of the Knowledge Object (i.e., the project in the context of which the Knowledge Object was created). The property may not apply in some project cases (e.g., in the case of Operational Groups).

Number of values that can be assigned: One.

Expected value(s): A string providing the acronym of the project.



5.26. Project URL

Explanation: The URL of the official website of the project or the link to the webpage of the project in CORDIS (in the case of EU-funded Research and Innovation projects).

Is required: Mandatory.

Number of values that can be assigned: Multiple.

Expected value(s): A URL.



6. Annex

6.1. Languages

The list of languages provided below aims to be used for the assignment of values to the "Language(s)" (Section 5.8), "Translation(s)" (Section 5.9), and "Subtitles" (Section 5.10) metadata properties. Languages are defined based on the ISO 639-2 standard.

ISO 639-2 code	English name	French name	German name
aar	Afar	afar	Danakil-Sprache
abk	Abkhazian	abkhaze	Abchasisch
ace	Achinese	aceh	Aceh-Sprache
ach	Acoli	acoli	Acholi-Sprache
ada	Adangme	adangme	Adangme-Sprache
ady	Adyghe; Adygei	adyghé	Adygisch
afa	Afro-Asiatic languages	afro-asiatiques, langues	Hamitosemitische Sprachen (Andere)
afh	Afrihili	afrihili	Afrihili
afr	Afrikaans	afrikaans	Afrikaans
ain	Ainu	aïnou	Ainu-Sprache
aka	Akan	akan	Akan-Sprache
akk	Akkadian	akkadien	Akkadisch
alb	Albanian	albanais	Albanisch
ale	Aleut	aléoute	Aleutisch
alg	Algonquian languages	algonquines, langues	Algonkin-Sprachen (Andere)
alt	Southern Altai	altai du Sud	Altaisch
amh	Amharic	amharique	Amharisch
ang	English, Old (ca.450- 1100)	anglo-saxon (ca.450- 1100)	Altenglisch
anp	Angika	angika	Anga-Sprache
ара	Apache languages	apaches, langues	Apachen-Sprachen
ara	Arabic	arabe	Arabisch
arc	Official Aramaic (700- 300 BCE); Imperial Aramaic (700-300 BCE)	araméen d'empire (700- 300 BCE)	Aramäisch
arg	Aragonese	aragonais	Aragonesisch
arm	Armenian	arménien	Armenisch
arn	Mapudungun; Mapuche	mapudungun; mapuche; mapuce	Arauka-Sprachen
arp	Arapaho	arapaho	Arapaho-Sprache



ISO 639-2 code	English name	French name	German name
art	Artificial languages	artificielles, langues	Kunstsprachen (Andere)
arw	Arawak	arawak	Arawak-Sprachen
asm	Assamese	assamais	Assamesisch
ast	Asturian; Bable; Leonese; Asturleonese	asturien; bable; léonais; asturoléonais	Asturisch
ath	Athapascan languages	athapascanes, langues	Athapaskische Sprachen (Andere)
aus	Australian languages	australiennes, langues	Australische Sprachen
ava	Avaric	avar	Awarisch
ave	Avestan	avestique	Avestisch
awa	Awadhi	awadhi	Awadhi
aym	Aymara	aymara	Aymará-Sprache
aze	Azerbaijani	azéri	Aserbeidschanisch
bad	Banda languages	banda, langues	Banda-Sprachen (Ubangi-Sprachen)
bai	Bamileke languages	bamiléké, langues	Bamileke-Sprachen
bak	Bashkir	bachkir	Baschkirisch
bal	Baluchi	baloutchi	Belutschisch
bam	Bambara	bambara	Bambara-Sprache
ban	Balinese	balinais	Balinesisch
baq	Basque	basque	Baskisch
bas	Basa	basa	Basaa-Sprache
bat	Baltic languages	baltes, langues	Baltische Sprachen (Andere)
bej	Beja; Bedawiyet	bedja	Bedauye
bel	Belarusian	biélorusse	Weißrussisch
bem	Bemba	bemba	Bemba-Sprache
ben	Bengali	bengali	Bengali
ber	Berber languages	berbères, langues	Berbersprachen (Andere)
bho	Bhojpuri	bhojpuri	Bhojpuri
bih	Bihari languages	langues biharis	Bihari (Andere)
bik	Bikol	bikol	Bikol-Sprache
bin	Bini; Edo	bini; edo	Edo-Sprache
bis	Bislama	bichlamar	Beach-la-mar
bla	Siksika	blackfoot	Blackfoot-Sprache



ISO 639-2 code	English name	French name	German name
bnt	Bantu languages	bantou, langues	Bantusprachen (Andere)
tib	Tibetan	tibétain	Tibetisch
bos	Bosnian	bosniaque	Bosnisch
bra	Braj	braj	Braj-Bhakha
bre	Breton	breton	Bretonisch
btk	Batak languages	batak, langues	Batak-Sprache
bua	Buriat	bouriate	Burjatisch
bug	Buginese	bugi	Bugi-Sprache
bul	Bulgarian	bulgare	Bulgarisch
bur	Burmese	birman	Birmanisch
byn	Blin; Bilin	blin; bilen	Bilin-Sprache
cad	Caddo	caddo	Caddo-Sprachen
cai	Central American Indian languages	amérindiennes de l'Amérique centrale, langues	Indianersprachen, Zentralamerika (Andere)
car	Galibi Carib	karib; galibi; carib	Karibische Sprachen
cat	Catalan; Valencian	catalan; valencien	Katalanisch
cau	Caucasian languages	caucasiennes, langues	Kaukasische Sprachen (Andere)
ceb	Cebuano	cebuano	Cebuano
cel	Celtic languages	celtiques, langues; celtes, langues	Keltische Sprachen (Andere)
cze	Czech	tchèque	Tschechisch
cha	Chamorro	chamorro	Chamorro-Sprache
chb	Chibcha	chibcha	Chibcha-Sprachen
che	Chechen	tchétchène	Tschetschenisch
chg	Chagatai	djaghataï	Tschagataisch
chi	Chinese	chinois	Chinesisch
chk	Chuukese	chuuk	Trukesisch
chm	Mari	mari	Tscheremissisch
chn	Chinook jargon	chinook, jargon	Chinook-Jargon
cho	Choctaw	choctaw	Choctaw-Sprache
chp	Chipewyan; Dene Suline	chipewyan	Chipewyan-Sprache
chr	Cherokee	cherokee	Cherokee-Sprache



ISO 639-2 code	English name	French name	German name
chu	Church Slavic; Old Slavonic; Church Slavonic; Old Bulgarian; Old Church Slavonic	slavon d'église; vieux slave; slavon liturgique; vieux bulgare	Kirchenslawisch
chv	Chuvash	tchouvache	Tschuwaschisch
chy	Cheyenne	cheyenne	Cheyenne-Sprache
cmc	Chamic languages	chames, langues	Cham-Sprachen
cnr	Montenegrin	monténégrin	Montenegrinisch
сор	Coptic	copte	Koptisch
cor	Cornish	cornique	Kornisch
cos	Corsican	corse	Korsisch
сре	Creoles and pidgins, English based	créoles et pidgins basés sur l'anglais	Kreolisch-Englisch (Andere)
cpf	Creoles and pidgins, French-based	créoles et pidgins basés sur le français	Kreolisch-Französisch (Andere)
срр	Creoles and pidgins, Portuguese-based	créoles et pidgins basés sur le portugais	Kreolisch-Portugiesisch (Andere)
cre	Cree	cree	Cree-Sprache
crh	Crimean Tatar; Crimean Turkish	tatar de Crimé	Krimtatarisch
crp	Creoles and pidgins	créoles et pidgins	Kreolische Sprachen; Pidginsprachen (Andere)
csb	Kashubian	kachoube	Kaschubisch
cus	Cushitic languages	couchitiques, langues	Kuschitische Sprachen (Andere)
wel	Welsh	gallois	Kymrisch
dak	Dakota	dakota	Dakota-Sprache
dan	Danish	danois	Dänisch
dar	Dargwa	dargwa	Darginisch
day	Land Dayak languages	dayak, langues	Dajakisch
del	Delaware	delaware	Delaware-Sprache
den	Slave (Athapascan)	esclave (athapascan)	Slave-Sprache
ger	German	allemand	Deutsch
dgr	Tlicho; Dogrib	tlicho; dogrib	Tlicho-Sprache; Dogrib- Sprache
din	Dinka	dinka	Dinka-Sprache
div	Divehi; Dhivehi; Maldivian	maldivien	Maledivisch
doi	Dogri (macrolanguage)	dogri	Dogri



ISO 639-2 code	English name	French name	German name
dra	Dravidian languages	dravidiennes, langues	Drawidische Sprachen (Andere)
dsb	Lower Sorbian	bas-sorabe	Niedersorbisch
dua	Duala	douala	Duala-Sprachen
dum	Dutch, Middle (ca.1050- 1350)	néerlandais moyen (ca. 1050-1350)	Mittelniederländisch
dut	Dutch; Flemish	néerlandais; flamand	Niederländisch
dyu	Dyula	dioula	Dyula-Sprache
dzo	Dzongkha	dzongkha	Dzongkha
efi	Efik	efik	Efik
egy	Egyptian (Ancient)	égyptien	Ägyptisch
eka	Ekajuk	ekajuk	Ekajuk
gre	Greek	grec moderne (après 1453)	Neugriechisch
elx	Elamite	élamite	Elamisch
eng	English	anglais	Englisch
enm	English, Middle (1100- 1500)	anglais moyen (1100- 1500)	Mittelenglisch
еро	Esperanto	espéranto	Esperanto
est	Estonian	estonien	Estnisch
ewe	Ewe	éwé	Ewe-Sprache
ewo	Ewondo	éwondo	Ewondo
fan	Fang	fang	Pangwe-Sprache
fao	Faroese	féroïen	Färöisch
per	Persian	persan	Persisch
fat	Fanti	fanti	Fante-Sprache
fij	Fijian	fidjien	Fidschi-Sprache
fil	Filipino; Pilipino	filipino; pilipino	Pilipino
fin	Finnish	finnois	Finnisch
fiu	Finno-Ugrian languages	finno-ougriennes, langues	Finnougrische Sprachen (Andere)
fon	Fon	fon	Fon-Sprache
fre	French	français	Französisch
frm	French, Middle (ca.1400-1600)	français moyen (1400- 1600)	Mittelfranzösisch
fro	French, Old (842- ca.1400)	français ancien (842- ca.1400)	Altfranzösisch
frr	Northern Frisian	frison septentrional	Nordfriesisch



ISO 639-2 code	English name	French name	German name
frs	Eastern Frisian	frison oriental	Ostfriesisch
fry	Western Frisian	frison occidental	Friesisch
ful	Fulah	peul	Ful
fur	Friulian	frioulan	Friulisch
gaa	Ga	ga	Ga-Sprache
gay	Gayo	gayo	Gayo-Sprache
gba	Gbaya	gbaya	Gbaya-Sprache
gem	Germanic languages	germaniques, langues	Germanische Sprachen (Andere)
geo	Georgian	géorgien	Georgisch
gez	Geez	guèze	Altäthiopisch
gil	Gilbertese	kiribati	Gilbertesisch
gla	Gaelic; Scottish Gaelic	gaélique; gaélique écossais	Gälisch-Schottisch
gle	Irish	irlandais	Irisch
glg	Galician	galicien	Galicisch
glv	Manx	manx; mannois	Manx
gmh	German, Middle High (ca.1050-1500)	allemand, moyen haut (ca. 1050-1500)	Mittelhochdeutsch
goh	German, Old High (ca.750-1050)	allemand, vieux haut (ca. 750-1050)	Althochdeutsch
gon	Gondi	gond	Gondi-Sprache
gor	Gorontalo	gorontalo	Gorontalesisch
got	Gothic	gothique	Gotisch
grb	Grebo	grebo	Grebo-Sprache
grc	Greek, Ancient (to 1453)	grec ancien (jusqu'à 1453)	Griechisch
grn	Guarani	guarani	Guaraní-Sprache
gsw	Swiss German; Alemannic; Alsatian	suisse alémanique; alémanique; alsacien	Schweizerdeutsch
guj	Gujarati	goudjrati	Gujarati-Sprache
gwi	Gwich'in	gwich'in	Kutchin-Sprache
hai	Haida	haida	Haida-Sprache
hat	Haitian; Haitian Creole	haïtien; créole haïtien	Haïtien (Haiti-Kreolisch)
hau	Hausa	haoussa	Haussa-Sprache
haw	Hawaiian	hawaïen	Hawaiisch
heb	Hebrew	hébreu	Hebräisch
her	Herero	herero	Herero-Sprache



ISO 639-2 code	English name	French name	German name
hil	Hiligaynon	hiligaynon	Hiligaynon-Sprache
him	Himachali languages; Western Pahari languages	langues himachalis; langues paharis occidentales	Himachali
hin	Hindi	hindi	Hindi
hit	Hittite	hittite	Hethitisch
hmn	Hmong; Mong	hmong	Miao-Sprachen
hmo	Hiri Motu	hiri motu	Hiri-Motu
hrv	Croatian	croate	Kroatisch
hsb	Upper Sorbian	haut-sorabe	Obersorbisch
hun	Hungarian	hongrois	Ungarisch
hup	Hupa	hupa	Hupa-Sprache
iba	Iban	iban	Iban-Sprache
ibo	Igbo	igbo	Ibo-Sprache
ice	Icelandic	islandais	Isländisch
ido	ldo	ido	ldo
iii	Sichuan Yi; Nuosu	yi de Sichuan	Lalo-Sprache
ijo	ljo languages	ijo, langues	ljo-Sprache
iku	Inuktitut	inuktitut	Inuktitut
ile	Interlingue; Occidental	interlingue	Interlingue
ilo	lloko	ilocano	Ilokano-Sprache
ina	Interlingua (International Auxiliary Language Association)	interlingua (langue auxiliaire internationale)	Interlingua
inc	Indic languages	indo-aryennes, langues	Indoarische Sprachen (Andere)
ind	Indonesian	indonésien	Bahasa Indonesia
ine	Indo-European languages	indo-européennes, langues	Indogermanische Sprachen (Andere)
inh	Ingush	ingouche	Inguschisch
ipk	Inupiaq	inupiaq	Inupik
ira	Iranian languages	iraniennes, langues	Iranische Sprachen (Andere)
iro	Iroquoian languages	iroquoises, langues	Irokesische Sprachen
ita	Italian	italien	Italienisch
jav	Javanese	javanais	Javanisch
jbo	Lojban	lojban	Lojban
jpn	Japanese	japonais	Japanisch



ISO 639-2 code	English name	French name	German name
jpr	Judeo-Persian	judéo-persan	Jüdisch-Persisch
jrb	Judeo-Arabic	judéo-arabe	Jüdisch-Arabisch
kaa	Kara-Kalpak	karakalpak	Karakalpakisch
kab	Kabyle	kabyle	Kabylisch
kac	Kachin; Jingpho	kachin; jingpho	Kachin-Sprache
kal	Kalaallisut; Greenlandic	groenlandais	Grönländisch
kam	Kamba	kamba	Kamba-Sprache
kan	Kannada	kannada	Kannada
kar	Karen languages	karen, langues	Karenisch
kas	Kashmiri	kashmiri	Kaschmiri
kau	Kanuri	kanouri	Kanuri-Sprache
kaw	Kawi	kawi	Kawi
kaz	Kazakh	kazakh	Kasachisch
kbd	Kabardian	kabardien	Kabardinisch
kha	Khasi	khasi	Khasi-Sprache
khi	Khoisan languages	khoïsan, langues	Khoisan-Sprachen (Andere)
khm	Central Khmer	khmer central	Kambodschanisch
kho	Khotanese; Sakan	khotanais; sakan	Sakisch
kik	Kikuyu; Gikuyu	kikuyu	Kikuyu-Sprache
kin	Kinyarwanda	rwanda	Rwanda-Sprache
kir	Kirghiz; Kyrgyz	kirghiz	Kirgisisch
kmb	Kimbundu	kimbundu	Kimbundu-Sprache
kok	Konkani (macrolanguage)	konkani	Konkani
kom	Komi	kom	Komi-Sprache
kon	Kongo	kongo	Kongo-Sprache
kor	Korean	coréen	Koreanisch
kos	Kosraean	kosrae	Kosraeanisch
kpe	Kpelle	kpellé	Kpelle-Sprache
krc	Karachay-Balkar	karatchai balkar	Karatschaiisch- Balkarisch
krl	Karelian	carélien	Karelisch
kro	Kru languages	krou, langues	Kru-Sprachen (Andere)
kru	Kurukh	kurukh	Oraon-Sprache
kua	Kuanyama; Kwanyama	kuanyama; kwanyama	Kwanyama-Sprache
kum	Kumyk	koumyk	Kumükisch



ISO 639-2 code	English name	French name	German name
kur	Kurdish	kurde	Kurdisch
kut	Kutenai	kutenai	Kutenai-Sprache
lad	Ladino	judéo-espagnol	Judenspanisch
lah	Lahnda	lahnda	Lahnda
lam	Lamba	lamba	Lamba-Sprache (Bantusprache)
lao	Lao	lao	Laotisch
lat	Latin	latin	Latein
lav	Latvian	letton	Lettisch
lez	Lezghian	lezghien	Lesgisch
lim	Limburgan; Limburger; Limburgish	limbourgeois	Limburgisch
lin	Lingala	lingala	Lingala
lit	Lithuanian	lituanien	Litauisch
lol	Mongo	mongo	Mongo-Sprache
loz	Lozi	lozi	Rotse-Sprache
ltz	Luxembourgish; Letzeburgesch	luxembourgeois	Luxemburgisch
lua	Luba-Lulua	luba-lulua	Lulua-Sprache
lub	Luba-Katanga	luba-katanga	Luba-Katanga-Sprache
lug	Ganda	ganda	Ganda-Sprache
lui	Luiseno	luiseno	Luiseño-Sprache
lun	Lunda	lunda	Lunda-Sprache
luo	Luo (Kenya and Tanzania)	luo (Kenya et Tanzanie)	Luo-Sprache
lus	Lushai	lushai	Lushai-Sprache
mac	Macedonian	macédonien	Makedonisch
mad	Madurese	madourais	Maduresisch
mag	Magahi	magahi	Khotta
mah	Marshallese	marshall	Marschallesisch
mai	Maithili	maithili	Maithili
mak	Makasar	makassar	Makassarisch
mal	Malayalam	malayalam	Malayalam
man	Mandingo	mandingue	Malinke-Sprache
mao	Maori	maori	Maori-Sprache
тар	Austronesian languages	austronésiennes, langues	Austronesische Sprachen (Andere)



ISO 639-2 code	English name	French name	German name
mar	Marathi	marathe	Marathi
mas	Masai	massaï	Massai-Sprache
may	Malay (macrolanguage)	malais	Malaiisch
mdf	Moksha	moksa	Mokscha-Sprache
mdr	Mandar	mandar	Mandaresisch
men	Mende	mendé	Mende-Sprache
mga	Irish, Middle (900-1200)	irlandais moyen (900- 1200)	Mittelirisch
mic	Mi'kmaq; Micmac	mi'kmaq; micmac	Micmac-Sprache
min	Minangkabau	minangkabau	Minangkabau-Sprache
mis	Uncoded languages	langues non codées	Einzelne andere Sprachen
mkh	Mon-Khmer languages	môn-khmer, langues	Mon-Khmer-Sprachen (Andere)
mlg	Malagasy	malgache	Malagassi-Sprache
mlt	Maltese	maltais	Maltesisch
mnc	Manchu	mandchou	Mandschurisch
mni	Manipuri	manipuri	Meithei-Sprache
mno	Manobo languages	manobo, langues	Manobo-Sprachen
moh	Mohawk	mohawk	Mohawk-Sprache
mon	Mongolian	mongol	Mongolisch
mos	Mossi	moré	Mossi-Sprache
mul	Multiple languages	multilingue	Mehrere Sprachen
mun	Munda languages	mounda, langues	Mundasprachen (Andere)
mus	Creek	muskogee	Muskogisch
mwl	Mirandese	mirandais	Mirandesisch
mwr	Marwari	marvari	Marwari
myn	Mayan languages	maya, langues	Maya-Sprachen
myv	Erzya	erza	Erza-Mordwinisch
nah	Nahuatl languages	nahuatl, langues	Nahuatl
nai	North American Indian languages	nord-amérindiennes, langues	Indianersprachen, Nordamerika (Andere)
nap	Neapolitan	napolitain	Neapel / Mundart
nau	Nauru	nauruan	Nauruanisch
nav	Navajo; Navaho	navaho	Navajo-Sprache
nbl	Ndebele, South; South Ndebele	ndébélé du Sud	Ndebele-Sprache (Transvaal)



ISO 639-2 code	English name	French name	German name
nde	Ndebele, North; North Ndebele	ndébélé du Nord	Ndebele-Sprache (Simbabwe)
ndo	Ndonga	ndonga	Ndonga
nds	Low German; Low Saxon; German, Low; Saxon, Low	bas allemand; bas saxon; allemand, bas; saxon, bas	Niederdeutsch
nep	Nepali (macrolanguage)	népalais	Nepali
new	Nepal Bhasa; Newari	nepal bhasa; newari	Newari
nia	Nias	nias	Nias-Sprache
nic	Niger-Kordofanian languages	nigéro-kordofaniennes, langues	Nigerkordofanische Sprachen (Andere)
niu	Niuean	niué	Niue-Sprache
nno	Norwegian Nynorsk; Nynorsk, Norwegian	norvégien nynorsk; nynorsk, norvégien	Nynorsk
nob	Bokmål, Norwegian; Norwegian Bokmål	norvégien bokmål	Bokmål
nog	Nogai	nogaï; nogay	Nogaisch
non	Norse, Old	norrois, vieux	Altnorwegisch
nor	Norwegian	norvégien	Norwegisch
nqo	N'Ko	n'ko	N'Ko
nso	Pedi; Sepedi; Northern Sotho	pedi; sepedi; sotho du Nord	Pedi-Sprache
nub	Nubian languages	nubiennes, langues	Nubische Sprachen
nwc	Classical Newari; Old Newari; Classical Nepal Bhasa	newari classique	Alt-Newari
nya	Chichewa; Chewa; Nyanja	chichewa; chewa; nyanja	Nyanja-Sprache
nym	Nyamwezi	nyamwezi	Nyamwezi-Sprache
nyn	Nyankole	nyankolé	Nkole-Sprache
nyo	Nyoro	nyoro	Nyoro-Sprache
nzi	Nzima	nzema	Nzima-Sprache
oci	Occitan (post 1500)	occitan (après 1500)	Okzitanisch
oji	Ojibwa	ojibwa	Ojibwa-Sprache
ori	Oriya (macrolanguage)	oriya	Oriya-Sprache
orm	Oromo	galla	Galla-Sprache
osa	Osage	osage	Osage-Sprache
oss	Ossetian; Ossetic	ossète	Ossetisch



ISO 639-2 code	English name	French name	German name
ota	Turkish, Ottoman (1500-1928)	turc ottoman (1500- 1928)	Osmanisch
oto	Otomian languages	otomi, langues	Otomangue-Sprachen
paa	Papuan languages	papoues, langues	Papuasprachen (Andere)
pag	Pangasinan	pangasinan	Pangasinan-Sprache
pal	Pahlavi	pahlavi	Mittelpersisch
pam	Pampanga; Kapampangan	pampangan	Pampanggan-Sprache
pan	Panjabi; Punjabi	pendjabi	Pandschabi-Sprache
pap	Papiamento	papiamento	Papiamento
pau	Palauan	palau	Palau-Sprache
peo	Persian, Old (ca.600- 400 B.C.)	perse, vieux (ca. 600- 400 av. JC.)	Altpersisch
phi	Philippine languages	philippines, langues	Philippinisch- Austronesisch (Andere)
phn	Phoenician	phénicien	Phönikisch
pli	Pali	pali	Pali
pol	Polish	polonais	Polnisch
pon	Pohnpeian	pohnpei	Ponapeanisch
por	Portuguese	portugais	Portugiesisch
pra	Prakrit languages	prâkrit, langues	Prakrit
pro	Provençal, Old (to 1500);Occitan, Old (to 1500)	provençal ancien (jusqu'à 1500); occitan ancien (jusqu'à 1500)	Altokzitanisch
pus	Pushto; Pashto	pachto	Paschtu
qaa-qtz	Reserved for local use	réservée à l'usage local	Reserviert für lokale Verwendung
que	Quechua	quechua	Quechua-Sprache
raj	Rajasthani	rajasthani	Rajasthani
rap	Rapanui	rapanui	Osterinsel-Sprache
rar	Rarotongan; Cook Islands Maori	rarotonga; maori des îles Cook	Rarotonganisch
roa	Romance languages	romanes, langues	Romanische Sprachen (Andere)
roh	Romansh	romanche	Rätoromanisch
rom	Romany	tsigane	Romani (Sprache)
rum	Romanian; Moldavian; Moldovan	roumain; moldave	Rumänisch



ISO 639-2 code	English name	French name	German name
run	Rundi	rundi	Rundi-Sprache
rup	Aromanian; Arumanian; Macedo-Romanian	aroumain; macédo- roumain	Aromunisch
rus	Russian	russe	Russisch
sad	Sandawe	sandawe	Sandawe-Sprache
sag	Sango	sango	Sango-Sprache
sah	Yakut	iakoute	Jakutisch
sai	South American Indian languages	sud-amérindiennes, langues	Indianersprachen, Südamerika (Andere)
sal	Salishan languages	salishennes, langues	Salish-Sprache
sam	Samaritan Aramaic	samaritain	Samaritanisch
san	Sanskrit	sanskrit	Sanskrit
sas	Sasak	sasak	Sasak
sat	Santali	santal	Santali
scn	Sicilian	sicilien	Sizilianisch
sco	Scots	écossais	Schottisch
sel	Selkup	selkoupe	Selkupisch
sem	Semitic languages	sémitiques, langues	Semitische Sprachen (Andere)
sga	Irish, Old (to 900)	irlandais ancien (jusqu'à 900)	Altirisch
sgn	Sign Languages	langues des signes	Zeichensprachen
shn	Shan	chan	Schan-Sprache
sid	Sidamo	sidamo	Sidamo-Sprache
sin	Sinhala; Sinhalese	singhalais	Singhalesisch
sio	Siouan languages	sioux, langues	Sioux-Sprachen (Andere)
sit	Sino-Tibetan languages	sino-tibétaines, langues	Sinotibetische Sprachen (Andere)
sla	Slavic languages	slaves, langues	Slawische Sprachen (Andere)
slo	Slovak	slovaque	Slowakisch
slv	Slovenian	slovène	Slowenisch
sma	Southern Sami	sami du Sud	Südsaamisch
sme	Northern Sami	sami du Nord	Nordsaamisch
smi	Sami languages	sames, langues	Saamisch
smj	Lule Sami	sami de Lule	Lulesaamisch
smn	Inari Sami	sami d'Inari	Inarisaamisch



ISO 639-2 code	English name	French name	German name
smo	Samoan	samoan	Samoanisch
sms	Skolt Sami	sami skolt	Skoltsaamisch
sna	Shona	shona	Schona-Sprache
snd	Sindhi	sindhi	Sindhi-Sprache
snk	Soninke	soninké	Soninke-Sprache
sog	Sogdian	sogdien	Sogdisch
som	Somali	somali	Somali
son	Songhai languages	songhai, langues	Songhai-Sprache
sot	Sotho, Southern	sotho du Sud	Süd-Sotho-Sprache
spa	Spanish; Castilian	espagnol; castillan	Spanisch
srd	Sardinian	sarde	Sardisch
srn	Sranan Tongo	sranan tongo	Sranantongo
srp	Serbian	serbe	Serbisch
srr	Serer	sérère	Serer-Sprache
ssa	Nilo-Saharan languages	nilo-sahariennes, langues	Nilosaharanische Sprachen (Andere)
ssw	Swati	swati	Swasi-Sprache
suk	Sukuma	sukuma	Sukuma-Sprache
sun	Sundanese	soundanais	Sundanesisch
sus	Susu	soussou	Susu
sux	Sumerian	sumérien	Sumerisch
swa	Swahili (macrolanguage)	swahili	Swahili
swe	Swedish	suédois	Schwedisch
syc	Classical Syriac	syriaque classique	Syrisch
syr	Syriac	syriaque	Neuostaramäisch
tah	Tahitian	tahitien	Tahitisch
tai	Tai languages	tai, langues	Thaisprachen (Andere)
tam	Tamil	tamoul	Tamil
tat	Tatar	tatar	Tatarisch
tel	Telugu	télougou	Telugu-Sprache
tem	Timne	temne	Temne-Sprache
ter	Tereno	tereno	Tereno-Sprache
tet	Tetum	tetum	Tetum-Sprache
tgk	Tajik	tadjik	Tadschikisch
tgl	Tagalog	tagalog	Tagalog



ISO 639-2 code	English name	French name	German name
tha	Thai	thaï	Thailändisch
tig	Tigre	tigré	Tigre-Sprache
tir	Tigrinya	tigrigna	Tigrinja-Sprache
tiv	Tiv	tiv	Tiv-Sprache
tkl	Tokelau	tokelau	Tokelauanisch
tlh	Klingon; tlhIngan-Hol	klingon	Klingonisch
tli	Tlingit	tlingit	Tlingit-Sprache
tmh	Tamashek	tamacheq	Tamašeq
tog	Tonga (Nyasa)	tonga (Nyasa)	Tonga (Bantusprache, Sambia)
ton	Tonga (Tonga Islands)	tongan (Îles Tonga)	Tongaisch
tpi	Tok Pisin	tok pisin	Neumelanesisch
tsi	Tsimshian	tsimshian	Tsimshian-Sprache
tsn	Tswana	tswana	Tswana-Sprache
tso	Tsonga	tsonga	Tsonga-Sprache
tuk	Turkmen	turkmène	Turkmenisch
tum	Tumbuka	tumbuka	Tumbuka-Sprache
tup	Tupi languages	tupi, langues	Tupi-Sprache
tur	Turkish	turc	Türkisch
tut	Altaic languages	altaïques, langues	Altaische Sprachen (Andere)
tvl	Tuvalu	tuvalu	Elliceanisch
twi	Twi	twi	Twi-Sprache
tyv	Tuvinian	touva	Tuwinisch
udm	Udmurt	oudmourte	Udmurtisch
uga	Ugaritic	ougaritique	Ugaritisch
uig	Uighur; Uyghur	ouïgour	Uigurisch
ukr	Ukrainian	ukrainien	Ukrainisch
umb	Umbundu	umbundu	Mbundu-Sprache
und	Undetermined	indéterminée	Nicht zu entscheiden
urd	Urdu	ourdou	Urdu
uzb	Uzbek	ouszbek	Usbekisch
vai	Vai	vaï	Vai-Sprache
ven	Venda	venda	Venda-Sprache
vie	Vietnamese	vietnamien	Vietnamesisch
vol	Volapük	volapük	Volapük



ISO 639-2 code	English name	French name	German name
vot	Votic	vote	Wotisch
wak	Wakashan languages	wakashanes, langues	Wakash-Sprachen
wal	Wolaitta; Wolaytta	wolaitta; wolaytta	Walamo-Sprache
war	Waray	waray	Waray
was	Washo	washo	Washo-Sprache
wen	Sorbian languages	sorabes, langues	Sorbisch (Andere)
wln	Walloon	wallon	Wallonisch
wol	Wolof	wolof	Wolof-Sprache
xal	Kalmyk; Oirat	kalmouk; oïrat	Kalmückisch
xho	Xhosa	xhosa	Xhosa-Sprache
yao	Yao	yao	Yao-Sprache (Bantusprache)
yap	Yapese	yapois	Yapesisch
yid	Yiddish	yiddish	Jiddisch
yor	Yoruba	yoruba	Yoruba-Sprache
ypk	Yupik languages	yupik, langues	Ypik-Sprachen
zap	Zapotec	zapotèque	Zapotekisch
zbl	Blissymbols; Blissymbolics; Bliss	symboles Bliss; Bliss	Bliss-Symbol
zen	Zenaga	zenaga	Zenaga
zgh	Standard Moroccan Tamazight	amazighe standard marocain	
zha	Zhuang; Chuang	zhuang; chuang	Zhuang
znd	Zande languages	zandé, langues	Zande-Sprachen
zul	Zulu	zoulou	Zulu-Sprache
zun	Zuni	zuni	Zuñi-Sprache
ZXX	No linguistic content; Not applicable	pas de contenu linguistique; non applicable	Kein linguistischer Inhalt
zza	Zaza; Dimili; Dimli; Kirdki; Kirmanjki; Zazaki	zaza; dimili; dimli; kirdki; kirmanjki; zazaki	Zazaki

6.2. Intended purpose

The values of the metadata property "Intended purpose" (Section 5.14) are listed below.

Access data

Learn and develop skills



Monitor (metrics, conditions, progress, Implement best practices performance) Apply ready-to-use practices Support decision-making and strategic Connect with relevant networks planning Build professional and collaborative Predict trends and forecast outcomes networks Automate processes and improve Manage risks and enhance resilience planning Identify and secure funding Ensure compliance with regulations, opportunities policies, and guidelines Other Adopt innovative practices

6.3. Geographic location(s)

The values of the metadata property "Geographic location(s)" (Section 5.15) are listed below.

NUTS ID	Level code	Latin name	EU-FarmBook platform name
AL	0	Shqipëria	Albania
AL0	1	Shqipëria	Shqipëria
AL01	2	Veri	Veri
AL02	2	Qender	Qender
AL03	2	Jug	Jug
AL011	3	Dibër	Dibër
AL012	3	Durrës	Durrës
AL013	3	Kukës	Kukës
AL014	3	Lezhë	Lezhë
AL015	3	Shkodër	Shkodër
AL021	3	Elbasan	Elbasan
AL022	3	Tiranë	Tiranë
AL031	3	Berat	Berat
AL032	3	Fier	Fier
AL033	3	Gjirokastër	Gjirokastër
AL034	3	Korcë	Korcë
AL035	3	Vlorë	Vlorë
AT	0	Österreich	Austria
AT2	1	Südösterreich	Südösterreich
AT3	1	Westösterreich	Westösterreich
AT1	1	Ostösterreich	Ostösterreich
AT11	2	Burgenland	Burgenland



NUTS ID	Level code	Latin name	EU-FarmBook platform name
AT12	2	Niederösterreich	Niederösterreich
AT13	2	Wien	Wien
AT21	2	Kärnten	Kärnten
AT22	2	Steiermark	Steiermark
AT31	2	Oberösterreich	Oberösterreich
AT32	2	Salzburg	Salzburg
AT33	2	Tirol	Tirol
AT34	2	Vorarlberg	Vorarlberg
AT112	3	Nordburgenland	Nordburgenland
AT113	3	Südburgenland	Südburgenland
AT111	3	Mittelburgenland	Mittelburgenland
AT125	3	Weinviertel	Weinviertel
AT222	3	Liezen	Liezen
AT223	3	Östliche Obersteiermark	Östliche Obersteiermark
AT224	3	Oststeiermark	Oststeiermark
AT225	3	West- und Südsteiermark	West- und Südsteiermark
AT126	3	Wiener Umland/Nordteil	Wiener Umland/Nordteil
AT127	3	Wiener Umland/Südteil	Wiener Umland/Südteil
AT130	3	Wien	Wien
AT211	3	Klagenfurt-Villach	Klagenfurt-Villach
AT212	3	Oberkärnten	Oberkärnten
AT213	3	Unterkärnten	Unterkärnten
AT221	3	Graz	Graz
AT121	3	Mostviertel-Eisenwurzen	Mostviertel-Eisenwurzen
AT122	3	Niederösterreich-Süd	Niederösterreich-Süd
AT123	3	Sankt Pölten	Sankt Pölten
AT124	3	Waldviertel	Waldviertel
AT334	3	Tiroler Oberland	Tiroler Oberland
AT335	3	Tiroler Unterland	Tiroler Unterland
AT341	3	Bludenz-Bregenzer Wald	Bludenz-Bregenzer Wald
AT342	3	Rheintal-Bodenseegebiet	Rheintal-Bodenseegebiet
AT226	3	Westliche Obersteiermark	Westliche Obersteiermark
AT311	3	Innviertel	Innviertel
AT312	3	Linz-Wels	Linz-Wels
AT313	3	Mühlviertel	Mühlviertel
AT314	3	Steyr-Kirchdorf	Steyr-Kirchdorf
AT315	3	Traunviertel	Traunviertel
AT321	3	Lungau	Lungau
AT322	3	Pinzgau-Pongau	Pinzgau-Pongau



NUTS ID	Level code	Latin name	EU-FarmBook platform name
AT323	3	Salzburg und Umgebung	Salzburg und Umgebung
AT331	3	Außerfern	Außerfern
AT332	3	Innsbruck	Innsbruck
AT333	3	Osttirol	Osttirol
BE	0	Belgique/België	Belgium
BE3 BE1	1	Région wallonne Région de Bruxelles- Capitale/Brussels Hoofdstedelijk Gewest	Région wallonne Région de Bruxelles- Capitale/Brussels Hoofdstedelijk Gewest
BE2	1	Vlaams Gewest	Vlaams Gewest
BE22	2	Prov. Limburg (BE)	Prov. Limburg (BE)
BE23	2	Prov. Oost-Vlaanderen	Prov. Oost-Vlaanderen
BE34	2	Prov. Luxembourg (BE)	Prov. Luxembourg (BE)
BE35	2	Prov. Namur	Prov. Namur
BE24	2	Prov. Vlaams-Brabant	Prov. Vlaams-Brabant
BF25	2	Prov. West-Vlaanderen	Prov. West-Vlaanderen
BE31	2	Prov. Brabant wallon	Prov. Brabant wallon
BE32	2	Prov. Hainaut	Prov. Hainaut
BE33	2	Prov. Liège	Prov. Liège
BE10	2	Région de Bruxelles- Capitale/ Brussels Hoofdstedelijk Gewest	Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest
BE21	2	Prov. Antwerpen	Prov. Antwerpen
BE100	3	Arr. de Bruxelles- Capitale/Arr. Brussel- Hoofdstad	Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad
BE211	3	Arr. Antwerpen	Arr. Antwerpen
BE234	3	Arr. Gent	Arr. Gent
BE235	3	Arr. Oudenaarde	Arr. Oudenaarde
BE236	3	Arr. Sint-Niklaas	Arr. Sint-Niklaas
BE241	3	Arr. Halle-Vilvoorde	Arr. Halle-Vilvoorde
BE32D	3	Arr. Thuin	Arr. Thuin
BE331	3	Arr. Huy	Arr. Huy
BE332	3	Arr. Liège	Arr. Liège
BE334	3	Arr. Waremme	Arr. Waremme
BE335	3	Arr. Verviers — communes francophones Bezirk Verviers —	Arr. Verviers — communes francophones
BE336	3	Deutschsprachige Gemeinschaft	Bezirk Verviers — Deutschsprachige Gemeinschaft
BE341	3	Arr. Arlon	Arr. Arlon
BE242	3	Arr. Leuven	Arr. Leuven
BE251	3	Arr. Brugge	Arr. Brugge



NUTS ID	Level code	Latin name	EU-FarmBook platform name
BE252	3	Arr. Diksmuide	Arr. Diksmuide
BE253	3	Arr. leper	Arr. leper
BE254	3	Arr. Kortrijk	Arr. Kortrijk
BE255	3	Arr. Oostende	Arr. Oostende
BE256	3	Arr. Roeselare	Arr. Roeselare
BE257	3	Arr. Tielt	Arr. Tielt
BE258	3	Arr. Veurne	Arr. Veurne
BE310	3	Arr. Nivelles	Arr. Nivelles
BE323	3	Arr. Mons	Arr. Mons
BE328	3	Arr. Tournai-Mouscron	Arr. Tournai-Mouscron
BE329	3	Arr. La Louvière	Arr. La Louvière
BE32A	3	Arr. Ath	Arr. Ath
BE32B	3	Arr. Charleroi	Arr. Charleroi
BE32C	3	Arr. Soignies	Arr. Soignies
BE212	3	Arr. Mechelen	Arr. Mechelen
BE213	3	Arr. Turnhout	Arr. Turnhout
BE223	3	Arr. Tongeren	Arr. Tongeren
BE224	3	Arr. Hasselt	Arr. Hasselt
BE225	3	Arr. Maaseik	Arr. Maaseik
BE231	3	Arr. Aalst	Arr. Aalst
BE232	3	Arr. Dendermonde	Arr. Dendermonde
BE233	3	Arr. Eeklo	Arr. Eeklo
BE342	3	Arr. Bastogne	Arr. Bastogne
BE343	3	Arr. Marche-en-Famenne	Arr. Marche-en-Famenne
BE344	3	Arr. Neufchâteau	Arr. Neufchâteau
BE345	3	Arr. Virton	Arr. Virton
BE351	3	Arr. Dinant	Arr. Dinant
BE352	3	Arr. Namur	Arr. Namur
BE353	3	Arr. Philippeville	Arr. Philippeville
BG	0	Bulgaria	Bulgaria
BG4	1	Yugozapadna i Yuzhna tsentralna Bulgaria Severna i Yugoiztochna	Yugozapadna i Yuzhna tsentralna Bulgaria
BG3	1	Bulgaria	Severna i Yugoiztochna Bulgaria
BG31	2	Severozapaden	Severozapaden
BG32	2	Severen tsentralen	Severen tsentralen
BG33	2	Severoiztochen	Severoiztochen
BG34	2	Yugoiztochen	Yugoiztochen
BG41	2	Yugozapaden	Yugozapaden
BG42	2	Yuzhen tsentralen	Yuzhen tsentralen



NUTS ID	Level code	Latin name	EU-FarmBook platform name
BG322	3	Gabrovo	Gabrovo
BG323	3	Ruse	Ruse
BG324	3	Razgrad	Razgrad
BG311	3	Vidin	Vidin
BG312	3	Montana	Montana
BG313	3	Vratsa	Vratsa
BG314	3	Pleven	Pleven
BG315	3	Lovech	Lovech
BG321	3	Veliko Tarnovo	Veliko Tarnovo
BG333	3	Shumen	Shumen
BG334	3	Targovishte	Targovishte
BG412	3	Sofia	Sofia
BG413	3	Blagoevgrad	Blagoevgrad
BG414	3	Pernik	Pernik
BG341	3	Burgas	Burgas
BG342	3	Sliven	Sliven
BG343	3	Yambol	Yambol
BG344	3	Stara Zagora	Stara Zagora
BG411	3	Sofia (stolitsa)	Sofia (stolitsa)
BG325	3	Silistra	Silistra
BG331	3	Varna	Varna
BG332	3	Dobrich	Dobrich
BG415	3	Kyustendil	Kyustendil
BG421	3	Plovdiv	Plovdiv
BG422	3	Haskovo	Haskovo
BG423	3	Pazardzhik	Pazardzhik
BG424	3	Smolyan	Smolyan
BG425	3	Kardzhali	Kardzhali
CH	0	Schweiz/Suisse/Svizzera	Switzerland
CH0	1	Schweiz/Suisse/Svizzera	Schweiz/Suisse/Svizzera
CH07	2	Ticino	Ticino
CH01	2	Région lémanique	Région lémanique
CH02	2	Espace Mittelland	Espace Mittelland
CH03	2	Nordwestschweiz	Nordwestschweiz
CH04	2	Zürich	Zürich
CH05	2	Ostschweiz	Ostschweiz
CH06	2	Zentralschweiz	Zentralschweiz
CH012	3	Valais / Wallis	Valais / Wallis
CH013	3	Genève	Genève



NUTS ID	Level code	Latin name	EU-FarmBook platform name
CH021	3	Bern / Berne	Bern / Berne
CH011	3	Vaud	Vaud
CH025	3	Jura	Jura
CH031	3	Basel-Stadt	Basel-Stadt
CH032	3	Basel-Landschaft Graubünden / Grigioni /	Basel-Landschaft Graubünden / Grigioni /
CH056	3	Grischun	Grischun
CH057	3	Thurgau	Thurgau
CH061	3	Luzern	Luzern
CH062	3	Uri	Uri
CH033	3	Aargau	Aargau
CH040	3	Zürich	Zürich
CH051	3	Glarus	Glarus
CH052	3	Schaffhausen	Schaffhausen
CH053	3	Appenzell Ausserrhoden	Appenzell Ausserrhoden
CH054	3	Appenzell Innerrhoden	Appenzell Innerrhoden
CH055	3	St. Gallen	St. Gallen
CH022	3	Fribourg / Freiburg	Fribourg / Freiburg
CH023	3	Solothurn	Solothurn
CH024	3	Neuchâtel	Neuchâtel
CH063	3	Schwyz	Schwyz
CH064	3	Obwalden	Obwalden
CH065	3	Nidwalden	Nidwalden
CH066	3	Zug	Zug
CH070	3	Ticino	Ticino
CY	0	Kýpros	Cyprus
CY0	1	Kýpros	Kýpros
CY00	2	Kýpros	Kýpros
CY000	3	Kýpros	Kýpros
CZ	0	Česko	Czechia
CZ0	1	Česko	Česko
CZ02	2	Střední Čechy	Střední Čechy
CZ03	2	Jihozápad	Jihozápad
CZ04	2	Severozápad	Severozápad
CZ05	2	Severovýchod	Severovýchod
CZ06	2	Jihovýchod	Jihovýchod
CZ07	2	Střední Morava	Střední Morava
CZ08	2	Moravskoslezsko	Moravskoslezsko
CZ01	2	Praha	Praha
CZ031	3	Jihočeský kraj	Jihočeský kraj



NUTS ID	Level code	Latin name	EU-FarmBook platform name
CZ032	3	Plzeňský kraj	Plzeňský kraj
CZ010	3	Hlavní město Praha	Hlavní město Praha
CZ020	3	Středočeský kraj	Středočeský kraj
CZ051	3	Liberecký kraj	Liberecký kraj
CZ064	3	Jihomoravský kraj	Jihomoravský kraj
CZ071	3	Olomoucký kraj	Olomoucký kraj
CZ052	3	Královéhradecký kraj	Královéhradecký kraj
CZ053	3	Pardubický kraj	Pardubický kraj
CZ063	3	Kraj Vysočina	Kraj Vysočina
CZ041	3	Karlovarský kraj	Karlovarský kraj
CZ042	3	Ústecký kraj	Ústecký kraj
CZ072	3	Zlínský kraj	Zlínský kraj
CZ080	3	Moravskoslezský kraj	Moravskoslezský kraj
DE	0	Deutschland	Germany
DEF	1	Schleswig-Holstein	Schleswig-Holstein
DE8	1	Mecklenburg-Vorpommern	Mecklenburg-Vorpommern
DEG	1	Thüringen	Thüringen
DE9	1	Niedersachsen	Niedersachsen
DE1	1	Baden-Württemberg	Baden-Württemberg
DEA	1	Nordrhein-Westfalen	Nordrhein-Westfalen
DEB	1	Rheinland-Pfalz	Rheinland-Pfalz
DEC	1	Saarland	Saarland
DE2	1	Bayern	Bayern
DE3	1	Berlin	Berlin
DED	1	Sachsen	Sachsen
DE4	1	Brandenburg	Brandenburg
DE5	1	Bremen	Bremen
DE6	1	Hamburg	Hamburg
DEE	1	Sachsen-Anhalt	Sachsen-Anhalt
DE7	1	Hessen	Hessen
DEB1	2	Koblenz	Koblenz
DEB2	2	Trier	Trier
DE13	2	Freiburg	Freiburg
DE72	2	Gießen	Gießen
DEB3	2	Rheinhessen-Pfalz	Rheinhessen-Pfalz
DE14	2	Tübingen	Tübingen
DE73	2	Kassel	Kassel
DEC0	2	Saarland	Saarland
DE21	2	Oberbayern	Oberbayern



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEG0	2	Thüringen	Thüringen
DE22	2	Niederbayern	Niederbayern
DE80	2	Mecklenburg-Vorpommern	Mecklenburg-Vorpommern
DE23	2	Oberpfalz	Oberpfalz
DE91	2	Braunschweig	Braunschweig
DE24	2	Oberfranken	Oberfranken
DE92	2	Hannover	Hannover
DED2	2	Dresden	Dresden
DE25	2	Mittelfranken	Mittelfranken
DE93	2	Lüneburg	Lüneburg
DED4	2	Chemnitz	Chemnitz
DE26	2	Unterfranken	Unterfranken
DE94	2	Weser-Ems	Weser-Ems
DED5	2	Leipzig	Leipzig
DEA1	2	Düsseldorf	Düsseldorf
DE27	2	Schwaben	Schwaben
DE30	2	Berlin	Berlin
DEA2	2	Köln	Köln
DEE0	2	Sachsen-Anhalt	Sachsen-Anhalt
DEA3	2	Münster	Münster
DE40	2	Brandenburg	Brandenburg
DE50	2	Bremen	Bremen
DEA4	2	Detmold	Detmold
DEF0	2	Schleswig-Holstein	Schleswig-Holstein
DE11	2	Stuttgart	Stuttgart
DE60	2	Hamburg	Hamburg
DEA5	2	Arnsberg	Arnsberg
DE71	2	Darmstadt	Darmstadt
DE12	2	Karlsruhe	Karlsruhe
DE11B	3	Main-Tauber-Kreis	Main-Tauber-Kreis
DE11C	3	Heidenheim	Heidenheim
DE11D	3	Ostalbkreis	Ostalbkreis
DE121	3	Baden-Baden, Stadtkreis	Baden-Baden, Stadtkreis
DE122	3	Karlsruhe, Stadtkreis	Karlsruhe, Stadtkreis
DE111	3	Stuttgart, Stadtkreis	Stuttgart, Stadtkreis
DE112	3	Böblingen	Böblingen
DE113	3	Esslingen	Esslingen
DE114	3	Göppingen	Göppingen
DE115	3	Ludwigsburg	Ludwigsburg



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE116	3	Rems-Murr-Kreis	Rems-Murr-Kreis
DE117	3	Heilbronn, Stadtkreis	Heilbronn, Stadtkreis
DE118	3	Heilbronn, Landkreis	Heilbronn, Landkreis
DE119	3	Hohenlohekreis	Hohenlohekreis
DE11A	3	Schwäbisch Hall	Schwäbisch Hall
DE12A	3	Calw	Calw
DE12B	3	Enzkreis	Enzkreis
DE12C	3	Freudenstadt	Freudenstadt
DE404	0	Freiburg im Breisgau,	5 1
DE131	3	Stadtkreis	Freiburg im Breisgau, Stadtkreis
DE13A	3	Waldshut	Waldshut
DE141	3	Reutlingen	Reutlingen
DE142	3	Tübingen, Landkreis	Tübingen, Landkreis
DE143	3	Zollernalbkreis	Zollernalbkreis
DE144	3	Ulm, Stadtkreis	Ulm, Stadtkreis
DE145	3	Alb-Donau-Kreis	Alb-Donau-Kreis
DE132	3	Breisgau-Hochschwarzwald	Breisgau-Hochschwarzwald
DE133	3	Emmendingen	Emmendingen
DE134	3	Ortenaukreis	Ortenaukreis
DE135	3	Rottweil	Rottweil
DE136	3	Schwarzwald-Baar-Kreis	Schwarzwald-Baar-Kreis
DE137	3	Tuttlingen	Tuttlingen
DE138	3	Konstanz	Konstanz
DE139	3	Lörrach	Lörrach
DE123	3	Karlsruhe, Landkreis	Karlsruhe, Landkreis
DE124	3	Rastatt	Rastatt
DE125	3	Heidelberg, Stadtkreis	Heidelberg, Stadtkreis
DE126	3	Mannheim, Stadtkreis	Mannheim, Stadtkreis
DE127	3	Neckar-Odenwald-Kreis	Neckar-Odenwald-Kreis
DE128	3	Rhein-Neckar-Kreis	Rhein-Neckar-Kreis
DE129	3	Pforzheim, Stadtkreis	Pforzheim, Stadtkreis
DE21H	3	München, Landkreis	München, Landkreis
DE21I	3	Neuburg-Schrobenhausen	Neuburg-Schrobenhausen
DE21J	3	Pfaffenhofen a. d. Ilm	Pfaffenhofen a. d. Ilm
DE21K	3	Rosenheim, Landkreis	Rosenheim, Landkreis
DE21L	3	Starnberg	Starnberg
DE21M	3	Traunstein	Traunstein
DE146	3	Biberach	Biberach
DE147	3	Bodenseekreis	Bodenseekreis
DE148	3	Ravensburg	Ravensburg



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE149	3	Sigmaringen	Sigmaringen
DE211	3	Ingolstadt, Kreisfreie Stadt	Ingolstadt, Kreisfreie Stadt
DE212	3	München, Kreisfreie Stadt Rosenheim, Kreisfreie	München, Kreisfreie Stadt
DE213	3	Stadt	Rosenheim, Kreisfreie Stadt
DE214	3	Altötting	Altötting
DE215	3	Berchtesgadener Land	Berchtesgadener Land
DE216	3	Bad Tölz-Wolfratshausen	Bad Tölz-Wolfratshausen
DE217	3	Dachau	Dachau
DE218	3	Ebersberg	Ebersberg
DE219	3	Eichstätt	Eichstätt
DE21A	3	Erding	Erding
DE21B	3	Freising	Freising
DE21C	3	Fürstenfeldbruck	Fürstenfeldbruck
DE21D	3	Garmisch-Partenkirchen	Garmisch-Partenkirchen
DE21E	3	Landsberg am Lech	Landsberg am Lech
DE21F	3	Miesbach	Miesbach
DE21G	3	Mühldorf a. Inn	Mühldorf a. Inn
DE228	3	Passau, Landkreis	Passau, Landkreis
DE229	3	Regen	Regen
DE22A	3	Rottal-Inn	Rottal-Inn
DE238	3	Regensburg, Landkreis	Regensburg, Landkreis
DE239	3	Schwandorf	Schwandorf
DE23A	3	Tirschenreuth	Tirschenreuth
DE241	3	Bamberg, Kreisfreie Stadt	Bamberg, Kreisfreie Stadt
DE242	3	Bayreuth, Kreisfreie Stadt	Bayreuth, Kreisfreie Stadt
DE243	3	Coburg, Kreisfreie Stadt	Coburg, Kreisfreie Stadt
DE244	3	Hof, Kreisfreie Stadt	Hof, Kreisfreie Stadt
DE245	3	Bamberg, Landkreis	Bamberg, Landkreis
DE22B	3	Straubing-Bogen	Straubing-Bogen
DE22C	3	Dingolfing-Landau	Dingolfing-Landau
DE231	3	Amberg, Kreisfreie Stadt Regensburg, Kreisfreie	Amberg, Kreisfreie Stadt
DE232	3	Stadt	Regensburg, Kreisfreie Stadt
DE233	3	Weiden i. d. Opf, Kreisfreie Stadt	Weiden i. d. Opf, Kreisfreie Stadt
DE234	3	Amberg-Sulzbach	Amberg-Sulzbach
DE235	3	Cham	Cham
DE236	3	Neumarkt i. d. OPf.	Neumarkt i. d. OPf.
DE237	3	Neustadt a. d. Waldnaab	Neustadt a. d. Waldnaab
DE21N	3	Weilheim-Schongau	Weilheim-Schongau



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE221	3	Landshut, Kreisfreie Stadt	Landshut, Kreisfreie Stadt
DE222	3	Passau, Kreisfreie Stadt	Passau, Kreisfreie Stadt
DE223	3	Straubing, Kreisfreie Stadt	Straubing, Kreisfreie Stadt
DE224	3	Deggendorf	Deggendorf
DE225	3	Freyung-Grafenau	Freyung-Grafenau
DE226	3	Kelheim	Kelheim
DE227	3	Landshut, Landkreis	Landshut, Landkreis
DE25C	3	Weißenburg- Gunzenhausen Aschaffenburg, Kreisfreie	Weißenburg-Gunzenhausen
DE261	3	Stadt Schweinfurt, Kreisfreie	Aschaffenburg, Kreisfreie Stadt
DE262	3	Stadt	Schweinfurt, Kreisfreie Stadt
DE263	3	Würzburg, Kreisfreie Stadt	Würzburg, Kreisfreie Stadt
DE264	3	Aschaffenburg, Landkreis	Aschaffenburg, Landkreis
DE265	3	Bad Kissingen	Bad Kissingen
DE266	3	Rhön-Grabfeld	Rhön-Grabfeld
DE267	3	Haßberge	Haßberge
DE246	3	Bayreuth, Landkreis	Bayreuth, Landkreis
DE247	3	Coburg, Landkreis	Coburg, Landkreis
DE248	3	Forchheim	Forchheim
DE249	3	Hof, Landkreis	Hof, Landkreis
DE24A	3	Kronach	Kronach
DE24B	3	Kulmbach	Kulmbach
DE24C	3	Lichtenfels	Lichtenfels
DE24D	3	Wunsiedel i. Fichtelgebirge	Wunsiedel i. Fichtelgebirge
DE251	3	Ansbach, Kreisfreie Stadt	Ansbach, Kreisfreie Stadt
DE252	3	Erlangen, Kreisfreie Stadt	Erlangen, Kreisfreie Stadt
DE253	3	Fürth, Kreisfreie Stadt	Fürth, Kreisfreie Stadt
DE254	3	Nürnberg, Kreisfreie Stadt Schwabach, Kreisfreie	Nürnberg, Kreisfreie Stadt
DE255	3	Stadt	Schwabach, Kreisfreie Stadt
DE256	3	Ansbach, Landkreis	Ansbach, Landkreis
DE257	3	Erlangen-Höchstadt	Erlangen-Höchstadt
DE258	3	Fürth, Landkreis	Fürth, Landkreis
DE259	3	Nürnberger Land	Nürnberger Land
DE25A	3	Neustadt a. d. Aisch-Bad Windsheim	Neustadt a. d. Aisch-Bad Windsheim
DE25B	3	Roth	Roth
DE273	3	Kempten (Allgäu), Kreisfreie Stadt	Kempten (Allgäu), Kreisfreie Stadt



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE274	3	Memmingen, Kreisfreie Stadt	Memmingen, Kreisfreie Stadt
DE275	3	Aichach-Friedberg	Aichach-Friedberg
DE276	3	Augsburg, Landkreis Brandenburg an der Havel,	Augsburg, Landkreis Brandenburg an der Havel,
DE401	3	Kreisfreie Stadt	Kreisfreie Stadt
DE402 DE403	3	Cottbus, Kreisfreie Stadt Frankfurt (Oder), Kreisfreie Stadt	Cottbus, Kreisfreie Stadt Frankfurt (Oder), Kreisfreie Stadt
DE404	3	Potsdam, Kreisfreie Stadt	Potsdam, Kreisfreie Stadt
DE405	3	Barnim	Barnim
DE406	3	Dahme-Spreewald	Dahme-Spreewald
DE407	3	Elbe-Elster	Elbe-Elster
DE277	3	Dillingen a.d. Donau	Dillingen a.d. Donau
DE278	3	Günzburg	Günzburg
DE279	3	Neu-Ulm	Neu-Ulm
DE27A	3	Lindau (Bodensee)	Lindau (Bodensee)
DE27B	3	Ostallgäu	Ostallgäu
DE27C	3	Unterallgäu	Unterallgäu
DE27D	3	Donau-Ries	Donau-Ries
DE27E	3	Oberallgäu	Oberallgäu
DE300	3	Berlin	Berlin
DE268	3	Kitzingen	Kitzingen
DE269	3	Miltenberg	Miltenberg
DE26A	3	Main-Spessart	Main-Spessart
DE26B	3	Schweinfurt, Landkreis	Schweinfurt, Landkreis
DE26C	3	Würzburg, Landkreis	Würzburg, Landkreis
DE271	3	Augsburg, Kreisfreie Stadt Kaufbeuren, Kreisfreie	Augsburg, Kreisfreie Stadt
DE272	3	Stadt	Kaufbeuren, Kreisfreie Stadt
DEA1F	3	Wesel	Wesel
DEA22	3	Bonn, Kreisfreie Stadt	Bonn, Kreisfreie Stadt
DEA23	3	Köln, Kreisfreie Stadt Leverkusen, Kreisfreie	Köln, Kreisfreie Stadt
DEA24	3	Stadt	Leverkusen, Kreisfreie Stadt
DEA26	3	Düren	Düren
DEB3E	3	Germersheim	Germersheim
DEB3F	3	Kaiserslautern, Landkreis	Kaiserslautern, Landkreis
DEB3G	3	Kusel	Kusel
DEF03	3	Lübeck, Kreisfreie Stadt Neumünster, Kreisfreie	Lübeck, Kreisfreie Stadt
DEF04	3	Stadt	Neumünster, Kreisfreie Stadt



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEF05	3	Dithmarschen	Dithmarschen
DEF06	3	Herzogtum Lauenburg	Herzogtum Lauenburg
DEA27	3	Rhein-Erft-Kreis	Rhein-Erft-Kreis
DEA28	3	Euskirchen	Euskirchen
DEA29	3	Heinsberg	Heinsberg
DEB3H	3	Südliche Weinstraße	Südliche Weinstraße
DEB3I	3	Rhein-Pfalz-Kreis	Rhein-Pfalz-Kreis
DEB3J	3	Mainz-Bingen	Mainz-Bingen
DEF07	3	Nordfriesland	Nordfriesland
DEA2A	3	Oberbergischer Kreis	Oberbergischer Kreis
DEA2B	3	Rheinisch-Bergischer Kreis	Rheinisch-Bergischer Kreis
DEA2C	3	Rhein-Sieg-Kreis	Rhein-Sieg-Kreis
DEB3K	3	Südwestpfalz	Südwestpfalz
DEC01	3	Regionalverband Saarbrücken	Regionalverband Saarbrücken
DEC02	3	Merzig-Wadern	Merzig-Wadern
DEC03	3	Neunkirchen	Neunkirchen
DEF08	3	Ostholstein	Ostholstein
DEF09	3	Pinneberg	Pinneberg
DEF0A	3	Plön	Plön
DEA2D	3	Städteregion Aachen	Städteregion Aachen
DEA31	3	Bottrop, Kreisfreie Stadt Gelsenkirchen, Kreisfreie	Bottrop, Kreisfreie Stadt
DEA32	3	Stadt	Gelsenkirchen, Kreisfreie Stadt
DEA33	3	Münster, Kreisfreie Stadt	Münster, Kreisfreie Stadt
DEA34	3	Borken	Borken
DEC04	3	Saarlouis	Saarlouis
DEC05	3	Saarpfalz-Kreis	Saarpfalz-Kreis
DEC06	3	St. Wendel	St. Wendel
DED21	3	Dresden, Kreisfreie Stadt	Dresden, Kreisfreie Stadt
DEF0B	3	Rendsburg-Eckernförde	Rendsburg-Eckernförde
DEF0C	3	Schleswig-Flensburg	Schleswig-Flensburg
DEA35	3	Coesfeld	Coesfeld
DEA36	3	Recklinghausen	Recklinghausen
DEA37	3	Steinfurt	Steinfurt
DEA38	3	Warendorf	Warendorf
DED2C	3	Bautzen	Bautzen
DED2D	3	Görlitz	Görlitz
DEF0D	3	Segeberg	Segeberg
DEF0E	3	Steinburg	Steinburg



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEF0F	3	Stormarn	Stormarn
DEA41	3	Bielefeld, Kreisfreie Stadt	Bielefeld, Kreisfreie Stadt
DEA42	3	Gütersloh	Gütersloh
DEA43	3	Herford	Herford
DEA44	3	Höxter	Höxter
DEA45	3	Lippe	Lippe
DED2E	3	Meißen	Meißen
DED2F	3	Sächsische Schweiz- Osterzgebirge	Sächsische Schweiz- Osterzgebirge
DED41	3	Chemnitz, Kreisfreie Stadt	Chemnitz, Kreisfreie Stadt
DEG01	3	Erfurt, Kreisfreie Stadt	Erfurt, Kreisfreie Stadt
DEG02	3	Gera, Kreisfreie Stadt	Gera, Kreisfreie Stadt
DEG03	3	Jena, Kreisfreie Stadt	Jena, Kreisfreie Stadt
DEG05	3	Weimar, Kreisfreie Stadt	Weimar, Kreisfreie Stadt
DEG06	3	Eichsfeld	Eichsfeld
DEG07	3	Nordhausen	Nordhausen
DEA46	3	Minden-Lübbecke	Minden-Lübbecke
DEA47	3	Paderborn	Paderborn
DEA51	3	Bochum, Kreisfreie Stadt	Bochum, Kreisfreie Stadt
DEA52	3	Dortmund, Kreisfreie Stadt	Dortmund, Kreisfreie Stadt
DEA53	3	Hagen, Kreisfreie Stadt	Hagen, Kreisfreie Stadt
DEA54	3	Hamm, Kreisfreie Stadt	Hamm, Kreisfreie Stadt
DEA55	3	Herne, Kreisfreie Stadt	Herne, Kreisfreie Stadt
DED42	3	Erzgebirgskreis	Erzgebirgskreis
DED43	3	Mittelsachsen	Mittelsachsen
DEG09	3	Unstrut-Hainich-Kreis	Unstrut-Hainich-Kreis
DEG0A	3	Kyffhäuserkreis	Kyffhäuserkreis
DEG0C	3	Gotha	Gotha
DEA56	3	Ennepe-Ruhr-Kreis	Ennepe-Ruhr-Kreis
DEA57	3	Hochsauerlandkreis	Hochsauerlandkreis
DEA58	3	Märkischer Kreis	Märkischer Kreis
DEA59	3	Olpe	Olpe
DED44	3	Vogtlandkreis	Vogtlandkreis
DED45	3	Zwickau	Zwickau
DED51	3	Leipzig, Kreisfreie Stadt	Leipzig, Kreisfreie Stadt
DEG0D	3	Sömmerda	Sömmerda
DEG0E	3	Hildburghausen	Hildburghausen
DEG0G	3	Weimarer Land	Weimarer Land
DEA5A	3	Siegen-Wittgenstein	Siegen-Wittgenstein
DEA5B	3	Soest	Soest



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEA5C	3	Unna	Unna
DEB11	3	Koblenz, Kreisfreie Stadt	Koblenz, Kreisfreie Stadt
DED52	3	Leipzig	Leipzig
DED53	3	Nordsachsen	Nordsachsen
DEG0J	3	Saale-Holzland-Kreis	Saale-Holzland-Kreis
DEG0K	3	Saale-Orla-Kreis	Saale-Orla-Kreis
DEG0L	3	Greiz	Greiz
DEB12	3	Ahrweiler	Ahrweiler
DEB13	3	Altenkirchen (Westerwald)	Altenkirchen (Westerwald)
DEB14	3	Bad Kreuznach Dessau-Roßlau, Kreisfreie	Bad Kreuznach
DEE01	3	Stadt Halle (Saale), Kreisfreie	Dessau-Roßlau, Kreisfreie Stadt
DEE02	3	Stadt Magdeburg, Kreisfreie	Halle (Saale), Kreisfreie Stadt
DEE03	3	Stadt	Magdeburg, Kreisfreie Stadt
DEE04	3	Altmarkkreis Salzwedel	Altmarkkreis Salzwedel
DEG0M	3	Altenburger Land	Altenburger Land
DEG0Q	3	Schmalkalden-Meiningen	Schmalkalden-Meiningen
DEG0R	3	Wartburgkreis	Wartburgkreis
DEB15	3	Birkenfeld	Birkenfeld
DEB17	3	Mayen-Koblenz	Mayen-Koblenz
DEB18	3	Neuwied	Neuwied
DEE05	3	Anhalt-Bitterfeld	Anhalt-Bitterfeld
DEE06	3	Jerichower Land	Jerichower Land
DEG0S	3	Suhl, Kreisfreie Stadt	Suhl, Kreisfreie Stadt
DEG0T	3	Ilm-Kreis	Ilm-Kreis
DEG0U	3	Saalfeld-Rudolstadt	Saalfeld-Rudolstadt
DEG0V	3	Sonneberg	Sonneberg
DEB1A	3	Rhein-Lahn-Kreis	Rhein-Lahn-Kreis
DEB1B	3	Westerwaldkreis	Westerwaldkreis
DEB1C	3	Cochem-Zell	Cochem-Zell
DEE07	3	Börde	Börde
DEE08	3	Burgenlandkreis	Burgenlandkreis
DEB1D	3	Rhein-Hunsrück-Kreis	Rhein-Hunsrück-Kreis
DEB21	3	Trier, Kreisfreie Stadt	Trier, Kreisfreie Stadt
DEB22	3	Bernkastel-Wittlich	Bernkastel-Wittlich
DEE09	3	Harz	Harz
DEE0A	3	Mansfeld-Südharz	Mansfeld-Südharz
DEB23	3	Eifelkreis Bitburg-Prüm	Eifelkreis Bitburg-Prüm
DEB24	3	Vulkaneifel	Vulkaneifel



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEE0B	3	Saalekreis	Saalekreis
DEE0C	3	Salzlandkreis	Salzlandkreis
DE94H	3	Wittmund	Wittmund
DEA11	3	Düsseldorf, Kreisfreie Stadt	Düsseldorf, Kreisfreie Stadt
DEA12	3	Duisburg, Kreisfreie Stadt	Duisburg, Kreisfreie Stadt
DEA13	3	Essen, Kreisfreie Stadt	Essen, Kreisfreie Stadt
DEA14	3	Krefeld, Kreisfreie Stadt	Krefeld, Kreisfreie Stadt
DEA15	3	Mönchengladbach, Kreisfreie Stadt	Mönchengladbach, Kreisfreie Stadt
DEA16	3	Mülheim an der Ruhr, Kreisfreie Stadt	Mülheim an der Ruhr, Kreisfreie Stadt
DEA17	3	Oberhausen, Kreisfreie Stadt	Oberhausen, Kreisfreie Stadt
DEA18	3	Remscheid, Kreisfreie Stadt	Remscheid, Kreisfreie Stadt
DEA19	3	Solingen, Kreisfreie Stadt	Solingen, Kreisfreie Stadt
DEB25	3	Trier-Saarburg Frankenthal (Pfalz),	Trier-Saarburg Frankenthal (Pfalz), Kreisfreie
DEB31	3	Kreisfreie Stadt Kaiserslautern, Kreisfreie	Stadt
DEB32	3	Stadt Landau in der Pfalz,	Kaiserslautern, Kreisfreie Stadt Landau in der Pfalz, Kreisfreie
DEB33	3	Kreisfreie Stadt	Stadt
DEB34	3	Ludwigshafen am Rhein, Kreisfreie Stadt	Ludwigshafen am Rhein, Kreisfreie Stadt
DEB35	3	Mainz, Kreisfreie Stadt	Mainz, Kreisfreie Stadt
DEB36	3	Neustadt an der Weinstraße, Kreisfreie Stadt	Neustadt an der Weinstraße, Kreisfreie Stadt
DEB37	3	Pirmasens, Kreisfreie Stadt	Pirmasens, Kreisfreie Stadt
DEE0D	3	Stendal	Stendal
DEE0E	3	Wittenberg	Wittenberg
DEF01	3	Flensburg, Kreisfreie Stadt	Flensburg, Kreisfreie Stadt
DEF02	3	Kiel, Kreisfreie Stadt	Kiel, Kreisfreie Stadt
DEA1A	3	Wuppertal, Kreisfreie Stadt	Wuppertal, Kreisfreie Stadt
DEA1B	3	Kleve	Kleve
DEA1C	3	Mettmann	Mettmann
DEA1D	3	Rhein-Kreis Neuss	Rhein-Kreis Neuss
DEA1E	3	Viersen	Viersen
DEB38	3	Speyer, Kreisfreie Stadt	Speyer, Kreisfreie Stadt
DEB39	3	Worms, Kreisfreie Stadt	Worms, Kreisfreie Stadt
DEB3A	3	Zweibrücken, Kreisfreie Stadt	Zweibrücken, Kreisfreie Stadt
DEB3B	3	Alzey-Worms	Alzey-Worms



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DEB3C	3	Bad Dürkheim	Bad Dürkheim
DEB3D	3	Donnersbergkreis	Donnersbergkreis
DE91C	3	Göttingen	Göttingen
DE922	3	Diepholz	Diepholz
DE932	3	Cuxhaven	Cuxhaven
DE933	3	Harburg	Harburg
DE934	3	Lüchow-Dannenberg	Lüchow-Dannenberg
DE40I	3	Uckermark	Uckermark
DE501	3	Bremen, Kreisfreie Stadt Bremerhaven, Kreisfreie	Bremen, Kreisfreie Stadt
DE502	3	Stadt	Bremerhaven, Kreisfreie Stadt
DE600	3	Hamburg	Hamburg
DE711	3	Darmstadt, Kreisfreie Stadt	Darmstadt, Kreisfreie Stadt
DE935	3	Lüneburg, Landkreis	Lüneburg, Landkreis
DE936	3	Osterholz	Osterholz
DE937	3	Rotenburg (Wümme)	Rotenburg (Wümme)
DE712	3	Frankfurt am Main, Kreisfreie Stadt	Frankfurt am Main, Kreisfreie Stadt
DE713	3	Offenbach am Main, Kreisfreie Stadt	Offenbach am Main, Kreisfreie Stadt
DE714	3	Wiesbaden, Kreisfreie Stadt	Wiesbaden, Kreisfreie Stadt
DE715	3	Bergstraße	Bergstraße
DE716	3	Darmstadt-Dieburg	Darmstadt-Dieburg
DE717	3	Groß-Gerau	Groß-Gerau
DE938	3	Heidekreis	Heidekreis
DE939	3	Stade	Stade
DE718	3	Hochtaunuskreis	Hochtaunuskreis
DE719	3	Main-Kinzig-Kreis	Main-Kinzig-Kreis
DE71A	3	Main-Taunus-Kreis	Main-Taunus-Kreis
DE71B	3	Odenwaldkreis	Odenwaldkreis
DE93A	3	Uelzen	Uelzen
DE93B	3	Verden	Verden
DE941	3	Delmenhorst, Kreisfreie Stadt	Delmenhorst, Kreisfreie Stadt
DE942	3	Emden, Kreisfreie Stadt	Emden, Kreisfreie Stadt
DE943	3	Oldenburg (Oldenburg), Kreisfreie Stadt	Oldenburg (Oldenburg), Kreisfreie Stadt
DE944	3	Osnabrück, Kreisfreie Stadt	Osnabrück, Kreisfreie Stadt
DE945	3	Wilhelmshaven, Kreisfreie Stadt	Wilhelmshaven, Kreisfreie Stadt
DE71C	3	Offenbach, Landkreis	Offenbach, Landkreis



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE71D	3	Rheingau-Taunus-Kreis	Rheingau-Taunus-Kreis
DE71E	3	Wetteraukreis	Wetteraukreis
DE721	3	Gießen, Landkreis	Gießen, Landkreis
DE946	3	Ammerland	Ammerland
DE947	3	Aurich	Aurich
DE948	3	Cloppenburg	Cloppenburg
DE722	3	Lahn-Dill-Kreis	Lahn-Dill-Kreis
DE723	3	Limburg-Weilburg	Limburg-Weilburg
DE724	3	Marburg-Biedenkopf	Marburg-Biedenkopf
DE949	3	Emsland	Emsland
DE94A	3	Friesland (DE)	Friesland (DE)
DE94B	3	Grafschaft Bentheim	Grafschaft Bentheim
DE94C	3	Leer	Leer
DE725	3	Vogelsbergkreis	Vogelsbergkreis
DE731	3	Kassel, Kreisfreie Stadt	Kassel, Kreisfreie Stadt
DE732	3	Fulda	Fulda
DE733	3	Hersfeld-Rotenburg	Hersfeld-Rotenburg
DE94D	3	Oldenburg, Landkreis	Oldenburg, Landkreis
DE94E	3	Osnabrück, Landkreis	Osnabrück, Landkreis
DE94F	3	Vechta	Vechta
DE94G	3	Wesermarsch	Wesermarsch
DE734	3	Kassel, Landkreis	Kassel, Landkreis
DE735	3	Schwalm-Eder-Kreis	Schwalm-Eder-Kreis
DE736	3	Waldeck-Frankenberg	Waldeck-Frankenberg
DE737	3	Werra-Meißner-Kreis	Werra-Meißner-Kreis
DE803	3	Rostock, Kreisfreie Stadt	Rostock, Kreisfreie Stadt
DE804	3	Schwerin, Kreisfreie Stadt Mecklenburgische	Schwerin, Kreisfreie Stadt
DE80J	3	Seenplatte	Mecklenburgische Seenplatte
DE80K	3	Landkreis Rostock	Landkreis Rostock
DE408	3	Havelland	Havelland
DE409	3	Märkisch-Oderland	Märkisch-Oderland
DE80L	3	Vorpommern-Rügen	Vorpommern-Rügen
DE80M	3	Nordwestmecklenburg	Nordwestmecklenburg
DE40A	3	Oberhavel	Oberhavel
DE40B	3	Oberspreewald-Lausitz	Oberspreewald-Lausitz
DE80N	3	Vorpommern-Greifswald	Vorpommern-Greifswald
DE923	3	Hameln-Pyrmont	Hameln-Pyrmont
DE925	3	Hildesheim	Hildesheim
DE926	3	Holzminden	Holzminden



NUTS ID	Level code	Latin name	EU-FarmBook platform name
DE40C	3	Oder-Spree	Oder-Spree
DE40D	3	Ostprignitz-Ruppin	Ostprignitz-Ruppin
DE80O	3	Ludwigslust-Parchim Braunschweig, Kreisfreie	Ludwigslust-Parchim
DE911	3	Stadt	Braunschweig, Kreisfreie Stadt
DE912	3	Salzgitter, Kreisfreie Stadt	Salzgitter, Kreisfreie Stadt
DE913	3	Wolfsburg, Kreisfreie Stadt	Wolfsburg, Kreisfreie Stadt
DE927	3	Nienburg (Weser)	Nienburg (Weser)
DE928	3	Schaumburg	Schaumburg
DE40E	3	Potsdam-Mittelmark	Potsdam-Mittelmark
DE40F	3	Prignitz	Prignitz
DE914	3	Gifhorn	Gifhorn
DE916	3	Goslar	Goslar
DE917	3	Helmstedt	Helmstedt
DE929	3	Region Hannover	Region Hannover
DE931	3	Celle	Celle
DE40G	3	Spree-Neiße	Spree-Neiße
DE40H	3	Teltow-Fläming	Teltow-Fläming
DE918	3	Northeim	Northeim
DE91A	3	Peine	Peine
DE91B	3	Wolfenbüttel	Wolfenbüttel
DK	0	Danmark	Denmark
DK0	1	Danmark	Danmark
DK01	2	Hovedstaden	Hovedstaden
DK02	2	Sjælland	Sjælland
DK03	2	Syddanmark	Syddanmark
DK04	2	Midtjylland	Midtjylland
DK05	2	Nordjylland	Nordjylland
DK032	3	Sydjylland	Sydjylland
DK041	3	Vestjylland	Vestjylland
DK042	3	Østjylland	Østjylland
DK050	3	Nordjylland	Nordjylland
DK011	3	Byen København	Byen København
DK012	3	Københavns omegn	Københavns omegn
DK013	3	Nordsjælland	Nordsjælland
DK014	3	Bornholm	Bornholm
DK021	3	Østsjælland	Østsjælland
DK022	3	Vest- og Sydsjælland	Vest- og Sydsjælland
DK031	3	Fyn	Fyn
EE	0	Eesti	Estonia



NUTS ID	Level code	Latin name	EU-FarmBook platform name
EE0	1	Eesti	Eesti
EE00	2	Eesti	Eesti
EE001	3	Põhja-Eesti	Põhja-Eesti
EE004	3	Lääne-Eesti	Lääne-Eesti
EE008	3	Lõuna-Eesti	Lõuna-Eesti
EE009	3	Kesk-Eesti	Kesk-Eesti
EE00A	3	Kirde-Eesti	Kirde-Eesti
EL	0	Elláda	Greece
EL4	1	Nisia Aigaiou, Kriti	Nisia Aigaiou, Kriti
EL3	1	Attiki	Attiki
EL5	1	Voreia Elláda	Voreia Elláda
EL6	1	Kentriki Elláda	Kentriki Elláda
EL30	2	Attiki	Attiki
EL42	2	Notio Aigaio	Notio Aigaio
EL43	2	Kriti	Kriti
EL41	2	Voreio Aigaio	Voreio Aigaio
EL61	2	Thessalia	Thessalia
EL62	2	Ionia Nisia	Ionia Nisia
EL63	2	Dytiki Elláda	Dytiki Elláda
EL64	2	Sterea Elláda	Sterea Elláda
EL65	2	Peloponnisos	Peloponnisos
EL51	2	Anatoliki Makedonia, Thraki	Anatoliki Makedonia, Thraki
EL52	2	Kentriki Makedonia	Kentriki Makedonia
EL53	2	Dytiki Makedonia	Dytiki Makedonia
EL54	2	Ipeiros	Ipeiros
EL305	3	Anatoliki Attiki	Anatoliki Attiki
EL306	3	Dytiki Attiki	Dytiki Attiki
EL307	3	Peiraias, Nisoi	Peiraias, Nisoi
EL412	3	Ikaria, Samos	Ikaria, Samos
EL413	3	Chios	Chios
EL411	3	Lesvos, Limnos	Lesvos, Limnos
EL301	3	Voreios Tomeas Athinon	Voreios Tomeas Athinon
EL302	3	Dytikos Tomeas Athinon	Dytikos Tomeas Athinon
EL303	3	Kentrikos Tomeas Athinon	Kentrikos Tomeas Athinon
EL304	3	Notios Tomeas Athinon	Notios Tomeas Athinon
EL641	3	Voiotia	Voiotia
EL434	3	Chania	Chania
EL511	3	Evros	Evros
EL512	3	Xanthi	Xanthi



NUTS ID	Level code	Latin name	EU-FarmBook platform name
EL513	3	Rodopi	Rodopi
EL514	3	Drama	Drama
EL642	3	Evvoia	Evvoia
EL643	3	Evrytania	Evrytania
EL515	3	Thasos, Kavala	Thasos, Kavala
EL521	3	Imathia	Imathia
EL653	3	Lakonia, Messinia	Lakonia, Messinia
EL522	3	Thessaloniki	Thessaloniki
EL523	3	Kilkis	Kilkis
EL524	3	Pella	Pella
EL525	3	Pieria	Pieria
EL526	3	Serres	Serres
EL527	3	Chalkidiki	Chalkidiki
EL531	3	Grevena, Kozani	Grevena, Kozani
EL532	3	Kastoria	Kastoria
EL644	3	Fthiotida	Fthiotida
EL421	3	Kalymnos, Karpathos, Kasos, Kos, Rodos	Kalymnos, Karpathos, Kasos, Kos, Rodos
EL533	3	Florina	Florina
EL541	3	Arta, Preveza	Arta, Preveza
EL645	3	Fokida	Fokida
EL542	3	Thesprotia	Thesprotia
EL543	3	Ioannina	Ioannina
EL651	3	Argolida, Arkadia	Argolida, Arkadia
EL611	3	Karditsa, Trikala	Karditsa, Trikala
EL612	3	Larisa	Larisa
EL652	3	Korinthia Andros, Thira, Kea - Kythnos, Milos, Mykonos,	Korinthia Andros, Thira, Kea - Kythnos, Milos, Mykonos, Naxos, Paros,
EL422	3	Naxos, Paros, Syros, Tinos	Syros, Tinos
EL431	3	Irakleio	Irakleio
EL613	3	Magnisia, Sporades	Magnisia, Sporades
EL432	3	Lasithi	Lasithi
EL433	3	Rethymni	Rethymni
EL621	3	Zakynthos	Zakynthos
EL622	3	Kerkyra	Kerkyra
EL623	3	Ithaki, Kefallinia	Ithaki, Kefallinia
EL624	3	Lefkada	Lefkada
EL631	3	Aitoloakarnania	Aitoloakarnania
EL632	3	Achaia	Achaia



NUTS ID	Level code	Latin name	EU-FarmBook platform name
EL633	3	lleia	lleia
ES	0	España	Spain
ES2	1	Noreste	Noreste
ES3	1	Comunidad de Madrid	Comunidad de Madrid
ES4	1	Centro (ES)	Centro (ES)
ES5	1	Este	Este
ES1	1	Noroeste	Noroeste
ES6	1	Sur	Sur
ES7	1	Canarias Comunidad Foral de	Canarias
ES22	2	Navarra	Comunidad Foral de Navarra
ES30	2	Comunidad de Madrid	Comunidad de Madrid
ES53	2	Illes Balears	Illes Balears
ES41	2	Castilla y León	Castilla y León
ES61	2	Andalucía	Andalucía
ES62	2	Región de Murcia	Región de Murcia
ES63	2	Ciudad de Ceuta	Ciudad de Ceuta
ES64	2	Ciudad de Melilla	Ciudad de Melilla
ES42	2	Castilla-La Mancha	Castilla-La Mancha
ES70	2	Canarias	Canarias
ES43	2	Extremadura	Extremadura
ES51	2	Cataluña	Cataluña
ES52	2	Comunitat Valenciana	Comunitat Valenciana
ES11	2	Galicia	Galicia
ES23	2	La Rioja	La Rioja
ES12	2	Principado de Asturias	Principado de Asturias
ES13	2	Cantabria	Cantabria
ES24	2	Aragón	Aragón
ES21	2	País Vasco	País Vasco
ES113	3	Ourense	Ourense
ES111	3	A Coruña	A Coruña
ES112	3	Lugo	Lugo
ES419	3	Zamora	Zamora
ES424	3	Guadalajara	Guadalajara
ES220	3	Navarra	Navarra
ES425	3	Toledo	Toledo
ES613	3	Córdoba	Córdoba
ES230	3	La Rioja	La Rioja
ES431	3	Badajoz	Badajoz
ES614	3	Granada	Granada



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ES241	3	Huesca	Huesca
ES432	3	Cáceres	Cáceres
ES615	3	Huelva	Huelva
ES242	3	Teruel	Teruel
ES511	3	Barcelona	Barcelona
ES616	3	Jaén	Jaén
ES512	3	Girona	Girona
ES617	3	Málaga	Málaga
ES243	3	Zaragoza	Zaragoza
ES513	3	Lleida	Lleida
ES618	3	Sevilla	Sevilla
ES300	3	Madrid	Madrid
ES514	3	Tarragona	Tarragona
ES620	3	Murcia	Murcia
ES630	3	Ceuta	Ceuta
ES640	3	Melilla	Melilla
ES703	3	El Hierro	El Hierro
ES704	3	Fuerteventura	Fuerteventura
ES411	3	Ávila	Ávila
ES521	3	Alicante/Alacant	Alicante/Alacant
ES522	3	Castellón/Castelló	Castellón/Castelló
ES705	3	Gran Canaria	Gran Canaria
ES706	3	La Gomera	La Gomera
ES707	3	La Palma	La Palma
ES708	3	Lanzarote	Lanzarote
ES709	3	Tenerife	Tenerife
ES523	3	Valencia/València	Valencia/València
ES412	3	Burgos	Burgos
ES531	3	Eivissa y Formentera	Eivissa y Formentera
ES532	3	Mallorca	Mallorca
ES413	3	León	León
ES533	3	Menorca	Menorca
ES611	3	Almería	Almería
ES114	3	Pontevedra	Pontevedra
ES414	3	Palencia	Palencia
ES612	3	Cádiz	Cádiz
ES120	3	Asturias	Asturias
ES415	3	Salamanca	Salamanca
ES421	3	Albacete	Albacete



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ES130	3	Cantabria	Cantabria
ES416	3	Segovia	Segovia
ES422	3	Ciudad Real	Ciudad Real
ES211	3	Araba/Álava	Araba/Álava
ES417	3	Soria	Soria
ES423	3	Cuenca	Cuenca
ES212	3	Gipuzkoa	Gipuzkoa
ES213	3	Bizkaia	Bizkaia
ES418	3	Valladolid	Valladolid
FI	0	Suomi/Finland	Finland
FI1	1	Manner-Suomi	Manner-Suomi
FI2	1	Åland	Åland
FI19	2	Länsi-Suomi	Länsi-Suomi
FI1B	2	Helsinki-Uusimaa	Helsinki-Uusimaa
FI1C	2	Etelä-Suomi	Etelä-Suomi
FI1D	2	Pohjois- ja Itä-Suomi	Pohjois- ja Itä-Suomi
FI20	2	Åland	Åland
FI1DA	3	Etelä-Savo	Etelä-Savo
FI1DB	3	Pohjois-Savo	Pohjois-Savo
FI1DC	3	Pohjois-Karjala	Pohjois-Karjala
FI1C2	3	Kanta-Häme	Kanta-Häme
FI1C5	3	Etelä-Karjala	Etelä-Karjala
FI1C6	3	Päijät-Häme	Päijät-Häme
FI1C7	3	Kymenlaakso	Kymenlaakso
FI1D5	3	Keski-Pohjanmaa	Keski-Pohjanmaa
FI200	3	Åland	Åland
FI1D7	3	Lappi	Lappi
FI1D8	3	Kainuu	Kainuu
FI1D9	3	Pohjois-Pohjanmaa	Pohjois-Pohjanmaa
FI19A	3	Pohjanmaa	Pohjanmaa
FI19B	3	Pirkanmaa	Pirkanmaa
FI1B1	3	Helsinki-Uusimaa	Helsinki-Uusimaa
FI1C1	3	Varsinais-Suomi	Varsinais-Suomi
FI196	3	Satakunta	Satakunta
FI198	3	Keski-Suomi	Keski-Suomi
FI199	3	Etelä-Pohjanmaa	Etelä-Pohjanmaa
FR	0	France	France
FRF	1	Grand Est	Grand Est
FRK	1	Auvergne-Rhône-Alpes	Auvergne-Rhône-Alpes



NUTS ID	Level code	Latin name	EU-FarmBook platform name
FRG	1	Pays de la Loire Provence-Alpes-Côte	Pays de la Loire
FRL	1	d'Azur	Provence-Alpes-Côte d'Azur
FRM	1	Corse	Corse
FRH	1	Bretagne RUP FR — Régions Ultrapériphériques	Bretagne RUP FR — Régions
FRY	1	Françaises	Ultrapériphériques Françaises
FRI	1	Nouvelle-Aquitaine	Nouvelle-Aquitaine
FRE	1	Hauts-de-France	Hauts-de-France
FRJ	1	Occitanie	Occitanie
FR1	1	Ile-de-France	lle-de-France
FRC	1	Bourgogne-Franche-Comté	Bourgogne-Franche-Comté
FRD	1	Normandie	Normandie
FRB	1	Centre — Val de Loire	Centre — Val de Loire
FRI1	2	Aquitaine	Aquitaine
FRE2	2	Picardie	Picardie
FR10	2	Ile-de-France	lle-de-France
FRJ2	2	Midi-Pyrénées	Midi-Pyrénées
FRF1	2	Alsace	Alsace
FRB0	2	Centre — Val de Loire	Centre — Val de Loire
FRK1	2	Auvergne	Auvergne
FRF2	2	Champagne-Ardenne	Champagne-Ardenne
FRI2	2	Limousin	Limousin
FRC1	2	Bourgogne	Bourgogne
FRF3	2	Lorraine	Lorraine
FRI3	2	Poitou-Charentes	Poitou-Charentes
FRC2	2	Franche-Comté	Franche-Comté
FRG0	2	Pays de la Loire	Pays de la Loire
FRJ1	2	Languedoc-Roussillon	Languedoc-Roussillon
FRD1	2	Basse-Normandie	Basse-Normandie
FRD2	2	Haute-Normandie	Haute-Normandie
FRE1	2	Nord-Pas de Calais	Nord-Pas de Calais
FRH0	2	Bretagne	Bretagne
FRY1	2	Guadeloupe	Guadeloupe
FRY2	2	Martinique	Martinique
FRY3	2	Guyane	Guyane
FRY4	2	La Réunion	La Réunion
FRY5	2	Mayotte	Mayotte
FRK2	2	Rhône-Alpes	Rhône-Alpes



NUTS ID	Level code	Latin name	EU-FarmBook platform name
FRL0	2	Provence-Alpes-Côte d'Azur	Provence-Alpes-Côte d'Azur
FRM0	2	Corse	Corse
FRD13	3	Orne	Orne
FRB02	3	Eure-et-Loir	Eure-et-Loir
FRD21	3	Eure	Eure
FRB03	3	Indre	Indre
FRD22	3	Seine-Maritime	Seine-Maritime
FRB04	3	Indre-et-Loire	Indre-et-Loire
FRF12	3	Haut-Rhin	Haut-Rhin
FRB05	3	Loir-et-Cher	Loir-et-Cher
FRF21	3	Ardennes	Ardennes
FRB06	3	Loiret	Loiret
FRF23	3	Marne	Marne
FRF22	3	Aube	Aube
FRC11	3	Côte-d'Or	Côte-d'Or
FRC12	3	Nièvre	Nièvre
FRE11	3	Nord	Nord
FRC13	3	Saône-et-Loire	Saône-et-Loire
FRC14	3	Yonne	Yonne
FRE12	3	Pas-de-Calais	Pas-de-Calais
FRC21	3	Doubs	Doubs
FRE21	3	Aisne	Aisne
FR101	3	Paris	Paris
FRC22	3	Jura	Jura
FRE22	3	Oise	Oise
FR102	3	Seine-et-Marne	Seine-et-Marne
FRC23	3	Haute-Saône	Haute-Saône
FRE23	3	Somme	Somme
FR103	3	Yvelines	Yvelines
FR104	3	Essonne	Essonne
FRC24	3	Territoire de Belfort	Territoire de Belfort
FRF11	3	Bas-Rhin	Bas-Rhin
FR105	3	Hauts-de-Seine	Hauts-de-Seine
FR106	3	Seine-Saint-Denis	Seine-Saint-Denis
FR107	3	Val-de-Marne	Val-de-Marne
FR108	3	Val-d'Oise	Val-d'Oise
FRD11	3	Calvados	Calvados
FRB01	3	Cher	Cher
FRD12	3	Manche	Manche



NUTS ID	Level code	Latin name	EU-FarmBook platform name
FRL02	3	Hautes-Alpes	Hautes-Alpes
FRJ27	3	Tarn	Tarn
FRL03	3	Alpes-Maritimes	Alpes-Maritimes
FRH01	3	Côtes-d'Armor	Côtes-d'Armor
FRI32	3	Charente-Maritime	Charente-Maritime
FRJ28	3	Tarn-et-Garonne	Tarn-et-Garonne
FRL04	3	Bouches-du-Rhône	Bouches-du-Rhône
FRI33	3	Deux-Sèvres	Deux-Sèvres
FRK11	3	Allier	Allier
FRH02	3	Finistère	Finistère
FRI34	3	Vienne	Vienne
FRK12	3	Cantal	Cantal
FRH03	3	Ille-et-Vilaine	Ille-et-Vilaine
FRJ11	3	Aude	Aude
FRK13	3	Haute-Loire	Haute-Loire
FRJ12	3	Gard	Gard
FRK14	3	Puy-de-Dôme	Puy-de-Dôme
FRH04	3	Morbihan	Morbihan
FRJ13	3	Hérault	Hérault
FRK21	3	Ain	Ain
FRL05	3	Var	Var
FRI11	3	Dordogne	Dordogne
FRJ14	3	Lozère	Lozère
FRK22	3	Ardèche	Ardèche
FRL06	3	Vaucluse	Vaucluse
FRI12	3	Gironde	Gironde
FRJ15	3	Pyrénées-Orientales	Pyrénées-Orientales
FRK23	3	Drôme	Drôme
FRM01	3	Corse-du-Sud	Corse-du-Sud
FRI13	3	Landes	Landes
FRJ21	3	Ariège	Ariège
FRK24	3	Isère	Isère
FRM02	3	Haute-Corse	Haute-Corse
FRY10	3	Guadeloupe	Guadeloupe
FRI14	3	Lot-et-Garonne	Lot-et-Garonne
FRJ22	3	Aveyron	Aveyron
FRK25	3	Loire	Loire
FRY20	3	Martinique	Martinique
FRI15	3	Pyrénées-Atlantiques	Pyrénées-Atlantiques



NUTS ID	Level code	Latin name	EU-FarmBook platform name
FRK26	3	Rhône	Rhône
FRI21	3	Corrèze	Corrèze
FRJ23	3	Haute-Garonne	Haute-Garonne
FRJ24	3	Gers	Gers
FRK27	3	Savoie	Savoie
FRY30	3	Guyane	Guyane
FRY40	3	La Réunion	La Réunion
FRY50	3	Mayotte	Mayotte
FRI22	3	Creuse	Creuse
FRJ25	3	Lot	Lot
FRK28	3	Haute-Savoie	Haute-Savoie
FRG04	3	Sarthe	Sarthe
FRI23	3	Haute-Vienne	Haute-Vienne
FRJ26	3	Hautes-Pyrénées	Hautes-Pyrénées
FRL01	3	Alpes-de-Haute-Provence	Alpes-de-Haute-Provence
FRG05	3	Vendée	Vendée
FRI31	3	Charente	Charente
FRF33	3	Moselle	Moselle
FRF34	3	Vosges	Vosges
FRG01	3	Loire-Atlantique	Loire-Atlantique
FRG02	3	Maine-et-Loire	Maine-et-Loire
FRG03	3	Mayenne	Mayenne
FRF24	3	Haute-Marne	Haute-Marne
FRF31	3	Meurthe-et-Moselle	Meurthe-et-Moselle
FRF32	3	Meuse	Meuse
HR	0	Hrvatska	Croatia
HR0	1	Hrvatska	Hrvatska
HR02	2	Panonska Hrvatska	Panonska Hrvatska
HR03	2	Jadranska Hrvatska	Jadranska Hrvatska
HR05	2	Grad Zagreb	Grad Zagreb
HR06	2	Sjeverna Hrvatska	Sjeverna Hrvatska
HR022	3	Virovitičko-podravska županija Požeško-slavonska	Virovitičko-podravska županija
HR023	3	županija	Požeško-slavonska županija
HR024	3	Brodsko-posavska županija	Brodsko-posavska županija
HR025	3	Osječko-baranjska županija	Osječko-baranjska županija
HR028	3	Sisačko-moslavačka županija	Sisačko-moslavačka županija
HR026	3	Vukovarsko-srijemska županija	Vukovarsko-srijemska županija



NUTS ID	Level code	Latin name	EU-FarmBook platform name
HR027	3	Karlovačka županija Bjelovarsko-bilogorska	Karlovačka županija
HR021	3	županija Primorsko-goranska	Bjelovarsko-bilogorska županija
HR031	3	županija	Primorsko-goranska županija
HR032	3	Ličko-senjska županija	Ličko-senjska županija
HR033	3	Zadarska županija	Zadarska županija
HR034	3	Šibensko-kninska županija Splitsko-dalmatinska	Šibensko-kninska županija
HR035	3	županija	Splitsko-dalmatinska županija
HR036	3	Istarska županija Dubrovačko-neretvanska	Istarska županija Dubrovačko-neretvanska
HR037	3	županija	županija
HR050	3	Grad Zagreb	Grad Zagreb
HR061	3	Međimurska županija	Međimurska županija
HR062	3	Varaždinska županija Koprivničko-križevačka	Varaždinska županija
HR063	3	županija Krapinsko-zagorska	Koprivničko-križevačka županija
HR064	3	županija	Krapinsko-zagorska županija
HR065	3	Zagrebačka županija	Zagrebačka županija
HU	0	Magyarország	Hungary
HU2	1	Dunántúl	Dunántúl
HU1	1	Közép-Magyarország	Közép-Magyarország
HU3	1	Alföld és Észak	Alföld és Észak
HU22	2	Nyugat-Dunántúl	Nyugat-Dunántúl
HU23	2	Dél-Dunántúl	Dél-Dunántúl
HU32	2	Észak-Alföld	Észak-Alföld
HU33	2	Dél-Alföld	Dél-Alföld
HU11	2	Budapest	Budapest
HU12	2	Pest	Pest
HU31	2	Észak-Magyarország	Észak-Magyarország
HU21	2	Közép-Dunántúl	Közép-Dunántúl
HU120	3	Pest	Pest
HU231	3	Baranya	Baranya
HU232	3	Somogy	Somogy
HU233	3	Tolna	Tolna
HU311	3	Borsod-Abaúj-Zemplén	Borsod-Abaúj-Zemplén
HU312	3	Heves	Heves
HU313	3	Nógrád	Nógrád
HU321	3	Hajdú-Bihar	Hajdú-Bihar
HU322	3	Jász-Nagykun-Szolnok	Jász-Nagykun-Szolnok



NUTS ID	Level code	Latin name	EU-FarmBook platform name
HU323	3	Szabolcs-Szatmár-Bereg	Szabolcs-Szatmár-Bereg
HU331	3	Bács-Kiskun	Bács-Kiskun
HU332	3	Békés	Békés
HU333	3	Csongrád-Csanád	Csongrád-Csanád
HU211	3	Fejér	Fejér
HU212	3	Komárom-Esztergom	Komárom-Esztergom
HU213	3	Veszprém	Veszprém
HU221	3	Győr-Moson-Sopron	Győr-Moson-Sopron
HU222	3	Vas	Vas
HU223	3	Zala	Zala
HU110	3	Budapest	Budapest
IE	0	Éire/Ireland	Ireland
IE0	1	Ireland	Ireland
IE04	2	Northern and Western	Northern and Western
IE05	2	Southern	Southern
IE06	2	Eastern and Midland	Eastern and Midland
IE042	3	West	West
IE051	3	Mid-West	Mid-West
IE052	3	South-East	South-East
IE053	3	South-West	South-West
IE061	3	Dublin	Dublin
IE062	3	Mid-East	Mid-East
IE063	3	Midland	Midland
IE041	3	Border	Border
IS	0	Ísland	Iceland
IS0	1	Ísland	Ísland
IS00	2	Ísland	Ísland
IS001	3	Höfuðborgarsvæði	Höfuðborgarsvæði
IS002	3	Landsbyggð	Landsbyggð
IT	0	Italia	Italy
ITC	1	Nord-Ovest	Nord-Ovest
ITH	1	Nord-Est	Nord-Est
ITF	1	Sud	Sud
ITG	1	Isole	Isole
ITI	1	Centro (IT)	Centro (IT)
ITI3	2	Marche	Marche
ITI4	2	Lazio	Lazio
ITI1	2	Toscana	Toscana
ITI2	2	Umbria	Umbria



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ITF6	2	Calabria	Calabria
ITG1	2	Sicilia	Sicilia
ITH3	2	Veneto	Veneto
ITH4	2	Friuli-Venezia Giulia	Friuli-Venezia Giulia
ITH5	2	Emilia-Romagna	Emilia-Romagna
ITC1	2	Piemonte	Piemonte
ITOO	0	Valle d'Aosta/Vallée	Malla di Arata Malla adi Arata
ITC2	2	d'Aoste	Valle d'Aosta/Vallée d'Aoste
ITC3	2	Liguria	Liguria
ITG2	2	Sardegna Provincia Autonoma di	Sardegna Provincia Autonoma di
ITH1	2	Bolzano/Bozen	Bolzano/Bozen
		Provincia Autonoma di	
ITH2	2	Trento	Provincia Autonoma di Trento
ITC4	2	Lombardia	Lombardia
ITF1	2	Abruzzo	Abruzzo
ITF2	2	Molise	Molise
ITF3	2	Campania 	Campania
ITF4	2	Puglia	Puglia
ITF5	2	Basilicata	Basilicata
ITC14	3	Verbano-Cusio-Ossola	Verbano-Cusio-Ossola
ITC15	3	Novara	Novara
ITC16	3	Cuneo	Cuneo
ITC17	3	Asti	Asti
ITC18	3	Alessandria Valle d'Aosta/Vallée	Alessandria
ITC20	3	d'Aoste	Valle d'Aosta/Vallée d'Aoste
ITC48	3	Pavia	Pavia
ITC49	3	Lodi	Lodi
ITC4A	3	Cremona	Cremona
ITC4B	3	Mantova	Mantova
ITF11	3	L'Aquila	L'Aquila
ITF12	3	Teramo	Teramo
ITF13	3	Pescara	Pescara
ITC4C	3	Milano	Milano
ITC4D	3	Monza e della Brianza	Monza e della Brianza
ITC31	3	Imperia	Imperia
ITC32	3	Savona	Savona
ITC33	3	Genova	Genova
ITC34	3	La Spezia	La Spezia
ITC41	3	Varese	Varese



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ITC42	3	Como	Como
ITC43	3	Lecco	Lecco
ITC44	3	Sondrio	Sondrio
ITC46	3	Bergamo	Bergamo
ITC47	3	Brescia	Brescia
ITC11	3	Torino	Torino
ITC12	3	Vercelli	Vercelli
ITC13	3	Biella	Biella
ITH33	3	Belluno	Belluno
ITH34	3	Treviso	Treviso
ITH43	3	Gorizia	Gorizia
ITH44	3	Trieste	Trieste
ITH51	3	Piacenza	Piacenza
ITF47	3	Bari	Bari
ITF48	3	Barletta-Andria-Trani	Barletta-Andria-Trani
ITH52	3	Parma	Parma
ITH53	3	Reggio nell'Emilia	Reggio nell'Emilia
ITH54	3	Modena	Modena
ITI43	3	Roma	Roma
ITI44	3	Latina	Latina
ITF51	3	Potenza	Potenza
ITF52	3	Matera	Matera
ITH55	3	Bologna	Bologna
ITH56	3	Ferrara	Ferrara
ITI45	3	Frosinone	Frosinone
ITF61	3	Cosenza	Cosenza
ITF62	3	Crotone	Crotone
ITH57	3	Ravenna	Ravenna
ITH58	3	Forlì-Cesena	Forlì-Cesena
ITH59	3	Rimini	Rimini
ITF63	3	Catanzaro	Catanzaro
ITF64	3	Vibo Valentia	Vibo Valentia
ITF65	3	Reggio Calabria	Reggio Calabria
ITI11	3	Massa-Carrara	Massa-Carrara
ITI12	3	Lucca	Lucca
ITI13	3	Pistoia	Pistoia
ITG11	3	Trapani	Trapani
ITG12	3	Palermo	Palermo
ITI14	3	Firenze	Firenze



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ITI15	3	Prato	Prato
ITG13	3	Messina	Messina
ITG14	3	Agrigento	Agrigento
ITI16	3	Livorno	Livorno
ITI17	3	Pisa	Pisa
ITG15	3	Caltanissetta	Caltanissetta
ITG16	3	Enna	Enna
ITI18	3	Arezzo	Arezzo
ITI19	3	Siena	Siena
ITG17	3	Catania	Catania
ITG18	3	Ragusa	Ragusa
ITI1A	3	Grosseto	Grosseto
ITG19	3	Siracusa	Siracusa
ITI21	3	Perugia	Perugia
ITG2D	3	Sassari	Sassari
ITI22	3	Terni	Terni
ITI31	3	Pesaro e Urbino	Pesaro e Urbino
ITG2E	3	Nuoro	Nuoro
ITG2F	3	Cagliari	Cagliari
ITI32	3	Ancona	Ancona
ITI33	3	Macerata	Macerata
ITI34	3	Ascoli Piceno	Ascoli Piceno
ITI35	3	Fermo	Fermo
ITF14	3	Chieti	Chieti
ITF21	3	Isernia	Isernia
ITF22	3	Campobasso	Campobasso
ITG2G	3	Oristano	Oristano
ITI41	3	Viterbo	Viterbo
ITI42	3	Rieti	Rieti
ITF31	3	Caserta	Caserta
ITF32	3	Benevento	Benevento
ITG2H	3	Sud Sardegna	Sud Sardegna
ITH35	3	Venezia	Venezia
ITF33	3	Napoli	Napoli
ITF34	3	Avellino	Avellino
ITH10	3	Bolzano-Bozen	Bolzano-Bozen
ITH36	3	Padova	Padova
ITH37	3	Rovigo	Rovigo
ITF35	3	Salerno	Salerno



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ITF43	3	Taranto	Taranto
ITH20	3	Trento	Trento
ITH41	3	Pordenone	Pordenone
ITH42	3	Udine	Udine
ITF44	3	Brindisi	Brindisi
ITF45	3	Lecce	Lecce
ITF46	3	Foggia	Foggia
ITH31	3	Verona	Verona
ITH32	3	Vicenza	Vicenza
LI	0	Liechtenstein	Liechtenstein
LIO	1	Liechtenstein	Liechtenstein
LI00	2	Liechtenstein	Liechtenstein
LI000	3	Liechtenstein	Liechtenstein
LT	0	Lietuva	Lithuania
LT0	1	Lietuva	Lietuva
LT01	2	Sostinės regionas Vidurio ir vakarų Lietuvos	Sostinės regionas Vidurio ir vakarų Lietuvos
LT02	2	regionas	regionas
LT011	3	Vilniaus apskritis	Vilniaus apskritis
LT021	3	Alytaus apskritis	Alytaus apskritis
LT022	3	Kauno apskritis	Kauno apskritis
LT023	3	Klaipėdos apskritis	Klaipėdos apskritis
LT024	3	Marijampolės apskritis	Marijampolės apskritis
LT025	3	Panevėžio apskritis	Panevėžio apskritis
LT026	3	Šiaulių apskritis	Šiaulių apskritis
LT027	3	Tauragės apskritis	Tauragės apskritis
LT028	3	Telšių apskritis	Telšių apskritis
LT029	3	Utenos apskritis	Utenos apskritis
LU	0	Luxembourg	Luxembourg
LU0	1	Luxembourg	Luxembourg
LU00	2	Luxembourg	Luxembourg
LU000	3	Luxembourg	Luxembourg
LV	0	Latvija	Latvia
LV0	1	Latvija	Latvija
LV00	2	Latvija	Latvija
LV005	3	Latgale	Latgale
LV009	3	Zemgale	Zemgale
LV00A	3	Rīga	Rīga
LV00B	3	Kurzeme	Kurzeme
LV00C	3	Vidzeme	Vidzeme



NUTS ID	Level code	Latin name	EU-FarmBook platform name
ME	0	Crna Gora	Montenegro
ME0	1	Crna Gora	Crna Gora
ME00	2	Crna Gora	Crna Gora
ME000	3	Crna Gora	Crna Gora
MK	0	Severna Makedonija	North Macedonia
MK0	1	Severna Makedonija	Severna Makedonija
MK00	2	Severna Makedonija	Severna Makedonija
MK001	3	Vardarski	Vardarski
MK002	3	Istočen	Istočen
MK003	3	Jugozapaden	Jugozapaden
MK004	3	Jugoistočen	Jugoistočen
MK005	3	Pelagoniski	Pelagoniski
MK006	3	Pološki	Pološki
MK007	3	Severoistočen	Severoistočen
MK008	3	Skopski	Skopski
MT	0	Malta	Malta
MT0	1	Malta	Malta
MT00	2	Malta	Malta
MT001	3	Malta	Malta
MT002	3	Gozo and Comino/Għawdex u Kemmuna	Gozo and Comino/Għawdex u Kemmuna
NL	0	Nederland	Netherlands
NL1	1	Noord-Nederland	Noord-Nederland
NL2	1	Oost-Nederland	Oost-Nederland
NL3	1	West-Nederland	West-Nederland
NL4	1	Zuid-Nederland	Zuid-Nederland
NL41	2	Noord-Brabant	Noord-Brabant
NL42	2	Limburg (NL)	Limburg (NL)
NL11	2	Groningen	Groningen
NL12	2	Friesland (NL)	Friesland (NL)
NL13	2	Drenthe	Drenthe
NL21	2	Overijssel	Overijssel
NL22	2	Gelderland	Gelderland
NL23	2	Flevoland	Flevoland
NL32	2	Noord-Holland	Noord-Holland
NL34	2	Zeeland	Zeeland
NL35	2	Utrecht	Utrecht
NL36	2	Zuid-Holland	Zuid-Holland
NL416	3	Noordoost-Noord-Brabant	Noordoost-Noord-Brabant



NUTS ID	Level code	Latin name	EU-FarmBook platform name
NL421	3	Noord-Limburg	Noord-Limburg
NL422	3	Midden-Limburg	Midden-Limburg
NL423	3	Zuid-Limburg	Zuid-Limburg
NL226	3	Arnhem/Nijmegen	Arnhem/Nijmegen
NL230	3	Flevoland	Flevoland
NL321	3	Kop van Noord-Holland	Kop van Noord-Holland
NL323	3	IJmond	lJmond
NL325	3	Zaanstreek	Zaanstreek
NL327	3	Het Gooi en Vechtstreek	Het Gooi en Vechtstreek
NL328	3	Alkmaar en omgeving	Alkmaar en omgeving
NL32A	3	Agglomeratie Haarlem	Agglomeratie Haarlem
NL32B	3	Groot-Amsterdam	Groot-Amsterdam
NL341	3	Zeeuwsch-Vlaanderen	Zeeuwsch-Vlaanderen
NL342	3	Overig Zeeland	Overig Zeeland
NL366	3	Groot-Rijnmond	Groot-Rijnmond
NL411	3	West-Noord-Brabant	West-Noord-Brabant
NL414	3	Zuidoost-Noord-Brabant	Zuidoost-Noord-Brabant
NL415	3	Midden-Noord-Brabant	Midden-Noord-Brabant
NL350	3	Utrecht	Utrecht
NL361	3	Agglomeratie 's- Gravenhage	Agglomeratie 's-Gravenhage
NL362	3	Delft en Westland	Delft en Westland
NL363	3	Agglomeratie Leiden en Bollenstreek	Agglomeratie Leiden en Bollenstreek
NL364	3	Zuidoost-Zuid-Holland	Zuidoost-Zuid-Holland
NL365	3	Oost-Zuid-Holland	Oost-Zuid-Holland
NL112	3	Delfzijl en omgeving	Delfzijl en omgeving
NL114	3	Oost-Groningen	Oost-Groningen
NL115	3	Overig Groningen	Overig Groningen
NL126	3	Zuidoost-Friesland	Zuidoost-Friesland
NL127	3	Noord-Friesland	Noord-Friesland
NL128	3	Zuidwest-Friesland	Zuidwest-Friesland
NL131	3	Noord-Drenthe	Noord-Drenthe
NL132	3	Zuidoost-Drenthe	Zuidoost-Drenthe
NL133	3	Zuidwest-Drenthe	Zuidwest-Drenthe
NL211	3	Noord-Overijssel	Noord-Overijssel
NL212	3	Zuidwest-Overijssel	Zuidwest-Overijssel
NL213	3	Twente	Twente
NL221	3	Veluwe	Veluwe
NL224	3	Zuidwest-Gelderland	Zuidwest-Gelderland



NUTS ID	Level code	Latin name	EU-FarmBook platform name
NL225	3	Achterhoek	Achterhoek
NO	0	Norge	Norway
NO0	1	Norge	Norge
NO02	2	Innlandet	Innlandet
NO08	2	Oslo og Viken	Oslo og Viken
NO06	2	Trøndelag/Trööndelage	Trøndelag/Trööndelage
NO07	2	Nord-Norge	Nord-Norge
NO0A	2	Vestlandet	Vestlandet
NO0B	2	Svalbard og Jan Mayen	Svalbard og Jan Mayen
NO09	2	Agder og Sør-Østlandet	Agder og Sør-Østlandet
NO092	3	Agder	Agder
NO093	3	Vestfold	Vestfold
NO094	3	Telemark	Telemark
NO081	3	Oslo	Oslo
NO060	3	Trøndelag/Trööndelage	Trøndelag/Trööndelage
NO071	3	Nordland/Nordlannda	Nordland/Nordlánnda
NO072	3	Troms/Romsa/Tromssa Finnmark/Finnmárku/Finma	Troms/Romsa/Tromssa
NO073	3	rkku	Finnmark/Finnmárku/Finmarkku
NO0A1	3	Rogaland	Rogaland
NO083	3	Østfold	Østfold
NO084	3	Akershus	Akershus
NO085	3	Buskerud	Buskerud
NO020	3	Innlandet	Innlandet
NO0B1	3	Jan Mayen	Jan Mayen
NO0B2	3	Svalbard	Svalbard
NO0A2	3	Vestland	Vestland
NO0A3	3	Møre og Romsdal	Møre og Romsdal
PL	0	Polska Makroregion północno-	Poland
PL4	1	zachodni Makroregion południowo-	Makroregion północno-zachodni Makroregion południowo-
PL5	1	zachodni	zachodni
PL6	1	Makroregion północny	Makroregion północny
PL7	1	Makroregion centralny	Makroregion centralny
PL8	1	Makroregion wschodni	Makroregion wschodni
PL9	1	Makroregion województwo mazowieckie	Makroregion województwo mazowieckie
PL2	1	Makroregion południowy	Makroregion południowy
PL61	2	Kujawsko-pomorskie	Kujawsko-pomorskie
PL62	2	Warmińsko-mazurskie	Warmińsko-mazurskie



NUTS ID	Level code	Latin name	EU-FarmBook platform name
PL22	2	Śląskie	Śląskie
PL63	2	Pomorskie	Pomorskie
PL21	2	Małopolskie	Małopolskie
PL71	2	Łódzkie	Łódzkie
PL72	2	Świętokrzyskie	Świętokrzyskie
PL41	2	Wielkopolskie	Wielkopolskie
PL81	2	Lubelskie	Lubelskie
PL82	2	Podkarpackie	Podkarpackie
PL42	2	Zachodniopomorskie	Zachodniopomorskie
PL84	2	Podlaskie	Podlaskie
PL43	2	Lubuskie	Lubuskie
PL91	2	Warszawski stołeczny	Warszawski stołeczny
PL51	2	Dolnośląskie	Dolnośląskie
PL52	2	Opolskie	Opolskie
PL92	2	Mazowiecki regionalny	Mazowiecki regionalny
PL921	3	Radomski	Radomski
PL922	3	Ciechanowski	Ciechanowski
PL923	3	Płocki	Płocki
PL924	3	Ostrołęcki	Ostrołęcki
PL925	3	Siedlecki	Siedlecki
PL926	3	Żyrardowski	Żyrardowski
PL843	3	Suwalski	Suwalski
PL911	3	Miasto Warszawa	Miasto Warszawa
PL912	3	Warszawski wschodni	Warszawski wschodni
PL913	3	Warszawski zachodni	Warszawski zachodni
PL227	3	Rybnicki	Rybnicki
PL228	3	Bytomski	Bytomski
PL229	3	Gliwicki	Gliwicki
PL22A	3	Katowicki	Katowicki
PL416	3	Kaliski	Kaliski
PL721	3	Kielecki	Kielecki
PL417	3	Leszczyński	Leszczyński
PL523	3	Nyski	Nyski
PL722	3	Sandomiersko-jędrzejowski	Sandomiersko-jędrzejowski
PL418	3	Poznański	Poznański
PL424	3	Miasto Szczecin	Miasto Szczecin
PL524	3	Opolski	Opolski
PL811	3	Bialski	Bialski
PL426	3	Koszaliński	Koszaliński



NUTS ID	Level code	Latin name	EU-FarmBook platform name
PL613	3	Bydgosko-toruński	Bydgosko-toruński
PL616	3	Grudziądzki	Grudziądzki
PL823	3	Rzeszowski	Rzeszowski
PL617	3	Inowrocławski	Inowrocławski
PL618	3	Świecki	Świecki
PL824	3	Tarnobrzeski	Tarnobrzeski
PL427	3	Szczecinecko-pyrzycki	Szczecinecko-pyrzycki
PL619	3	Włocławski	Włocławski
PL842	3	Łomżyński	Łomżyński
PL621	3	Elbląski	Elbląski
PL841	3	Białostocki	Białostocki
PL428	3	Szczeciński	Szczeciński
PL431	3	Gorzowski	Gorzowski
PL622	3	Olsztyński	Olsztyński
PL812	3	Chełmsko-zamojski	Chełmsko-zamojski
PL432	3	Zielonogórski	Zielonogórski
PL514	3	Miasto Wrocław	Miasto Wrocław
PL623	3	Ełcki	Ełcki
PL633	3	Trójmiejski	Trójmiejski
PL814	3	Lubelski	Lubelski
PL515	3	Jeleniogórski	Jeleniogórski
PL634	3	Gdański	Gdański
PL815	3	Puławski	Puławski
PL516	3	Legnicko-głogowski	Legnicko-głogowski
PL636	3	Słupski	Słupski
PL637	3	Chojnicki	Chojnicki
PL821	3	Krośnieński	Krośnieński
PL822	3	Przemyski	Przemyski
PL517	3	Wałbrzyski	Wałbrzyski
PL638	3	Starogardzki	Starogardzki
PL711	3	Miasto Łódź	Miasto Łódź
PL213	3	Miasto Kraków	Miasto Kraków
PL518	3	Wrocławski	Wrocławski
PL712	3	Łódzki	Łódzki
PL214	3	Krakowski	Krakowski
PL22B	3	Sosnowiecki	Sosnowiecki
PL22C	3	Tyski	Tyski
PL713	3	Piotrkowski	Piotrkowski
PL217	3	Tarnowski	Tarnowski



NUTS ID	Level code	Latin name	EU-FarmBook platform name
PL218	3	Nowosądecki	Nowosądecki
PL411	3	Pilski	Pilski
PL714	3	Sieradzki	Sieradzki
PL219	3	Nowotarski	Nowotarski
PL21A	3	Oświęcimski	Oświęcimski
PL414	3	Koniński	Koniński
PL415	3	Miasto Poznań	Miasto Poznań
PL715	3	Skierniewicki	Skierniewicki
PL224	3	Częstochowski	Częstochowski
PL225	3	Bielski	Bielski
PT	0	Portugal	Portugal
PT3	1	Região Autónoma da Madeira	Região Autónoma da Madeira
PT1	1	Continente	Continente
PT2	1	Região Autónoma dos Açores	Região Autónoma dos Açores
PT19	2	Centro (PT)	Centro (PT)
PT1A	2	Grande Lisboa	Grande Lisboa
PT1B	2	Península de Setúbal	Península de Setúbal
PT1C	2	Alentejo	Alentejo
PT1D	2	Oeste e Vale do Tejo Região Autónoma dos	Oeste e Vale do Tejo
PT20	2	Açores Região Autónoma da	Região Autónoma dos Açores
PT30	2	Madeira	Região Autónoma da Madeira
PT11	2	Norte	Norte
PT15	2	Algarve	Algarve
PT1C3	3	Alto Alentejo	Alto Alentejo
PT1C4	3	Alentejo Central	Alentejo Central
PT1D1	3	Oeste	Oeste
PT1D2	3	Médio Tejo	Médio Tejo
PT1D3	3	Lezíria do Tejo Região Autónoma dos	Lezíria do Tejo
PT200	3	Açores Região Autónoma da	Região Autónoma dos Açores
PT300	3	Madeira	Região Autónoma da Madeira
PT111	3	Alto Minho	Alto Minho
PT112	3	Cávado	Cávado
PT119	3	Ave	Ave
PT11A	3	Área Metropolitana do Porto	Área Metropolitana do Porto
PT11B	3	Alto Tâmega e Barroso	Alto Tâmega e Barroso



NUTS ID	Level code	Latin name	EU-FarmBook platform name
PT11C	3	Tâmega e Sousa	Tâmega e Sousa
PT11D	3	Douro	Douro
PT11E	3	Terras de Trás-os-Montes	Terras de Trás-os-Montes
PT150	3	Algarve	Algarve
PT191	3	Região de Aveiro	Região de Aveiro
PT192	3	Região de Coimbra	Região de Coimbra
PT193	3	Região de Leiria	Região de Leiria
PT194	3	Viseu Dão Lafões	Viseu Dão Lafões
PT195	3	Beira Baixa	Beira Baixa
PT196	3	Beiras e Serra da Estrela	Beiras e Serra da Estrela
PT1A0	3	Grande Lisboa	Grande Lisboa
PT1B0	3	Península de Setúbal	Península de Setúbal
PT1C1	3	Alentejo Litoral	Alentejo Litoral
PT1C2	3	Baixo Alentejo	Baixo Alentejo
RO	0	România	Romania
RO1	1	Macroregiunea Unu	Macroregiunea Unu
RO2	1	Macroregiunea Doi	Macroregiunea Doi
RO3	1	Macroregiunea Trei	Macroregiunea Trei
RO4	1	Macroregiunea Patru	Macroregiunea Patru
RO22	2	Sud-Est	Sud-Est
RO31	2	Sud-Muntenia	Sud-Muntenia
RO32	2	Bucureşti-Ilfov	Bucureşti-Ilfov
RO41	2	Sud-Vest Oltenia	Sud-Vest Oltenia
RO42	2	Vest	Vest
RO21	2	Nord-Est	Nord-Est
RO11	2	Nord-Vest	Nord-Vest
RO12	2	Centru	Centru
RO317	3	Teleorman	Teleorman
RO321	3	Bucureşti	București
RO211	3	Bacău	Bacău
RO322	3	llfov	llfov
RO411	3	Dolj	Dolj
RO212	3	Botoşani	Botoşani
RO412	3	Gorj	Gorj
RO413	3	Mehedinţi	Mehedinţi
RO213	3	laşi	laşi
RO214	3	Neamţ	Neamţ
RO111	3	Bihor	Bihor
RO215	3	Suceava	Suceava



NUTS ID	Level code	Latin name	EU-FarmBook platform name
RO112	3	Bistriţa-Năsăud	Bistriţa-Năsăud
RO216	3	Vaslui	Vaslui
RO113	3	Cluj	Cluj
RO221	3	Brăila	Brăila
RO222	3	Buzău	Buzău
RO414	3	Olt	Olt
RO114	3	Maramureş	Maramureş
RO223	3	Constanţa	Constanța
RO415	3	Vâlcea	Vâlcea
RO115	3	Satu Mare	Satu Mare
RO224	3	Galaţi	Galaţi
RO421	3	Arad	Arad
RO116	3	Sălaj	Sălaj
RO225	3	Tulcea	Tulcea
RO226	3	Vrancea	Vrancea
RO422	3	Caraş-Severin	Caraş-Severin
RO121	3	Alba	Alba
RO311	3	Argeş	Argeş
RO423	3	Hunedoara	Hunedoara
RO122	3	Braşov	Braşov
RO123	3	Covasna	Covasna
RO312	3	Călărași	Călărași
RO424	3	Timiş	Timiş
RO124	3	Harghita	Harghita
RO313	3	Dâmboviţa	Dâmboviţa
RO125	3	Mureş	Mureş
RO314	3	Giurgiu	Giurgiu
RO126	3	Sibiu	Sibiu
RO315	3	lalomiţa	lalomiţa
RO316	3	Prahova	Prahova
RS	0	Serbia	Serbia
RS1	1	Serbia - sever	Serbia - sever
RS2	1	Serbia - jug	Serbia - jug
RS11	2	City of Belgrade	City of Belgrade
RS12	2	Autonomous Province of Vojvodina	Autonomous Province of Vojvodina
	_	Region Šumadije i Zapadne	Region Šumadije i Zapadne
RS21	2	Srbije	Srbije
RS22	2	Region Južne i Istočne Srbije	Region Južne i Istočne Srbije
RS122	3	Južnobanatska oblast	Južnobanatska oblast



NUTS ID	Level code	Latin name	EU-FarmBook platform name
RS123	3	Južnobačka oblast	Južnobačka oblast
RS124	3	Severnobanatska oblast	Severnobanatska oblast
RS125	3	Severnobačka oblast	Severnobačka oblast
RS126	3	Srednjobanatska oblast	Srednjobanatska oblast
RS211	3	Zlatiborska oblast	Zlatiborska oblast
RS212	3	Kolubarska oblast	Kolubarska oblast
RS127	3	Sremska oblast	Sremska oblast
RS110	3	City of Belgrade	City of Belgrade
RS121	3	Zapadnobačka oblast	Zapadnobačka oblast
RS225	3	Nišavska oblast	Nišavska oblast
RS226	3	Pirotska oblast	Pirotska oblast
RS227	3	Podunavska oblast	Podunavska oblast
RS228	3	Pčinjska oblast	Pčinjska oblast
RS229	3	Toplička oblast	Toplička oblast
RS213	3	Mačvanska oblast	Mačvanska oblast
RS214	3	Moravička oblast	Moravička oblast
RS215	3	Pomoravska oblast	Pomoravska oblast
RS216	3	Rasinska oblast	Rasinska oblast
RS217	3	Raška oblast	Raška oblast
RS218	3	Šumadijska oblast	Šumadijska oblast
RS221	3	Borska oblast	Borska oblast
RS222	3	Braničevska oblast	Braničevska oblast
RS223	3	Zaječarska oblast	Zaječarska oblast
RS224	3	Jablanička oblast	Jablanička oblast
SE	0	Sverige	Sweden
SE1	1	Östra Sverige	Östra Sverige
SE2	1	Södra Sverige	Södra Sverige
SE3	1	Norra Sverige	Norra Sverige
SE11	2	Stockholm	Stockholm
SE12	2	Östra Mellansverige	Östra Mellansverige
SE23	2	Västsverige	Västsverige
SE31	2	Norra Mellansverige	Norra Mellansverige
SE32	2	Mellersta Norrland	Mellersta Norrland
SE21	2	Småland med öarna	Småland med öarna
SE22	2	Sydsverige	Sydsverige
SE33	2	Övre Norrland	Övre Norrland
SE221	3	Blekinge län	Blekinge län
SE224	3	Skåne län	Skåne län
SE231	3	Hallands län	Hallands län



NUTS ID	Level code	Latin name	EU-FarmBook platform name
SE331	3	Västerbottens län	Västerbottens län
SE232	3	Västra Götalands län	Västra Götalands län
SE332	3	Norrbottens län	Norrbottens län
SE311	3	Värmlands län	Värmlands län
SE312	3	Dalarnas län	Dalarnas län
SE110	3	Stockholms län	Stockholms län
SE313	3	Gävleborgs län	Gävleborgs län
SE121	3	Uppsala län	Uppsala län
SE321	3	Västernorrlands län	Västernorrlands län
SE122	3	Södermanlands län	Södermanlands län
SE322	3	Jämtlands län	Jämtlands län
SE123	3	Östergötlands län	Östergötlands län
SE124	3	Örebro län	Örebro län
SE125	3	Västmanlands län	Västmanlands län
SE213	3	Kalmar län	Kalmar län
SE214	3	Gotlands län	Gotlands län
SE211	3	Jönköpings län	Jönköpings län
SE212	3	Kronobergs län	Kronobergs län
SI	0	Slovenija	Slovenia
SIO	1	Slovenija	Slovenija
SI03	2	Vzhodna Slovenija	Vzhodna Slovenija
SI04	2	Zahodna Slovenija	Zahodna Slovenija
SI031	3	Pomurska	Pomurska
SI032	3	Podravska	Podravska
SI033	3	Koroška	Koroška
SI034	3	Savinjska	Savinjska
SI035	3	Zasavska	Zasavska
SI036	3	Posavska	Posavska
SI037	3	Jugovzhodna Slovenija	Jugovzhodna Slovenija
SI038	3	Primorsko-notranjska	Primorsko-notranjska
SI041	3	Osrednjeslovenska	Osrednjeslovenska
SI042	3	Gorenjska	Gorenjska
SI043	3	Goriška	Goriška
SI044	3	Obalno-kraška	Obalno-kraška
SK	0	Slovensko	Slovakia
SK0	1	Slovensko	Slovensko
SK01	2	Bratislavský kraj	Bratislavský kraj
SK02	2	Západné Slovensko	Západné Slovensko
SK03	2	Stredné Slovensko	Stredné Slovensko



NUTS ID	Level code	Latin name	EU-FarmBook platform name
SK04	2	Východné Slovensko	Východné Slovensko
SK042	3	Košický kraj	Košický kraj
SK010	3	Bratislavský kraj	Bratislavský kraj
SK021	3	Trnavský kraj	Trnavský kraj
SK022	3	Trenčiansky kraj	Trenčiansky kraj
SK023	3	Nitriansky kraj	Nitriansky kraj
SK031	3	Žilinský kraj	Žilinský kraj
SK032	3	Banskobystrický kraj	Banskobystrický kraj
SK041	3	Prešovský kraj	Prešovský kraj
TR	0	Türkiye	Turkey
TR4	1	Doğu Marmara	Doğu Marmara
TR8	1	Batı Karadeniz	Batı Karadeniz
TR9	1	Doğu Karadeniz	Doğu Karadeniz
TRA	1	Kuzeydoğu Anadolu	Kuzeydoğu Anadolu
TRB	1	Ortadoğu Anadolu	Ortadoğu Anadolu
TRC	1	Güneydoğu Anadolu	Güneydoğu Anadolu
TR1	1	İstanbul	İstanbul
TR5	1	Batı Anadolu	Batı Anadolu
TR2	1	Batı Marmara	Batı Marmara
TR6	1	Akdeniz	Akdeniz
TR7	1	Orta Anadolu	Orta Anadolu
TR3	1	Ege	Ege
TR32	2	Aydın, Denizli, Muğla	Aydın, Denizli, Muğla
TDOO		Manisa, Afyonkarahisar,	Manisa, Afyonkarahisar,
TR33	2	Kütahya, Uşak	Kütahya, Uşak
TR51	2	Ankara	Ankara
TR52	2	Konya, Karaman	Konya, Karaman
TR41	2	Bursa, Eskişehir, Bilecik Kocaeli, Sakarya, Düzce,	Bursa, Eskişehir, Bilecik Kocaeli, Sakarya, Düzce, Bolu,
TR42	2	Bolu, Yalova	Yalova
TR10	2	İstanbul	İstanbul
TR21	2	Tekirdağ, Edirne, Kırklareli	Tekirdağ, Edirne, Kırklareli
TR22	2	Balıkesir, Çanakkale	Balıkesir, Çanakkale
TR31	2	İzmir	İzmir
TRA2	2	Ağrı, Kars, Iğdır, Ardahan	Ağrı, Kars, Iğdır, Ardahan
		Malatya, Elazığ, Bingöl,	
TRB1	2	Tunceli	Malatya, Elazığ, Bingöl, Tunceli
TRB2	2	Van, Muş, Bitlis, Hakkari	Van, Muş, Bitlis, Hakkari
TRC1	2	Gaziantep, Adıyaman, Kilis	Gaziantep, Adıyaman, Kilis
TRC2	2	Şanlıurfa, Diyarbakır	Şanlıurfa, Diyarbakır



NUTS ID	Level code	Latin name	EU-FarmBook platform name
TRC3	2	Mardin, Batman, Şırnak, Siirt	Mardin, Batman, Şırnak, Siirt
TR61	2	Antalya, Isparta, Burdur	Antalya, Isparta, Burdur
TR62	2	Adana, Mersin	Adana, Mersin
TR63	2	Hatay, Kahramanmaraş, Osmaniye	Hatay, Kahramanmaraş, Osmaniye
TR71	2	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir
TR72	2	Kayseri, Sivas, Yozgat	Kayseri, Sivas, Yozgat
TR81	2	Zonguldak, Karabük, Bartın	Zonguldak, Karabük, Bartın
TR82	2	Kastamonu, Çankırı, Sinop Samsun, Tokat, Çorum,	Kastamonu, Çankırı, Sinop
TR83	2	Amasya Trabzon, Ordu, Giresun,	Samsun, Tokat, Çorum, Amasya Trabzon, Ordu, Giresun, Rize,
TR90	2	Rize, Artvin, Gümüşhane	Artvin, Gümüşhane
TRA1	2	Erzurum, Erzincan, Bayburt	Erzurum, Erzincan, Bayburt
TR632	3	Kahramanmaraş	Kahramanmaraş
TR633	3	Osmaniye	Osmaniye
TR711	3	Kırıkkale	Kırıkkale
TR712	3	Aksaray	Aksaray
TR713	3	Niğde	Niğde
TR714	3	Nevşehir	Nevşehir
TR715	3	Kırşehir	Kırşehir
TR721	3	Kayseri	Kayseri
TR722	3	Sivas	Sivas
TR723	3	Yozgat	Yozgat
TR811	3	Zonguldak	Zonguldak
TR812	3	Karabük -	Karabük
TR813	3	Bartın	Bartın
TR821	3	Kastamonu	Kastamonu
TR822	3	Çankırı	Çankırı
TR823	3	Sinop	Sinop
TR831	3	Samsun	Samsun
TR832	3	Tokat	Tokat
TR833	3	Çorum	Çorum
TR834	3	Amasya	Amasya
TR901	3	Trabzon	Trabzon
TR902	3	Ordu	Ordu
TR903	3	Giresun	Giresun
TR904	3	Rize	Rize
TR905	3	Artvin	Artvin



NUTS ID	Level code	Latin name	EU-FarmBook platform name
TR906	3	Gümüşhane	Gümüşhane
TRA11	3	Erzurum	Erzurum
TRA12	3	Erzincan	Erzincan
TRA13	3	Bayburt	Bayburt
TRA21	3	Ağrı	Ağrı
TRA22	3	Kars	Kars
TRA23	3	lğdır	lğdır
TRA24	3	Ardahan	Ardahan
TRB11	3	Malatya	Malatya
TRB12	3	Elazığ	Elazığ
TRB13	3	Bingöl	Bingöl
TRB14	3	Tunceli	Tunceli
TRB21	3	Van	Van
TRB22	3	Muş	Muş
TRB23	3	Bitlis	Bitlis
TRB24	3	Hakkari	Hakkari
TRC11	3	Gaziantep	Gaziantep
TRC12	3	Adıyaman	Adıyaman
TRC13	3	Kilis	Kilis
TRC21	3	Şanlıurfa	Şanlıurfa
TRC22	3	Diyarbakır	Diyarbakır
TRC31	3	Mardin	Mardin
TRC32	3	Batman	Batman
TRC33	3	Şırnak	Şırnak
TRC34	3	Siirt	Siirt
TR611	3	Antalya	Antalya
TR612	3	Isparta	Isparta
TR613	3	Burdur	Burdur
TR621	3	Adana	Adana
TR622	3	Mersin	Mersin
TR631	3	Hatay	Hatay
TR100	3	İstanbul	İstanbul
TR211	3	Tekirdağ	Tekirdağ
TR212	3	Edirne	Edirne
TR213	3	Kırklareli	Kırklareli
TR221	3	Balıkesir	Balıkesir
TR331	3	Manisa	Manisa
TR332	3	Afyonkarahisar	Afyonkarahisar
TR333	3	Kütahya	Kütahya



NUTS ID	Level code	Latin name	EU-FarmBook platform name
TR334	3	Uşak	Uşak
TR411	3	Bursa	Bursa
TR412	3	Eskişehir	Eskişehir
TR413	3	Bilecik	Bilecik
TR421	3	Kocaeli	Kocaeli
TR422	3	Sakarya	Sakarya
TR521	3	Konya	Konya
TR522	3	Karaman	Karaman
TR423	3	Düzce	Düzce
TR424	3	Bolu	Bolu
TR425	3	Yalova	Yalova
TR510	3	Ankara	Ankara
TR222	3	Çanakkale	Çanakkale
TR310	3	İzmir	İzmir
TR321	3	Aydın	Aydın
TR322	3	Denizli	Denizli
TR323	3	Muğla	Muğla
UA	0	Ukraina	Ukraine
XK	0	Kosovo*	Kosovo
XK0	1	Kosovo	Kosovo
XK00	2	Kosovo	Kosovo
XK001	3	Prishtinë	Prishtinë
XK002	3	Mitrovicë	Mitrovicë
XK003	3	Pejë	Pejë
XK004	3	Prizren	Prizren
XK005	3	Ferizaj	Ferizaj
XK006	3	Gjilan	Gjilan
XK007	3	Gjakovë	Gjakovë

6.4. Category

The categories in which Knowledge Objects contributed to the EU-FarmBook platform may belong (Section 5.17) are listed below.

Documents	Videos	Audios
Slideshows/presentations	Images	Datasets

Software applications



6.5. Subcategory

This section presents the subcategories (Section 5.18) associated with each Knowledge Object category (namely, "Documents", "Slideshows/presentations", "Videos", "Images", "Audios", "Datasets", and "Software applications").

6.5.1. Documents

Subcategory	Description
Article in conference proceedings	A research paper presented in a conference by one (or more) of its authors; after the end of the conference, the paper is published in the conference proceedings (i.e., an edited volume with all the papers presented in the conference).
Book	A digital version of a book.
Booklet	A small book or group of pages.
Brochure	A digital document (of limited size in terms of its number of pages) containing pictures and information on a product or a company (or, in our case, a Multi-Actor Project).
Chapter in edited volume	A document presenting research work, which has been included in a book (edited volume) containing chapters from various contributors. This edited volume usually addresses a specific research topic. An example of a chapter in an edited volume is provided here.
Deliverable report	A document used to report the work done in a project as part of one, or more, tasks, which has led to some results.
Factsheet	A document containing detailed information, for the public, about a product or service.
Flyer	A form of paper-based advertisement intended for wide distribution and typically distributed or posted in a public place, handed out to individuals or sent through the mail. This document type is very close to the "brochure" type.
Handbook	A book including instructions on how to use something or information about a particular subject.
Guide	A book that gives the most important information about a particular subject.
Journal article	A piece of writing documenting the process and results of a research effort, which is published in a scientific journal. An example of a journal article is available here.
Manual	A book giving instructions or information.
Milestone report	A document used to report the work undertaken in a research project, which has resulted in the achievement of a milestone (milestone = a significant stage or event in a development process).



Newsletter	A short official statement or broadcast summary of news issued periodically to the members of a society or other organisation.
Policy brief	A policy brief is a concise summary of a particular issue, the policy options to deal with it, and some recommendations on the best option. It is aimed at government policymakers and others who are interested in formulating or influencing policies.
Practice abstract	A document used to disseminate the results of the project in a concise and understandable way to the practitioners. An example of a practice abstract is available here.
Press release	A press release is an official statement delivered to members of the news media for the purpose of providing information, an official statement, or making an announcement. Press releases can be delivered to members of the media physically on paper and electronically.
Review document	A document used with the aim to provide a review of some piece of work (review = a formal assessment of something with the intention of instituting change if necessary).
Report/paper	A document containing an account given on a particular matter, after thorough investigation or consideration, by a person or body. The information presented is usually supported by strong evidence.
Technical/technology article	This is usually a document presenting a technical topic, and typically the article drills down into some low-level of detail.
Technical information/ specifications card	A document presenting a list of technical information about a product or service by having the layout of a "card".
Thesis	A piece of writing involving original study of a subject, esp. for a college or university degree.
Tutorial	A document showcasing how to use a product or service in a series of steps.

6.5.2. Slideshows/presentations

Subcategory	Description
Decision-making presentation	A presentation developed and used with the aim to facilitate decision-making purposes. In this case, however, decision-making is facilitated by the display and analysis of facts/data/results. It does not draw on the emotional factor as in the case of motivational presentations.
Educational/training presentation	A presentation developed and used for educational/training purposes in an educational/ training event/session.



Guide	A type of presentation providing information and/or instructions to help a person understand or execute something.
Informative presentation	This type of presentation is used to present specific information to specific audiences for specific goals or functions. Informative presentations are often analytical or involve the rational analysis of information. Sometimes they simply "report the facts" with no analysis at all, but still need to communicate the information in a clear and concise format.
Motivational presentation	A presentation aiming to provide its audience with the incentive to do something specific (e.g., make a decision, take an action, etc.).
Problem-solving presentation	A presentation created and used with the aim to provide help on how to solve a problem.
Tutorial (similar to guide)	A presentation type providing practical information about a specific subject.

6.5.3. Videos

Subcategory	Description
Case study	A video providing detailed information about the development of a person, group, or thing, especially in order to show general principles. See example here .
Documentary video	A video presenting facts and information about a subject. For instance, a documentary video on animal communication. See example <u>here</u> .
Educational/training video	A video that has been developed for educational/training purposes. See example <u>here</u> .
Event capturing video	A video recording of an event. As an example, case, we may refer to the video recording of the consortium meeting of a project. See example <u>here</u> .
Guide	A video that gives you the most important information about a particular subject. For instance, a travel guide available as a video or a wine guide available as a video.
Interview video	A video recording of an interview event. See example <u>here</u> .
Presentation/live talk capturing video	A video recording of a discussion of two or more people. See example <u>here</u> .
Product/feature review video	A video presenting the basic features of an object/product/device. See example here .
Question-and- answer video	A video where a person responds to a number of questions posed by a live audience or being made available in another way. See example here .
Simulation video	A video presenting a model of a real activity or phenomenon, created for training purposes or to solve a problem. See example here .



A video presenting a person's statement extolling the virtue of a Testimonial product/service or something else. See example here. Tutorial/how-to A video showing how to use or do something in a series of easy video stages. A record of someone's thoughts, opinions, or experiences that Vloq he/she films and publishes on the internet. The video recording of a seminar session that has taken place

Webinar online (i.e., a webinar).

6.5.4. Images

Subcategory **Description** A chart is a sheet providing information in tabular form. Chart examples are available here. • A graph is a diagram (e.g., a series of one or more points, Chart/graph lines, line segments, curves, or areas) representing the variation of a variable in comparison to one or more other variables. Graph examples are available here. A collection of imagery, charts, and minimal text providing an Infographic easy-to-understand overview of a topic. Infographic examples are available here. Interactive A figure or image that makes use of motion-related aspects. See

figure/image examples here.

Interactive map Interactive map examples are available here.

A display of information through various illustration means (e.g., colours, lines, borders, arrows, photographs) that does not Static figure/ image employ any motion-related aspects. Examples are available here.

> A representation usually on a flat surface of the whole or a part of an area/a diagram or other visual representation that shows the relative position of the parts of something. Examples of static maps are available here.

6.5.5. Audios

Static map

Subcategory	Description
Audio magazine	A podcast that incorporates a range of different thematic units as a magazine does.
Commentary	An audio object/podcast containing opinions or explanations of an event or situation.
Educational/training podcast	An audio object/podcast that has been developed and used for educational/training purposes in the context of an educational/training event/session.
Event capturing podcast	An audio object/podcast created with the aim to record an event. It is an audio documentary of this event.



This type of audio object/podcast is to provide the recorded Interview interview of some person. An audio object/podcast that has been created with the purpose to record a seminar/training session. The recorded On-demand seminar session is then available to any interested individual on his/her demand. An audio object/podcast recording a group of people gathered together to discuss a topic in the presence of an audience. Panel discussion Panels usually include a moderator who coordinates the discussion and sometimes elicits audience questions, with the goal of being informative and entertaining. An audio object/podcast used to record the responses of an Question-and-answer expert to the questions asked by another person who is in podcast charge of the Q&A session. This is a common type of audio object/podcast and it is often used by people who have expertise in a certain area and want Solo podcast to share with an audience. An audio object/podcast providing instructions on how to use Tutorial/guide a product, or undertake a process, in a series of easy stages.

6.5.6. Datasets

Subcategory	Description
Auditory data	An auditory dataset contains audio-related data.
Crop-related data	Crop-related datasets contain values associated with variables of interest to the growing of crops and crop production.
Geospatial data	According to the Cambridge online dictionary, the term "geospatial" is used to denote data and information identifying where particular features are on the earth's surface, such as oceans and mountains. Thus, a set of geospatial data contains records that have locational information tied to them such as geographic data in the form of coordinates, address, city, or ZIP code.
Graph-related data	The term "graph-related data" is used to denote any dataset available in the format of a graph. There may be various sources from which a graph-based dataset may have originated from. Well known examples of such datasets are Knowledge Graphs.
Imagery data	A dataset that has images as its records. These images may show, for instance, plants infected by various diseases, which can be used for precision crop protection applications.
Input-related data	A dataset of this type contains data in various formats, which relate to the inputs applied to a crop.
Network-related data	This dataset type has similarities with the graph-related dataset type given the fact that from a mathematical perspective graphs and networks are defined upon similar



theoretical foundations. Network-based data may convey information about network structures such as relationships and interactions among stakeholders in a value chain.

Sets of temporal data contain data that represents a state in time. Temporal data is collected and utilised for purposes such as the analysis of weather patterns and other environmental variables, monitoring traffic conditions, studying demographic trends, etc. Data relating to this type may be collected manually, by using sensors, or generated from simulation models.

Textual data originate from plain text. It is an unstructured type of data having the potential to reveal useful insights relating to various variables of interest. Natural Language Processing (NLP) is a continuously growing research field in the domain of computational linguistics that involves research in models and techniques used to process textual data.

Video data relates to data that can be potentially extracted or relating to video recordings.

In the case of this type of datasets, we are dealing with data relating to the weather and climatic conditions affecting a geographic region. This data may become available from weather stations and satellites.

This type of dataset contains data about the yield of a crop. Historical yield-related data may be potentially used (together with data of other types) to proceed to yield estimations. This type of data has a temporal dimension.

Temporal data

Textual data

Video data

Weather/climate data

Yield-related data

6.5.7. Software applications

Subcategory	Description
Al software	This type relates to software applications deploying Artificial Intelligence algorithms/models. As an example, we may refer to chatbots or Q&A tools the use of which allows the user to verbally pose queries (e.g., Amazon Alexa).
Business software	This type relates to software developed to support various business processes. As an example, we may refer to software applications used for storing and information about the customers of a business. This type of software is usually developed by software development vendors and made available through license purchase.
Data analysis software	Software applications used for performing various types of data analysis. WEKA is a well-known data analysis application.
Data repository/database	This software application type relates to systems used to store data/information of various types of importance to an organisation. SQL and NoSQL systems are two prominent paradigms of such applications.



Decision support tool	A Decision Support Tool or Decision Support System is an information system used with the aim to support decision-making processes. This type of software applications serve the management, operations and planning levels of an organisation and help people make decisions with regard to problems that may be rapidly changing and that cannot be easily specified in advance.
Educational/training software	Software applications that have been specifically developed for education and training purposes.
Farm Management Information System (FMIS)	The acronym FMIS stands for Farm Management Information System. A Farm Management Information System is a management information system designed to assist agricultural farmers to perform various tasks ranging from operational planning, implementation and documentation for assessment of performed field work.
Game	The term game is used here to refer to a video game developed with the aim to support training and educational purposes. This kind of educational/training video games are termed as serious games. The reason for not including this type into the educational/training software application category is because of their prominent role in educational/training contexts. A serious game is a game designed for a primary purpose other than pure entertainment.
Scientific software	This type includes software applications developed with the aim to support scientific purposes. As an example, we may refer to bioinformatics software.
Simulation	A simulation is a software application developed with aim to deliver an approximate imitation of the operation of a process or system that represents its operation over time.

6.6. Topics

The topics of a Knowledge Object contributed to EU-FarmBook (Section 5.19) are listed below. A short description of each topic is provided.

Topic	Description
Crop farming	The cultivation of plants for food, animal feed, or other commercial uses.
Livestock	The activity of raising domesticated animals in an agricultural setting to produce labour and commodities such as meat, eggs, milk, fur, leather, and wool.
Forestry	Managing and using trees, forests, and their associated resources for human benefit.
Environment	The natural environment encompasses all living and non-living things occurring naturally, meaning in this case not artificial.
Society	People in general thought of as living together in organized communities with shared laws, traditions, and values.



Economics

Economics focuses on the actions of human beings, based on assumptions that humans act with rational behaviour, seeking the most optimal level of benefit or utility. The building blocks of economics are the studies of labour and trade. Since there are many possible applications of human labour and many different ways to acquire resources, it is the task of economics to determine which methods yield the best results.

6.7. Themes

Themes are used to describe what (the content of) a Knowledge Object is about at a level of granularity that is finer compared to that of the topics (Section 5.20). The themes that are used to describe (the content of) a Knowledge Object are listed below.

Theme	Description
Ability	The capacity or power to do something.
Abiotic stress	Negative effect of non-living factors (e.g. extreme temperatures).
Abundance	In ecology, local abundance is the relative representation of a species in a particular ecosystem. It is usually measured as the number of individuals found per sample.
Accident prevention	Measures and practices implemented to minimize or eliminate the risk of accidents, injuries, or illnesses in agricultural workplaces, including the use of personal protective equipment, safe handling and storage of chemicals and equipment, proper training of workers, and regular maintenance of machinery and infrastructure.
Accuracy	Degree of correctness of a measurement or a statement.
Acid mine drainage	Drainage of water from areas that have been mined for coal or other mineral ores. The water has a low pH because of its contact with sulfur-bearing material.
Acidification	Increase of the titratable acidity and the actual acidity (decrease of the pH).
Acoustic data	Acoustic data refers to the information and measurements collected using sound waves to detect, measure, and analyze various physical properties or characteristics of the environment, objects, or living organisms. In the context of agriculture, acoustic data can be used to monitor and manage factors such as soil moisture, crop health, and pest populations, by analyzing the sound waves that are transmitted, reflected, or emitted by these entities. This non-invasive and non-destructive technique can provide valuable insights and help farmers and researchers make data-driven decisions to optimize crop yields, reduce environmental impact, and improve overall agricultural productivity.
Acoustic equipment	Devices and machinery designed to produce, transmit, detect, or manipulate sound waves, including microphones, speakers, hydrophones, sonobuoys, and other instruments used to



monitor, measure, or communicate through sound in various environments, such as underwater, atmospheric, or industrial settings.

Acoustic models are models that use analytical and numerical scattering models, for example to to predict acoustic backscatter from aquatic organisms.

The study of sound, including its production, transmission, and

effects.

Action research is an interactive inquiry process that balances problem-solving actions implemented in a collaborative context with data-driven collaborative analysis or research to understand underlying causes enabling future predictions about personal and organizational change.

A sequence of actions organized towards a specific goal.

Adjustment of a population to changes in environment over generations, associated (at least in part) with genetic changes resulting from selection imposed by the changed environment.

Not acclimatization.

Adaptive capacity is the ability of systems to respond, recover and address an adaptation deficit. It relates to the capacity to adjust to potential damage, to take advantage of opportunities, or to respond to consequences.

A systematic process for continually improving management policies and practices by learning from the outcomes of previously employed policies and practices.

An ingredient intentionally added to a formulation.

Non-binding, expert guidance and recommendations provided by specialists to clients, such as farmers, agricultural businesses, or organizations, to help them make informed decisions and improve their operations, productivity, and sustainability in areas like crop management, livestock production, soil conservation, water management, and farm business planning.

Aeration refers to the process of introducing air, specifically oxygen, into the soil or water to improve its quality and support the growth of plants and microorganisms. In agriculture, aeration is often used to enhance soil structure, increase the availability of nutrients, and promote healthy root development, which can lead to improved crop yields and overall plant health.

Price of an item or service, relative to cost of other items or services and/or population or person income.

services and/or popula

Acoustics

Action research

Acoustic models

Activities

Adaptation

Adaptive capacity

Adaptive management

Additives

Advisory services

Aeration

Affordability



In the context of agriculture, "agents" can refer to individuals or organizations that act on behalf of farmers, agricultural businesses, or other stakeholders to facilitate transactions, provide services, or represent their interests. Examples of agents in agriculture include:

- Marketing agents: who help farmers sell their products to buyers, processors, or distributors.
- Input suppliers: who provide seeds, fertilizers, pesticides, or other inputs to farmers.
- Extension agents: who work with farmers to provide technical advice, training, and support on best practices, new technologies, and other aspects of agricultural production.
- Brokerage agents: who connect buyers and sellers of agricultural products, such as livestock or grains.

In general, agents in agriculture play a crucial role in facilitating the flow of goods, services, and information between different stakeholders in the agricultural value chain.

Agglomerating refers to the process of forming clusters or aggregates of particles, such as soil, fertilizer, or other materials, into larger units or granules. In agriculture, agglomerating is often used to describe the process of creating uniform-sized particles or granules of fertilizers, pesticides, or other substances to improve their handling, application, and effectiveness. This process involves the use of binders, moisture, or other agents to stick the particles together, resulting in a more uniform and manageable product.

Agricultural development is defined as the process that creates the conditions for the fulfilment of agricultural potential. Those conditions include the accumulation of knowledge and availability of technology as well as the allocation of inputs and output.

Agricultural information exchange system which shows the actors, people and institutions, their interactions and communication networks among these actors to coordinate the information related processes (from generation to transfer, utilization and diffusion).

Agricultural growth is an increase in the quantity and quality of the goods and services produced by the agricultural sector.

Agricultural innovation is the process whereby individuals or organizations bring new or existing products, processes or ways of organization into use for the first time in a specific context in order to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability and thereby contribute to food security and nutrition, economic development or sustainable natural resource management.

Agricultural policy describes a set of laws relating to domestic agriculture and imports of foreign agricultural products.

Agents

Agglomerating

Agricultural development

Agricultural extension systems

Agricultural growth

Agricultural innovation

Agricultural policies



Agricultural practices

Agricultural practices refer to the methods, techniques, and activities used in the cultivation of crops, raising of livestock, and management of soil, water, and other natural resources to produce food, fiber, and other agricultural products. These practices can include planting, irrigation, fertilization, pest management, harvesting, and other operations that are used to maintain and improve the productivity and sustainability of agricultural systems.

Agricultural productivity

Agricultural productivity refers to the measure of output—such as crops or livestock—produced per unit of input, like land, labor, or capital, in farming activities. It reflects the efficiency and effectiveness of agricultural practices in generating food and other products. Higher agricultural productivity means more output is obtained with the same or fewer resources.

Agricultural runoff

The flow of water, soil, and other substances that are carried away from agricultural lands, such as farms and fields, during rainfall or irrigation events. This runoff can contain pollutants like fertilizers, pesticides, sediment, and manure, which can contaminate nearby water bodies, posing a threat to aquatic ecosystems and human health. Agricultural runoff can also lead to soil erosion, nutrient depletion, and decreased water quality, making it a significant environmental concern in agricultural areas.

Agricultural sector

The term agriculture sectors refers to crop-based farming systems and livestock systems, including rangelands and pasturelands, forestry and fisheries, including capture fisheries and aquaculture.

Agricultural statistics

Agricultural statistics refer to the collection, analysis, and interpretation of data related to agricultural activities, including crop and livestock production, farming practices, and the economic and social aspects of agriculture. This encompasses a wide range of information, such as crop yields, livestock numbers, farm sizes, agricultural employment, and the economic impact of agriculture on local and national economies. The purpose of agricultural statistics is to provide insights and informed decision-making for farmers, policymakers, researchers, and other stakeholders involved in the agricultural sector.

Agricultural structure

A concept that can be freely defined as characteristics and patterns that describe the participants in agricultural production, including farm businesses, farm operators, and farm households. For example, farms may be described by average size, sales class, form of legal organization, type of production, geographic location, and financial position.

Agricultural value chains

Refers to the whole range of goods and services necessary for an agricultural product to move from the farm to the final customer.

Agriculture

Agriculture or farming is the cultivation and breeding of animals, plants and fungi for food, fiber, biofuel, medicinal



plants and other products used to sustain and enhance human

Agrifood systems encompass the entire range of actors, and their interlinked value-adding activities, engaged in the primary production of food and non-food agricultural products, as well as storage, aggregation, post-harvest handling, transportation, processing, distribution, marketing, disposal and consumption of all food products including those of nonagricultural origin.

Agroecology is the science of applying ecological concepts and principles to manage interactions between plants, animals, humans and the environment for food security and nutrition.

The agro-industrial sector is the specific sector of the economy that encompasses agroindustry. It is the part of the economic sector that is dedicated to the industrial processing of agricultural products. The agro-industrial sector involves factories, plants, and facilities where raw agricultural commodities are converted into value-added products through various processing and manufacturing methods.

The set of agricultural methods and techniques applied to manage crops and soil for optimal productivity, sustainability, and environmental stewardship.

Planned activities and projects, often funded by governments, organizations, or international agencies, designed to provide support, and resources to individuals. assistance. communities, or countries in need, with the aim of alleviating poverty, improving livelihoods, and enhancing food security, particularly in rural or agricultural areas.

The degree to which air is polluted; the type and maximum concentration of man-produced pollutants that should be permitted in the atmosphere.

A finite series of logical steps or instructions by which a particular numerical or algebraic problem can be solved.

Alternative to the conventional mode of production. All ecological approaches to agricultural production, such as organic farming, are alternatives to the dominant approach of industrial agriculture.

An analog model is the representation of entities of a system by analogue entities pertaining to the model. For example, on analog models, individual electrical or mechanical elements

represent a biological function.

Agrifood systems

Agroecology

Agro-industrial sector

Agronomic practices

Aid programmes

Air quality

Algorithms

Alternative agriculture

Analog models



Analytical methods

Ancillary enterprises

Animal biotechnology

Animal feeding

Animal husbandry

Animal husbandry methods

Analytical methods refer to the systematic procedures and techniques used to analyze and interpret data, samples, or substances in various fields, including agriculture, to extract meaningful information, identify patterns, and understand underlying processes. In the context of agriculture, analytical methods may involve the use of laboratory tests, statistical analysis, and other scientific techniques to examine the physical, chemical, and biological properties of soils, plants, water, and other environmental factors, as well as to detect and quantify contaminants, nutrients, and other substances of interest. The goal of analytical methods is to provide accurate, reliable, and reproducible results that can inform decision-making, optimize agricultural practices, and ensure the quality and safety of agricultural products.

Businesses or activities that provide support services or products to a primary agricultural enterprise, such as farming or livestock production, and are often integrated with or complementary to the primary enterprise. Examples of ancillary enterprises include farm tourism, value-added food processing, agricultural equipment repair, and farm supply stores. These enterprises can help diversify farm income, create employment opportunities, and enhance the overall sustainability of the primary agricultural operation.

The application of scientific and engineering principles to modify animals or animal products using biotechnological techniques for purposes such as improving productivity, health, reproduction, and disease resistance. This field includes genetic engineering, cloning, marker-assisted selection, and the development of vaccines or diagnostics, contributing to advancements in agriculture, veterinary medicine, and biomedical research.

Animal feeding refers to the process of providing food and nutrients to animals, including livestock, poultry, and other domesticated species, in order to promote their growth, health, and productivity. This encompasses the preparation, distribution, and management of feedstuffs, such as grains, forages, and concentrates, as well as the provision of water and other essential nutrients, to meet the nutritional requirements of the animals.

Animal husbandry is the branch of agriculture concerned with animals that are raised for meat, fibre, milk, eggs, or other products.

Animal husbandry methods refer to the practices, techniques, and management systems used in the care, breeding, and raising of animals, such as livestock and poultry, to promote their health, productivity, and well-being, while also ensuring the sustainability and efficiency of agricultural production. These methods encompass a range of activities, including feeding, breeding, housing, health care, and handling, with the goal of optimizing animal performance, minimizing



environmental impact, and producing high-quality animal products.

Animal nutrition

Animal nutrition refers to the study of the dietary needs of animals, including the intake, digestion, absorption, and utilization of nutrients such as carbohydrates, proteins, fats, vitamins, and minerals. It involves understanding the nutritional requirements of different animal species, including livestock, poultry, and companion animals, in order to optimize their growth, health, and productivity. Animal nutrition also encompasses the development of feeding strategies and diets that meet the nutritional needs of animals, while also considering factors such as feed availability, cost, and environmental sustainability.

Animal products

Substances or materials obtained from animals through farming, husbandry, or processing, intended for human consumption, industrial use, or other applications.

Animal protection

Precautionary actions or procedures taken to prevent or reduce the harm to sentient, non-human species, posed, in most cases, by humans.

Animal reproduction

The biological process by which animals produce offspring, ensuring the continuation of their species.

Animal rights

Just claims, legal guarantees or moral principles accorded to sentient, non-human species, including freedom from abuse, consumption, experimentation, use as clothing or performing for human entertainment.

Animal welfare

Animal welfare means the physical and mental state of an animal in relation to the conditions in which it lives and dies.

Annuals

Plant species that complete their life cycle within 12 months from the date of germination.

Anthropogenic changes

Changes that result from or are produced by human activities.

Anthropogenic climate change

In the context of climate change, we can refer to anthropogenic greenhouse gases, which refer to emissions that are produced as the result of human activities.

Antifouling substances

Antifouling substances refer to chemical or biological agents applied to surfaces, particularly on ships' hulls, boats, and other marine structures, to prevent or reduce the attachment and growth of unwanted organisms such as algae, barnacles, and mollusks. These substances help to minimize the accumulation of marine fouling, which can increase drag, reduce fuel efficiency, and damage equipment, thereby maintaining the performance and longevity of the affected structures.

Aphotic zone

The aphotic zone is the portion of a lake or ocean where there is little or no sunlight.



Application methods

A plan specification which describes how a material entity is applied to another material entity.

Approaches

The broader context in which an activity, programme or assessment is undertaken.

Aquaculture

The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants with some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated.

Aquaculture development

Aquaculture development refers to the process of planning, implementing, and managing the growth of aquaculture systems, which involve the cultivation of aquatic plants and animals, such as fish, shellfish, and algae, in a controlled environment. This development encompasses various aspects, including the improvement of breeding and rearing techniques, the enhancement of water quality and management, the introduction of new species, and the implementation of sustainable and environmentally friendly practices to increase production efficiency and reduce the environmental impact of aquaculture operations.

Aquaculture economics

Deals with rearing of desirable aquatic organisms under controlled or semi-controlled conditions for economic or social benefits. Of special concern are the allocation and utilization of scarce resources (land, labour, capital and management) in the production of aquatic organisms under managed conditions to satisfy some human want.

Aquaculture enterprises

Businesses or organizations that engage in the cultivation and harvesting of aquatic plants and animals, such as fish, shellfish, and algae, in controlled or semi-controlled environments, including ponds, tanks, cages, and raceways, for commercial or subsistence purposes.

Aquaculture equipment

Aquaculture equipment refers to tangible long-term assets used in the farming of aquatic organisms, such as fish, shellfish, and aquatic plants. This equipment supports various operations including breeding, feeding, water quality management, and harvesting. Examples include tanks, cages, aerators, water pumps, and feeding systems. Like other equipment, these are physical assets that provide benefits to aquaculture businesses over multiple years of use, distinguishing them from intangible assets such as licenses or farming permits.

Aquaculture facilities

Aquaculture facility means any water system and associated infrastructures capable of holding and/or producing cultured aquatic stock.

Aquaculture products

The outputs of aquaculture production intended for consumption, or domestic or international trade, presented



whole or in parts, processed or unprocessed, in various product forms, regardless of their final utilization.

Aquaculture regulations refer to the set of rules, guidelines, and standards established by governments, international organizations, or other authoritative bodies to manage and oversee the practice of aquaculture, which involves the cultivation of aquatic plants and animals, such as fish, shellfish, and algae, in controlled environments like ponds, tanks, or cages. These regulations aim to ensure the sustainability, environmental integrity, and social responsibility of aquaculture practices, as well as the safety and quality of the products derived from them. Aquaculture regulations may cover aspects such as water quality, waste management, disease control, feed and nutrition, animal welfare, and food safety, among others.

Aquaculture statistics refers to the collection, analysis, and interpretation of data related to the practice of aquaculture, which is the farming of aquatic organisms such as fish, shellfish, and algae. Aquaculture statistics encompass a wide range of information, including data on production volumes, species cultured, water quality, feed usage, disease incidence, and economic indicators such as revenue and employment. These statistics are used to inform decision-making, policy development, and industry management, as well as to monitor trends, track progress, and identify areas for improvement in the aquaculture sector.

A combination of type of culture unit, level of intensity, culture species and scale or size of exploitation.

Aquaculture techniques refer to the methods and practices

Aquaculture techniques refer to the methods and practices used in the cultivation and farming of aquatic plants and animals, such as fish, shellfish, and algae, in a controlled environment like ponds, tanks, or cages. These techniques involve the manipulation of water quality, nutrition, and other environmental factors to promote healthy growth, increase yields, and improve the overall efficiency and sustainability of aquaculture operations.

A person engaged in aquaculture.

Aquaponics refers to the cultivation of fish and plants together in a constructed, recirculating ecosystem utilizing natural bacterial cycles to convert fish waste to plant nutrition. This is an environmentally friendly, natural food-growing method that harnesses the best attributes of aquaculture and hydroponics without the need to discard any water or filtrate or add chemical fertilizers.

Aquaculture regulations

Aquaculture statistics

Aquaculture systems

Aquaculture techniques

Aquaculturists

Aquaponics



The term "aquatic environment" refers to the natural surroundings and conditions in which aquatic organisms, such as plants and animals, live and interact. This environment includes freshwater and marine ecosystems, such as rivers, lakes, wetlands, estuaries, and oceans, and encompasses the physical, chemical, and biological factors that affect the aquatic life within them. The aquatic environment is characterized by a complex array of components, including:

- Water quality and chemistry (e.g., pH, temperature, salinity, nutrient levels).
- Hydrological features (e.g., water flow, depth, turbulence).
- Geological and geomorphological characteristics (e.g., substrate type, sediment load).
- Biological communities (e.g., phytoplankton, zooplankton, benthic organisms, fish).
- Human-induced factors (e.g., pollution, habitat alteration, climate change).

The aquatic environment plays a crucial role in supporting biodiversity, regulating the water cycle, and providing ecosystem services, such as water filtration, shoreline stabilization, and nutrient cycling. Understanding and managing the aquatic environment is essential for maintaining healthy and sustainable aquatic ecosystems, as well as for human well-being and economic development.

Food systems encompassing the entire range of actors and their interlinked value-adding activities involved in the production, processing, distribution, consumption and disposal of aquatic food products that originate from fisheries and aquaculture and parts of the broader economic, societal and natural aquatic environments in which they are embedded.

All foods for human consumption grown in, or harvested from, water. They include foods from all types of algae and aquatic animals (fish, crustaceans, molluscs and other aquatic animals, with the exception of aquatic mammals and reptiles).

The cultivation of aquatic plants for food or other purposes.

Any microscopic or macroscopic vegetal organism living in the aquatic environment, excluding bacteria and viruses.

The outputs of fisheries and aquaculture production presented whole or in parts, processed or unprocessed, in various product forms, regardless of their final utilization. They include all aquatic animals (fish, crustaceans, molluscs and other aquatic animals), algae (macro-algae, micro-algae, and cyanobacteria) and other aquatic products (e.g. corals and sponges).

Biotic element of the aquatic ecosystem, including genetic resources, organisms or parts thereof, populations, etc. with actual or potential use or value (sensu lato) for humanity.

Aquatic environment

Aquatic food systems

Aquatic foods

Aquatic plant cultivation

Aquatic plants

Aquatic products

Aquatic resources



Fishery resources are those aquatic resources of value to fisheries.

Arable farming Growing crops as opposed to dairy farming, cattle farming, etc.

Archaeology is the study of human activity through the

recovery and analysis of material culture.

Artificial feeding is defined broadly as placing natural or artificial food into the environment that supplements the food Artificial feeding source contained naturally in the home range of a given wild

species. Also important in aquaculture for cultured species.

Artificial insemination (AI): placement of fresh or thawed frozen Artificial insemination semen into the female mechanically without normal sexual

contact.

Man-made or synthetic items created to mimic or replace natural products, such as artificial fertilizers, pesticides, or Artificial products other agricultural inputs, which are designed to enhance or support crop growth, pest control, or other farming practices,

but are not derived from natural sources.

Artificial reefs are human-made structures designed to promote marine life and provide habitat for various species of fish, invertebrates, and other marine organisms. They are typically constructed from materials such as concrete, steel, or recycled plastic, and are intentionally placed on the seafloor to mimic the characteristics of natural reefs. Artificial reefs can serve multiple purposes, including enhancing biodiversity, supporting commercial fisheries, providing coastal protection, and offering opportunities for recreational activities like diving and fishing. They can be deployed in areas with limited natural reef habitat or to restore damaged or degraded ecosystems and are often used in conjunction with other conservation and management efforts to promote the health and resilience of

Artificial sea grass is sea grass made artificially. Can be used as an alternative marine habitat and to protect shorelines from

erosion.

marine ecosystems.

Synthetic materials or products designed to mimic the Artificial seaweed

appearance, structure, or function of natural seaweed.

Deposits of volcanic or combustion-derived ash that accumulate in distinct horizontal strata within soil or sediment

profiles.

Residue remaining after a substance (e.g., organic matter) is **Ashes**

burned.

Species which have a predator/prey or competitive relationship Associated species

with the exploited species.

Autotrophy is the capacity of an organism to use light as the Autotrophy sole energy source in the synthesis of organic material from

inorganic elements or compounds. Autotrophic organisms

Archaeology

Artificial reefs

Artificial sea grass

Ash layers



include green photosynthesizing plants and some photosynthetic bacteria.

The state of being accessible, usable, or ready for use when needed, referring to the degree to which a resource, system, or service can be relied upon to perform its intended function or provide its intended output without interruption or failure.

Bacteria are single-celled microorganisms that lack a nuclear membrane, are metabolically active and divide by binary fission.

The "balance of nature" refers to the idea that ecosystems tend towards a stable equilibrium, where the interactions between living organisms (such as plants, animals, and microorganisms) and their environment are in harmony, and that any disruptions to this balance will be corrected through natural processes. This concept suggests that ecosystems have a self-regulating capacity, where the populations of different species and the availability of resources such as food, water, and shelter are in a state of dynamic equilibrium, and that this balance is essential for the long-term health and resilience of the ecosystem.

Ballast is dense material used as a weight to provide stability to a vehicle or structure. Ballast, other than cargo, may be placed in a vehicle, often a ship or the gondola of a balloon or airship, to provide stability.

Behaviour refers to what anindividual does.

A reference point from which measurements may be indicated or made (e.g. topographic elevations, tidal observations) or a standard, problem or test that serves as a basis for evaluation,

The behavior of an organism in response to a stimulus.

judgement or comparison.

The ecological region at the lowest level of a body of water such as an ocean, including the sediment surface and some sub-surface layers.

The study of the production, transmission, and detection (hearing) of sounds produced by organisms, such as those involved in communication.

Functional properties (e.g. pharmacological action) of a chemical or complex substance on living organisms.

Biochemical oxygen demand: BOD, also called biological oxygen demand, is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.

The study of the composition, chemical structures, and chemical reactions of living things.

Availability

Bacteria

Balance of nature

Ballast

Behaviour

Behavioural responses

Benchmarks

Benthic environment

Bioacoustics

Bioactive properties

Biochemical oxygen demand

Biochemistry



Biodiversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Diversity indices are measures of richness (the number of species in a system); and to some extent, evenness (variances of species' local abundance). They are therefore indifferent to species substitutions which may, however, reflect ecosystem stresses (such as those due to high fishing intensity).

Bioeconomics

A branch of economics which integrates the disciplines of biology and economics to explain economic activities on a biological basis and vice versa.

Bioenergetics

Bioenergetics is a field in biochemistry and cell biology that concerns energy flow through living systems.

Biofilters

The component of the treatment units of a culture system in which the removal of organic matter takes place and dissolved metabolic by-products are converted (mainly oxidized) because of micro-biological activity. The most important processes are the degradation of organics by heterotrophic bacteria and the oxidation of ammonia via nitrite to nitrate.

Biofloc technology

Use of aggregates of bacteria, algae, or protozoa, held together in a matrix along with particulate organic matter for the purpose of improving water quality, waste treatment and disease prevention in intensive aquaculture systems. Consumption of bioflocs also provides nutritional value to cultured species.

Bioherms

A bioherm is "any dome-like, mound-like, lens-like, or otherwise circumscribed mass, built exclusively or mainly by sedentary organisms such as corals, stromatoporoids, algae, brachiopods, molluses, crinoids, et cetera, and enclosed in normal rock of different lithologic character."

Biological contamination

The presence in the environment of living organisms or agents derived by viruses, bacteria, fungi, and mammal and bird antigens that can cause many health effects.

Biological data

Software produced as the result of the work in a Research and Innovation project.

Biological development

The progressive changes in form, structure, and function that occur in a living organism from conception to maturity.

Biological interaction

An instance wherein two exposures physically interact to bring about the outcome. A hallmark of biological interaction is that the total effect, produced when factors act together, differs from the sum of effects when the factors operate independently.

Biological phenomena

Biological processes, properties, and characteristics of the whole organism in human, animal, microorganisms, and plants, and of the biosphere.



Biological processes

Biological activities and function of the whole organism in human, animal, microorgansims, and plants, and of the biosphere.

Biological production

The amount and rate of production which occur in a given ecosystem over a given period. It may apply to a single organism, a population, or entire communities and ecosystems.

Biological properties refer to the inherent characteristics and attributes of living organisms, such as plants, animals, and microorganisms, that influence their behavior, growth, development, and interactions with the environment. These properties can include factors such as:

- Physiological characteristics, like growth rates, water requirements, and nutrient uptake.
- Biochemical properties, like the production of enzymes, hormones, and other biomolecules.
- Genetic properties, like inheritance patterns, genetic diversity, and mutation rates.
- Ecological properties, like habitat requirements, population dynamics, and community interactions.

In the context of agriculture, understanding the biological properties of crops, livestock, and other organisms is crucial for developing effective management practices, improving yields, and reducing environmental impacts.

Living organisms, such as plants, animals, and microorganisms, that can be used for various purposes, including food, medicine, shelter, and other products. These resources are often managed and utilized in agriculture, forestry, and conservation efforts to maintain ecosystem services and promote sustainable development. Examples of biological resources include crops, livestock, fish, timber, and medicinal plants.

A recurring behavior pattern, the cues for which arise or originate internally within the organism or system, eg the observation of daily activity patterns even when light is held constant; biological clock.

Sampling of biological components or of organisms (or chemicals associated with their presence). Often used for aquatic organisms and plants.

Biological settlement: The process by which microorganisms, such as bacteria, algae, or fungi, colonize and establish themselves on a surface or in a medium, often forming a complex community or biofilm, and contributing to the degradation or transformation of organic matter, pollutants, or other substances.

One of the biological science disciplines concerned with the origin, structure, development, growth, function, genetics, and reproduction of animals, plants, and microorganisms.

Biological properties

Biological resources

Biological rhythms

Biological sampling

Biological settlement

Biology



Bioluminescence Production of light by living organisms.

This soil function describes the potential of soil to produce below- and above ground biomass. In agricultural land this Biomass production

function is central for food security.

Vessel or container in which a biological reaction occurs. Often **Bioreactors**

used in manufacturing efforts to produce pharmaceuticals.

Biotechnology: any technological application that uses Biotechnology biological systems, living organisms, or derivatives thereof, to

make or modify products or processes for specific use.

Biotelemetry is the instrumental technique for gaining and transmitting information from a living organism and its Biotelemetry

environment to a remote observer.

Biotic indices are numerical expressions coded according to **Biotic indices** the presence of bioindicators differing in their sensitivity to

environmental conditions.

The number of births in a given population per year or other

unit of time.

Exponential growth through increase in numbers, typically in autotrophic (qv) protists (eg phytoplankton in spring bloom

(outburst) conditions).

Set that represents the limit of an entity.

Brackish water is water that is saltier than fresh water, but not as salty as seawater. It may result from mixing of seawater with fresh water, as in estuaries, but also certain human activities can produce brackish water, in particular certain civil engineering projects such as dikes and the flooding of coastal

marshland.

By brackishwater aquaculture is understood the cultivation of aquatic organisms where the end product is raised in brackishwater, such as estuaries, coves, bays, lagoons and fjords, in which the salinity may lie or generally fluctuate

between 0.5% and full-strength seawater.

Brackish water ecology refers to the study of the interactions and relationships between organisms and their environment in brackish water ecosystems, which are characterized by a mixture of fresh and saltwater. Brackish water ecosystems, such as estuaries, mangroves, and salt marshes, have a salinity level that is higher than freshwater but lower than seawater, typically ranging from 0.5 to 35 parts per thousand. The ecology of these ecosystems involves understanding the adaptations and strategies of plants and animals that thrive in these environments, as well as the physical and chemical processes that shape these ecosystems, such as tidal patterns, sediment transport, and nutrient cycling. Brackish water ecology is an interdisciplinary field that combines

concepts from biology, ecology, chemistry, and physics to

Birth rate

Blooms

Boundaries

Brackish water

Brackishwater aquaculture

Brackishwater ecology



understand the complex dynamics of these unique and often threatened ecosystems.

A brackish water environment refers to a habitat or ecosystem where the water has a salinity level that is intermediate between freshwater and seawater, typically ranging from 0.5 to 35 parts per thousand (ppt) of dissolved salts. This environment is often found in coastal areas, estuaries, mangroves, and river mouths, where freshwater from rivers and streams mixes with seawater from the ocean. Brackish water environments support a unique community of plants and animals that are adapted to survive in conditions with varying levels of salinity and play an important role in coastal ecosystems and biodiversity.

environment

Brackishwater

Breeding

Controlled selection and reproduction of domestic animals, plants or fish to improve desirable qualities.

Breeding methods refer to the various techniques and strategies used in agriculture and animal husbandry to produce offspring with desired traits, characteristics, or genetic makeup. These methods involve the deliberate selection and mating of plants or animals to achieve specific breeding objectives, such as improving productivity, disease resistance, or quality. Breeding methods can include techniques like selective breeding, crossbreeding, linebreeding, inbreeding, and hybridization, among others, and are used to enhance the genetic diversity, adaptability, and overall performance of crops and livestock.

Breeding methods

A type of herbivory in which an animal feeds on leaves, sprouts, or

fruits of woody plants such as shrubs.

A strip of living trees and/or shrubs maintained mainly to provide shelter or to mitigate the impacts of actions on adjacent lands, to enhance aesthetic values, or as a best management practice.

Business management

Business models

Buffer strips

Browsing

Process of planning, organizing, directing and controlling the activities of an organization to achieve its objectives.

The term business model refers to the way an enterprise or a value chain creates and captures value within a market network of producers, suppliers and consumers, or, in short, 'what a company does and how it makes money from doing it'.

A by-product or byproduct is a secondary product derived from a production process, manufacturing process or chemical reaction; it is not the primary product or service being

produced.

The unit for measuring chemical energy. It is defined as the amount of heat required to raise the temperature of one gram of water one degree Celsius at standard pressure.

Measurement of quantities of heat.

By-products

Calories

Calorimetry



Capacity development

Capacity is "the ability of people, organizations and society as a whole to manage their affairs successfully". Capacity development is "the process of unleashing, strengthening and maintaining of such capacity" (OECD/DAC).

Captive breeding

Captive breeding is the process of maintaining plants or animals in controlled environments, such as wildlife reserves, zoos, botanic gardens, and other conservation facilities.

Carbon footprint

The carbon footprint is a measure of the exclusive total amount of carbon dioxide emissions that is directly and indirectly caused by an activity or is accumulated over the life stages of a product.

Carbon sinks

A carbon sink is any natural reservoir that absorbs more carbon than it releases and thereby lowers the concentration of CO2 from the atmosphere. Globally, the two most important carbon sinks are vegetation and the ocean.

Case studies

A case study is an in-depth, detailed examination of a particular case (or cases) within a real-world context.

Catch statistics

Quantitative data related to the amount and type of fish or other marine organisms captured by fisheries over a specific period.

Cell division

Formation of two or more daughter cells from a single parent cell. The nucleus divides first, followed by the formation of a cell membrane between the daughter nuclei. Division of somatic cells is termed mitosis; egg and sperm precursors are formed following meiosis.

Centre of diversity

The center of diversity of a species is defined as the geographic area wherein the plant species (or genus) exhibits the highest degree of genetic variation, that is, highest number of cultivated species (or subspecies) and wild relatives, as well as gene variants (alleles) exist in that region.

Certification

Procedure by which a certification body or entity gives written or equivalent assurance that a product, process or service conforms to specified requirements. Certification can be based, as appropriate, on a range of audit activities that may include continuous audit in the production chain.

Channels

In physical geography, a channel is a type of landform consisting of the outline of a path of relatively shallow and narrow body of fluid, most commonly the confine of a river, river delta or strait.

Chemical contamination

The phrase 'chemical contamination' is used to indicate situations where chemicals are either present where they shouldn't be or are at higher concentrations than they would naturally have occurred.

Chemical oxygen demand

Chemical oxygen demand (COD) is defined as the amount of a specified oxidant that reacts with the sample under controlled conditions. The quantity of oxidant consumed is expressed in terms of its oxygen equivalence.



Chemical phenomena

Natural or induced processes and interactions involving the transformation, combination, or decomposition of substances at the molecular or atomic level.

Chemicophysical properties

Chemicophysical properties refer to the characteristics and attributes of a substance that are determined by its chemical composition and physical structure. These properties encompass a wide range of attributes, including, but not limited to, melting and boiling points, viscosity, density, solubility, reactivity, and optical properties. Chemicophysical properties are often used to describe and predict the behavior of substances under various conditions, such as temperature, pressure, and humidity, and are essential in fields like agriculture, materials science, and environmental science.

Circular economy

A model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.

Climate

Climate in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years.

Climate change

Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.

Climate change adaptation

Adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation.

Climate change impacts

Effects of climate change on physical and ecological systems, human health, and socioeconomic sectors.

Climate change mitigation

Intervention or policies to reduce the emissions or enhance the sinks of greenhouse gases.

Climate change perception

Climate change perception is a complex process that encompasses a range of psychological constructs such as knowledge, beliefs, attitudes and concerns about if and how the climate is changing.

Climate resilience

The capacity of social, economic and environmental systems to cope with current or expected climate variability and changing average climate conditions, responding or



reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.

Climate security refers to evaluating, managing, and reducing the risks to peace and stability brought on by the climate crisis. This means ensuring that climate mitigation and adaptation goes beyond doing no harm and contributes positively to peace and stability. It also means that conflict prevention and peacebuilding interventions take climate impacts into account.

The climate system is the highly complex system consisting of five major components: the atmosphere, the hydrosphere, the cryosphere, the land surface, and the biosphere, and the interactions between them.

Climate zones are areas with distinct climates. These zones might correspond to weather patterns, latitude, or communities of plants and animals. There are many climate classification systems, which define zones based on different climatic factors or combinations of factors.

Items or garments worn to cover or protect the body, typically made of fabrics such as cotton, polyester, or wool, and may include shirts, pants, dresses, and other wearable articles that provide comfort, modesty, and protection from the environment.

Clothing design refers to the process of creating and planning

the aesthetic and functional aspects of garments and textiles, considering factors such as fabric type, color, texture, and intended use, to produce items that are both visually appealing and meet the needs of the wearer, while also considering aspects like sustainability, comfort, and cultural sensitivity.

A clutch of eggs is the group of eggs produced by birds, amphibians, or reptiles, often at a single time, particularly those laid in a nest.

The branch of civil engineering focused on the design,

construction, and maintenance of infrastructure and structures along coastlines, as well as the management of coastal environments.

The dynamic boundary between land and sea, characterized by diverse ecosystems, landforms, and natural processes. Coasts are shaped by interactions between terrestrial and marine forces such as erosion, sediment deposition, tidal movements, and human activities.

Collections are sets of items or materials procured or gathered.

Colour fastness is a term—used in the dyeing of textile materials—that characterizes a material's colour's resistance to fading or running.

All materials that are sold and distributed as feed, or to be mixed with feed, for animals except: unmixed seed, whole,

Climate security

Climate system

Climatic zones

Clothing

Clothing design

Clutches

Coastal engineering

Coasts

Collections

Colour fastness

Commercial feeds



processed, or unprocessed; straw, stover, silage, cobs, husks, and hulls; or individual chemical compounds not mixed with other ingredients.

Comparative evaluation

The term comparative evaluation refers to research in which an evaluation and the findings of the evaluation process are set in a comparative framework.

Compensation depth

Zone in aquatic environment where just enough light penetrates for the rate of photosynthesis to equal the rate of respiration.

Competitive behaviour

A type of behaviour in plants where they compete with other plants for resources such as light, water, nutrients, and space, often leading to an increase in growth rate, biomass production, and reproductive output, as a strategy to outcompete and dominate their neighbours, and ultimately enhance their own survival and fitness.

In the context of agriculture and ecology, competitors refer to

organisms, such as plants, animals, or microorganisms, that compete with each other for the same resources, including light, water, nutrients, space, and food, in a specific environment or ecosystem. This competition can be interspecific, between different species, or intraspecific, within the same species. The presence of competitors can impact the growth, survival, and reproduction of individual organisms, and

ultimately influence the structure and function of the

ecosystem as a whole.

The state of conformity with regulatory requirements including, but not limited to, legislative provisions, regulations, rules, standards, and orders.

Computer applications, in the context of agriculture, refer to the use of computer software and hardware to support and enhance various agricultural activities, such as farm management, crop monitoring, livestock tracking, and decision-making. This can include a range of tools and systems, including precision agriculture software, geographic information systems (GIS), global positioning systems (GPS), and other digital technologies that help farmers, agricultural businesses, and researchers to collect, analyze, and act upon data to improve the efficiency, productivity, and sustainability of agricultural practices.

An approach to managing agroecosystems for improved and sustained productivity, increased profits and food security, while preserving and enhancing the resource base and the environment. Conservation agriculture is characterized by three principles: continuous minimum mechanical soil disturbance, permanent organic soil cover and diversification of crop species grown in sequences or associations.

Constraints Something which limits your ability to act.

Competitors

Compliance

Computer applications

Conservation agriculture



Consumer behaviour

Consumer behaviour refers to the study of how individuals, groups, and organizations select, purchase, use, and dispose of goods and services to satisfy their needs and wants. It involves understanding the psychological, social, and economic factors that influence consumer decision-making processes, including attitudes, preferences, perceptions, and motivations. Consumer behaviour examines the interactions between consumers and the marketplace, and how these interactions impact consumer choices, satisfaction, and loyalty. In the context of agriculture, consumer behaviour may relate to the demand for and purchasing patterns of agricultural products, such as organic or locally sourced foods, and how these choices affect the agricultural industry and food systems.

Consumer economics

The study of the economic behaviors, decision-making processes, and financial activities of individuals and households.

Consumer protection

The set of laws, policies, and practices designed to safeguard the rights and interests of consumers by ensuring the safety, quality, and fairness of goods and services.

Consumers

A consumer is a person or a group who intends to order, or use purchased goods, products, or services primarily for personal, social, family, household and similar needs, who is not directly related to entrepreneurial or business activities. The term most commonly refers to a person who purchases goods and services for personal use.

Consumption

The act of using up or utilizing a resource, product, or service, resulting in its depletion or reduction, often to satisfy the needs or wants of individuals, organizations, or systems, particularly in the context of agriculture, where it can refer to the use of water, fertilizers, pesticides, or other inputs in the production of crops or livestock.

Contamination

Intentional or unintentional addition of extraneous material, foreign material, (e.g. dirt, hair, excreta, mold etc.) to a product rendering it unfit for the original intended purpose.

Control methods

Any action and activity that can be used to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

Cooking fats

Cooking fats: Substances, typically of animal or plant origin, used to add flavor, texture, and moisture to food, and as a medium for frying, sautéing, or baking, examples include lard, tallow, butter, ghee, and various plant-based oils such as olive, coconut, or peanut oil.

Cooling

The process of reducing the temperature of a substance, object, or environment, often to slow down chemical reactions, preserve quality, or enhance comfort, typically using methods such as ventilation, shading, evaporative cooling, or refrigeration.

Cooling water

Water which is used to absorb and remove heat. Cooling water may be broken down into water used in the generation of



electricity in power stations, and cooling water used in other industrial processes.

Coral bleaching

A phenomenon in which corals lose their vibrant colors, typically due to environmental stressors such as elevated water temperatures, pollution, or changes in water quality.

Coral farming

Coral aquaculture, also known as coral farming or coral gardening, is the cultivation of corals for commercial purposes or coral reef restoration.

Coral reef conservation

The practice of protecting and preserving coral reef ecosystems, which are vital for marine biodiversity, coastal protection, and the livelihoods of millions of people.

Coral reefs

Coral reef: A tract of corals growing on a massive, waveresistant structure and associated sediments, substantially built by skeletons of successive generations of corals and other calcareous reef-biota.

Corporate social responsibility

The principle where businesses have a responsibility to make decisions that favorably impact the social, economic or environmental development of society.

Corrections

Corrections are changes made to something in order to correct or improve it, or the action of making such a change.

Cottage industry

A small-scale, decentralized manufacturing or production system where goods or services are created in homes, small workshops, or rural areas, often using traditional techniques and local resources, and typically characterized by a low level of technology and a high degree of manual labor, with products often being sold locally or through informal channels.

Crop production

Crop production is the process of growing and harvesting plants for food, feed, fiber, fuel, or other agricultural purposes. It involves various stages, including land preparation, planting, cultivation, and harvesting. Effective crop production depends on factors such as soil quality, climate, water availability, and farming techniques.

Crop quality

Crop quality refers to phytonutrient and secondary metabolite profiles and associated health and sensory properties that influence consumer buying decisions.

Crop residue management

The operation and management of crop land to remove stubble, stalks, and other crop residue or maintain them on the surface to prevent wind and water erosion, to conserve water, and to decrease evaporation.

Crop rotation

The practice of alternating the species or families of annual and/or biannual crops grown on a specific field in a planned pattern or sequence to break weed, pest and disease cycles and to maintain or improve soil fertility and organic matter content.

Crop yield

The amount of plant crop (such as cereal, grain or legume) harvested per unit area for a given time.



Cropping systems

The pattern of crops grown on a given piece of land, or order in which the crops are cultivated over a fixed period.

Crops

A crop is any cultivated plant, fungus, or alga that is harvested for food, clothing, livestock, fodder, biofuel, medicine, or other uses.

Cryptic species

Cryptic species can be broadly defined as two or more species that have historically been or are currently classified as the same species due to morphological similarities that make them visually indistinguishable.

Cultivation

Any agricultural action or practice used by growers to allow and improve the growing conditions of crops, fresh fruits or vegetables whether grown in an open field or in protected facilities (e.g. hydroponic systems, greenhouses/net houses).

It refers to the practices, techniques, and traditional knowledge used by farmers and communities to manage and conserve natural resources, promote biodiversity, and maintain ecosystem services, often passed down through generations and closely tied to local customs, beliefs, and social norms. These methods may include traditional crop rotation, organic farming, agroforestry, and other forms of sustainable agriculture that prioritize the well-being of both the environment and the people involved.

Cultural methods

Fresh flowers and flower buds that have been cut from the plant suitable for bouquets, wreaths, corsage and special

flower arrangements.

Dairy farming

Cut flowers

Dairy farming is a class of agriculture for long-term production of milk, which is processed (either on the farm or at a dairy plant, either of which may be called a dairy) for eventual sale of a dairy product.

Dairying

Dairying is the business of owning and operating a dairy or a dairy farm. This includes producing, processing, and selling dairy products. A dairy farm produces milk, and a dairy factory processes it into a variety of dairy products.

Damage

Damage refers to the negative impact or harm caused by external factors to something (for example to an organism, a system, an object or structure, or the environment).

Data

Reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing.

Databases

A logical collection of information that is interrelated and that is managed and stored as a unit, for example in the same computer file; the terms database and data set are often used interchangeably.

Deep water

Water deeper than fifteen fathoms.

Defoliation

Natural or disease-related shedding of leaves.

Density

Mass per unit volume of substance at a stated temperature.



Design

A plan or blueprint for the creation or implementation of a system, process, product, or space, taking into account factors such as functionality, aesthetics, sustainability, and user experience, with the goal of achieving a specific objective or solving a particular problem, often in the context of agricultural systems, rural development, or environmental management.

Detection

The process of identifying or locating something, such as a pest, disease, nutrient deficiency, or other condition, in a crop, soil, or agricultural environment, often through visual examination, testing, or monitoring, in order to take corrective action or make informed decisions about management practices.

Deterioration

Deterioration refers to the process of decline or degradation in the quality, condition, or performance of something, such as soil, water, air, or physical structures, over time, often due to natural or human-induced factors like erosion, pollution, weathering, or neglect, resulting in a loss of value, functionality, or integrity.

Detonators

Devices or mechanisms used to initiate an explosive reaction, typically by triggering a fuse or electric charge. Detonators are commonly employed in mining, construction, demolition, and military operations to safely and precisely control the timing of an explosion, ensuring the desired effect and minimizing risks.

Development

An economic, social, cultural and political process, aiming at the constant improvement of the well-being of all individuals.

Development economics

Development economics is a branch of economics which deals with economic aspects of the development process in low-income countries.

Development policies refer to a set of planned actions, strategies, and decisions implemented by governments, organizations, or institutions to promote and support the economic, social, and environmental growth and progress of a region, community, or country. These policies aim to improve the overall well-being and quality of life of the population, often focusing on areas such as poverty reduction, education, healthcare, infrastructure development, and sustainable resource management. Development policies can be designed to address specific challenges, such as rural development, urban planning, or environmental conservation, and are typically guided by a long-term vision for the future of the area or community.

Development policies

Planned sets of activities and investments aimed at achieving specific socio-economic and environmental objectives, such as improving agricultural productivity, enhancing rural infrastructure, or promoting sustainable natural resource management, typically involving the coordination of various stakeholders and the allocation of resources over a defined period.

Development projects



Diagnosis

The process of identifying a condition, problem, or disease based on the analysis of symptoms, signs, test results, or other relevant information.

Dietary diversity

Dietary diversity is a qualitative measure of food consumption that reflects household access to a variety of foods and is also a proxy for nutrient adequacy of the diet of individuals.

Recommendations that provide advice on healthy eating

habits and nutrient intake, aiming to promote overall health and well-being, and reduce the risk of chronic diseases, such as heart disease, diabetes, and certain types of cancer. These guidelines are typically developed by governmental or health organizations, based on scientific research and expert consensus, and are intended to inform individuals, healthcare

choices.

Digestion is the process of mechanically and enzymatically breaking down food into substances for absorption into the bloodstream.

professionals, and policymakers on making informed food

The digital elevation model (DEM) is a raster-based digital dataset of the topography (hypsometry and/or bathymetry) of all or part of the Earth (or a telluric planet).

Product, process, or business model that is perceived as new, requires some significant changes on the part of adopters, and is embodied in or enabled by IT.

Digital technologies describe technologies that are based on (computer) hardware, software and networking, and are distinguished from classic technologies by their flexibility and high availability.

Process of ensuring that an organization has complied with the preventive measures, is in a state of readiness to contain the effects of a forecasted disastrous event to minimize loss of life, injury, and damage to property.

Disaster refers to a severe rupture in the functioning of a society at any scale, due to hazardous events interacting with conditions of vulnerability, leading to human, material, economic and/or environmental impacts.

Measures or practices used to prevent, reduce, or eliminate the incidence and spread of diseases in plants, animals, or humans, particularly in agricultural settings, through methods such as vaccination, quarantine, sanitation, chemical treatment, biological control, and integrated pest management.

Disease surveillance: The ongoing, systematic collection, analysis, and interpretation of data related to the occurrence of diseases in plants, animals, or humans, to understand and predict the spread of diseases, identify risk factors, and inform decision-making for disease prevention and control measures.

Dietary guidelines

Digestion

Digital elevation models

Digital innovation

Digital technology

Disaster preparedness

Disasters

Disease control

Disease surveillance



Disease transmission

Passing of a pathogen causing communicable disease from an infected host individual or group to a particular individual or group, regardless of whether the other individual was previously infected.

Disorders

A functional abnormality or disturbance.

Disruptions

An interruption to the regular flow or sequence of something.

Diversification

The process of diversifying, the creation of diversity as an ongoing social and economic process, often as a strategy to

diminish risk.

Diving

Diving refers to the practice of descending into the water, typically to explore, work, or collect organisms, using specialized equipment such as scuba gear, and techniques to breathe and move underwater, often in the context of fishing, research, or recreational activities.

Diving equipment

Diving equipment is equipment used by underwater divers to make diving activities possible, easier, safer and/or more comfortable.

Diving hazards

Diving hazards are the agents or situations that pose a threat to the underwater diver or their equipment.

The diving industry refers to the sector of the economy that encompasses various commercial and recreational activities related underwater diving, including equipment manufacturing, training and certification programs, dive tourism, and underwater services such as inspection, maintenance, and repair of offshore platforms, pipelines, and other submerged structures. It also involves the provision of diving-related goods and services, such as air and gas supply, vessel operations, and safety equipment. The diving industry supports a range of applications, including offshore oil and gas, marine construction, scientific research, and environmental monitoring, among others.

Diving industry

DNA barcoding is a taxonomic method that uses a short genetic marker from a standard part of the genome of an organism's DNA to identify it as belonging to a particular

individual, breed/cultivar, or species.

Dormancy

A period in the life of an animal (hibernation and aestivation) or plant during which growth slows or completely ceases. Evolved to allow survival of adverse environmental conditions. Annual plants survive the winter as dormant seeds, while many perennial plants survive as dormant tubers, rhizomes, or bulbs.

Drainage

The natural or artificial removal of surplus ground and surface water and of dissolved salt from the land in order to enhance agriculture production. In the case of natural drainage, the excess water flows from the fields to lakes, swamps, streams and rivers. In an artificial system, surplus ground or surface water is removed by means of sub surface or surface conduits.



Drainage water

Any water, usually precipitation or irrigation water, that enters, interacts with, and then leaves a landscape.

Dredge spoil

Unconsolidated, randomly mixed sediments composed of rock, soil, and/or shell materials extracted and deposited during dredging and dumping activities.

Dredgers

A medium to large vessel (maximum 4-50 m long) and in general with a powerful engine. Some larger dredgers are of the outrigger type with strong outrigger boom allowing the operation of two or more dredges at the same time.

Dredging

Removal of sedimented bottom mud from a pond, drain, ditch or watercourse.

Drinking water

Safe drinking-water does not represent any significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages.

Durable disease resistance

Durable disease resistance is defined as resistance that has remained effective while a cultivar possessing it has been widely cultivated in an environment favoring the disease.

Echolocation

Echolocation, or biosonar, is an active process, used by the species that have it for sensing the environment when vision is ineffective, for example at night or in turbid water. It involves the production of sound, and the reception of echoes that return from objects. By comparing the outgoing pulse with the returning echoes — which are modified versions of the outgoing pulse — the brain can produce images of the surroundings.

Ecofriendly processes

Eco- or environmentally friendly processes protect the planet from exploitation and conserves natural resources. Products are made from sustainable materials, while waste is reduced through remanufacturing, reuse and recycling

Ecological footprint

A measure of how much area of biologically productive land and water an individual, population or activity requires to produce all the resources it consumes and to absorb the waste it generates, using prevailing technology and resource management practices.

Ecology

Ecology is the scientific study of the inter-relationships among and between organisms and between organisms and all living and non-living aspects of their environment.

Economic activities

An economic activity takes place when resources such as capital goods, labour, manufacturing techniques or intermediary products are combined to produce specific goods or services. Thus, an economic activity is characterised by an input of resources, a production process and an output of products (goods or services).

Economic behaviour

Economic behaviour refers to the way individuals, households, businesses, and organizations make decisions about how to allocate their resources, such as time, money, and skills, in order to maximize their satisfaction, profits, or well-being. It



involves the study of how people respond to changes in prices, income, technology, and other factors that affect their economic decisions, including production, consumption, saving, and investment. Economic behaviour is influenced by various factors, including personal preferences, cultural norms, social status, government policies, and market conditions.

Economic development

Economic development refers to the process of improving the economic well-being and quality of life of a community, region, or country, through the creation of jobs, the growth of incomes, and the increase of economic output, often achieved through investments in infrastructure, education, innovation, and other initiatives that enhance productivity and competitiveness, ultimately leading to sustained and inclusive economic growth.

Economic distribution

The allocation and apportionment of resources, goods, and services among different segments of a population, region, or industry, with the goal of maximizing efficiency, productivity, and overall economic well-being, often taking into account factors such as supply and demand, market trends, and social welfare.

Economic diversification

Economic diversification is the process of shifting an economy away from a single income source toward multiple sources from a growing range of sectors and markets.

Economic growth

Economic growth is an increase in the quantity and quality of the economic goods and services that a society produces.

Economic infrastructure

The basic physical and organizational structures, facilities, and services that support economic activities and enable the functioning of a society.

Economic policies

Economic policy covers a wide range of measures which governments use to manage their economy. These include monetary policy (money supply and demand), taxation, budget, job creation, etc.

Economic sectors

A part of a country's or region's commercial, industrial and financial activity, delimited either by public, corporate and private organization of expenditures or by agriculture, manufacturing and service product types.

Economic situation

The overall state of a country's, region's, or individual's economic activity, including factors such as income, employment, production, consumption, and resource allocation, which can influence the well-being and stability of a community or household, and is often used to describe the current condition of an economy, including trends, challenges, and opportunities.

Economic statistics

Economic statistics refers to the collection, analysis, interpretation, and presentation of data related to the production, distribution, and consumption of goods and services within an economy. It involves the use of statistical methods and techniques to measure and describe various



economic indicators, such as inflation rates, unemployment rates, gross domestic product (GDP), and other macroeconomic and microeconomic variables, to understand and inform economic decisions, policies, and trends.

The economic structure refers to the organization and allocation of resources, as well as the distribution of goods and services within an agricultural sector or rural community. It encompasses the relationships between different economic agents, such as farmers, suppliers, processors, and consumers, and the ways in which they interact to produce, process, and market agricultural products. The economic structure can influence the efficiency, productivity, and competitiveness of agricultural activities, as well as the overall well-being of rural communities.

An economic system is a system of production, resource allocation and distribution of goods and services within a society or a given geographic area. It includes the combination of the various institutions, agencies, entities, decision-making processes, and patterns of consumption that comprise the economic structure of a given community.

The branch of social science that deals with the production and distribution and consumption of goods and services and their management).

The study of the adaptive response of an organism's

physiology to its environment.

A strategy for integrating the activity within the wider ecosystem such that it promotes sustainable development,

equity and resilience of interlinked socioecological systems.

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and equitable, sustainable use. It is based on the application of appropriate scientific methodologies focused on levels of biological organization that encompass the essential processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.

The active management and protection of natural ecosystems to maintain their structure, function, and biodiversity. It involves practices aimed at preserving the quality of ecosystems, ensuring sustainable use of their resources, and restoring degraded environments to support ecological balance, resilience, and the well-being of human and non-human species.

Economic structure

Economic systems

Economics

Ecophysiology

Ecosystem approach to aquaculture

Ecosystem approaches

Ecosystem conservation



Ecosystem disturbance

Ecosystem disturbance refers to a sudden or significant disruption to the normal functioning of an ecosystem, causing changes to its structure, composition, or processes. This disruption can be caused by natural events, such as wildfires, hurricanes, or droughts, or by human activities, such as deforestation, pollution, or climate change. Ecosystem disturbances can have varying levels of impact, ranging from minor to catastrophic, and can affect the ecosystem's biodiversity, nutrient cycling, primary production, and overall resilience. Examples of ecosystem disturbances include invasive species outbreaks, coral bleaching, and forest clear-cutting, which can have long-term consequences for the ecosystem's health and stability.

Ecosystem health

The status and potential of an ecosystem to maintain its organizational structure, its vigor of function and resilience under stress, and to continuously provide quality ecosystem services for present and future generations in perpetuity.

Ecosystem management

Management taking due account of all living organisms and their environment in the management area. In practice, management ensuring sustainability of target, dependent, and associated species.

Ecosystem resilience

Ecosystem resilience is the capacity for an ecosystem to maintain a stable state in the face of disturbance, either by resisting change or by rapidly recovering from disturbance effects, thus avoiding a regime shift to an alternative stable state.

Ecosystem restoration

Process of reversing the degradation of ecosystems, such as landscapes, lakes and oceans to regain their ecological functionality; in other words, to improve the productivity and capacity of ecosystems to meet the needs of society.

Ecosystem services

Ecosystem services are the multitude of benefits that nature provides to society.

Ecosystems

A dynamic complex of plant, animal and microorganism communities, and the non-living physical components of the environment (e.g. air, soil, water and sunlight), interacting as a functional unit.

Education

Expertise in a discipline by undergoing systematic instruction and learning, especially at a school or university.

Eggs

An egg is the organic vessel containing the zygote in which an embryo develops until it can survive on its own, at which point the animal hatches. Reptile eggs, bird eggs, and monotreme eggs are laid out of water and are surrounded by a protective shell, either flexible or inflexible.

Elemental analysis

Elemental analysis (EA) is an analytical technique applied in chemistry to determine the elemental composition of chemical compounds and their composites.

Elements

A substance composed of a single type of atom. Examples include hydrogen, helium, carbon, oxygen, and others.



Elements are defined by the number of protons in each nucleus.

Embeddedness

The concept of embeddedness expresses the notion that social actors exist within relational, institutional, and cultural contexts and cannot be seen as atomized decision-makers maximizing their own utilities.

Emergencies

An emergency is an urgent, sudden, and serious event or an unforeseen change in circumstances that necessitates immediate action to remedy harm or avert imminent danger to life, health, or property; an exigency.

Emission

Anything that is discharged into the soil, air or water.

employment

Employment is a relationship between two parties, usually based on a contract where work is paid for, where one party, which may be a corporation, for profit, not-for-profit organization, co-operative or other entity is the employer, and the other is the employee.

Endemic organisms

Organisms native to, and restricted to, a particular geographical region.

Endemism

Energy

The ecological state of a species being unique to a defined geographic location, such as an island, nation, country or other defined zone, or habitat type; organisms that are indigenous to a place are not endemic to it if they are also found elsewhere.

Energy refers to the capacity or ability to do work, which can take various forms such as thermal, kinetic, potential, electrical, or chemical. In the context of agriculture, energy is often associated with the capacity to perform tasks such as powering machinery, irrigating crops, or fueling transportation, and can be derived from various sources including fossil fuels,

solar power, wind power, or biomass.

Energy consumption

The amount of energy used by a farm, agricultural operation, or other entity, typically measured over a specific period, and often expressed in units such as kilowatt-hours (kWh), megawatt-hours (MWh), or British thermal units (BTUs), to power equipment, lighting, heating, cooling, and other energy-using systems.

Energy conversion

The conversion of energy from one form to another, for example in electricity generation or photosynthesis.

Energy efficiency

Energy efficiency is the use of less energy to perform the same task or produce the same result. Energy-efficient homes and buildings use less energy to heat, cool, and run appliances and electronics, and energy-efficient manufacturing facilities use less energy to produce goods.

Energy management

Energy management is the process of monitoring, controlling, and optimizing the use of energy in a system or organization to improve efficiency and reduce costs and environmental impact. It involves planning and implementing strategies to reduce energy consumption while maintaining performance.



Effective energy management supports sustainability and resource conservation.

A term in the commercial world used to describe a project or venture undertaken for gain. It is often used with the word "business" as in "business enterprise". Usually, by extension, it refers to the business entity carrying out the enterprise and is thus synonymous with "undertaking", "company" or "firm".

An entiity is something which is distinct and separate from something else.

Entrainment is the unwanted passage of fish through a water intake, which is generally caused by an absent or inadequate screen surrounding the water intake.

The environment is the totality of all the external conditions affecting the life, development and survival of an organism.

The deterioration in environmental quality from ambient

concentrations of pollutants and other activities and processes, such as improper land use and natural disasters.

Environmental factors refer to the external conditions and influences that affect the growth, development, and survival of

Environmental factors refer to the external conditions and influences that affect the growth, development, and survival of living organisms, including plants and animals, in a specific ecosystem or habitat. These factors can be biotic (living) or abiotic (non-living) and include aspects such as:

- · Climate and weather patterns.
- Soil composition and quality.
- Water availability and quality.
- Light intensity and duration.
- Temperature and humidity.
- Topography and geography.
- Presence of other organisms, such as predators, competitors, or symbionts.

These environmental factors can impact agricultural productivity, animal health, and the overall balance of ecosystems, and are often considered in agricultural planning, conservation, and management practices.

An environmental flow is the water regime provided within a river, wetland or coastal zone to maintain ecosystems and their benefits where there are competing water uses and where flows are regulated.

Direct effect of socio-economic activities and natural events on the components of the environment.

Management and control of the environment and natural resources systems in such a way so as to ensure the sustainability of development efforts over a long-term basis.

Enterprises

Entrainment

Entities

Environment

Environmental degradation

Environmental factors

Environmental flows

Environmental impact

Environmental management



Environmental monitoring

Environmental monitoring refers to the systematic process of collecting, analyzing, and interpreting data to assess the quality of the environment, track changes, and identify potential threats to ecosystems, human health, and natural resources. This process involves the observation, measurement, and evaluation of environmental parameters such as air and water quality, soil contamination, noise pollution, and biodiversity, among others, to provide insights into the current state of the environment and inform decision-making, policy development, and management actions to protect and conserve the environment.

Environmental policies

Official statements of principles, intentions, values, and objective which are based on legislation and the governing authority of a state, and which serve as a guide for the operations of governmental and private activities in environmental affairs.

Environmental protection

Environmental protection refers to the practices, policies, and measures taken to preserve and safeguard the natural environment, including the air, water, land, and ecosystems, from harmful human activities and impacts. This involves conserving natural resources, reducing pollution, mitigating climate change, and protecting biodiversity to ensure a healthy and sustainable environment for present and future generations.

Environmental restoration

Reactive environment protection. It includes (a) reduction or neutralization of residuals, (b) changes in the spatial distribution of residuals, (c) support of environmental assimilation and (d) restoration of ecosystems, landscape and so forth.

Epidemiology

Scientific study of the occurrence of a disease or other healthrelated event in specified populations, and its application to the control of health problems.

Equipment

Equipment: Refers to the machines, tools, devices, and other tangible items used in agricultural, veterinary, or other related activities to perform a specific function, task, or operation, and that are necessary for the efficient and effective completion of the activity. Examples of equipment include tractors, plows, planters, irrigation systems, veterinary medical devices, and other machinery or tools used in farming, animal husbandry, or other related fields.

Equipment certification

Equipment certification refers to the process of verifying and validating that a particular piece of equipment, machinery, or device meets the required safety, quality, and performance standards, as well as regulatory and industry requirements. This certification is often issued by a third-party organization, such as a testing laboratory, inspection body, or certification agency, after conducting a series of tests, inspections, and evaluations to ensure the equipment's compliance with established norms and guidelines. The certification provides



assurance to users, operators, and regulatory authorities that the equipment is safe to use, functions as intended, and meets the necessary specifications, thereby minimizing risks and ensuring a high level of performance and reliability.

Erosion control plants

Plant species specifically chosen and utilized to prevent or reduce soil erosion caused by wind, water, or human activity.

Errors

The difference between a computed, observed, or measured value or condition and the true, specified, or theoretically correct value or condition; An incorrect step, process, or data definition, or an incorrect result.

Ethics

Ethics are a system of moral principles and a branch of philosophy which defines what is good for individuals and society.

Euryhalinity

Euryhalinity refers to broad halotolerance and broad halohabitat distribution.

Evaluation

Evaluation is a selective exercise that attempts to systematically and objectively assess progress towards and the achievement of an outcome. Evaluation is not a one-time event, but an exercise involving assessments of differing scope and depth carried out at several points in time in response to evolving needs for evaluative knowledge and learning during the effort to achieve an outcome.

Evaporation

Evaporation refers to the process by which water is transformed from a liquid state into a vapor or gas state. In the context of agriculture, evaporation is a key component of the water cycle, where water is lost from the surface of the earth, such as from soils, plants, and water bodies, into the atmosphere. This process is influenced by factors such as temperature, humidity, wind speed, and solar radiation, and plays a crucial role in determining crop water requirements, irrigation needs, and overall water balance in agricultural systems.

Evapotranspiration

Process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants.

Evolution

Evolution is change in the heritable characteristics of biological populations over successive generations.

Experiential learning

Experiential learning is the process of learning through experience and is more specifically defined as learning through reflection on doing.

Experimental farms

A demonstration farm, experimental farm or model farm, is a farm which is used primarily to research or demonstrate various agricultural techniques, with any economic gains being an added bonus. Demonstration farms are often owned and operated by educational institution or government ministries.

Explosives

An explosive (or explosive material) is a reactive substance that contains a great amount of potential energy that can



produce an explosion if released suddenly, usually accompanied by the production of light, heat, sound, and pressure.

Extension

The process of providing educational and technical assistance to farmers, rural communities, and other stakeholders to improve agricultural practices, increase productivity, and enhance overall well-being, often through a combination of training, demonstrations, and advisory services.

Extension programmes

Organized efforts to convey information and expertise to farmers, rural communities, and other stakeholders to improve agricultural practices, increase productivity, and enhance overall well-being, often through a combination of training, demonstrations, and advisory services.

Extension systems

An extension system can be defined as an information exchange system which shows the actors, people and institutions, their interactions and communication networks between these actors to coordinate the information related processes.

Extensive aquaculture

Production system characterized by (i) a low degree of control (e.g. of environment, nutrition, predators, competitors, disease agents); (ii) low initial costs, low-level technology, and low production efficiency (yielding no more than 500 kg/ha/yr); (iii) high dependence on local climate and water quality; use of natural water bodies (e.g. lagoons, bays, embayments) and of natural often unspecified food organisms.

Famine

Severe and prolonged hunger in a substantial proportion of the population of a region or country, resulting in widespread and acute malnutrition and death by starvation and disease.

Farm equipment

Farm equipment refers to the machinery and tools used in agricultural activities to assist with tasks such as planting, harvesting, fertilizing, and soil preparation. Common examples include tractors, plows, harvesters, seeders, and irrigation systems. The use of farm equipment increases efficiency, reduces labor, and enhances productivity on farms.

Farming systems

Different types of farming and methods of cultivation, e.g. shifting cultivation systems, ley systems, systems with permanent upland cultivation, fallow systems, grazing systems and systems with perennial crops.

Farms

An area of land, a holding of any size from a small plot or garden (fractions of a hectare) to several thousand hectares that is devoted primarily to agriculture to produce food, fibre or fuel. A farm may be owned and operated by an individual, a family, a community, a corporation or a company, and may produce anywhere from one-to-many types of produce or animal.

Fats

Storage material in living organisms found mainly as oils in plants and solid forms (adipose tissue) in animals.



Feed contamination

Animal feed, including herbage, may be contaminated with organic and inorganic compounds as well as with particulates.

Feed crops

Fodder crops are those cultivated explicitly or primarily for feeding animals.

Feed grasses

Grasses that are cultivated and harvested for use as animal feed, providing nutrition to livestock such as cattle, sheep, and horses. These grasses can be preserved through various methods like haymaking, silage, or grazing, and are an essential component of the diet of herbivorous animals, offering a source of fiber, energy, and essential nutrients.

Feed legumes

Grassy or tree legume that provides leaves and stems for grazing or use in silage.

Feed processing

Feed processing refers to the series of operations and treatments applied to raw materials, such as grains, oilseeds, and other ingredients, to transform them into a form that is suitable for consumption by livestock, such as cattle, pigs, poultry, and fish. This process involves various physical, chemical, and biological treatments, including grinding, mixing, pelleting, extrusion, and drying, to improve the nutritional value, palatability, and digestibility of the feed, as well as to ensure its safety and quality. The goal of feed processing is to produce a nutritionally balanced and consistent feed that meets the specific needs of the target animal species, while also minimizing waste and optimizing the use of raw materials.

Feed quality

Feed quality refers to the nutritional value, safety, and physical characteristics of animal feed, including factors such as nutrient content, palatability, and freedom from contaminants or adulterants. It encompasses the chemical, physical, and biological properties of the feed that affect its suitability for consumption by animals, and ultimately, its impact on animal health, growth, and productivity.

Feed technology

Feed technology refers to the application of scientific principles and engineering practices to the processing, formulation, and manufacture of animal feeds, with the goal of producing high-quality, nutritious, and safe feed products that meet the nutritional needs of various animal species, while also ensuring efficiency, sustainability, and environmental responsibility in the feed production process.

Feeding

The act of providing food or nutrients to animals, particularly livestock, to promote their growth, health, and productivity. This can include the provision of fodder, grains, or other nutritional substances, and can be done through various methods such as grazing, browsing, or the use of feeding equipment like troughs or feeders. In agriculture, feeding is a critical aspect of animal husbandry and is essential for maintaining the overall well-being and performance of livestock.



Feeding experiments

Feeding experiments refer to the controlled studies or trials conducted to investigate the nutritional requirements, feeding behaviors, and digestive processes of animals, particularly in agricultural or veterinary contexts. These experiments involve providing specific diets or nutrient regimens to animals under controlled conditions and then measuring and analyzing the effects on their growth, health, productivity, and overall well-being. The goal of feeding experiments is to gain a deeper understanding of the nutritional needs of animals, optimize their diets, and improve their performance, health, and welfare.

Feeding habits

Feeding habits refer to the routine or regular way in which an individual or a group of organisms obtain and consume food.

Feeding level

Feeding level refers to the amount of nutrients or feed provided to animals, particularly livestock, to meet their dietary requirements. It encompasses the quantity and quality of food, such as grains, forages, or concentrates, that are fed to animals to support their growth, maintenance, and production. The feeding level can be adjusted to optimize animal performance, health, and well-being, while also considering factors like feed efficiency, cost, and environmental impact.

Feeds

Any single or multiple materials, whether processed, semiprocessed or raw, intended to be fed directly to food-producing animals.

Felling

The process of cutting down standing trees as part of forest management, timber harvesting, or land clearing operations.

Fermentation

The enzymatically controlled anaerobic breakdown of organic substrates.

Fertilization

Fertilization in agriculture refers to the process of adding nutrients to the soil or plants to enhance their growth and productivity. This can be done using natural or synthetic fertilizers that supply essential elements like nitrogen, phosphorus, and potassium. Proper fertilization helps improve crop yields and maintain soil fertility.

Fibre quality

Fibre quality is a term which, may be used to express a variety of different fibre properties but to the spinner it has usually only one of the three following meanings: —the quality of the yams which can be spun from the fibre, the ease with which the fibre may be processed into yam, and the amount of yam which can be spun from a given quantity of fibre.

Fibres

Thread-like structures or materials that can be natural, such as cotton, wool, and hemp, or synthetic, such as nylon and polyester.

Filters

A layer or combination of layers of pervious materials designed and installed to separate solids from fluids (liquids or gases) by adding a medium through which only the fluid can pass.

Finance

Finance refers to the management of money and investments, including activities such as budgeting, saving, investing, borrowing, lending, and forecasting. In the context of



agriculture, finance may involve securing funding for farm operations, managing cash flow, and making informed decisions about investments in equipment, land, and other assets.

An aquaculture production unit (either land- or water-based), usually consisting of holding facilities (tanks, ponds, raceways, cages), plant (buildings, storage, processing), service equipment and stock.

Fish handling Initial processing of raw fish. Fish leather Leather made from fish skin.

> Goods derived from fish through various processing methods, including fresh, frozen, dried, salted, canned, or smoked forms

> The most common use for fisheries resources is food. Fish landed not used for direct human consumption is reduced to fishmeal and oil.

The term fish wastes are used to describe different categories of unwanted food fish, such as small-sized fish species, bycatches, as well as the byproducts of fisheries and aquaculture industries.

A fishery is an activity leading to the harvesting of fish, within the boundaries of a defined area. The fishery concept fundamentally gathers indication of human fishing activity, from economic, management, including biological/ environmental and technological viewpoints.

Provision of economic, social, legal or other kinds of assistance to fishers and /or to their communities.

Information and statistics collected and analyzed to understand the characteristics and dynamics of fish populations, fishing activities, and the overall fishery system, including data on fish abundance, distribution, size, and species composition, as well as data on fishing effort, catch, and discards, which are used to inform fisheries management decisions, ensure sustainable fishing practices, and conserve marine ecosystems.

The production, distribution, and consumption of fish and seafood and all financial aspects of the fishing and seafood industry.

The integrated process of information gathering, analysis, planning, decision-making, allocation of resources and formulation and enforcement of fishery regulations by which the fishery management authority controls the present and future behaviour of interested parties in the fisheries to ensure the continued productivity of the living resources.

A fisheries policy is the definite course or method of action, selected from among alternatives, by a government or its mandated fisheries authority, in light of given conditions

Fish farms

Fish products

Fish utilization

Fish wastes

Fisheries

Fishery aid

Fishery data

Fishery economics

Fishery management

Fishery policies



including legal and constitutional constraints, to guide and determine present and future development and management actions towards satisfaction of agreed objectives.

The outputs of fisheries production presented whole or in parts, processed or unprocessed, in various product forms, regardless of their final utilization.

Measures against illegal fishing by foreign vessels in EEZ, territorial waters or protected fisheries.

In general, refers to elements of a natural aquatic resource (e.g. strains, species, populations, stocks, assemblages) which can be legally caught by fishing. It may sometimes be taken as including also the habitat of such resources.

Fishery statistics are the primary means to measure the performance of a fishery within the social, economic, biological and environmental framework in which it is conducted.

Searching for, attracting, locating, catching, taking or harvesting of living marine resources or any activity which can reasonably be expected to result in attracting, locating, catching, taking or harvesting of living marine resources.

An aggregation of fishing vessels of a particular country (e.g. The European Union fishing fleet) or using a particular gear (e.g. Purse seine fleet).

Fishing gear refers to any physical device or part thereof or combination of items that may be placed on or in the water or on the seabed with the intended purpose of capturing or controlling for subsequent capture or harvesting marine organisms, in accordance with MARPOL Annex V.

The various techniques, practices, and gear used to catch fish and other aquatic organisms, including traditional and modern approaches such as line and hook fishing, netting, trapping, trolling, and trawling, which can be categorized into different types, including active and passive methods, and can vary depending on the target species, fishing location, and environmental conditions.

Any single action carried out during a fishing trip, whether or not a catch was made; this includes, inter alia, towing a trawl net, setting a line and hauling pots and traps.

A right to catch a specified quantity of fish, or proportion of the total allowable fish catch or a right to use a boat (or any other specified fishing equipment) in a manner specified in a management plan or in the fishery regulations.

Protein-rich meal derived from processing (boiling, pressing, drying, grinding) whole fish (usually small pelagic fish or bycatch) as well as residues and by-products from fish processing plants (fish offal). Used mainly as agriculture feeds for domestic livestock (poultry, pigs, cattle, etc.) and as aquaculture feeds for carnivorous aquatic species.

Fishery products

Fishery protection

Fishery resources

Fishery statistics

Fishing

Fishing fleets

Fishing gear

Fishing methods

Fishing operations

Fishing rights

Fishmeal



Fishmeal processing

The industrial process of converting whole fish, fish byproducts, or other marine organisms into fishmeal, a highprotein feed ingredient primarily used in animal nutrition, especially for livestock and aquaculture.

Flavourings

Substances added to food and beverages to impart, enhance, or modify taste and aroma without significantly contributing to nutritional value.

In agriculture, flushing refers to the practice of providing a sudden and temporary increase in water or nutrient supply to plants, typically to stimulate growth, improve yield, or enhance fruiting. This technique is often used in greenhouse production, hydroponics, or other controlled-environment agriculture systems to promote healthy plant development, increase flowering or fruit set, or improve crop quality. Flushing can involve brief periods of increased irrigation, fertilization, or other environmental manipulations to achieve specific

horticultural goals.

Inanimate object contaminated by an infectious agent that can

indirectly transmit an infectious disease.

Access by individuals to adequate resources (entitlements) for producing or acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economics and social arrangements of the community in which they live (including traditional rights such as access to common resources).

itv

Price of a food, relative to cost of other foods and/or population income.

The international sourcing of concessional resources in the form of or for the provision of food.

Integrated strategies that consider all stages of the food production and distribution process—from primary production through processing, storage, transport, and marketing to consumption—with the aim of ensuring food safety, quality,

sustainability, and traceability.

A simplistic concept referring to the sequence of organisms on successive trophic levels within a community, through which energy is transferred by feeding; energy enters the food chain during fixation by primary producers (mainly green plants) and passes to the herbivores (primary consumers) and then to the carnivores (secondary and tertiary consumers). Nutrients are returned to the primary production by detritivores.

Details of the energy (Calories), Protein (g), Carbohydrate (g)

and Fat (g) for 100g of various foods.

Flushing

Fomites

Food access

Food affordability

Food aid

Food chain approaches

Food chains

Food composition



Food consumption

Food consumption refers to the act of eating or ingesting food products by humans or animals, resulting in the intake of nutrients, energy, and other substances necessary for survival, growth, and maintenance of overall health. In the context of agriculture, food consumption also encompasses the study of the patterns, trends, and factors influencing the demand for and utilization of agricultural products, including the analysis of dietary habits, cultural preferences, and socioeconomic factors that shape food choices and consumption behaviors.

Food consumption statistics

Food consumption statistics refer to the quantitative data and analysis related to the amount and types of food consumed by individuals, households, or populations over a specific period. This includes information on the average daily intake of various food groups, nutrients, and calories, as well as trends and patterns in eating habits and dietary preferences. Food consumption statistics are often used to inform public health policy, nutrition education, and food security initiatives, and can be collected through surveys, household expenditure surveys, and other methods.

Food contamination

The presence in food of harmful, unpalatable, or otherwise objectionable foreign substances, e.g. chemicals, microorganisms or diluents, before, during, or after processing or storage.

Food environment

Food environment refers to the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food.

Food losses

Food loss is the decrease in the quantity or quality of food resulting from decisions and actions by food suppliers in the chain, excluding retail, food service providers and consumers. Empirically, it refers to any food that is discarded, incinerated or otherwise disposed of along the food supply chain from harvest/slaughter/catch up to, but excluding, the retail level, and does not re-enter in any other productive utilization, such as feed or seed.

Food packaging

The action of placing a foodstuff in an envelope or container in direct contact with the foodstuff in question.

Food preservation

Preservation: the preparation of food for future use (as by canning, pickling, or freezing) to prevent spoilage.

Food prices

The monetary value assigned to food products in the market, which can fluctuate based on factors such as supply and demand, production costs, transportation, market conditions, and government policies.

Food processing

Food processing is the transformation of raw agricultural products into food items suitable for consumption, storage, or sale. It includes a wide range of techniques such as cleaning, cooking, freezing, packaging, and preserving. Food



processing helps improve food safety, extend shelf life, and create a variety of convenient food products.

Food quality is the quality characteristics of food that is acceptable to consumers.

Food safety is a science-based discipline, process or action that prevents food from containing substances that could harm a person's health. Food safety aims to have food that is safe to eat.

A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Based on this definition, four food security dimensions can be identified: food availability, economic and physical access to food, food utilization and stability over time.

Food becomes unfit for consumption due to loss of its original characteristics in terms of taste, smell, appearance, texture and composition as a result of physical, chemical, enzymatic, microbiological and biological activities.

Food statistics refers to the collection, analysis, and interpretation of data related to the production, distribution, consumption, and trade of food products, including information on crop yields, livestock numbers, food prices, and nutritional content, to inform decision-making, policy development, and resource allocation in the agricultural and food sectors.

consumer via the process of production, processing, distribution, retailing and consumption, thus food moves from farmer to consumer.

Food systems comprise all food products that originate from

In the food supply chain, food moves from producer to

crop and livestock production, forestry, fisheries and aquaculture, and from other sources such as synthetic biology that are meant for human consumption.

The application of scientific and engineering principles to the

The application of scientific and engineering principles to the production, processing, preservation, packaging, and distribution of food products.

The ability to track and document the movement and history of food products throughout the entire supply chain, from production and processing to distribution and consumption. This includes information on the origin, destination, and any transformations or handling the product undergoes, allowing for the identification and recall of specific batches or lots in the event of a food safety issue or quality concern. Food traceability involves the use of records, labels, and other forms of identification to ensure that food products can be traced back to their source, enabling more effective management of food safety risks, quality control, and regulatory compliance.

Food quality

Food safety

Food security

Food spoilage

Food statistics

Food supply chains

Food systems

Food technology

Food traceability



Food wastes

Food wastes refer to intentional discards of edible items, mainly by retailers and consumers, and is due to the behaviour of businesses and individuals. Waste products of foodstuffs.

Foods

Food means any substance, whether processed, semiprocessed or raw, which is intended for human consumption, and includes drink, chewing gum and any substance which has been used in the manufacture, preparation or treatment of "food" but does not include cosmetics or tobacco or substances used only as drugs.

Foodsheds

Geographic location that produces the food for a particular population.

Forage

It refers to plants or plant parts other than separated grains fed to or grazed by domestic animals. Forage may be fresh, dry or ensiled (such as pasture, green chop, hay, haylage).

Forage yield

Forage yield refers to the amount of edible plant material, typically measured in terms of dry matter, that is produced by a forage crop or pasture per unit area of land, usually expressed in units such as tons per hectare or pounds per acre, over a specific period of time. It is an important metric in agriculture, particularly in the context of livestock production, as it helps farmers and ranchers to evaluate the productivity and nutritional value of their forage resources.

Forest ecology

Forest ecology is the scientific study of the interrelated patterns, processes, flora, fauna and ecosystems in forests.

Foresters

A forester is a person who has had special education, training, and experience in forestry that includes, for example, industrial forestry or urban forestry.

Forestry

The science of establishing, cultivating and managing forests and their attendant resources.

Forestry biology

Forestry biology refers to the scientific study of the biological aspects of forests, including the structure, function, and interactions of forest ecosystems, as well as the biology of trees and other forest organisms. It encompasses the study of the physiology, genetics, ecology, and evolution of forest species, and explores the complex relationships between trees, other organisms, and their environment. Forestry biology aims to understand the biological principles underlying forest health, productivity, and sustainability, and informs the development of sustainable forest management practices, conservation strategies, and restoration techniques.

Forestry statistics

Quantitative data related to the management, use, and conservation of forest resources.

Formulations

Formulation means the combination of various ingredients designed to render the product useful and effective for the purpose claimed and for the envisaged mode of application.

Fossil assemblages

Fossil assemblages, or faunal assemblages, are simply groups of fossils found together in strata.



Fossils

A fossil is any preserved remains, impression, or trace of any once-living thing from a past geological age.

Fouling

Fouling is the accumulation of unwanted material on solid surfaces. The fouling materials can consist of either living organisms (biofouling) or a non-living substance (inorganic or organic).

Fouling control

Fouling control: Refers to the methods and techniques used to prevent or mitigate the accumulation of unwanted substances, such as algae, bacteria, or other microorganisms, on surfaces of equipment, pipes, or other systems used in agricultural or aquacultural settings, to maintain efficiency, hygiene, and overall system performance.

Freshwater aquaculture

By freshwater aquaculture is understood the cultivation of aquatic organisms where the product is raised in freshwater, such as reservoirs, rivers, lakes, canals and groundwater, in which the salinity does not normally exceed 0.5‰. Earlier stages of the life cycle of these aquatic organisms may be spent in brackish or marine waters.

Freshwater organisms

Species of plants, animals, and microorganisms that inhabit freshwater environments such as rivers, lakes, ponds, and wetlands. These organisms are adapted to life in water with low salinity and play vital roles in the food web, nutrient cycling, and overall ecological balance of freshwater ecosystems.

Freshwater resources

Naturally occurring water sources with low concentrations of dissolved salts, including rivers, lakes, groundwater, and wetlands, that are used for drinking, irrigation, industry, and supporting ecosystems.

From farm to fork

A description of all steps in the process, from beginning to end, involving the production, processing, packaging, handling, storage, preservation, distribution and preparation of a food product.

The term "from sea to the fork" refers to the entire value chain of the seafood industry, encompassing all stages of production, processing, distribution, and consumption of seafood products. This concept covers the journey of seafood from the moment it is caught or farmed in the ocean (sea) to the point where it is finally consumed by the end-user (fork), including activities such as fishing, aquaculture, processing, packaging, transportation, storage, marketing, and sales. The "from sea to the fork" approach aims to ensure the sustainability, quality, and safety of seafood products throughout the entire supply chain, while also promoting transparency, accountability, and responsible practices among industry stakeholders.

From sea to the fork

Fruit produce, consumed directly as food. Can be processed into dried fruit, fruit juice, canned fruit, frozen fruit, jam, alcoholic beverages, etc. The way the term "fruit" is used in everyday speech is different from the way it is used in botany,

Fruits



where 'fruit' is the seed-bearing product that grows from the ovary of a flowering plant.

Fruits (botanical)

A fruit is a mature, ripened ovary, along with the contents of the ovary. The ovary is the ovule-bearing reproductive structure in the plant flower.

Functional diversity

Functional diversity is a component of biodiversity that generally concerns the range of things that organisms do in communities and ecosystems.

Functional properties

The functional properties are the fundamental physicochemical properties that reflects the complex interaction between the composition, structure molecular conformation and physicochemical properties of food components together with the nature of environment which are associated and measured.

Gas emissions refer to the release of gases into the atmosphere, often because of human activities such as

industrial processes, agricultural practices, transportation, and energy production. These emissions can include a wide range of gases, including greenhouse gases like carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), as well as other pollutants like sulfur dioxide (SO2), nitrogen oxides (NOx), and volatile organic compounds (VOCs). Gas emissions can have significant environmental impacts, including climate change, air pollution, and negative effects on human health and ecosystems. In the context of agriculture,

Gear selectivity

Gas emissions

Refers to a fishing method's ability to target and capture organisms by size and species during the fishing operation allowing non-targets to be avoided or released unharmed.

gas emissions can arise from sources like livestock digestion,

manure management, fertilizer use, and soil cultivation.

Gene banks

Gene banks are facilities where genetic material can be conserved and made available for users such as breeders, researchers and even farmers. Germplasm — the genetic material of living resources — is the focus of these collections and in the case of plant genebanks is typically stored as seeds, seedlings, tissue and other forms that contain genetic information.

Genecology

Genecology is a branch of ecology which studies genetic variation of species and communities compared to their population distribution in a particular environment. It is closely related to ecogenetics, but genecology focuses primarily on an ecological perspective, looking at changes and interactions between species, while ecogenetics focuses more on species' genetic responses to the environment.

Genetic databases

A genetic database is one or more sets of genetic data (genes, gene products, variants, phenotypes) stored together with software to enable users to retrieve genetic data, add genetic data and extract information from the data. Genetic databases



are repositories of organised data that are a resource for understanding how organisms function.

Change in allele frequency from one generation to another within a population, due to the sampling of finite numbers of genes that is inevitable in all finite-sized populations. The smaller the population, the greater the genetic drift, with the result that some alleles are lost, and genetic diversity is reduced. Thus, minimization of genetic drift is an important consideration for conservation of genetic resources.

Those biological processes that are involved in the transmission of hereditary traits from one organism to another.

> Genetic resources: genetic material of actual or potential value.

> > Methods and tools used to manipulate, analyze, and understand the genetic material of organisms, including DNA and RNA. These techniques involve the direct manipulation of genes and genomes, and are used in fields such as plant breeding, biotechnology, and molecular biology to improve crop yields, disease resistance, and nutritional content, among other applications. Examples of genetic techniques include DNA sequencing, genetic engineering, gene editing (e.g. CRISPR/Cas9), marker-assisted selection, and quantitative trait locus (QTL) mapping.

> > Geographical distribution: The spatial arrangement and pattern of occurrence of a species, population, or other ecological entity across different regions, habitats, or environments, describing the area or areas where it can be found and the boundaries of its range.

> > Geographical variation refers to differences populations in genetically based traits across the natural geographic range of a species.

> > Geography is the study of the lands, features, inhabitants, and phenomena of Earth.

> > Geological data refers to the reinterpretable representation of information about the Earth's structure, materials, and processes, presented in a formalized manner suitable for communication, interpretation, or processing.

> > Geological equipment refers to the tools, instruments, and machinery used to collect, analyze, and interpret data related to the Earth's composition, structure, and processes. This equipment is utilized in various fields such as geology, geophysics, and environmental science to study the Earth's surface and subsurface, and can include items like rock drills, seismic instruments, GPS devices, sampling tools, and laboratory apparatus for analyzing geological samples.

> > Geomatics is commonly defined as a discipline aimed at managing geographic data by means of the science and

Genetic drift

Genetic processes

Genetic resources

Genetic techniques

Geographical distribution

Geographical variation

Geography

Geological data

Geological equipment

Geomatics



technology used to acquire, store, process, display and distribute them.

Information collected through the analysis and testing of soil, rock, and other materials that make up the Earth's subsurface. This data is used to assess the physical properties, stability, and behavior of these materials for construction, engineering, and environmental purposes.

Geotechnology involves the science and engineering of soil deposits, rock masses, and the fluid they contain.

Banks that preserve genetic materials, like seeds, gametes, somatic cells and stem cells, for the conservation of threatened or endangered species.

The preservation and maintenance of genetic material from plants, animals, or microorganisms, which is essential for breeding and the improvement of species. This involves safeguarding seeds, tissues, or DNA to ensure the continued availability of genetic diversity, supporting sustainable agricultural practices, biodiversity conservation, and resilience to environmental changes.

Germplasm exchange is the exchange of genetic material on request between different stakeholders for purposes such as conservation, breeding, research, and agricultural development.

Globalization is the gradual integration of economies and societies driven by new technologies, new economic relationships, and the national and international policies of a wide range of actors – including governments, international organizations, business, labour and civil society.

Practices that address environmental, economic, and social sustainability for onfarm processes, resulting in safe and quality food and non-food agricultural products.

A type of monocotyledonous plants that belong to the family Poaceae, characterized by long, narrow leaves and stems that grow from the base, and are often used as food sources for livestock, as well as for lawns, erosion control, and other landscaping purposes. They include a wide range of species, such as wheat, oats, barley, and turfgrasses like Kentucky bluegrass and perennial ryegrass.

Green technology can be broadly defined as technology that has the potential to significantly improve environmental performance relative to other technologies. In general, green technologies are considered those that "protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual waste in a more acceptable manner than the technologies for which they were substitutes."

Geotechnical data

Geotechnology

Germplasm banks

Germplasm conservation

Germplasm exchange

Globalization

Good agricultural practices

Grasses

Green technology



Greenhouse crops

Greenhouse crops refer to plants that are grown within a controlled environment, typically in a greenhouse or other protected structure, where temperature, humidity, light, and other conditions are optimized for plant growth and development. These crops can include a wide range of species, such as fruits (e.g., tomatoes, cucumbers, strawberries), vegetables (e.g., lettuce, peppers, herbs), flowers (e.g., roses, carnations, chrysanthemums), and other ornamental plants. Greenhouse crops are often grown using hydroponic, soilless, or containerized production systems, and may utilize supplemental lighting, heating, and cooling to extend the growing season and improve crop yields and quality.

Greenhouse gas emissions

Group approaches

The discharge of greenhouse gases, such as carbon dioxide. nitrous methane. oxide and various halogenated hydrocarbons, into the atmosphere. Combustion of fossil fuels, agricultural activities and industrial processes contribute to the emissions of greenhouse gases.

Group approaches refer to methods or strategies used in agriculture, conservation, or environmental management that involve collaborative efforts among multiple stakeholders, such

as farmers, communities, or organizations, to achieve common goals or address shared challenges. These approaches often emphasize collective action, cooperation, and mutual benefit, and can be used to promote sustainable practices, improve

resource management, or enhance ecosystem services. Examples of group approaches include cooperative farming, community-based conservation, and collaborative watershed management.

Groups

A number of individual items or people brought together.

Guidelines

A guideline is a statement by which to determine a course of action. A guideline aims to streamline particular processes according to a set routine or sound practice.

Habitat loss refers to the destruction, degradation, or

disruption of natural environments, such as forests, grasslands, wetlands, or other ecosystems, resulting in the reduction or elimination of the area available for plants and animals to live, feed, breed, and migrate, often caused by human activities like deforestation, urbanization, agriculture,

Habitat loss

and infrastructure development.

Habitat selection

Habitat selection refers to the process by which animals choose and occupy specific environments or habitats that provide them with the necessary resources, such as food, water, shelter, and breeding grounds, to survive and reproduce. This selection is often influenced by various factors, including the availability of resources, predation pressure, competition with other species, and environmental conditions, and can have significant impacts on the



distribution, abundance, and diversity of species within an ecosystem.

Halophytes are a group of plants that are naturally equipped with the mechanisms to survive under highly saline and arid

conditions and produce high biomass.

Manual or mechanical handling or movement, storage, control and protection of raw materials, semi-finished products or products during manufacturing, distribution, consumption and

recycling.

The act or process of gathering agricultural crops or related

resources.

The process of an egg breaking open to allow the emergence of a young organism, such as a bird, reptile, or marine species,

from its egg

Any waste material that, when improperly handled, can cause substantial harm to human health and safety or to the environment. HAZMAT can take the form of solids, liquids, sludges, or contained gases, and they are generated primarily by chemical production, manufacturing, and other industrial activities. They may cause damage during inadequate storage, transportation, treatment, or disposal operations.

A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

The state of the organism or system when the various components are functioning optimally.

Numerical data and information related to the health status of individuals, populations, or communities, including rates and distributions of diseases, injuries, disabilities, and deaths, as well as other health-related characteristics, such as nutrition, lifestyle, and environmental factors, used to describe, analyze, and interpret the health situation and trends, and to inform decision-making, policy development, and resource allocation in the field of public health, healthcare, and agriculture, particularly in relation to zoonotic diseases, occupational health, and food safety.

A heterotroph is an organism that cannot produce its own food, instead taking nutrition from other sources of organic carbon, mainly plant or animal matter.

The use of organic compounds, containing nitrogen and carbon, for metabolic synthesis. Fungi are heterotrophic organisms.

A method of buying agricultural equipment, livestock, or other assets, in which the purchaser pays a deposit and agrees to make regular payments over a specified period of time, during which the seller retains ownership of the asset, with the

Handling

Halophytes

Harvesting

Hatching

Hazardous materials

Hazards

Health

Health statistics

Heterotrophic organisms

Heterotrophy

Hire purchase



purchaser gaining ownership once all payments have been made.

Hop growing

Cultivation of hops (Humulus lupulus).

Hops

A climbing perennial vine cultivated for the female unfecundate inflorescence called hop "cones". Ripe, dry cones, which are used for imparting a bitter flavour to malt liquor, are the primary product.

Horticulture

The art, science, and practice of cultivating fruits, vegetables, flowers, and ornamental plants, including the management of gardens, greenhouses, and other controlled environments to produce high-quality plants for food, recreation, and aesthetic purposes.

Household food security

The condition in which all members of a household have access to sufficient, safe, and nutritious food at all times to maintain an active and healthy life.

Human behaviour

Human behaviour refers to the range of actions, activities, and responses that individuals exhibit in various situations and contexts, influenced by a complex array of factors including genetics, environment, culture, social norms, emotions, cognition, and personal experiences. It encompasses the ways in which people interact with each other, with their surroundings, and with the natural environment, and is shaped by a dynamic interplay of biological, psychological, social, and cultural factors.

Human health

Human health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Human nutrition

Human nutrition refers to the study of the nutrients and substances required by the human body to maintain optimal health, growth, and function. It encompasses the processes by which the body utilizes food, absorbs, and metabolizes nutrients, as well as the effects of diet on overall health and well-being. Human nutrition involves the examination of the relationship between diet, health, and disease, and includes the consideration of factors such as nutritional requirements, dietary patterns, and the impact of food choices on physical and mental health. It is an interdisciplinary field that draws on knowledge from biology, biochemistry, physiology, and other sciences to understand the complex interactions between nutrients, the human body, and the environment.

Human rights

Agreed international standards that recognize and protect the inherent dignity and the equal and inalienable rights of every individual, without any distinction as to race, colour, sex, language, religion, political or other opinion, national or social origins, property, birth or other status. They may form part of customary international law and/or may be set out in various national, regional and international legal instruments.



Hunger

The concept of hunger is commonly used for situations of serious food deprivation as well as for different forms of undernutrition, including a shortfall in access to sufficient food or in essential components of nutritionally necessary food making an impact on the normal physical or mental capacity of the person, or group of persons.

Hunger (physiology)

Hunger in the physiological sense is desire for food generated by a sensation arising from lack of food in the stomach.

Hybridization

It refers to the crossing of genetically distinguishable groups or taxa, leading to the production of viable hybrids.

Hydrographic charts

A special purpose map used in sea or lake navigation showing the water depth of a sea or lake, the natural bottom structure, coastline, isobaths, tides and currents.

Hydrographic data

Reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing, related to the physical characteristics of water bodies.

Hydrographic surveys

Systematic data collection and analysis of water bodies, including oceans, rivers, lakes, and coastal areas, to measure and map the physical characteristics of the water and the underwater terrain.

Hydrography

Hydrography is the branch of applied sciences which deals with the measurement and description of the physical features of oceans, seas, coastal areas, lakes and rivers, as well as with the prediction of their change over time, for the primary purpose of safety of navigation and in support of all other marine activities, including economic development, security and defence, scientific research, and environmental protection.

Hydroponics

Hydroponics the growing of plants in nutrient solutions with or without an inert medium (such as soil) to provide mechanical support.

Hyperthermia

Hyperthermia is a condition where an individual's body temperature is elevated beyond normal due to failed thermoregulation.

Hypothermia

Hypothermia: A lower-than-normal body temperature, typically below 35°C (95°F), that can occur in animals, including livestock, when they are exposed to cold temperatures, wet conditions, or drafts, and are unable to maintain their normal body heat, leading to a range of health problems and potentially life-threatening conditions.

lce

A solid, transparent, and brittle form of water that is formed through the freezing of liquid water. In an agricultural context, ice can refer to the formation of ice on surfaces, such as crops, soil, or irrigation systems, which can have significant impacts on plant growth, soil health, and water management.



Ice fishing

Fishing through holes cut in the ice. Ice fishing takes place on both sea ice (salt water) and freshwater ice (fresh water), using lines and fish hooks or spears to catch fish.

Ice jams

Ice jam: an accumulation of broken river or sea ice caught in a narrow channel.

Identification

The process of recognizing and determining the characteristics, properties, or features of a particular plant, animal, pest, disease, or other organism, substance, or object to distinguish it from others and assign it a specific name, classification, or category, often for the purpose of management, control, or regulation in agricultural or environmental contexts.

Identification keys

An identification key, also known as a taxonomic key, is a useful tool for identifying unknown organisms. Keys are constructed so that the user is presented with relevant information in a structured form.

Immunity

Protection against infectious disease conferred either by the immune response generated by immunization or previous infection or by other non-immunologic factors.

Impact

Impacts generally refer to effects on lives, livelihoods, health and well-being, ecosystems and species, economic, social and cultural assets, services (including ecosystem services) and infrastructure. Impacts may be referred to as consequences or outcomes and can be adverse or beneficial.

Indicator organisms

Indicator organisms are organisms used as a sign of quality or hygienic status in food, water, or the environment.

Individual transferable quotas

A right to harvest a particular number of resources, that can be transferred, e.g. by sale, lease, or will. A type of quota (a part of a Total Allowable Catch) allocated to individual fishermen or vessel owners, and which can be sold to others.

Induced parturition

Induced parturition is the deliberate initiation of labour using medical interventions, such as drugs and hormones, or other methods to control the timing of birth for management purposes, such as synchronizing births or addressing health concerns.

Industrial production

Industrial production refers to the organized and systematic process of manufacturing goods or products on a large scale, typically using advanced technology, machinery, and a significant workforce. It involves the transformation of raw materials or inputs into finished products through a series of mechanical, chemical, or other processes, with the aim of producing high volumes of output efficiently and effectively. Industrial production often takes place in factories, plants, or other specialized facilities, and is characterized by the use of standardized procedures, quality control measures, and a focus on maximizing productivity and minimizing costs.



Industrial products

Goods or materials manufactured or processed for use in various industries, such as construction, manufacturing, or agriculture, as opposed to consumer goods or products intended for direct human consumption. Examples of industrial products include fertilizers, pesticides, machinery, equipment, and other supplies used in the production of goods and services.

Industry

All factories, companies or processes involved in the manufacturing of products.

infestation

The presence of parasites or pests in a place, or in or on a host (plant, animal, person).

Information

The aggregation of data to make coherent observations about the world, meaningful data, or data arranged or interpreted in a way to provide meaning.

Information systems

A discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

Infrastructure

System of facilities, equipment and services needed for the functioning of a country, region, sector or organization.

Injection

The process of introducing a substance, such as a fluid, medication, or chemical, into a body or system using a needle or other means of delivery.

Innovation

Innovation, the process of doing things better, is a process and is distinct from invention as it may not involve completely new knowledge or product. Using existing inputs in new ways is also innovative.

Innovation adoption

Innovation adoption refers to the process by which individuals, organizations, or communities begin to use and integrate new ideas, technologies, or practices. In agriculture and other sectors, it involves evaluating, accepting, and implementing innovations to improve efficiency, productivity, or sustainability. The rate and success of adoption depend on factors such as perceived benefits, ease of use, and support systems.

Innovation platforms

An innovation platform is a space for learning and change. It is a group of individuals (who often represent organizations) with different backgrounds and interests: farmers, traders, food processors, researchers, government officials etc. The members come together to diagnose problems, identify opportunities and find ways to achieve their goals. They may design and implement activities as a platform, or coordinate activities by individual member.



Innovation policies refer to a set of government initiatives, regulations, and programs designed to promote and support the development, adoption, and diffusion of new and innovative products, services, processes, and business models within a country or region. These policies aim to foster a culture of innovation, encourage entrepreneurship, and drive economic growth, competitiveness, and sustainability. Innovation policies can encompass a wide range of measures, including:

- Funding and financing mechanisms, such as grants, loans, and tax incentives, to support research and development (R&D) activities, start-ups, and small and medium-sized enterprises (SMEs).
- Regulatory frameworks and standards that promote the adoption of new technologies and business models.
- Education and training programs that develop the skills and competencies needed for innovation, such as STEM education (science, technology, engineering, and mathematics).
- Intellectual property protection and management, including patents, trademarks, and copyrights.
- Public-private partnerships and collaborations that bring together government, industry, academia, and civil society to drive innovation and address societal challenges.
- Infrastructure development, such as digital infrastructure, to support the growth of innovative industries and sectors.
- Taxation and fiscal policies that incentivize R&D investment and innovation, such as R&D tax credits.

The goal of innovation policies is to create an ecosystem that supports the entire innovation process, from idea generation to commercialization, and to enable businesses, organizations, and individuals to innovate and thrive in a rapidly changing global economy.

Scaling of innovations is a deliberate and planned effort to enable the use of innovations to have positive impact for many people across broad geographies.

Network of organizations, communities, enterprises and individuals within which changes fostering transitions to sustainable food systems for food security and nutrition are generated and spread in the form of processes, forms of organization, dissemination of knowledge or bringing new products into use, together with the institutions and policies that affect their behaviour and performance.

Examination of a product design, product, process or installation and determination of its conformity with specific requirements or based on professional judgement, with general requirement. Note: Inspection of a process may include inspection of persons, facilities, technology and methodology.

Innovation policies

Innovation scaling

Innovation systems

Inspection



Instinct

Instinct or innate behavior is the inherent inclination of a living organism towards a particular complex behavior.

Institutional learning

The concept of institutional learning concerns the process through which new ways of working emerges. It concerns learning how to do things in new ways. It asks the question 'what rules, habits and conventions have to be changed to do a new task or to do an old one better?'

Insurance

Insurance is contractual agreement whereby one party (insurer) has the obligation (in exchange for a predefined premium) to provide compensation to the other party (insured) in case a predetermined event occurs in the future.

Integrated multitrophic aquaculture

The practice that combines, in appropriate proportions, the cultivation of fed aquaculture species (e.g. finfish, shrimps) with aquaculture species that extract inorganic food (e.g. seaweeds) and organic food (e.g. suspension feeders such as bivalves and deposit feeders such as sea cucumbers) from their surroundings. Such practices create a balanced ecosystem management approach to aquaculture for environmental sustainability (biomitigation), economic stability (product diversification and risk reduction) and societal acceptability (better management practices).

International cooperation

Collaboration and mutual assistance between two or more countries, or between countries and international organizations, to achieve common goals, share knowledge, and address global challenges in areas such as agriculture, food security, environmental protection, and sustainable development.

International policies refer to the guidelines, regulations, and agreements established by governments, international organizations, and other stakeholders to manage and coordinate global issues, such as trade, environment, health, security, and human rights, across national borders. These policies aim to promote cooperation, stability, and development among countries, while also addressing global challenges and promoting shared interests. International policies can be found in various areas, including:

International policies

- Trade policies, such as tariffs and quotas.
- Environmental policies, such as climate change agreements and conservation treaties.
- Health policies, such as global health security and pandemic response.
- Security policies, such as arms control and non-proliferation agreements.
- Human rights policies, such as international labor standards and refugee protection.

International policies are often developed and implemented through international institutions, such as the United Nations, the World Trade Organization, and the European Union, and



are shaped by a complex array of factors, including political, economic, social, and cultural considerations.

International relations

The interactions, diplomatic relations, and agreements between countries, as well as the study of global issues, conflicts, and cooperation among nations, with the aim of promoting peace, security, and economic development.

Interspecific relationships Interspecific relationships are relationships between members of different species.

Introduced species

An introduced species is a species living outside its native distributional range, but which has arrived there by human activity, either deliberate or accidental.

Plant species or cultivars that have been intentionally brought into a new region or environment by human activity, such as agriculture, horticulture, or conservation efforts, and are not native to that area. These varieties can be crops, trees, flowers, or other types of plants that have been introduced for various purposes, including food production, landscaping, or erosion control, and may or may not become naturalized in their new environment.

Introduced varieties

Irradiation Treatment with any type of ionizing radiation.

Iteroparity refers to a reproductive strategy characterized by iteroparity multiple reproductive cycles over the course of a lifetime.

> Jellification refers to the process by which soil structure is altered, typically in a negative way, due to the excessive application of water or other factors that lead to the breakdown of soil aggregates and the loss of its natural porosity and aeration. This results in a soil that has a jelly-like or waterlogged consistency, often impeding root growth, reducing drainage, and affecting the overall health and fertility of the soil.

> Keeping quality refers to the ability of a product, typically food, to maintain its desired characteristics, such as taste, texture, nutritional value, and safety, over a specified period without significant deterioration or spoilage.

> The activity of adding any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked,

embossed or impressed on, or attached to, an object.

Means any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, embossed or impressed on, or attached to, a container of food or other

article.

A lagoon is a body of water separated from larger bodies of

water by a natural barrier.

A lake is a considerable inland body of water, not part of the

ocean, situated at the bottom of a topographic basin.

Land cover Observed (bio)physical cover on the Earth's surface.

Jellification

Keeping quality

Labelling

Labels

Lagoons

Lakes



Land fragmentation

The division of land into progressively smaller parcels due to inheritance systems, the need to take advantage of ecological variation, or the functioning of land markets. Land fragmentation can occur with a single person, family, or organization owning multiple geographically separate parcels; or by small parcels owned individually by inheritance processes or other allocation processes that divide land equally among a group.

Land governance

Concerns the rules, processes and structures through which decisions are made about access to land and its use, the manner in which the decisions are implemented and enforced, and the way that competing interests in land are managed.

Land management

The activities associated with the management of land as a resource from both an environmental and an economic perspective.

Land practitioners

People actively engaged in any aspect of land governance.

Land resources

It refers to the natural assets and components of the earth's surface, including soil, water, air, minerals, and vegetation, that can be utilized for various purposes such as agriculture, forestry, conservation, and urban development, and are essential for supporting human life, economic activities, and ecosystem services.

Land stress

Land stress is the state that occurs when the demand for land for a particular use exceeds the available amount of land for that use.

Land take refers to the process of converting or utilizing land

for a specific purpose, such as urban development, infrastructure construction, or agricultural use, which results in the removal or alteration of the land's original natural characteristics, ecosystems, or existing uses. This can include the destruction or degradation of habitats, the loss of biodiversity, and the disruption of ecosystem services, ultimately leading to a change in the land's function, value, or

productivity.

Land use

Land take

Arrangements, activities and inputs people undertake in a certain land cover type to maintain it or produce change.

Landforms

A landform is a natural feature of the solid surface of the Earth or other planetary body. Landforms together make up a given terrain, and their arrangement in the landscape is known as topography.

Landscape

Landscape is a product of the interaction of human beings with the natural environment often over a period of many centuries that reflects the impacts of social, economic and political changes on the natural environment.

Landscape approaches

A framework to integrate policy and practice for multiple land uses, within a given area, to ensure equitable and sustainable use of land while strengthening measures to mitigate and adapt to climate change.



Landscape conservation

Landscape conservation is the practice of managing and protecting natural, cultural, and agricultural landscapes to preserve their ecological integrity, biodiversity, and heritage value. It involves coordinated efforts to balance environmental protection with sustainable land use and community needs. This approach often includes habitat restoration, sustainable farming practices, and the protection of scenic or historically significant areas.

Landscape design

Landscape design is the art and science of planning and arranging outdoor spaces to achieve aesthetic, functional, and environmental goals. It involves the selection and placement of elements such as plants, structures, pathways, and water features to create harmonious and sustainable environments. Landscape design is used in residential, commercial, and public spaces to enhance usability, beauty, and ecological value.

Landscape resilience

The ability of a landscape to sustain desired biodiversity and ecological functions over time in the face of climate change and other anthropogenic and natural stressors.

Lawn grasses

It refers to a variety of grass species that are commonly cultivated and maintained for ornamental or recreational purposes in residential, commercial, or public areas, typically characterized by their dense growth, fine texture, and ability to withstand regular mowing, foot traffic, and other forms of maintenance. Examples of lawn grasses include Kentucky bluegrass, perennial ryegrass, tall fescue, and Bermuda grass.

Learning

Process by which an individual assimilates information, ideas and values and thus acquires knowledge, know-how, skills and/or competences.

Legal liability

An obligation enforceable by law.

Legal rights

Legal rights refer to the privileges and entitlements that are guaranteed to individuals or groups by law, and are enforceable by the courts. These rights are established through statutes, constitutions, and judicial decisions, and are designed to protect the interests, freedoms, and dignity of individuals, ensuring they are treated fairly and justly under the law.

Legal system

The organization and network of courts and other institutions, procedures and customs, officers and other personnel concerned with interpretation and enforcement of a country's law or with advice and assistance in matters pertaining to those laws.

Legislation

Legislation is the body of laws which make up the law.

Legumes

Although used interchangeably, the terms "legumes," "pulses," and "beans" have distinct meanings. A legume refers to any plant from the Fabaceae family that would include its leaves,

stems, and pods.



Lentils

Lens culinaris are thought to have originated in the Middle East. The lentil is one of the oldest and hardiest foods. There is no legume more resistant to arid lands than the lentil.

Liability

A party is liable when they are held legally responsible for something. Unlike in criminal cases, where a defendant could be found guilty, a defendant in a civil case risk only liability.

Librarians

Librarians: Professionals responsible for the acquisition, organization, maintenance, and dissemination of information and resources within a library or information center, aiding and guidance to users in finding and utilizing various materials, such as books, journals, databases, and digital media.

Limestone

Limestone is a carbonate sedimentary rock that is often composed of the skeletal fragments of marine organisms such as coral, foraminifera, and molluscs. Its major materials are the minerals calcite and aragonite, which are different crystal forms of calcium carbonate (CaCO3).

Livelihood diversification

Livelihood diversification means farming households engaging in multiple agricultural and non-agricultural activities – for example, by combining on-farm activities with seasonal agricultural work elsewhere, taking a job in the city, processing farm products or opening a shop.

Livelihood strategies

The range and combination of activities and choices that people make to achieve their livelihood goals. Livelihood strategies include how people combine their income generating activities; the way in which they use their assets; which assets they chose to invest in; and how they manage to preserve existing assets and income.

Livelihoods

A livelihood is a combination of the resources used, and the activities undertaken to live. The resources might consist of individual skills and abilities (human capital), land, savings and equipment (natural, financial and physical capital, respectively) and formal support groups or informal networks that assist in the activities being undertaken (social capital).

Livestock feeding

The process of providing food and nutrients to domesticated animals, such as cattle, pigs, sheep, and poultry, to promote their growth, health, and productivity, and to support their role in agricultural production, including the provision of meat, dairy, and other animal products.

Living labs

A Living Lab is a user-centric innovation milieu built on every-day practice and research, with an approach that facilitates user influence in open and distributed innovation processes engaging all relevant partners in real-life contexts, aiming to create sustainable values.

Location

A location is a "a point or extent in space" and thus holds concepts such as "climatic zones", "maritime zones", "protected areas" and "urban areas".

Losses

The situation or or state of not having something anymore; decline.



Management

Characterizes the process of leading and directing all or part of an organization, often a business, through the deployment and manipulation of resources, including human, financial, material, intellectual and intangible.

Marine areas

Marine areas refer to regions of the Earth's surface that are covered by saltwater, including oceans, seas, estuaries, coastal zones, and other bodies of water that are directly connected to the ocean and have a salinity that is significantly higher than that of freshwater. These areas support a diverse range of marine ecosystems, including coral reefs, kelp forests, seagrass beds, and open ocean environments, and are home to a vast array of marine plant and animal species.

Marine parks

A marine park is a park consisting of an area of sea (or lake) sometimes protected for recreational use, but more often set aside to preserve a specific habitat and ensure the ecosystem is sustained for the organisms that exist there.

Marine plants

Any microscopic or macroscopic vegetal organism living in the marine environment.

Marketing

Marketing is the overall process of product promotion, including advertising, product public relations and information services, as well as the distribution and sale on local and international markets.

Masculinization

Production of normal secondary sexual characters in a male or to produce male secondary sexual characters in a female

Materials

It refers to the substances or resources used in the construction, production, or manufacturing of various products, infrastructure, or equipment in agriculture, such as soils, fertilizers, pesticides, irrigation systems, and farm machinery, among others.

Materials technology

The field of science and engineering concerned with the design, development, processing, and application of materials to meet specific functional and structural requirements.

Maternal and child health

Maternal and child health refers to the health of women and children during pregnancy, childbirth and postnatal period.

Maternal nutrition

Maternal nutrition refers to the nutritional needs of women during antenatal and postnatal periods and sometimes also to the period prior to conception (i.e. during adolescence)

Mathematical models

A mathematical model is a description of a system using mathematical concepts and language. The process of developing a mathematical model is termed mathematical modeling. Mathematical models are used in the natural sciences (such as physics, biology, earth science, chemistry) and engineering disciplines (such as computer science, electrical engineering), as well as in the social sciences (such as economics, psychology, sociology, political science). A model may help to explain a system and to study the effects of different components, and to make predictions about behaviour.



Measure

While a measure can also denote an action taken, in this context, it is clearly defined as something that can be observed and involves a measurement. A measure is defined as a "number or quantity that records a directly observable value or performance. All measures have a unit attached to them: inch, centimetre, dollar, litre, etc.

Measurement

Measurement is activity of quantitative determination of the properties of an object or phenomenon.

Medical sciences

The branch of science that deals with the study of health, disease, and the prevention, diagnosis, and treatment of various health conditions and disorders, encompassing a broad range of disciplines including anatomy, biochemistry, epidemiology, genetics, immunology, microbiology, pathology, pharmacology, physiology, and other related fields.

Melting

The process by which a solid substance, such as ice or snow, changes state to become a liquid, typically due to an increase in temperature or pressure, resulting in a change of state from solid to liquid. In the context of agriculture, melting can refer to the thawing of frozen soils, snowmelt, or the melting of ice in irrigation systems, which can impact water availability, soil temperature, and crop growth.

Mercerization

Mercerisation is a textile finishing treatment for cellulose fabric and yarn, mainly cotton and flax, which improves dye uptake and tear strength, reduces fabric shrinkage, and imparts a silklike luster.

Metabolism

Chemical reactions in living organisms by which energy is supplied for vital processes and activities and new material is assimilated.

Methodology

A broader set of procedures and principles used to conduct an activity or assessment, including the methods employed, the assumptions made and the ways the results are interpreted and communicated.

Methods

Collection of methodological elements defining how impacts and dependencies are being measured, valued and reported. These can include sets of indicators, impacts and dependency pathways, valuation techniques and other assessment rules.

Microbial diversity

Microbial diversity comprises the variety that is observed within highly genetically distinct groups, namely, bacteria, archaea, cyanobacteria, fungi, and viruses.

Microinjection

The injection of very small amounts of fluid, often with the aid of a microscope and microsvringes.

Microorganisms

Viruses and single-cellular species of the kingdoms of bacteria (Archaebacteria, Eubacteria), Fungi, Protista, and Chromista.

Migration

The movement of persons away from their place of usual residence, either across an international border or within a State.



Milk processing

Milk processing allows the preservation of milk for days, weeks or months and helps to reduce food-borne illness.

Mining

The process of extraction of valuable minerals or other geologic materials from the Earth.

Mining equipment

Machinery and tools used in the extraction of minerals, ores, and other geological materials from the Earth. This includes a wide range of devices such as excavators, drills, loaders, crushers, conveyors, and processing machinery, designed to perform specific tasks in the mining process, from exploration and extraction to transportation and refining.

Mitigation

Action(s) aimed at the root cause of a phenomenon to reduce the severity (e.g. for global warming = reducing greenhouse gases, planting trees).

Mixed cropping

Associated or mixed cropping: The cultivation of several crops simultaneously in the same field. Associated crops are those sown interplanted with other temporary or permanent crops, for example, beans and maize.

Models

A model is a selected simplified representation of the essential or relevant entities (modules) of some specific reality and their characteristics (fields, factors, features).

Monitoring

Monitoring can be defined as a continuing function that aims primarily to provide the management and main stakeholders of an ongoing intervention with early indications of progress, or lack thereof, in the achievement of results. An ongoing intervention might be a project, programme or other kind of support to an outcome.

Monitoring systems refer to the networks of observation, measurement, and data collection tools and techniques used to track and assess the condition, behavior, or performance of agricultural systems, environments, or processes over time. These systems can include sensors, drones, satellite imagery, weather stations, and other technologies that provide real-time or periodic data on factors such as soil moisture, crop health, water quality, pest populations, and climate conditions, allowing farmers, researchers, and policymakers to make informed decisions and take proactive measures to optimize agricultural productivity, reduce environmental impacts, and promote sustainable practices.

Monitoring systems

Moorland or moor is a type of habitat found in upland areas in temperate grasslands, savannas, and shrublands and montane grasslands and shrublands biomes, characterised by low-growing vegetation on acidic soils.

Moors

And the same as be set the size of a sure of a second size.

Mortality causes

Any known or hypothesized causes for mortality.

Movement restrictions

Limitation on the movements of a person or animal who has or is suspected of having a infection. Used as public health and

veterinary health measure.

Multiple cropping

Cultivation of two or more crops on the same field in a year.



Multiple land use

A land management approach that involves the simultaneous use of land for more than one purpose, such as agriculture, forestry, recreation, conservation, and urban development. This strategy aims to balance the various needs and interests of different stakeholders while maintaining the sustainability and productivity of the land, often requiring careful planning, zoning, and resource management.

Multiple use

The management and utilization of a natural resource or area for more than one purpose simultaneously or sequentially, such as for agriculture, forestry, recreation, conservation, and water supply.

Natural hybridization

The process by which two different species or genetically distinct populations of the same species interbreed and produce offspring in their natural environment, without human intervention, resulting in the exchange of genetic material and the creation of new combinations of traits.

Natural phenomena

Events or occurrences that happen naturally in the environment, such as weather patterns, earthquakes, volcanic eruptions, and plant growth, which are not caused by human intervention and are part of the Earth's physical and biological processes.

Natural resources

Any portion of the natural environment, such as air, water, soil, botanical and zoological resources and minerals.

Natural resources management

Natural resource management refers to the management of natural resources, such as land, water, soil, plants, and wildlife, for sustainable human use.

Nature conservation

Active management of the earth's natural resources and environment to ensure their quality is maintained and that they are wisely used.

Nature-based solutions

Nature-based Solutions (NbS) are defined as actions to protect, sustainably manage, and restore natural and modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

Nautical charts

A nautical chart is a graphic representation of a maritime area and adjacent coastal regions. Nautical charts are hydrographic charts designed for navigation in water areas.

Navigation refers to the process of planning, recording, and controlling the movement of people, animals, or vehicles from one place to another, often using various techniques, tools,

Navigation and technologies to determine position, direction, and distance. In the context of agriculture, navigation can involve

distance. In the context of agriculture, navigation can involve the use of GPS, mapping, and other spatial technologies to guide farm equipment, monitor crop health, and optimize field

operations.

Navigation in ice

Ice navigation is a specialist area of navigation involving the use of maritime skills to determine and monitor the position of



ships in cold waters, where ice is a hazard to the safety of navigation.

Non-domestic wastes

Any solid, semi-solid or wastewater discarded from industrial, commercial, mining, or agricultural operations, and from community activities. Includes the runoff from areas that received pollutants associated with industrial or commercial storage, handling, or processing.

Non-food products

Goods or commodities derived from agricultural production, such as fibers (e.g. cotton, hemp), biofuels, timber, and other materials that are not intended for human or animal consumption. These products are often used in industries like textiles, construction, energy, and manufacturing, and can provide alternative revenue streams for farmers and agricultural producers.

Non-food supply chains

Non-food supply chains refer to the series of processes, activities, and organizations involved in the production, processing, distribution, and delivery of non-food agricultural products, such as fibers (e.g., cotton, hemp), biofuels, timber, and other non-edible plant-based materials. These supply chains encompass all the stages from raw material sourcing to end-product manufacturing, and may involve various stakeholders, including farmers, processors, manufacturers, logistics providers, and retailers. Non-food supply chains are distinct from food supply chains, which focus on the production and distribution of edible products for human consumption.

Non-living marine resources

Non-living marine resources include minerals that are mined, such as salt, sand, gravel, phosphate, diamonds, manganese, copper, nickel, iron, and cobalt, and that are drilled for, such as crude oil and gas hydrates.

Non-renewable resources

Non-renewable resources refer to natural resources that cannot be replenished or restored in a short period of time, typically taking millions of years to form. These resources are finite and will eventually be depleted if exploited continuously. Examples of non-renewable resources include fossil fuels such as coal, oil, and natural gas, as well as minerals like metals and ores. Once these resources are extracted and used, they cannot be replaced or regenerated on a human timescale, making conservation and sustainable use essential to avoid depletion.

Nutrient improvement

The process of enhancing the nutritional content or availability of essential nutrients in soils, crops, or food products to support plant growth, improve agricultural productivity, or address human and animal nutritional needs.

Nutrient management

Nutrient management is the science and practice directed to link soil, crop, weather, and hydrologic factors with cultural, irrigation, and soil and water conservation practices to achieve optimal nutrient use efficiency, crop yields, crop quality, and economic returns, while reducing off-site transport of nutrients (fertilizer) that may impact the environment.



Nutrient profiling

Nutrient profiling is "the science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health". Nutrient profiling is a method that assesses the nutritional quality of processed foods and beverages. It is also a tool to guide policy interventions.

Nutrition

The sum of the processes in which an animal (or plant) takes in and utilizes food. The act or process of being nourished.

Nutrition physiology

The branch of physiology that studies the processes by which organisms ingest, digest, absorb, transport, utilize, and excrete nutrients. It examines the role of nutrients in maintaining body functions, supporting growth and development, and regulating metabolism.

Nutrition statistics

Data and information collected and analyzed to understand the nutritional status, dietary habits, and health outcomes of individuals or populations, often used to inform public health decisions, policy development, and nutrition-related interventions.

Nutritional requirements

Nutritional requirements refer to the specific amounts and types of nutrients, such as carbohydrates, proteins, fats, vitamins, and minerals, that an organism needs to consume to maintain optimal health, growth, and productivity. These requirements vary depending on factors such as the organism's species, age, size, sex, and stage of development, as well as environmental conditions. In agriculture, understanding the nutritional requirements of crops and livestock is crucial for optimizing feeding strategies, preventing deficiencies or excesses, and promoting overall well-being.

Nutritive value

An indication of the contribution of a food to the nutrient content of the diet. This value depends on the quantity of a food which is digested and absorbed and the amounts of the essential nutrients (protein, fat, carbohydrate, minerals, vitamins) which it contains. This value can be affected by soil and growing conditions, handling and storage, and processing.

In the context of agriculture, "objects" can refer to any tangible or visible entities within a farm or agricultural setting. This may include:

- Physical items such as tools, equipment, and machinery.
- Structures like buildings, fences, and irrigation systems.
- Natural features like trees, rocks, and water bodies.
- Livestock or other animals.
- Crops or plants being grown for food, fiber, or other purposes.

In a broader sense, objects in agriculture can also encompass intangible entities like data points, GPS coordinates, or other digital information used in precision farming or agricultural management.

Objects



Observers

Occupations

Ocean colour

Ocean-iceatmosphere system

Oil and gas fields

An observer is a person, a non-state or State actor or an organization invited to participate in a limited capacity in discussions during a meeting, negotiations or other process.

Set of jobs whose main tasks and duties are characterised by a high degree of similarity.

Ocean colour is measured as the ocean colour radiance (OCR). OCR is the wavelength-dependent solar energy captured by an optical sensor looking down at the sea surface.

The "ocean-ice-atmosphere system" refers to the complex and dynamic interactions between the Earth's ocean, sea ice, and atmosphere. This system encompasses the exchanges of energy, momentum, and matter between these three components, which play a crucial role in shaping the Earth's climate, weather patterns, and marine ecosystems.

The ocean-ice-atmosphere system involves the interactions between:

- The ocean: which absorbs and stores heat, carbon dioxide, and other substances, and influences weather patterns and climate through the formation of ocean currents and the release of heat and moisture.
- Sea ice: which covers a significant portion of the polar oceans and affects the Earth's energy balance by reflecting sunlight, influencing ocean currents, and providing a habitat for marine life.
- The atmosphere: which transports heat, moisture, and other substances around the globe, influencing weather patterns, climate, and the formation of clouds and precipitation.

These interactions are critical in regulating the Earth's climate, as they influence the global energy balance, the formation of weather patterns, and the distribution of heat and moisture around the globe. The ocean-ice-atmosphere system is a key component of the Earth's climate system, and understanding its dynamics is essential for predicting climate change, weather patterns, and the impacts of human activities on the environment.

Oil and gas fields refer to areas of land or sea where deposits of oil and natural gas are found and extracted. These fields are typically characterized by the presence of one or more oil and gas reservoirs, which are layers of porous rock that contain hydrocarbons, such as crude oil and natural gas. Oil and gas fields can be located onshore or offshore, and their development involves the use of various technologies and techniques to explore, drill, produce, and transport the oil and gas to refineries and markets. The extraction of oil and gas from these fields is a significant component of the global energy industry, providing fuel for transportation, heating, and other uses.



Oil and gas industries

The oil and gas industries refer to the collective sectors involved in the exploration, production, refining, transportation, and distribution of petroleum products and natural gas. This encompasses a wide range of activities, including drilling and extraction, pipeline transportation, refining and processing, and marketing and sales of oil and gas products, which are used as energy sources, feedstocks for petrochemicals, and other industrial applications.

Oil and gas production

The process of extracting, processing, and separating oil and natural gas from underground reservoirs, including all operations involved in bringing the oil and gas from the wellhead to the point of sale or distribution, such as drilling, completion, production, processing, treatment, storage, and transportation.

Oil wastes

Oil wastes will tend to fall into one of two categories - high oil/hydrocarbon content materials, and mixtures of oil and water in which water is the major portion including emulsions.

Olives

The fruit of the olive tree (Olea europaea), a small, oval or spherical drupe with a single seed, typically green or black in color, and often pickled or cured for human consumption, particularly as a food ingredient or used to produce olive oil.

One health approach

An approach to address a health threat at the humananimalenvironment interface based on collaboration, communication, and coordination across all relevant sectors and disciplines, with the goal of achieving optimal health outcomes for both people and animals; a One Health approach is applicable at the subnational, national, regional, and global level.

Open pollination

Open pollinated generally refers to seeds that will "breed true". When the plants of an open-pollinated variety self-pollinate or are pollinated by another representative of the same variety, the resulting seeds will produce plants roughly identical to their parents. A second use of the term "open pollination" refers to pollination by insects, birds, wind, or other natural mechanisms.

Organic agriculture

A farming system that avoids the use of synthetic fertilizers, pesticides, and genetically modified organisms (GMOs), instead relying on natural processes and materials to maintain soil fertility, control pests and diseases, and promote biodiversity. This approach prioritizes the use of organic amendments, crop rotation, and integrated pest management techniques to produce crops and raise livestock in a sustainable and environmentally friendly manner.

Organic aquaculture

Aquatic species produced according to organic standards. Most reported certified organic aquaculture products produced in Europe use marine and brackish waters, a largely untapped resource, thus preserving fresh water supplies for human consumption and agriculture. Aquaculture also covers organic aquatic plants for either direct human consumption or for use



as feed inputs for animal husbandry, including for the organic aquaculture sector.

A process by which a third-party organization verifies that a farm, producer, or handler of agricultural products meets the established standards for organic production, processing, and handling, as defined by a regulatory body or certification agency. This certification ensures that the products are grown, raised, and processed without the use of synthetic fertilizers, pesticides, genetically modified organisms (GMOs), sewage sludge, irradiation, or other prohibited substances, and that the operation adheres to strict guidelines for environmental sustainability, animal welfare, and social responsibility. The certification is typically denoted by a label or seal, such as the USDA Organic seal, which guarantees to consumers that the product meets the required organic standards.

Organic foods refer to produce, livestock, and other edible products that are grown, raised, and processed without the use of synthetic fertilizers, pesticides, genetically modified organisms (GMOs), irradiation, or sewage sludge. Organic farming practices emphasize the use of natural methods to control pests and diseases, maintain soil quality, and promote biodiversity, resulting in products that are more environmentally friendly and potentially healthier for human consumption.

Organic structures refer to the physical arrangements and compositions of living organisms, such as plants and animals, or the remains of these organisms, that are found in soil, sediments, or other environments. In agriculture, organic structures can include things like soil aggregates, root systems, and other biological features that contribute to the overall health and fertility of the soil. These structures can provide habitat for beneficial microorganisms, influence water and air movement through the soil, and affect the overall productivity of agricultural ecosystems.

Decomposable materials derived from living organisms, including plant residues, animal by-products, food scraps, and other biodegradable substances.

An organism aggregation is a grouping or crowding of separate organisms. Organism aggregations are a regular feature of natural ecosystems and occur for many reasons, including social and spawning activities or to provide benefits to individuals such as thermal advantages.

Any individual entity that exhibits the characteristics of life, including plants, animals, fungi, bacteria, and other microorganisms. Organisms can be unicellular or multicellular and are capable of growing, reproducing, responding to stimuli, and maintaining homeostasis. In the context of agriculture, organisms can refer to the living components of an ecosystem, such as crops, livestock, and soil microorganisms,

Organic certification

Organic foods

Organic structures

Organic wastes

Organism aggregations

Organisms



which interact with each other and their environment to form complex relationships and systems.

Osmotic adaptation refers to the physiological processes by which plants, animals, and microorganisms adjust to changes in the concentration of solutes in their environment, such as saltwater or freshwater, in order to maintain cellular homeostasis and survive. This adaptation involves a range of mechanisms, including changes in membrane permeability, ion transport, and the production of compatible solutes, which help to regulate the balance of water and solutes within cells and maintain proper cellular function.

A type of crop production system where plants are grown directly in the field, exposed to natural environmental conditions such as sunlight, rainfall, and temperature fluctuations, as opposed to being grown in controlled environments like greenhouses or indoor facilities. This method of cropping relies on the natural climate and soil conditions to support plant growth, and often requires the use of agricultural practices like irrigation, fertilization, and pest management to optimize yields and crop quality.

or microorganism, to carry out its metabolic processes, including growth, respiration, and other cellular functions. In agriculture, understanding the oxygen requirements of crops is crucial for optimizing irrigation, drainage, and aeration systems to ensure healthy root growth and overall plant development.

The amount of oxygen needed by an organism, such as a plant

in a container (e.g. box, crate or basket) or package. This may take place in a field or within an establishment.

Climate of a prehistoric period whose main characteristics may be inferred, for example, from geological and paleobiological

The action of putting items such as fresh fruits and vegetables

(fossil) evidence.

Paleoecology (also spelled palaeoecology) is the study of interactions between organisms and/or interactions between organisms and their environments across geologic timescales.

An environment at a period in the geological past.

Parasite control refers to the methods, strategies, and practices used to manage, reduce, or eliminate the presence and impact of parasites on plants, animals, and humans. This can include a range of techniques such as chemical control (e.g., pesticides, anthelmintics), biological control (e.g., introducing natural predators or competitors of the parasite), cultural control (e.g., modifying agricultural practices or animal husbandry to prevent parasite infestations), and integrated control (e.g., combining multiple methods to achieve optimal parasite management). The goal of parasite control is to minimize the economic, environmental, and health impacts of

Osmotic adaptation

Outdoor cropping

Oxygen requirement

Packaging

Palaeoclimate

Palaeoecology

Palaeoenvironments

Parasite control



parasites, while also promoting sustainable and environmentally friendly practices.

The inherent or acquired ability of a host organism to prevent, Parasite resistance reduce, or control infestation or infection by parasites.

> An organism that lives at the expense of another (host) during some portion of its life cycle. Usually, a parasite does not kill

its host.

Parasitism The relationship between parasite or parasitoid and host.

> The scientific study of parasites, their hosts, and the relationships between them. It encompasses the biology, ecology, and evolution of parasites, as well as the diseases they cause and the methods of controlling and preventing these diseases in plants and animals, including humans.

> Participation in social science refers to different mechanisms for the public to express opinions - and ideally exert influence - regarding political, economic, management or other social decisions.

> An approach to development and/or government in which key stakeholders (and especially the proposed beneficiaries) of a policy or intervention are closely involved in the process of identifying problems and priorities and have considerable control over the analysis and the planning, implementation and monitoring of solutions.

> Particulates are fine liquid or solid particles, such as dust, smoke, mist, fumes or smog, found in air or emissions. Also found in sea.

> Peacebuilding is a complex, long-term process of creating the necessary conditions for sustainable peace. It aims to reduce the risk of lapsing or relapsing into conflict by strengthening

national capacities at all levels for conflict management.

Permanence is the state of being permanent.

The process of giving birth.

The continued existence or retention of a substance, condition, or phenomenon over time, despite environmental changes or external pressures. In ecological and environmental contexts, persistence refers to the ability of species, chemicals, or pollutants to remain in a given environment, ecosystem, or organism for extended periods without significant degradation or elimination. Persistence is often used to describe the stability or resilience of natural systems or the duration of contaminants in ecosystems.

Suppression, containment or eradication of a pest population.

Resistance or tolerance of a host to a pest.

Pesticide residue means any specified substance in food, agricultural commodities, or animal feed resulting from the use of a pesticide. The term includes any derivatives of a pesticide,

Parasites

Parasitology

Participation

Participatory approaches

Particulates

Parturition

Peacebuilding

Permanence

Persistence

Pest control

Pest resistance

Pesticide residues



such as conversion products, metabolites, reaction products, and impurities considered to be of toxicological significance. Metabolites, reaction products, and impurities are of toxicological significance.

In scientific usage, a phenomenon is any event that is observable, however common it might be, even if it requires the use of instrumentation to observe, record, or compile data concerning it. In natural sciences, a phenomenon is an observable happening or event.

Physical phenomena refer to the observable events, processes, or occurrences that can be perceived and measured in the natural world and are governed by the laws of physics. These phenomena can include a wide range of events, such as changes in state (e.g. melting, freezing), transfers of energy (e.g. heat, light), and movements or interactions of objects (e.g. friction, gravity). In the context of agriculture, physical phenomena can encompass aspects like soil erosion, water infiltration, or the effects of weather patterns on crop growth.

In the context of agriculture and environmental science, "physical states" refer to the different conditions or phases in which water can exist in the soil or environment, including:

- Solid (ice): Water present in the soil or environment in a frozen state.
- Liquid (water): Water present in the soil or environment in a liquid state, available for plant growth and other ecological processes.
- Gas (water vapor): Water present in the soil or environment in a gaseous state, often resulting from evaporation or transpiration.

Understanding the physical states of water is crucial in agriculture, as it affects soil moisture, plant water availability, and overall ecosystem functioning.

Physiographic features refer to the natural physical characteristics of an area or landscape, including landforms, topography, hydrology, and other geological and geomorphological elements that shape the environment. These features can include mountains, valleys, plains, rivers, lakes, wetlands, and coastlines, among others. Physiographic features can influence the distribution of plants and animals, soil formation, water flow, and other ecological processes, and are often used in agriculture, conservation, and environmental planning to understand and manage the natural resources of an area.

Physiological adaptation refers to the internal biological adjustments that occur within an organism, such as plants or animals, in response to changes in their environment, allowing them to survive, grow, and reproduce under new or altered conditions. These adaptations involve modifications to the

Phenomena

Physical phenomena

Physical states

Physiographic features

Physiological adaptation



organism's physiological processes, such as photosynthesis, respiration, or nutrient uptake, and can be short-term or long-term, enabling the organism to better cope with environmental stresses, such as temperature fluctuations, drought, or salinity.

Physiological functions refer to the vital processes and activities that occur within an organism, including plants, to maintain its internal environment, support its growth, and enable it to respond to external stimuli. These functions include, but are not limited to, photosynthesis, respiration, nutrient uptake and assimilation, water and ion transport, hormone regulation, and defense mechanisms against pathogens and environmental stresses. In plants, physiological functions are crucial for optimizing growth, development, and reproduction, and are influenced by genetic, environmental, and hormonal factors.

Physiological requirements refer to the specific needs of living organisms, such as plants, animals, or microorganisms, that are necessary for their growth, development, survival, and overall functioning. These requirements include, but are not limited to, factors such as:

- Water and nutrient uptake.
- Temperature and humidity ranges.
- Light intensity and spectrum.
- Oxygen and carbon dioxide levels.
- pH and ionic balance.
- Space and crowding conditions.

In agriculture, understanding the physiological requirements of crops and livestock is crucial for optimizing production, ensuring animal welfare, and maintaining ecosystem health. By meeting these requirements, farmers and agricultural managers can create conditions that support healthy growth, maximize yields, and promote sustainable agricultural practices.

Minute plants suspended in water with little or no capability of controlling their position in the water mass; frequently referred to as microalgae (the plant component of plankton).

The branch of plant ecology concerning the composition, distribution, characteristics and interrelationships of plant species living in plant communities.

A small-scale project carried out to see whether a large-scale project will work.

The process of organizing and prioritizing activities, resources, and timelines to achieve specific agricultural goals and objectives, such as crop production, livestock management, or farm development, in a systematic and efficient manner.

The physical, physiological, or structural harm caused to plants by biotic factors such as pests, diseases, and animals, or abiotic factors such as extreme weather, pollution, or

Physiological functions

Physiological requirements

Phytoplankton

Phytosociology

Pilot projects

Planning

Plant damage



mechanical injury. Plant damage can affect growth, yield, and overall health, and may range from minor cosmetic effects to severe impacts that compromise the plant's survival or productivity.

Plant ecology is a subdiscipline of ecology that studies the

distribution and abundance of plants, the effects of Plant ecology environmental factors upon the abundance of plants, and the interactions among plants and between plants and other

organisms.

Plant genetic resources - the diversity of traditional and modern crop species and varieties as well as crop wild relatives and other wild plant species that sustain agriculture resources and food systems, and the genetic material contained in them

- are a key component of agrobiodiversity.

The growth form of a plant, comprising its size, shape, texture Plant habit

and stem orientation.

The physical health of plants, including the presence, risk and

control of diseases.

Introduction of plants which have been translocated by human agency into lands or waters where they have not lived Plant introduction

previously, at least during historic times.

Plant nutrition refers to the study of the nutrients and substances required by plants for growth, development, and reproduction. It encompasses the uptake, utilization, and regulation of essential elements such as macronutrients (like nitrogen, phosphorus, and potassium) and micronutrients (like iron, zinc, and boron) that plants need to thrive. Plant nutrition also involves the interaction between plants and their environment, including the soil, water, and atmosphere, to understand how these factors influence plant health and

productivity.

Plant parts refer to the various components or structures that make up a plant, including but not limited to: roots, stems, leaves, flowers, fruits, seeds, tubers, bulbs, and rhizomes. These parts work together to perform specific functions necessary for the plant's growth, development, reproduction, and survival. Each plant part has a unique role, such as roots anchoring the plant and absorbing water and nutrients, stems providing support and transporting nutrients, leaves carrying out photosynthesis, and flowers, fruits, and seeds being involved in reproduction. Understanding plant parts is essential in agriculture, horticulture, and botany for plant identification,

Plant products are products of plant origin, unprocessed or processed by means of simple procedures, and are not plants.

Plant propagation is the process by which new plants grow Plant propagation from various sources, including seeds, cuttings, and other

classification, and cultivation.

Plant genetic

Plant health

Plant nutrition

Plant parts

Plant products



plant parts. Plant propagation can refer to both human-made and natural processes.

Plant reproductive organs refer to the structures and parts of a plant that are responsible for producing gametes (sex cells) and facilitating the process of reproduction, ultimately leading to the production of seeds, fruits, and new offspring. These organs include:

- Flowers: the reproductive structures of plants, typically consisting of male and female parts, such as petals, sepals, stamens (male), and pistils (female).
- Stamens: the male reproductive organs, consisting of an anther (which produces pollen) and a filament (which supports the anther).
- Pistils: the female reproductive organs, consisting of a stigma (which receives pollen), a style (which connects the stigma to the ovary), and an ovary (which contains ovules, or egg cells).
- Ovules: the female reproductive cells, contained within the ovary, which contain the egg cell and are fertilized by pollen to produce seeds.

These reproductive organs work together to facilitate the processes of pollination, fertilization, and seed production, allowing plants to reproduce and propagate.

Substances produced and released by plants, such as resins, gums, latex, and nectars, which can serve various functions including defense against pathogens and insects, attraction of pollinators, and protection against environmental stresses.

Organisms that are typically characterized by their ability to photosynthesize, belonging to the kingdom Plantae, and including a wide range of species such as trees, flowers, grasses, and ferns, which are generally immobile, eukaryotic, and multicellular, and play a crucial role in the ecosystem by producing oxygen, serving as a food source, and providing habitat for various animals.

In the context of geology and agriculture, particularly with regards to soil formation, water resources, and land use, plate boundaries refer to the zones where two or more tectonic plates in the Earth's lithosphere interact. These interactions can be divergent (moving apart), convergent (moving together), or transform (sliding past one another). The movement and interaction at these boundaries can significantly influence the local and regional geological, hydrological, and ecological conditions, which in turn affect agricultural productivity, soil quality, and water availability. Understanding plate boundaries is essential for assessing natural hazards, managing water resources, and making informed decisions about land use and agricultural practices.

Plant reproductive organs

Plant secretions

Plants

Plate boundaries



Point source pollution

Point source pollution refers to the pollution that comes from a specific, identifiable source, such as a pipe, channel, tank, pit or ditch.

Policies

The course of action for an undertaking adopted by a government, a person or another party. Instruments that exist to support policy and tools used to achieve policy objectives include some or all the following: societal instruments, economic and command-and-control instruments, direct government involvement and institutional and organizational arrangements.

Pollination

The transfer of pollen from an anther to a stigma. Pollination may occur within flowers of the same plant, between flowers of the same plant or between flowers of different plants (or combinations thereof.

Pollutants

A contaminant that in a certain concentration or amount will adversely alter the physical, chemical, or biological function of the environment; includes pathogens, heavy metals, carcinogens, oxygen-demanding materials, and all other harmful substances, including dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, and industrial, municipal and agricultural wastes discharged into the environment.

Pollution

The indirect or direct alteration of the biological, thermal, physical, or radioactive properties of any medium in such a way as to create a hazard or potential hazard to human health or to the health, safety or welfare of any living species.

Pollution data

Information collected and recorded on the presence, amount, and characteristics of pollutants in the environment, including air, water, and soil, as well as their potential impacts on human health, ecosystems, and the environment. This data can include measurements of chemical, physical, and biological parameters, such as concentrations of particulate matter, heavy metals, pesticides, and other contaminants, and can be used to monitor, assess, and mitigate pollution levels, track trends and patterns, and inform policy and decision-making to protect environmental and public health.

Pollution detection

The process of identifying and measuring the presence of pollutants in the environment, including air, water, and soil, through various methods such as monitoring, sampling, and analysis, in order to determine the level and source of pollution, and to inform strategies for prevention, mitigation, and remediation.

Pollution dispersion

The spreading of pollution from a point of release in air, soil and water.

Pollution monitoring

The quantitative or qualitative measure of the presence, effect or level of any polluting substance in air, water or soil.



Pollution of agriculture

Pollution of agriculture is the spread of substances to agriculture (air, water or soil) that lead to inconvenience or damage to agricultural health or well-being for farmed animals and plants, or soil, damage to dead material.

Population structure

Refers to the way a population is built up, through subpopulations of age classes, allele frequencies, etc. A population without any explicit division into sub-populations is considered continuous. Any deviation from the ideally continuous population, e.g. through inbreeding or selection, results in a structured population.

Post-conflict settings

The setting after an armed conflict, during a social, political, and economic transition phase, wherein post-conflict communities may deal with destroyed infrastructure, degraded lands, as well as returning refugees, internally displaced persons (IDPs), and ex-combatants.

Poverty alleviation

Programs, actions initiatives aimed at improving the quality of life for people living in poverty. Poverty alleviation encompasses two discrete meanings, namely poverty mitigation and poverty reduction. Poverty mitigation implies that people are prevented from becoming poorer whereas poverty reduction describes a situation where people are being lifted out of poverty (Angelsen and Wunder 2003).

Powdered products

Dry products that have been reduced to a fine powder, often through processes such as grinding, milling, or spray drying, and are typically used in various agricultural, food, or pharmaceutical applications, including but not limited to, animal feed supplements, fertilizers, or pesticide formulations.

Powders

An extremely fine grind size associated with forceful and prolonged grinding where physically discernable fragments cannot be detected in the finished product.

Predation

Predation is a series of behaviors undertaken by predators to hunt for food, mainly involving catching, processing, searching, chasing, and ingestion.

Predator control

Predator control is a control method management aimed at reducing populations of predatory species to protect livestock, game, or fish.

Predators

A natural enemy that preys and feeds on other animal organisms, more than one of which are killed during its lifetime.

Pregnancy

The status during which female mammals carry their developing young (embryos or fetuses) in utero before birth, beginning from fertilization to birth.

Pregnancy diagnosis

Physical or hormonal detection of pregnancy in a female.

Preservation

The protection of a resource by withdrawing it from human use.

Primary production

The production of new organic matter by photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). This is very often the first step in a food chain.



Primary sector

The primary sector of the economy is the sector of an economy making direct use of natural resources. This includes agriculture, forestry and fishing, mining, and extraction of oil and gas. This is contrasted with the secondary sector, producing manufactured and other processed goods, and the tertiary sector, producing services.

Probability theory

Probability theory is the branch of mathematics concerned with probability.

Processed products

Processed products are items that have undergone a series of deliberate alterations from their original raw form through physical, chemical, or biological procedures. These modifications are carried out to improve the product's quality, durability, safety, or convenience, often increasing its market value.

Processes

A process is a set of interrelated or interacting activities which transforms inputs into outputs.

Processing

Means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those or other processes.

Processing fishery products

Methods and techniques of processing commercial species, mainly fish and shellfish

Product quality

The ability of a product to perform its functions ("fit for purpose").

Production

The process of creating or manufacturing goods, crops, or other products through the use of resources such as labor, land, capital, and technology, with the aim of meeting the demands of a market, generating income, or providing sustenance, and can be applied to various sectors including agriculture, industry, and services.

Production economics refers to the application of economic principles and methods to the analysis of agricultural production and decision-making processes. It involves the study of the optimal allocation of resources, such as labor, capital, and inputs, to maximize the efficiency and profitability of agricultural production. Production economics examines the relationships between inputs, outputs, and production costs, and provides a framework for evaluating the economic viability different production systems, technologies. management practices. It is a subfield of agricultural economics that focuses on the microeconomic aspects of farm management and production, with the goal of improving the efficiency, productivity, and sustainability of agricultural production.

Production economics

Production policies

Guidelines or regulations that govern the methods, practices, and decisions involved in the production of agricultural goods, such as crops, livestock, and other farm products. These policies aim to optimize efficiency, quality, and sustainability



while minimizing environmental impact, ensuring food safety, and promoting social responsibility throughout the production process.

Production specialization

Production specialization refers to the process by which farmers or agricultural producers concentrate on growing or raising a specific crop or livestock, taking advantage of their unique resources, skills, and market conditions to maximize efficiency and productivity. This approach allows producers to develop expertise, reduce costs, and increase yields, ultimately leading to higher quality products and greater competitiveness in the market. Production specialization can also enable farmers to target specific market niches or consumer preferences, such as organic or specialty crops, and to develop value-added products that command premium prices.

Production statistics

Quantitative data that tracks the output of goods or services over a specific period. These statistics provide insights into the efficiency, trends, and performance of production processes within sectors such as agriculture, industry, or services.

Production systems

A production system can be defined as the organized and integrated set of resources, processes, and activities that transform inputs into finished products or services efficiently and effectively.

Productivity

Productivity is a measure of economic or business performance that indicates how efficiently people, companies, industries and whole economies convert inputs, such as labor and capital, into outputs, such as goods or services.

Products

In the context of agriculture, products refer to the goods or commodities resulting from farming, forestry, or other agricultural activities, such as crops, livestock, dairy, fruits, vegetables, nuts, seeds, and other raw or processed materials that are intended for human consumption, animal feed, or industrial use.

Professional services

Professional services refer to specialized and expert advice, guidance, or work provided by individuals or organizations with advanced training, education, and experience in a specific field, such as agriculture, veterinary medicine, or environmental science. In the context of agriculture, professional services may include consulting, advisory, or technical services related to crop management, soil conservation, livestock health, or farm management, among others. These services are typically provided by professionals such as agronomists, veterinarians, or agricultural engineers, and are designed to help farmers, ranchers, or other agricultural stakeholders make informed decisions, improve their operations, and address specific challenges or problems.

Profitability

The amount of profit made, shown as a percentage of costs or sales revenue.



Programmes

A planned series of activities, projects, or interventions designed to achieve specific objectives, often related to agriculture, rural development, or environmental management. These can include training, education, research, and extension activities, as well as policy and regulatory initiatives, aimed at improving agricultural practices, promoting sustainable development, and enhancing the livelihoods of rural communities.

Project management

The process of planning, organizing, coordinating, and overseeing resources, tasks, and timelines to achieve specific goals and objectives within a defined scope, budget, and timeframe.

Projects

Planned set of interrelated tasks to be executed over a fixed period and within certain cost and other limitations.

Properties

A property is a characteristic or quality that can be owned or possessed that serves to define or describe its possessor.

Protection

The act or process of safeguarding individuals, communities, ecosystems, or resources from harm, damage, or exploitation. This includes preventive measures, strategies, or practices aimed at preserving the health, integrity, or sustainability of agricultural systems, biodiversity, and the environment.

Protective clothing

Garments or apparel designed to shield the wearer from physical, chemical, environmental, or biological hazards in various work or recreational settings.

Pruning

Pruning is the proper and judicious removal of plant parts such as shoots, spurs, leaves, roots or nipping away of terminal parts etc. to correct or maintain tree structure and increase its usefulness.

Public health

Science of protecting and improving the health of people through the organized efforts of society by promoting a healthy lifestyle, preventing injuries, and preventing, detecting and responding to infectious diseases.

Quality

The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

Quarantine regulations

Official rules and procedures established by authorities to prevent the introduction, spread, or transmission of pests, diseases, or invasive species through the movement of plants, animals, humans, or goods.

Radiation protection

The measures and practices implemented to safeguard individuals, communities, and the environment from harmful effects of ionizing radiation.

Radioactive wastes

Any waste that emits radiation in excess of normal background level, including the toxic by-products of the nuclear energy industry.

Radiochemistry

Radiochemistry is the chemistry of radioactive materials, where radioactive isotopes of elements are used to study the properties and chemical reactions of non-radioactive isotopes.



Radioecology

Radioecology is the scientific discipline focusing on how radioactive substances interact with nature, the mechanisms responsible for migration of such substances, and the uptake of radioactive substances in individuals, in the food chain that is composed of these individuals, and in ecosystems that are composed of the populations of these different species.

Rare species

A species of plant or animal which, although not presently threatened with extinction, is in such small numbers throughout its range that it may be endangered if its environment worsens.

Rations

Refers to the allocation or distribution of food, feed, or other essential resources, typically in a controlled or limited quantity, to humans or animals, often in situations where resources are scarce or need to be managed, such as in agricultural settings, military contexts, or emergency relief situations. In agriculture, rations often relate to the amount and type of feed provided to livestock to meet their nutritional needs.

Ratooning

Ratooning is the agricultural practice of harvesting a monocot crop by cutting most of the above-ground portion but leaving the roots and the growing shoot apices intact so as to allow the plants to recover and produce a fresh crop in the next season.

Recirculating aquaculture systems

Technology to farm fish or other aquatic organisms in a closed system where the culture medium (i.e. water) undergoes mechanical and biological filtration to adequately control the environmental parameters through the removal and transformation of the waste produced by the farmed organisms.

Recommended dietary allowances

Recommended Dietary Allowances (RDAs): The average daily dietary intake levels of nutrients that are sufficient to meet the nutrient requirements of nearly all (97-98%) healthy individuals in a particular life stage and gender group. These standards are established by nutritional authorities and are used to guide individuals in achieving a balanced diet that supports optimal health and well-being. RDAs are based on the latest scientific research and take into account factors such as age, sex, weight, height, and physical activity level to provide a general guideline for adequate nutrition.

Recreation

Activity or pastime that provides relaxation, entertainment, or leisure, often taking place outdoors, such as walking, hiking, or picnicking, and can be considered an important aspect of agricultural or rural areas, where it can contribute to the well-being of rural communities and the conservation of natural resources.

Recreational areas

Recreational areas refer to designated spaces or locations, either natural or man-made, that are specifically set aside for people to engage in leisure activities, entertainment, and relaxation. These areas can include parks, gardens, beaches, forests, trails, playgrounds, sports fields, and other outdoor or indoor spaces that provide opportunities for recreation,



socialization, and enjoyment of nature and the environment. The primary purpose of recreational areas is to promote physical and mental well-being, foster community interaction, and offer a refuge from the stresses of daily life, while also conserving and protecting natural resources for future generations.

Recreational waters

Recreational waters are any natural fresh, marine or estuarine bodies of water that are used for recreation.

Reef formation

A reef formation refers to the process by which a reef is created and developed through the accumulation of coral polyps, algae, and other organisms, as well as the deposition of sediment and skeletal remains, resulting in a complex structure that provides habitat for a diverse array of marine life and can influence coastal erosion and sedimentation patterns.

Reefs

A shallow elevation composed of consolidated material that may constitute a hazard to surface navigation.

regenerative agriculture

Regenerative agriculture is a way of farming that nurtures and restores soil health, and therefore reduces water use, prevents land degradation, and promotes biodiversity. By minimizing land ploughing, practicing rotating crops, and using animal manure and compost, regenerative agriculture ensures that the soil stores more carbon, conserves more moisture, and is healthier due to thriving fungal communities.

Regulations

A rule or directive made and maintained by a government authority.

Remote sensing

The gathering and analysis of data from the study area or organism that is physically removed from the sensing equipment, e.g. sub-water surface detection instruments, aircraft or satellite.

Renewable energy refers to the energy generated from natural resources that can be replenished over time and are sustainable, meaning they do not deplete the planet's finite

resources. These resources include solar radiation, wind, rain, tides, and geothermal heat, which can be harnessed to produce energy in various forms, such as electricity, heat, or biofuels. Renewable energy sources are generally cleaner and more environmentally friendly than traditional fossil fuels, as they produce little to no greenhouse gas emissions or other pollutants, contributing to a reduction in climate change and air

pollution. Examples of renewable energy sources include solar power, wind power, hydroelectric power, geothermal energy,

and biomass energy.

Renewable energy

Natural resources that can be replenished or restored naturally over time, and are not depleted when used, such as sunlight, wind, rain, water, and plants, which can be managed and harvested in a sustainable way to provide energy, food, and other essential products without damaging the environment.

Renewable resources



Reproduction

The biological process by which plants and animals produce offspring, either sexually or asexually, resulting in the creation of new individuals with genetic material from one or more parents. In agriculture, reproduction refers to the process of breeding and multiplying plants and animals to produce new generations with desirable traits, such as improved yield, disease resistance, or enhanced nutritional content. This can involve techniques such as selective breeding, crossbreeding, and seed or embryo propagation.

Reproduction control

The management and regulation of the reproductive processes in organisms, typically to enhance production, prevent overpopulation, or maintain genetic diversity.

Reproductive techniques

A defined, systematic procedure employed by a human, animal, or plant to perform a reproductive activity in order to produce offspring or achieve successful fertilization, and that may employ one or more tools, methods, or technologies to support or enhance the reproductive process.

Requirements

The necessities or conditions that must be met or fulfilled to achieve a specific goal, objective, or standard, often related to the growth, development, or maintenance of plants, animals, or agricultural systems. In agriculture, requirements can refer to the necessary inputs, such as water, nutrients, or light, that a crop or livestock needs to thrive.

Research

Research is a process of systematic inquiry that entails collection of data; documentation of critical information; and analysis and interpretation of that data/information, in accordance with suitable methodologies set by specific professional fields and academic disciplines.

Research methods

Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic.

The term "residues" refers to the remaining or leftover

The term "residues" refers to the remaining or leftover substances, materials, or compounds that are present after a process, treatment, or activity has taken place, such as agricultural production, industrial processes, or environmental events. In the context of agriculture, residues can include:

- Pesticide residues: the remaining amounts of pesticides or their breakdown products on crops, soil, or water after application.
- Fertilizer residues: the leftover nutrients or compounds from fertilizers that remain in the soil or on plants after application.
- Crop residues: the leftover plant material, such as stalks, leaves, or roots, that remain in the field after harvest.

In general, residues can be chemical, physical, or biological in nature and can have significant environmental, health, or economic implications.

Residues



Resilience

Resilience is the ability of people, communities or systems to withstand damage and recover rapidly when confronted by disasters or crises.

Resins

In polymer chemistry and materials science, resin is a solid or highly viscous substance of plant or synthetic origin that is typically convertible into polymers. Resins are usually mixtures of organic compounds.

Resistance to injurious factors

The ability of an organism, ecosystem, or system to withstand or minimize the adverse effects of harmful environmental, biological, or physical factors, such as pests, diseases, extreme weather conditions, pollution, or mechanical damage.

Resistance varieties

Resistance varieties are identified as varieties having a slow getting infected and low disease intensity.

Resistant starch

Resistant starch is a carbohydrate that resist digestion in the small intestine and ferments in the large intestine.

Resource conservation

All those actions which are directed towards sustaining otherwise decreasing rates of use, towards sustained yield management, or towards increasing a sustained use.

Resource depletion

The reduction or exhaustion of natural resources due to excessive consumption, overexploitation, or unsustainable management practices.

Resource management

The process of planning, organizing, and controlling the use of resources such as labor, equipment, materials, water, and land to achieve efficient and sustainable production in agriculture or aquaculture, while minimizing waste and environmental impact. It involves the allocation and utilization of available resources to optimize yields, reduce costs, and promote long-term viability of the agricultural or aquacultural operation.

Restoration

Any intentional activity that initiates or accelerates the recovery (for example, of an ecosystem) from a degraded state.

Restrictions

Formal or informal obligation to refrain from doing something.

Rfid tags

Radio-frequency identification (RFID) tags use electromagnetic fields to automatically identify and track tags attached to objects.

Rhizobacteria

Rhizobacteria are root-associated bacteria that can have a detrimental (parasitic varieties), neutral or beneficial effect on plant growth.

Rhizosphere

Rhizosphere: region of soil near the roots of growing plants.

Right to food

The right to have regular, permanent and free access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensures a physical and mental, individual and collective, fulfilling and dignified life free of fear.



Riparian zones

The interface between land and a water body, such as rivers, streams, lakes, or wetlands, characterized by unique ecosystems that are influenced by the presence of water.

Risk management

The identification and implementation of policies and activities to avoid or minimize the likelihood and/or impact of ongoing or potential events (disease, climate, economic or other).

Risk prevention

Attempting to reduce the potential for damage resulting from perils.

River basin management

River basin management can be considered as the integration of planning and management of water resources, sustainable development and strategies on a river basin level.

River corridors

A river corridor is the minimum space needed to sustain key river functions based on an understanding of the desired functions of that corridor and the processes governing channel and floodplain formation. Giving such space is a fundamental nature-based solution to river management, as it allows the river to use its own energy to maintain flood conveyance and habitat function.

River restoration

The process of rehabilitating a river or stream to its natural state, involving the removal of harmful human impacts, such as pollution, dams, or channelization, and the reintroduction of natural habitats, flows, and ecosystems to improve the river's ecological health, biodiversity, and resilience, ultimately enhancing its ability to provide ecosystem services and support aquatic life.

Rivers

Natural water course from 5 to 100 m wide, running into another water course or a lake.

Rock

A naturally occurring solid aggregate of minerals, mineraloids, or organic materials that form the Earth's crust.

Runoff

Portion of rainfall melted snow or irrigation water that flows across the grounds surface and is eventually returned to streams. Run-off can pick up pollutants from air or land and carry them to receiving waters.

Rural conditions

Rural conditions refer to the social, economic, and environmental characteristics of life in non-urban areas, often marked by lower population density and limited access to services and infrastructure. These conditions can include factors such as agricultural dependence, transportation challenges, reduced healthcare and educational facilities, and close-knit communities. Understanding rural conditions is essential for developing policies and solutions tailored to the needs of rural populations.

Rural development

Rural development refers to the process of improving the quality of life and economic well-being of people living in rural areas. It involves initiatives to enhance infrastructure, education, healthcare, agricultural productivity, and employment opportunities while addressing challenges unique to rural regions. The goal of rural development is to reduce



disparities between urban and rural areas and promote sustainable growth.

Rural economics is the study of economic activities and issues specific to rural areas, including agriculture, natural resource management, and rural industries. It focuses on understanding how economic forces, policies, and development strategies affect rural populations and livelihoods. Rural economics also examines factors like income distribution, employment opportunities, and access to markets and services in nonurban regions.

The availability and participation of individuals in work activities within rural areas, which are typically characterized by agricultural, forestry, fishing, and other primary sector industries.

The rural environment refers to the natural and built surroundings of non-urban areas, typically characterized by open spaces, agricultural landscapes, forests, and smaller communities. It encompasses the land, water resources, wildlife, and climate that support rural livelihoods and ecosystems. The rural environment is often shaped by human activities such as farming, forestry, and conservation, while maintaining a connection to nature.

The capabilities, assets and activities that rural people require for a means of living.

Rural transformation can be defined as a long-term process of change in fundamental features of the way people in rural areas live and act economically, taking into consideration how they are embedded in societal and global dynamics.

The welfare of people living in rural areas.

The condition of being safe or without danger.

Safety equipment: Personal protective equipment, devices,

and tools designed to protect individuals from hazards and risks in agricultural workplaces, such as gloves, safety glasses, masks, earplugs, and first aid kits, with the purpose of preventing or minimizing injuries and illnesses.

Safety regulations, in the context of agriculture, refer to a set of rules, guidelines, and standards established to ensure the health, safety, and well-being of individuals involved in agricultural activities, as well as to protect the environment and prevent accidents. These regulations may include guidelines for the use of personal protective equipment, safe handling and storage of chemicals and pesticides, proper maintenance of equipment and machinery, and procedures for emergency response and first aid. The goal of safety regulations is to minimize the risk of injury, illness, and death among agricultural workers, and to promote a safe and healthy working environment.

Rural economics

Rural employment

Rural environment

Rural livelihoods

Rural transformation

Rural welfare

Safety

Safety equipment

Safety regulations



Saline water

Water with a high concentration of dissolved salts, typically exceeding 3,000 parts per million (ppm) or 3 grams per liter, which is significantly higher than the salt concentration in freshwater, and can be found in oceans, seas, and some groundwater sources, often affecting the suitability of the water for irrigation, drinking, or other agricultural and domestic uses.

Salt lakes

A salt lake or saline lake is a landlocked body of water that has a concentration of salts (typically sodium chloride) and other dissolved minerals significantly higher than most lakes (often defined as at least three grams of salt per litre).

Sample contamination

Sample contamination refers to the introduction of unwanted substances, microorganisms, or other foreign materials into a sample, which can alter its composition, characteristics, or properties, and potentially lead to inaccurate or misleading results in agricultural testing, analysis, or research. This can occur during collection, handling, storage, or processing of the sample, and can compromise the validity and reliability of the data or findings.

Sample storage

Sample storage refers to the methods and facilities used to preserve and maintain the integrity of physical samples, such as soil, water, plant, or animal tissues, collected for agricultural research, analysis, or monitoring purposes, in a way that prevents degradation, contamination, or alteration of their physical, chemical, or biological properties over time.

Samples

A part, piece, item, or observation taken or shown as representative of a whole (this may be population, physical system, ecosystem, etc.).

Sampling

Provision of a sample of the object of conformity assessment, according to a procedure.

Satellites

Any celestial body orbiting around a planet or star.

Saturation

The state of being saturated or the action of saturating.

Scale models

Representations of objects, structures, or systems that are proportionally reduced or enlarged to a specific scale for purposes such as visualization, testing, education, or planning.

Scaling up

Scaling up means expanding, replicating, adapting, and sustaining successful policies, programs, or projects to reach a greater number of people; it is part of a broader process of innovation and learning.

Sciences

Sciences are disciplines of the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.

Scour protection

The implementation of structural or natural measures to prevent or reduce the removal of sediment around underwater structures such as bridge piers, offshore foundations, or coastal defenses caused by flowing water or wave action.

Sea ice

Any form of ice found at sea which has originated from the freezing of sea water.



Sea state

In oceanography, sea state is the general condition of the free surface on a large body of water—with respect to wind waves and swell—at a certain location and moment. A sea state is characterized by statistics, including the wave height, period, and power spectrum.

Seaweed processing

Processing of marine plants and marine plant products

Seaweeds

Seaweeds are macroscopic, photosynthetic plant-like organisms that fall under three broad groups based on their pigmentation: brown (Phaeophyta), red (Rhodophyta) and green (Chlorophyta) algae. While the majority of brown and red seaweeds are strictly marine, the green seaweeds are mainly found in freshwater environments.

Secondary sector

In macroeconomics, the secondary sector of the economy is an economic sector in the three-sector theory that describes the role of manufacturing. It encompasses industries that produce a finished, usable product or are involved in construction.

Sediment

Unconsolidated particles, ranging from clay-size to boulders, produced by the weathering of rocks and transported by natural agents such as wind, water, and ice.

Sediment pollution

The accumulation of excessive amounts of soil particles, organic matter, or other debris in water bodies, typically because of human activities such as construction, agriculture, and deforestation.

Sediment sampling

The process of collecting samples of sediment from the bottom of water bodies, such as rivers, lakes, or oceans, for analysis.

Sediment texture

The mix of sediment sizes and materials in a sediment sample.

Sediment yield

Sediment yield can be defined as the amount of sediment reaching or passing a point of interest in a given period of time, and sediment yield estimates are normally given as tonnes per year or kilograms per year.

Sedimentary structures

Features that originate within layers of sediments or along the sediment-water interface prior to lithification.

Sedimentation

Sedimentation refers to the process of settling or deposition of solid particles, such as soil, sand, or other suspended matter, from a fluid (like water or air) to the bottom of a container, lake, river, or other body of water, due to the force of gravity. This process can occur naturally, such as in a river or lake, or artificially, such as in a water treatment plant.

Seed dispersal

Seed dispersal refers to the process by which seeds are spread away from the parent plant to new locations, where they can germinate and grow into new individuals. This process is crucial for the survival and reproduction of plant species, as it allows them to colonize new areas, escape competition and predation, and adapt to changing environmental conditions. Seed dispersal can occur through various mechanisms, including wind, water, animals, and



humans, and is an important aspect of plant ecology and evolution.

Seed policies

A seed policy is essentially a 'declaration of intent' by the government on how it wishes the seed sector to develop.

Seed systems

A seed system is understood in various ways. It is often understood as referring to the organized, formal mechanisms through which farmers obtain seed, and through which seed quality can be guaranteed. These formal seed systems consist of chains of interlinked activities, starting from genetic resource management, breeding research and crop improvement, through seed multiplication, marketing and distribution, to use of the seed by farmers. However, farmers, especially those in developing countries, obtain seed from many sources, including producing their own seed and exchanging seed with neighbours, and these 'informal' systems must be considered in any consideration of seed systems.

Seeds

Seeds are the embryonic plants enclosed in a covering called the seed coat, usually with some stored food. They are designed to grow into new plants when provided with the right conditions, such as water, temperature, and light. Seeds are a crucial part of the reproductive cycle of plants and serve as a primary means of propagation for many plant species. They contain the genetic material necessary for the development of a new plant, and their quality, size, and viability can significantly impact germination rates, plant growth, and overall crop yield.

Seepages

The slow escape of a liquid or gas through porous material or small holes.

Sequence analysis

A multistage process that includes the determination of a sequence (protein, carbohydrate, etc.), its fragmentation and analysis, and the interpretation of the resulting sequence information.

Services

Services: Intangible products or activities that are offered to customers, such as consulting, advice, or labor, which provide value but are not physical goods. In the context of agriculture, services may include activities like crop monitoring, soil testing, farm management, or equipment maintenance, among others.

Sewage ponds

Shallow pond, usually human-made, where sunlight, bacteria and oxygen interact to help purify wastewater.

Sewerage

The removal and disposal of sewage and surface waters by sewers.

Sex

The totality of characteristics of reproductive structure, functions, phenotype, and genotype, differentiating the male from the female organism.

Sex ratio

The number of males per 100 females.



Sexual reproduction

A type of reproduction that combines the genetic material of two gametes (such as a sperm or egg cell or fungal spores). The gametes have an haploid genome (with a single set of chromosomes, the product of a meiotic division) and combines with one another to produce a zygote (diploid).

Shallow water refers to a body of water, such as a sea, lake, or river, with a relatively small depth, typically less than 200 meters (656 feet). In agricultural contexts, shallow water often relates to irrigation systems, flooding, or water tables, where the water level is close to the surface, usually less than 2-3 meters (6-10 feet) deep. This term is also relevant in coastal or aquatic ecosystems, where shallow water areas, such as tidal flats, marshes, or wetlands, provide habitats for specific plant and animal species.

The process of conceptualizing and developing the structure, systems, and features of a ship to meet specific functional, performance, and regulatory requirements.

Scaled representations of ships, designed to study or demonstrate aspects of naval architecture, design, performance, or functionality.

The process of designing, constructing, and assembling ships and other floating vessels for commercial, military, or recreational purposes.

In the context of agriculture, shops can be defined as buildings

or facilities on a farm or agricultural establishment where equipment, tools, and machinery are stored, maintained, and repaired. These areas often serve as central locations for farm operations, housing essential supplies, and providing a workspace for farmers and farmworkers to perform various tasks, such as equipment maintenance, welding, and other support activities.

The degradation of shrimp quality due to microbial growth, enzymatic activity, or chemical reactions, leading to the deterioration of texture, color, flavor, and safety.

The set of activities carried out to ready a specific area of land for intended use, such as agriculture, forestry, construction, or infrastructure development.

The solid or semi-solid residual waste remaining when liquid is removed during industrial waste treatment.

The series of processes applied to reduce the volume, stabilize the organic content, and minimize the environmental impact of sludge generated from wastewater treatment.

The practice of cultivating aquatic organisms such as fish, shellfish, and aquatic plants in controlled environments on a relatively small scale, typically for local consumption or small commercial ventures.

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Shallow water

Ship design

Ship models

Shipbuilding

Shops

Shrimp spoilage

Site preparation

Sludge treatment

Sludge

Small-scale aquaculture



Social behaviour

Social behaviour refers to the interactions and actions of individuals within a group or community, influencing or being influenced by the behaviour of others. In the context of agriculture, social behaviour can relate to the study of how animals interact with each other, such as dominance hierarchies, communication, and cooperation, which can impact their welfare, productivity, and overall management.

Social change refers to the transformation or modification of societal structures, institutions, values, norms, and behaviors over time. It encompasses alterations in the way people interact, organize themselves, and relate to one another, often in response to shifting cultural, economic, political, or environmental conditions. Social change can be driven by various factors, including technological advancements, demographic shifts, economic development, movements, or environmental pressures, and can result in changes to social norms, power dynamics, and cultural values. It can be intentional, such as through social movements or policy reforms, or unintentional, such as through demographic or environmental changes.

Social innovations are new ideas that meet social needs, create social relationships and form new collaborations. These innovations can be products, services or models addressing unmet needs more effectively.

Observable behaviours, actions, or trends that emerge within and among human societies, often influenced by cultural, economic, political, and environmental factors.

The range of policies and programmes that address economic.

environmental and social vulnerabilities to food insecurity and

poverty by protecting and promoting livelihoods, including, but

not limited to social insurance and social assistance.

Social science is one of the branches of science, devoted to the study of societies and the relationships among individuals within those societies.

Social services refer to a range of organized activities and programs designed to provide support, assistance, and care to individuals, families, and communities in need, with the goal of promoting their well-being, improving their quality of life, and addressing social problems. These services may include, but are not limited to, healthcare, education, housing, employment, and counseling, and are often provided by government agencies, non-profit organizations, and community groups.

Social statistics refers to the collection, analysis, and interpretation of numerical data related to social phenomena, such as population demographics, health, education, crime, and other aspects of human society, with the aim of understanding and describing social trends, patterns, and

Social change

Social innovation

Social phenomena

Social protection

Social sciences

Social services

Social statistics



relationships, and informing policy decisions and social interventions.

Social welfare

The welfare of the society. It can be seen either as a general theoretical principle which applies to all members of society taken together as a group or, alternatively, it can be seen as the total of all satisfied preferences of individual members of the society.

Social-ecological resilience

Social-ecological resilience refers to the ability of a social-ecological system to absorb change and disturbance without shifting to a new regime with a different set of processes and structures—i.e., without transforming into a new system state.

Socioeconomic aspects

Socioeconomic aspects: Refers to the interrelationship between social and economic factors that affect the quality of life, well-being, and opportunities of individuals, communities, or societies, including factors such as income, education, occupation, poverty, inequality, access to resources, and social status, which can have a significant impact on agricultural development, rural livelihoods, and environmental sustainability.

Socioeconomic development

Socioeconomic development refers to the process of improving the quality of life and well-being of individuals, communities, and societies through the simultaneous improvement of social and economic conditions. This concept encompasses various aspects, including education. healthcare, poverty reduction, income equality, access to resources, and social justice, with the ultimate goal of creating a more equitable, sustainable, and prosperous society. In the context of agriculture, socioeconomic development may involve initiatives such as rural development programs, agricultural training and education, and support for small-scale farmers, aiming to enhance the livelihoods of rural communities and promote sustainable agricultural practices.

Socioeconomic environment

The combination of social and economic conditions that influence and are influenced by human activities, behaviors, and development.

Socioeconomic impact

Socioeconomic impact refers to the effects of a project, policy, or activity on the social and economic well-being of individuals, communities, and societies. It encompasses the changes that occur in the quality of life, income, employment, education, health, and social relationships within a community or region, because of a particular intervention or development. The socioeconomic impact can be both positive and negative, and it is often assessed to understand the potential consequences of a decision or action on the social and economic fabric of a community.

Socioeconomics

Socioeconomics (also known as social economics) is the social science that studies how economic activity affects and is shaped by social processes.



Soil

The upper layer of the earth's surface, consisting of a mixture of mineral and organic matter, water, and air, that supports plant growth and is a vital component of ecosystems, formed through the weathering of rocks and decomposition of organic materials over time.

Soil anthropogenic changes

Activities, such as construction or drainage, which cause profound changes in the soil system.

Soil conservation

A combination of land use and management practices that prevent soil loss or deterioration from natural or human causes. It most often aims to manage soils to prevent erosion by rainwater, runoff, and wind. It also attempts to protect soils from damage by agricultural machinery (e.g., compaction) and harmful changes to their chemical composition (e.g., acidification and salinization).

Soil degradation

Soil degradation refers to the diminishing capacity of the soil to provide ecosystem goods and services as desired by its stakeholders.

Soil functions

Performance and tasks of soils, determining their ecological and economical value, e.g., biomass production, water filtration and storage, nutrient storage and recycling, habitat for organisms, and carbon storage.

Soil genesis

Set of processes contributing to the formation and evolution of soil cover over time, based on parent materials.

Soil information

Soil information is data about the physical, chemical, and biological properties of soil. This information can be used to assess soil health, fertility, and suitability for different uses.

Soil management

Good management of soils assures that mineral elements do not become deficient or toxic to plants, and that appropriate mineral elements enter the food chain.

Soil properties

Chemical, physical, or biological characteristics of soil which can indicate its level of function of ecosystem services. Properties can be dynamic or inherent characteristics.

Soil quality

The ability of the soil to provide ecosystem services through its capacities to perform soil functions such as biodiversity, productivity, water filtering and buffering, and nutrient cycling.

Soil sealing

Permanent covering of the soil surface with impermeable artificial materials, leading to non-reversible loss of soil and most of its ecosystem services

Soil security

Soil security has been defined as the maintenance or improvement of the world's soil resources so that they can provide sufficient food, fibre, and fresh water, contribute to energy sustainability and climate stability, maintain biodiversity, and deliver overall environmental protection and ecosystem services.



Soilless culture

Soilless culture refers to a method of growing plants in a medium other than soil, such as nutrient-rich solutions, peat moss, coconut coir, or other inert materials, where the plant's roots receive the necessary nutrients, water, and oxygen through irrigation systems, rather than relying on the soil's natural nutrient supply. This technique allows for greater control over the growing conditions and can increase crop yields, reduce water consumption, and minimize the use of arable land.

Solid wastes

Solid waste covers discarded materials that are no longer required by the owner or user. Solid waste includes materials that are in a solid or liquid state but excludes wastewater and small particulate matter released into the atmosphere.

Sonar detection

Sonar detection is detection using sonar, short for Sound Navigation and Ranging.

Space-borne remote sensing

The term "spatial remote sensing" is used to describe the measurements taken from satellites (the term 'airborne remote sensing' is used when such measurements are taken from aircraft).

Spatial planning

A process of analysing and allocating parts of threedimensional spaces to specific uses, to achieve ecological, economic, and social objectives that are usually specified through the political process.

Spawning

Release of ova, fertilized or to be fertilized.

Spawning grounds

Spawning grounds are the areas of water where aquatic animals spawn or produce their eggs. After spawning, the spawn may or may not drift to new grounds which become their nursery grounds. Many species undertake migrations each year, and sometimes great migrations, to reach their spawning grounds.

Spawning migrations

Movement of individual fish from non-spawning to spawning site. May result in a spawning aggregation or simple migratory spawning.

Spawning seasons

The specific periods during the year when certain species of fish, amphibians, and other aquatic organisms reproduce by releasing eggs and sperm into the water for fertilization.

Speciation

The evolutionary differentiation of a pre-existing species into one or more distinct species.

Species

A group of organisms of common ancestry having common characteristics, that can be reproduced only among themselves to produce fertile offspring and which are usually geographically distinct. It constitutes the fundamental rank in the taxonomic hierarchy.

Species extinction

Species extinction refers to the permanent disappearance of a species from the Earth's biosphere, occurring when a species is no longer able to survive and reproduce in its natural habitat, often due to various human activities or environmental factors



such as habitat destruction, pollution, climate change, overhunting, or invasive species, ultimately leading to the death of the last individual of that species.

Stakeholder engagement

Stakeholder engagement is the systematic identification, analysis, planning and implementation of actions designed to influence stakeholders.

Standards

A document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose.

State

States are any condition in which a physical substance or organism can be in.

Statistical data

Categorized data from a survey or administrative source used to produce statistics.

Statistical methods

Statistical methods refer to the techniques and processes used to collect, analyze, interpret, and present data in order to understand and make inferences about a phenomenon or population. These methods involve the use of statistical theory and algorithms to extract insights and meaning from data, and are commonly used in various fields, including agriculture, to identify trends, patterns, and correlations, and to make informed decisions based on data-driven evidence.

Statistics

The branch of mathematics that involves the collection, analysis, interpretation, and presentation of data.

Stimuli

A change in the environment or a signal that provokes a reaction or response in plants or animals, such as light, temperature, water, or nutrients, which can influence growth, development, behavior, or physiological processes.

Stocking (organism)

The practice of releasing or introducing organisms, such as fish, shellfish, or plants, into a specific habitat or ecosystem for purposes of conservation, population restoration, recreational use, or commercial production.

Stocking density

The number of animals or organisms placed or maintained within a defined area or volume in farming or aquaculture systems. It is a key management factor that affects growth rates, health, behavior, and environmental impact.

Stomach content

The material found in the stomach of an animal, including food, fluids, and other substances that have been ingested, which can be analyzed to determine the animal's diet, feeding habits, and nutritional intake.

Stone fruits

Fruits of the botanical family Rosaceae that contain a single hard seed, called a stone, pit, or pip. The term includes plums, cherries, greengages, peaches, apricots, almonds, and sloes.

Strategies

A high-level plan of action or policy designed for a long-range or major aim.

Stratigraphic traps

Stratigraphic traps are a variety of sealed geologic containers capable of retaining hydrocarbons, formed by changes in rock



type or pinch-outs, unconformities, or sedimentary features such as reefs.

Stress, either physiological or biological, is an organism's response to a stressor such as an environmental condition.

In the context of agriculture, structures refer to any physical constructions or built facilities designed to support agricultural activities, such as farms, ranches, or other areas where crops or livestock are raised. Examples of agricultural structures include barns, silos, greenhouses, fencing, irrigation systems, and farm buildings, which provide shelter, storage, and protection for plants, animals, and equipment, and facilitate the efficient operation of agricultural practices.

Payment or benefit given to partially offset the cost of specific activities, such as the manufacture, production, or export of an article.

In the context of agriculture, substances refer to any matter or material, whether solid, liquid, or gas, that is used or present in the environment, including but not limited to chemicals, nutrients, pollutants, or other elements that can affect the growth, health, and productivity of plants and animals, as well as the quality of soil, water, and air.

A layer that lies underneath another.

Supply chain disruptions are unplanned and unanticipated events that disrupt the normal flow of goods and materials within a supply chain.

The network created amongst different companies producing, handling and distributing a specific product. It encompasses the steps it takes to get a good or service from the supplier to the customer.

All waters on the surface of the Earth found in streams, rivers, ponds, lakes, marshes or wetlands, and as ice and snow.

Surface water waves refer to the ripples or undulations that form on the surface of a body of water, such as an ocean, lake, or river, because of the transfer of energy from the wind or other external forces. These waves are characterized by the oscillation of water molecules at the air-water interface, creating a disturbance that propagates across the surface of the water, often in a rhythmic and periodic pattern. Surface water waves can be influenced by various factors, including wind speed and direction, water depth, and the presence of obstacles or shorelines, and play a significant role in shaping coastal ecosystems, affecting aquatic life, and impacting human activities such as navigation, recreation, and agriculture.

The process of planning and structuring a survey to collect data effectively and efficiently.

Structures

Stress

Subsidies

Substances

Substrata

Supply chain disruptions

Supply chains

Surface water

Surface water waves

Survey design



Surveying

The process of collecting and analyzing data about the physical characteristics of an area, such as land boundaries, topography, and features, using various techniques like measurement, observation, and mapping, in order to create accurate and detailed maps, plans, and reports, often used in agriculture, urban planning, and environmental management to inform decision-making and planning.

Surveying equipment refers to the various tools and instruments used to measure and map the physical features of an area, such as distances, angles, and elevations. This equipment is utilized in the field of surveying to collect data and information about the terrain, boundaries, and other geographical features of a particular site or region. Examples of surveying equipment include theodolites, total stations, GPS receivers, levels, tape measures, and drones, among others. These tools enable surveyors to accurately determine property boundaries, topography, and other spatial relationships, which is essential for activities such as land development, construction, and environmental monitoring.

The state or fact of remaining alive or in existence, especially in difficult or extreme conditions, such as adverse environmental factors, diseases, or predators, and having the ability to withstand or recover from them. In the context of agriculture, survival often refers to the ability of plants or animals to thrive and maintain their viability in challenging circumstances, such as drought, flooding, or other forms of stress.

Suspended particulate matter is usually defined as comprising particles less than 10 μm in diameter suspended in the atmospheric environment or water.

The ability of socio-ecological processes and activities to produce long-term environmental, social, technical, financial and cultural benefits.

Use for the practice of agriculture which supports sustained economic profitability, sustained quality and well-being of the environment, efficient use of natural resources, and the overall quality and availability of food and fiber for mankind.

Sustainable consumption is the use of products and services in ways that minimize impacts on the environment in order for human needs to be met in the present but also for future generations.

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

A method of production using processes and systems that are non-polluting, conserve non-renewable energy and natural resources, are economically efficient, are safe for workers,

Surveying equipment

Survival

Suspended particulate matter

Sustainability

Sustainable agriculture

Sustainable consumption

Sustainable development

Sustainable production



communities and consumers, and do not compromise the needs of future generations.

Sustainable products

Sustainable products are those products that provide environmental, social and economic benefits while protecting public health and environment over their whole life cycle, from the extraction of raw materials until the final disposal.

Synthetic varieties

Synthetic varieties are open-pollinated populations derived from the intercrossing of selected plants or lines and subsequently maintained by routine mass selection procedures from isolated plantings.

Systems

A combination of interacting elements organized to achieve one or more stated purposes.

Tags

A small piece of metal or plastic usually attached externally or internally to an object or organism, containing specific identification information.

Tanning agents

Tanning agents can be defined as chemical substances used in the process of tanning to stabilize and fix hides and skins, making them more durable and resistant to decay, as well as improving their texture and appearance. Tanning agents can be derived from natural sources, such as plants (e.g. tannins), or can be synthetic, and are commonly used in the production of leather goods.

Taxonomy

Taxonomy (general) is the practice and science of classification of things or concepts, including the principles that underlie such classification.

Technicians

Persons with greater technical knowledge than a skilled worker but less than a professional.

Techniques

A defined systematic procedure employed by a human resource or other organism to perform an activity to produce a product or result or deliver a service, and that may employ one or more tools.

Technology

Technology involves the application of science and knowledge to develop techniques to deliver a new product and/or service or to use a new process to deliver an established product or service.

Technology adoption

Technology adoption refers to the acceptance, deployment, and implementation of a new technology, in a marketplace, society, or group of people.

Technology transfer

The broad set of processes that cover the exchange of knowledge, money, and goods among different stakeholders that leads to the spreading of technology for adapting to or mitigating climate change. As a generic concept, the term is used to encompass both diffusion of technologies and technological cooperation across and within countries.

Telemetry

Telemetry is the collection of measurements or other data at remote points and their automatic transmission to receiving equipment for monitoring.



Temperature preferences

Optimum temperature conditions for an organism.

Tests

A procedure or experiment designed to evaluate the quality, performance, or characteristics of a product, process, or system, often involving the collection and analysis of data to determine its suitability, effectiveness, or conformity to established standards or specifications.

Textiles

A textile is any material made of interlacing fibres, including carpeting and geotextiles.

Thawing

The process of changing from a frozen to a liquid or semi-liquid state, typically occurring when frozen soil, water, or other substances are exposed to temperatures above their freezing point, resulting in the release of water and a change in the physical properties of the material. In agricultural contexts, thawing can refer to the melting of frozen ground, which can affect soil structure, water availability, and plant growth.

Thermal aquaculture

Thermal aquaculture refers to a type of aquaculture practice that utilizes warm water from thermal or geothermal sources, such as hot springs, power plants, or industrial processes, to cultivate aquatic organisms like fish, shellfish, or other aquatic species. This method takes advantage of the consistent and often elevated water temperatures to promote faster growth rates, increased productivity, and year-round production, allowing for a more efficient and controlled aquaculture operation.

Thinning

Partial removal of plants or trees to reducing competition, accelerate growth of remaining plants or trees or reduce flammable vegetation, among other purposes.

Topography

Topography is the study of the shape and features of land surfaces. The topography of an area could refer to the surface shapes and features themselves, or a description (especially their depiction in maps). Topography is a field of geoscience and planetary science and is concerned with local detail in general, including not only relief but also natural and artificial features, and even local history and culture.

The act of monitoring or following the movement, progress, or location of something, such as animals, people, vehicles, or objects, over time, often using techniques like observation, tagging, or technology like GPS or sensors, to gather data or information about its behavior, habits, or patterns.

Training

Tracking

Training is any organised activity that teaches, informs, or transfers skills or knowledge on specific useful competencies through active, engaged learning.

Transhumance

Practice consisting of moving livestock from one grazing ground to another in a seasonal cycle to optimize grazing.

Transport

Transport, in the context of agriculture and biology, refers to the movement of substances, such as nutrients, water, and sugars, within plants or animals, from one location to another,



often through specialized systems like xylem and phloem in plants or the circulatory system in animals. This process is crucial for the distribution of essential resources, supporting growth, development, and maintaining overall health and function.

Transport safety

It refers to the practices, protocols, and measures put in place to prevent accidents, injuries, and damage to people, animals, crops, and the environment during the transportation of agricultural products, livestock, and equipment. This includes the safe handling and securing of cargo, adherence to traffic laws and regulations, use of proper vehicle maintenance, and training of drivers and handlers to minimize risks and ensure a safe transportation process.

Travel restrictions

Travel restrictions refer to the limitations or guidelines imposed by governments, health organizations, or other authorities on the movement of people across borders, within countries, or to specific areas, with the aim of preventing the spread of diseases, protecting national security, or conserving natural resources. These restrictions can include requirements such as quarantine, vaccination certificates, COVID-19 testing, or other measures to ensure safe and responsible travel.

Triple junctions

A triple junction is the point where the boundaries of three tectonic plates meet.

Tropical crops

Plants or crops that are typically grown in tropical regions, characterized by high temperatures and high levels of humidity throughout the year. These crops are often native to or well-suited for the warm and humid climates found near the equator, and include examples such as coffee, cocoa, sugarcane, bananas, mangoes, and pineapples, among others. Tropical crops often require specific growing conditions, such as ample rainfall, full sun, and rich soil, and are commonly cultivated in countries with tropical climates for both domestic consumption and export.

Tropical zones

Regions of the Earth located between the Tropic of Cancer (23.5°N) and the Tropic of Capricorn (23.5°S), characterized by high temperatures, high levels of humidity, and abundant rainfall throughout the year, supporting a diverse range of plant and animal species, and often featuring ecosystems such as rainforests, savannas, and coral reefs.

Turf

The upper layer of soils bound by grass and plant roots into a thick mat.

Type specimens

A type specimen is a preserved specimen designated as a permanent reference for a new species, new genus or some other taxon. The type is the first specimen bearing the new scientific name, and the one true example of the species.

Uncertainty

In general, the incompleteness of knowledge about the states and processes in nature.



Upwelling

Upward movement of cool and nutrient-rich sub-surface waters towards the surface often leading to exceptionally rich areas. There exist various types of upwelling. For fisheries, the most important type is the wind-induced coastal upwelling where the upward movement is a consequence of wind stress (along shore) and Eckman transport (offshore).

Use restrictions

A formal or informal obligation to refrain from using a resource, property, or item in specific ways, often to comply with legal, ethical, or contractual conditions.

Uses

The various purposes or applications for which a resource, material, or product is employed.

Valliculture

Fish culture in brackish water bodies (valli) based on seasonal migrations in Italy. The valli have a fish weir that separates them from the sea; eels and mullets are common species.

Value chains

The set of actors (private, public, and including service providers) and the sequence of value-adding activities involved in bringing a product from production to the final consumer. In agriculture they can be thought of as a 'farm to fork' set of processes and flows.

Varieties

Cultivated plant varieties that have been formally approved and registered.

Vase life

Vase life is the period during which a cut flower or cut foliage retains its appearance in a vase. This is a major consideration in identifying plant species suitable for use in floristry.

Vectors

Living organism that indirectly transmits an infectious disease to a susceptible host either by carrying the infectious agent on its body (mechanical vector) or by providing an environment in which the infectious agent can reproduce and survive (biological vector).

Vegetables

Vegetables are plants cultivated both as field crops and garden crops, both in the open and under glass. Certain gramineous and leguminous plants which, if harvested for the dry grain, are classified among cereals and pulses, belong to this group as far as they are harvested green for the green grains and/or for the green pods (e.g., green maize, green peas, green beans, string beans, etc.).

Vegetation

Vegetation refers to the plant life that covers the soil or other surfaces, including trees, shrubs, grasses, and other types of flora. It encompasses the various types of plant communities that grow in a particular region or ecosystem and can include both natural and cultivated plant growth. Vegetation plays a crucial role in the environment, providing habitat and food for wildlife, regulating the water cycle, and influencing the climate and soil quality. It can also refer to the process of plant growth and development in a particular area and is often used as an indicator of environmental health and ecosystem productivity.



Vegetative filter strips

Gently sloping vegetated strips of land that provide opportunities for slow conveyance and infiltration. Designed to accept runoff as overland flow from upstream and to slow the progress of this runoff. A vegetative filter strip is an area of vegetation that may also be designed to remove sediment and other pollutants from surface water runoff through filtration, deposition, infiltration, adsorption, absorption, and decomposition.

Vegetative propagation

Asexual or non-sexual reproduction by which new plants are raised from parts of the parent plant (e.g. roots, tubers, bulbs or stems).

Vertical farming

The commercial cultivation of crops for human consumption in multiple layers or levels in a building or other structure, often with the help of artificially controlled lighting and nutrients.

Vertical transmission

Mother-to-child transmission, that is, transmission directly from the mother to an embryo, fetus, or baby during pregnancy or childbirth.

Vessel wastes refer to the residual materials, including liquids, solids, and gases, that are generated on board a ship or boat, particularly during its operation, maintenance, or cargo handling activities. These wastes can include, but are not limited to, bilge waters, ballast water, tank washings, cargo residues, and other substances that may be harmful to the environment if not properly managed and disposed of. Vessel wastes can pose a significant threat to marine ecosystems and human health if not handled and disposed of in accordance with regulations and best management practices.

Vessel wastes

Veterinary drug residues

Residues of veterinary drugs include the parent compounds and/or their metabolites in any edible portion of the animal product and include residues of associated impurities of the veterinary drug concerned.

Viral shedding

Viral shedding refers to the expulsion and release of virus progeny following successful reproduction during a host-cell infection. Refers to shedding from a single cell, shedding from one part of the body into another part of the body, and shedding from bodies into the environment where the viruses may infect other bodies.

Virtual water

Virtual water is the water "embodied" in an agricultural or industrial product, not in real sense, but in virtual sense. It refers to the water needed for the production of the product. If a country exports such a product, it exports water in virtual form.

Vital statistics

Quantitative data related to significant life events within a population, such as birth rates, death rates, marriage rates, and divorce rates.

Viticulture

The process of growing grapes, whereas viniculture and oenological practices refer to wine production.



Vulnerable marine ecosystems

Assemblages of marine benthic organisms or habitats which are susceptible to anthropogenic disturbance, especially that arising from the impact of fishing gear used in bottom fishing.

Vulnerable species

A vulnerable species is a species which has been categorized by the IUCN as being threatened with extinction unless the circumstances that are threatening its survival and reproduction improve. A taxon is Vulnerable when it is not critically endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future.

Wadi

The ravine or valley of a seasonal stream in arid or semi-arid areas that is usually dry except for a short time after spate flow events (a few hours to a few days).

Warning services

Warning services refer to the systems and protocols in place to provide timely and accurate alerts and notifications to farmers, agricultural workers, and other stakeholders about potential hazards, threats, or adverse weather conditions that may impact crop yields, livestock, and overall agricultural productivity. These services often utilize advanced technologies such as weather monitoring, forecasting models, and mobile applications to disseminate critical information, enabling proactive measures to be taken to mitigate risks and minimize losses.

Waste disposal

Waste disposal is the process during which materials deemed to be waste are transported away from a site.

Waste management

The collection, transport, recovery (including sorting), and disposal of waste, including the supervision of such operations and the aftercare of disposal sites.

Waste treatment

Any process or combination of processes that changes the chemical, physical or biological composition or character of any waste or reduces or removes its harmful properties or characteristics for any purpose.

Waste utilization

Waste utilization: The process of converting waste materials into useful products, such as energy, fuels, or raw materials, to reduce waste disposal and promote sustainable resource management. This approach aims to extract value from waste, minimizing environmental impacts and conserving natural resources. Waste utilization can involve various techniques, including recycling, composting, anaerobic digestion, and energy recovery, among others.

Wastes

Material, often unusable, left over from any manufacturing, industrial, agricultural or other human processes.

Water

A clear, colorless, odorless, and tasteless liquid substance that is essential for all known forms of life, particularly in agriculture for irrigation, crop growth, and livestock hydration. It is a vital component of many agricultural practices, including crop production, livestock farming, and aquaculture, and its management is critical for maintaining soil health, preventing erosion, and supporting ecosystem services.



Water circulation

Water circulation refers to the movement and distribution of water within a system, such as an irrigation network, a pond, or an aquaculture facility, to maintain a healthy and stable environment for plants and animals, and to prevent stagnation and water quality degradation.

Water colour

A public organisation (e.g., a local administration or public service supply organization) involved in a Research and Innovation project.

Water conservation

The protection, development and efficient management of water resources for beneficial purposes.

Water demand

Water demand is defined as the volume of water requested by users to satisfy their needs. In a simplified way it is often considered equal to water abstraction, although conceptually the two terms do not have the same meaning.

Water depth

The vertical distance from the surface of a body of water, such as an ocean, lake, or river, to the bottom, measured from the highest point of the water surface to the lowest point of the bed or floor of the water body.

Water footprint

Indicator of the total volume of fresh water that is used directly or indirectly to produce a product.

Water management

Planned development, distribution and use of water resources, in accordance with predetermined objectives and with respect to both quantity and quality of the water resources.

Water pollution

The discharge, directly or indirectly, of compounds from sources into the environment in such quantity as to pose risks to human health, living resources, aquatic ecosystems, to amenities or interference with other legitimate uses of water.

Water pollution treatment

The process of removing or reducing contaminants and pollutants from wastewater or polluted water to make it safe for reuse, discharge into the environment, or human consumption, utilizing various physical, chemical, and biological methods to minimize the harmful effects of water pollution on the environment and human health.

Water properties

The physical, chemical, and biological characteristics of water, including its temperature, pH, turbidity, dissolved oxygen levels, nutrient content, and other factors that affect its quality, behavior, and suitability for various uses, such as irrigation, drinking, or aquatic ecosystems.

Water quality

A graded value of the components (organic and inorganic, chemical or physical) which comprise the nature of water.

Water quality control

The process of monitoring, managing, and improving the physical, chemical, and biological characteristics of water to ensure it meets established standards for safety, health, and environmental sustainability.

Water quality standards

Water quality criteria developed to protect human health, aquatic life and ecosystems. The quality of water resources usually determines for what purposes the water can be used.



Water requirements

The quantity of water needed to support the normal growth, development, and functioning of plants, animals, or human populations under specific environmental and management conditions.

Water reservoirs

Artificial or natural area of water, used for storing water for domestic or industrial use.

Water sampling refers to the process of collecting and analyzing water samples from various sources, such as rivers, lakes, reservoirs, groundwater, or wastewater, to determine their physical, chemical, and biological characteristics. The goal of water sampling is to obtain representative samples that can be used to assess water quality, detect pollutants or contaminants, and monitor the effectiveness of water treatment processes. Water sampling involves the use of specialized equipment and techniques to collect samples at specific locations and depths, which are then transported to a laboratory for analysis using various methods, such as chemical testing, microbiological examination, and other analytical techniques. The results of water sampling are used to inform decision-making, regulatory compliance, and management of water resources, as well as to protect public health and the environment.

Water sampling

Water springs

Water statistics

Water treatment

Water use

Water use regulations

Water waves

A water spring is a natural exit point at which groundwater emerges out of the aquifer and flows onto the top of the Earth's crust (pedosphere) to become surface water.

Data and information collected and analyzed to describe the characteristics, distribution, and use of water resources, including data on water supply, demand, quality, and management. This can include metrics such as water withdrawal, consumption, and discharge, as well as information on water infrastructure, treatment, conservation practices. Water statistics are used to inform decision-making, policy development, and management related to water use and conservation.

Physical and chemical processes for making water suitable for human consumption and other purposes.

Water that is received by an industry or households from another industry or that is directly abstracted.

Policy and ownership of land and inland waters.

Water waves refer to the rhythmic disturbances that travel through the surface of a body of water, such as an ocean, sea, or lake, caused by the transfer of energy from one point to another. This energy transfer can be the result of various factors, including wind, earthquakes, or the movement of objects through the water. Water waves can be classified into different types, such as capillary waves, gravity waves, and seismic waves, and are characterized by their wavelength, frequency, amplitude, and speed, playing a crucial role in



shaping coastlines, affecting marine ecosystems, and influencing various human activities, such as navigation, fishing, and coastal engineering.

Wave data

Quantitative information collected regarding the characteristics of waves, including parameters such as wave height, period, direction, and frequency.

The process by which waves are produced, typically by the

transfer of energy from the wind to the surface of a body of water, such as an ocean or lake. This energy transfer causes ripples to form and grow into waves, which can then propagate and evolve under the influence of various factors, including wind speed and direction, water depth, and bottom topography. In agricultural contexts, wave generation can also refer to the creation of waves in irrigation canals or other water conveyance systems, which can affect water flow and

distribution.

Mechanical devices used to generate water waves in wave

tanks.

Wave properties may refer to physical properties of waves: transmission, reflection, polarization, diffraction, refraction and others. Also, to mathematical description of waves: amplitude,

frequency, wavelength, and others.

Wave statistics refers to categorized data collected from observations of oceanic or atmospheric waves, typically derived from surveys or administrative sources, and used to

produce statistical analyses.

Wave trains A series of waves that form and move as a group.

The fact of being happy, healthy and well-looked-after.

Wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed

six metres.

Wild plants refer to plant species that grow naturally in the wild, without human intervention or cultivation, and are not domesticated. They can be found in a variety of habitats, including forests, grasslands, deserts, and wetlands, and play a crucial role in maintaining ecosystem balance and biodiversity. Wild plants can include trees, shrubs, herbs, grasses, and other types of vegetation that have evolved over time to adapt to their specific environments.

Living things that are neither human nor domesticated. Can

include plants as well as animals.

The study and application of scientific and technical knowledge related to the properties, processing, and utilization of wood and wood-based materials. It encompasses areas such as wood anatomy, drying, preservation, machining, product

Wave generation

Wave generators

Wave properties

Wave statistics

Wave trains
Welfare

Wetlands

Wild plants

Wildlife

Wood technology



development, and sustainable use. Wood technology supports the efficient and innovative use of wood in construction. furniture, energy, and other industries while promoting resource conservation and environmental sustainability.

Woodworking

Woodworking is the skill of making items from wood, and includes cabinetry, furniture making, wood carving, joinery, carpentry, and woodturning.

Yield response factor

The yield response factor (Ky) captures the essence of the complex linkages between production and water use by a crop, where many biological, physical and chemical processes are involved. It addresses the relationship between crop yield and water use: relative yield reduction is related to the corresponding relative reduction in evapotranspiration (ET).

In agriculture, yields refer to the quantity of a crop or product that is produced per unit area of land, typically measured in terms of weight, volume, or number of units per hectare or acre, over a specific period of time, usually a growing season or year. It is a measure of the productivity or efficiency of a farming system and can be used to evaluate the performance of different crops, farming practices, or management strategies.

Zooplankton Heterotrophic (protists and animals) plankton.

> Zooplankton culture refers to the process of cultivating and maintaining zooplankton, which are microscopic, usually single-celled, animals that drift in the water column of aquatic ecosystems, in a controlled environment, such as a laboratory or aquaculture facility. Zooplankton culture involves the manipulation of environmental factors, such as water temperature, salinity, and nutrient levels, to optimize the growth, reproduction, and survival of zooplankton species, which are often used as live feed for larval fish, crustaceans, and other aquatic animals in aquaculture and fisheries research.

Yields

Zooplankton culture