



Food and Agriculture
Organization of the
United Nations

AGROVOC, the multilingual thesaurus

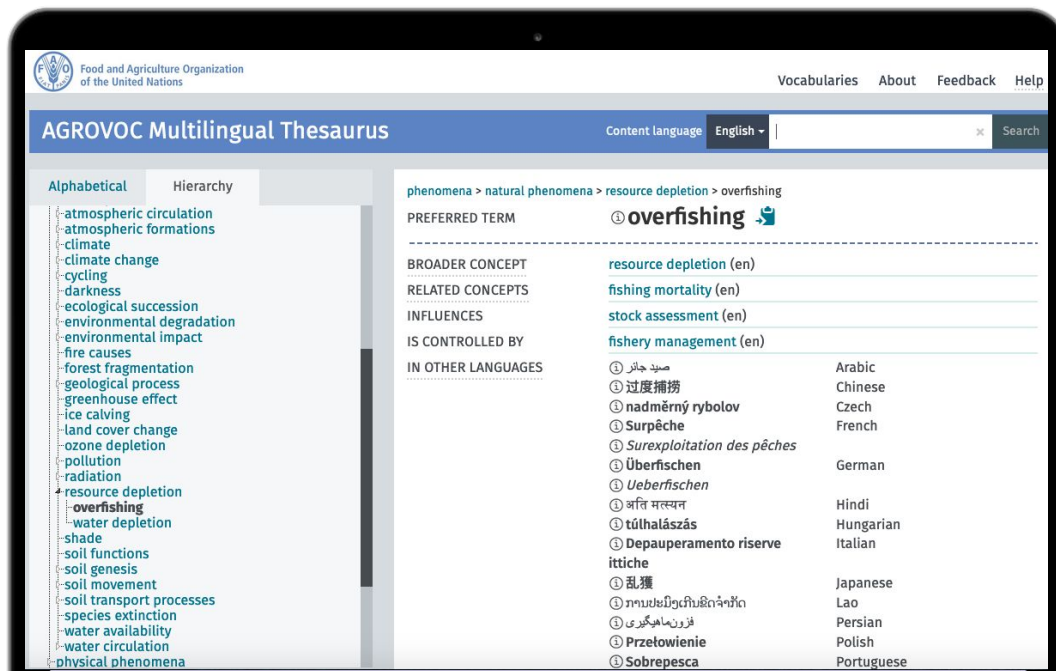
13 January 2021





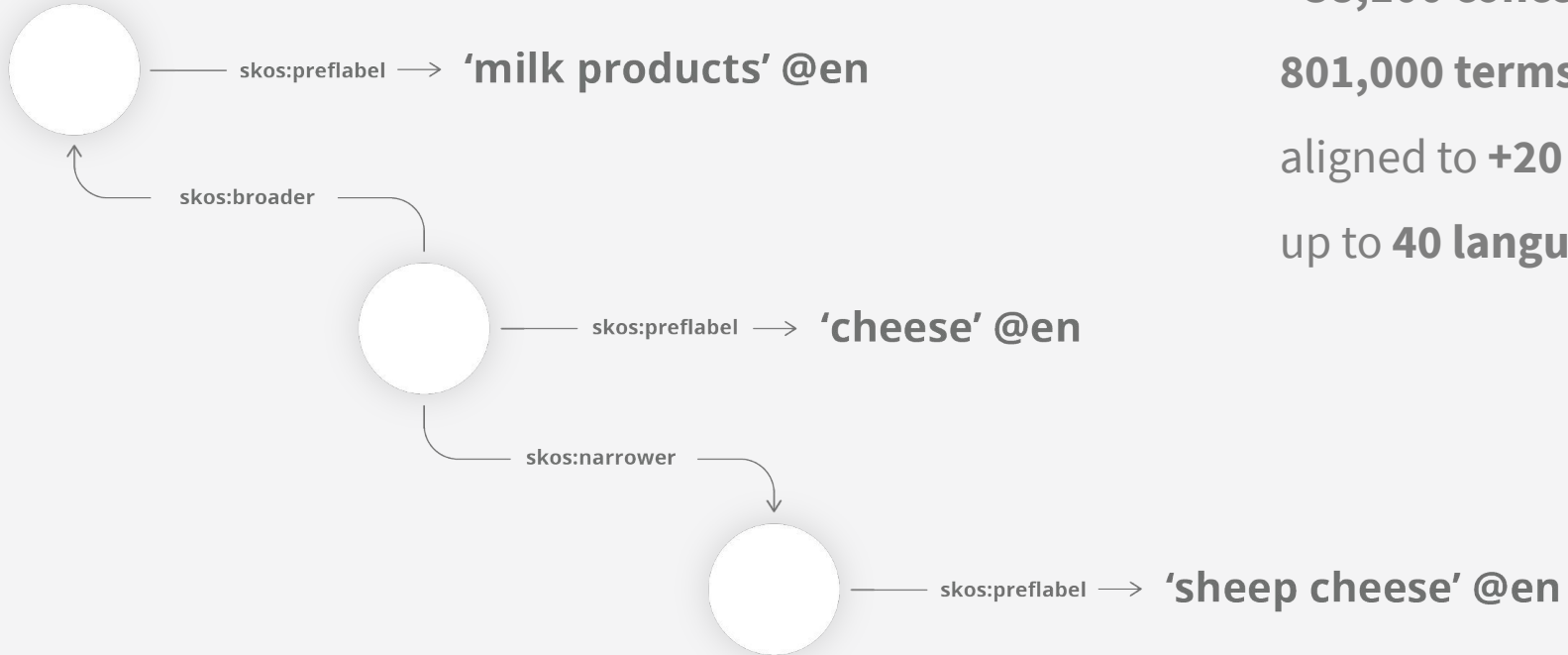
Controlled vocabulary
covering all areas of interest
of FAO.

One of the most used
thesaurus in food and
agriculture in the world.





Based on a Concept Model



+38,100 concepts

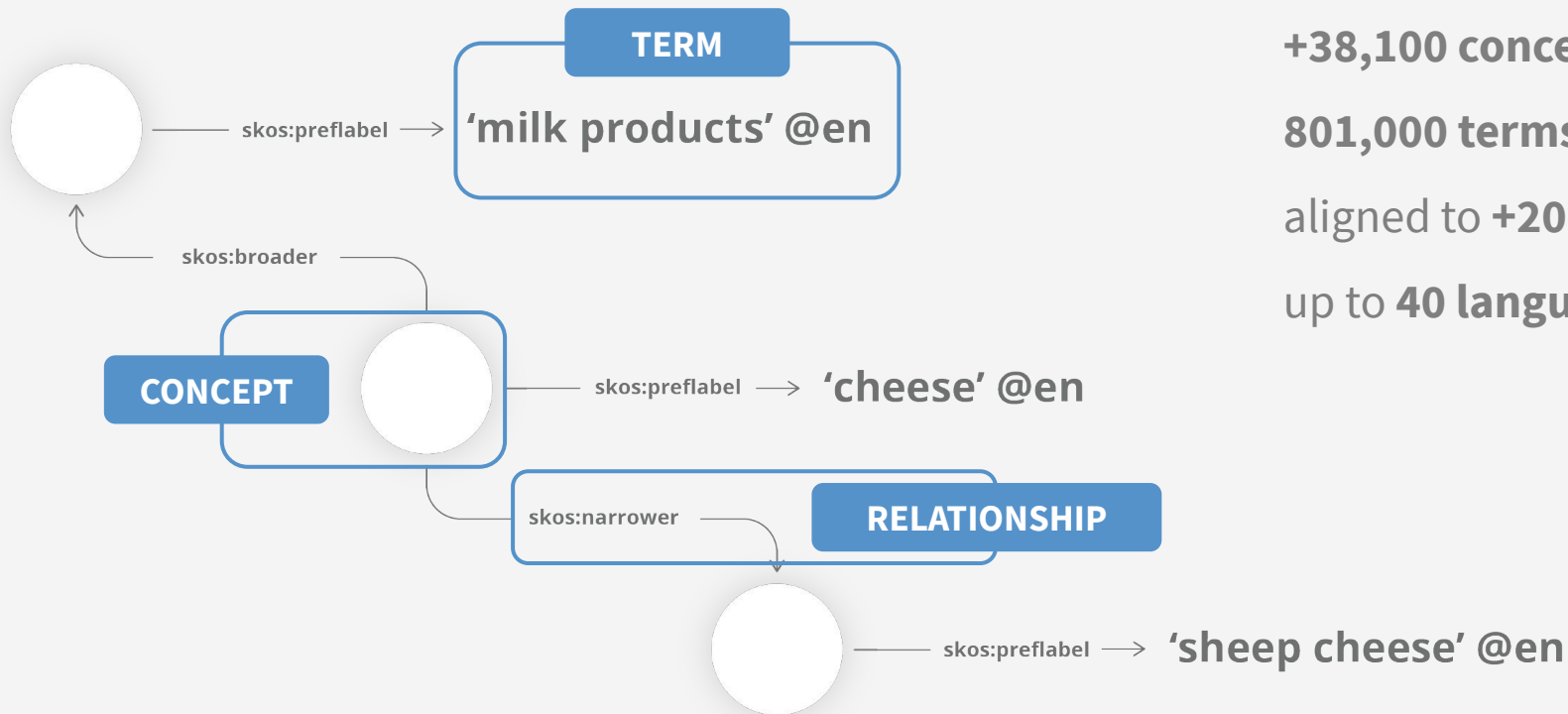
801,000 terms

aligned to **+20 datasets**

up to **40 languages**



Based on a Concept Model



+38,100 concepts

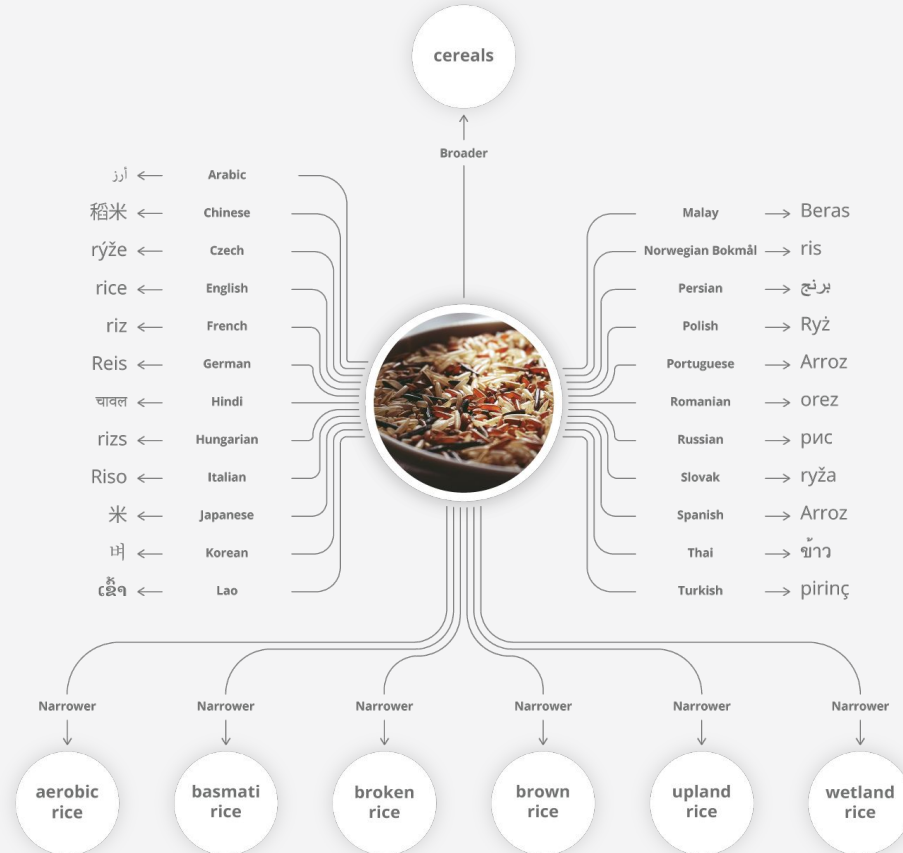
801,000 terms

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Languages and AGROVOC: “rice”





Where is AGROVOC mostly used

Index electronic information resources:

- Tag content in websites, e.g. integrating AGROVOC as a taxonomy
- Facilitate search engine discovery
- Reference for translations
- Linking datasets and enhancing access to open data
- Standardization of agricultural information data and services

AGROVOC concepts can be used by repositories to **tag published articles and datasets**, to make it **easier for researchers to find** them. They can also be used to explain the semantics of the concepts used in columns within a dataset.



AGROVOC helps make data FAIR

- To share data, shared understanding of meaning and unambiguous terminology is needed.
- Content and metadata needs to be of high quality and standardised, so it can be shared and re-used.
- Use international standards for terms like countries, regions, languages; AGROVOC subject terms.

Helps make information to be findable, accessible, inter-operable and re-usable (FAIR)



Linked Open Data

Linked Data is **structured data** which is interlinked with other data becoming more useful through semantic queries.

When data can be **freely used** and **distributed** by anyone (subject only to the requirement to attribute and share-alike), it is called Open Data.

AGROVOC **thesaurus content** is now released under the international licence CC BY IGO 3.0



Linked Open Data





Aligning vocabularies

AGROVOC and WorldFish looking at mapping keywords to datasets:

Dataset DOI	Worldfish Keyword	proposed keyword	AGROVOC label
https://doi.org/10.7910/DVN/TZS58I	families	Fish family	Families
https://doi.org/10.7910/DVN/RZCGED	Bangladesh		Bangladesh
	Genetic improvement		Genetic Improvement
	Carp		carp
	Labeo rohita		Labeo rohita
https://doi.org/10.7910/DVN/1HTKPJ	Aquaculture		Aquaculture
	Feed efficiency		feed conversion efficiency
https://doi.org/10.7910/DVN/EHQAY8	Genomics		Genomics
	Genetic polymorphism		Genetic polymorphism
	Animal breeding		Animal breeding
	Hypophthalmichthys molitrix		Hypophthalmichthys molitrix
	Silver carp		Hypophthalmichthys molitrix
https://doi.org/10.7910/DVN/PPOSWW	Oreochromis niloticus		Oreochromis niloticus
	Tilapia		tilapia
https://doi.org/10.7910/DVN/ID2SXK	small-scale fisheries		small-scale fisheries
https://doi.org/10.7910/DVN/BOG3ZF	Temperature	water temperature	Temperature
	pH	water PH	pH
	Dissolved oxygen	water Dissolved oxygen	Dissolved oxygen
https://doi.org/10.7910/DVN/TVGIJJ	Fish		Fish
	Fisheries		Fisheries
	Monitoring	monitoring system	Monitoring
	Management	fish management	Management
	Digital	Digital technology	digital technology
	Pipeline	Data analytical pipeline	
https://doi.org/10.7910/DVN/4NHRXG	Gender equality		Gender equality
	Partnerships for the goals		Goal 17 Partnerships for the goals
	Good health and well-being		Goal 3 Good health and well-being

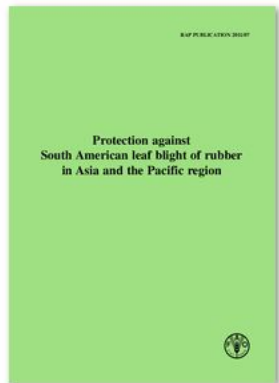


CGIAR

CGSpace

A Repository of Agricultural Research Outputs

Protection against South American leaf blight in the Pacific region



Year of publication: 2011
Pages: #100
Author: Agriculture Group
Serial Title: RAP Publication
Series number: 1020-6221 | 1014-2789 | 18194591 | 0
Agrovoc: plant protection; quarantine; plant disease pest control; pests of plants; Microcyclus ulei; pesticide

Abstract:
Rubber is an important cash crop in a number of countries. The production of natural rubber is about 9 million tonnes annually in the Pacific. South American leaf blight (SALB) is a fungal disease restricted to South and Central America where it has caused large scale losses and dieback of trees. Its potential for spread by airline connection that directly links tropical regions. This disease is urgent. This publication is a compilation of reference material for national plant organizations, especially in the Pacific region.

Download:

Gendered rural labour market and agricultural transformation



Share



Citation

Bigler, C. (2018). Gendered rural labour market and agricultural transformation. International Center for Tropical Agriculture (CIAT), Pan-Africa Bean Research Alliance - PABRA. 48 p.

Permanent link to cite or share this item:
<https://hdl.handle.net/10568/96151>

AGROVOC Keywords

MARKETS; GENDER; AGRICULTURE; HOUSEHOLDS; LAND; LIVELIHOODS; PRODUCTION; SUSTAINABILITY; ECONOMIC; SOCIAL; ENVIRONMENT; CLIMATE CHANGE; SOIL EROSION

Countries

RWANDA

Regions

AFRICA; CENTRAL AFRICA

View/Open

Presentation (2.596Mb)

Authors

Bigler, Christine

Date

2018

Language

en

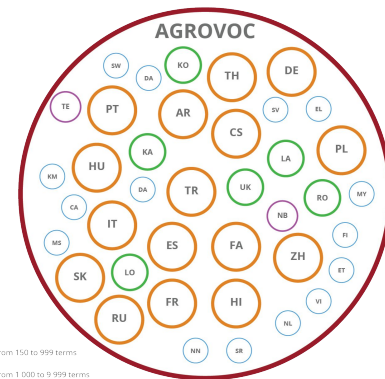
Type

Presentation



AGROVOC: Up to 40* languages

Arabic	Finnish	Khmer	Polish	Telugu
Burmese	French	Korean	Portuguese and Brazilian Portuguese	Thai
Catalan	Georgian	Lao	Romanian	Turkish
Chinese	German	Latin	Russian	Ukrainian
Czech	Greek	Malay	Serbian	Vietnamese
Danish	Hindi	Norwegian bokmål	Slovak	
Dutch	Hungarian	Norwegian nynorsk	Spanish	
English	Italian	Persian	Swahili	
Estonian	Japanese		Swedish	



*Min 150 terms. Coverage depends on editor network. More languages in system.

○ From 150 to 999 terms
 ○ From 1 000 to 9 999 terms
 ○ From 10 000 to 19 999 terms
 ○ 20 000 or more terms



AGROVOC Editorial Partners

- 
- Chinese Academy of Agricultural Sciences **(China)**
 - Czech General Institute of Agricultural Economics and Information **(Czech Republic)**
 - Iranian Research Institute for Scientific Information and Documentation **(Iran)**
 - CIRAD **(France)**
 - TECHINFORMI **(Georgia)**
 - Gödöllo Agribusiness Centre **(Hungary)**
 - Indian Institute of Technology Kanpur **(India)**
 - Biblioteca Storica Nazionale dell'Agricoltura **(Italy)**
 - AFFRIT **(Japan)**
 - National Agriculture and Forestry Research Institute **(Laos)**
 - The Republican Scientific Agricultural Library State Agrarian University **(Republic of Moldova)**
 - Central Agricultural Library **(Poland)**
 - Central Scientific Agricultural Library **(Russian Federation)**
 - Matica Srpska Library **(Serbia)**
 - Agroinstitut Nitra **(Slovakia)**
 - Embrapa **(Brazil)**
 - Kasetsart University, Department of Computer Engineering, Thai National AGRIS Centre, Kasetsart University **(Thailand)**
 - Department of Training, Extension and Publications, Ministry of Food Agriculture and Livestock **(Turkey)**
 - Ukrainian Institute for Scientific, Technical and Economic Information **(Ukraine)**
 - Kuratorium für Technik und Bauwesen in der Landwirtschaft e. V. **(KTBL)** and Leibniz-Informationszentrum Lebenswissenschaften and BonaRes Centre for Soil Research **(Germany)**
 - Aquatic Sciences and Fisheries Abstracts **(ASFA)** and FAOLEX **(FAO)**
 - Land Portal Foundation **(LPF)**
 - International Center for Agricultural Research in the Dry Areas **(ICARDA)**
 - Belarus Agricultural Library, National Academy of Sciences **(Belarus)**



AGROVOC Editorial Community



The AGROVOC editorial community suggests new concepts, terms and definitions.

Editors represent an institution. Work done on **volunteer** basis. Editors may manage a language, and/or a topic, like soil, fisheries, or land governance. Some have an expert network contributing.

Distributed editing and shared online platform (VocBench).

Discussions often needed.

Suggestions also welcome by email.



Content workflow

SKOSXL/setPrefLabel	concept: <http://aims.fao.org/aos/agrovoc/c_6eca2ee7>	literal: "Hordeum comosum"@ka <input type="text"/>
SKOSXL/setPrefLabel	concept: <http://aims.fao.org/aos/agrovoc/c_6684bd46>	literal: "Hordeum brachyantherum"@ka <input type="text"/>
SKOSXL/setPrefLabel	concept: <http://aims.fao.org/aos/agrovoc/c_74603077>	literal: "الماعز الجبلي"@ar <input type="text"/>
SKOS/addNote	resource: <http://aims.fao.org/aos/agrovoc/c_74603077>	predicate: <http://www.w3.org/2004/02/skos/core#definition> <input type="text"/>
SKOS/createConcept	label: "jabali goat"@en	broaderConcept: <http://aims.fao.org/aos/agrovoc/c_31620b27> <input type="text"/>

All suggestions are reviewed in VocBench and validated by the FAO/AGROVOC team. Also checked; definitions, alignments, terms in UN languages.

If approved, the new information will appear in the next release of AGROVOC, published monthly.



560 concepts added in 2020, for example...

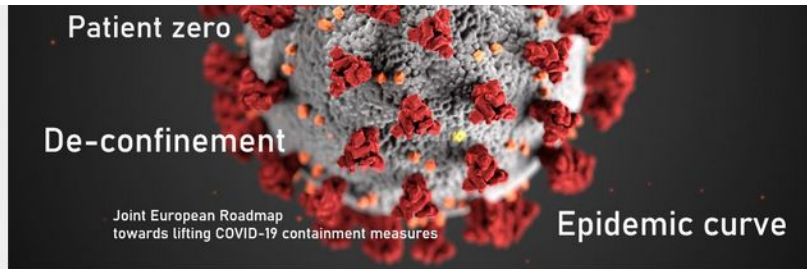
"leaf mulches"@en
"field area"@en
"short term experiments"@en
"sequence experiments"@en
"trussing"@en
"single cycle experiments"@en
"square lattice design"@en
"strip plot design"@en
"lattice design"@en
"alpha lattice design"@en
"decent work"@en
"mushroom composts"@en
"spent mushroom composts"@en
"chain harrows"@en
"tine harrows"@en
"pesticide exposure"@en
"public safety"@en

"desuckering"@en
"phytosanitary capacity building"@en
"bird nests"@en
"crop wild relatives"@en
"briquetting"@en
"Rangifer tarandus"@en
"socioeconomic impact"@en
"Juniperus chinensis"@en
"seaweed meal"@en
"food consumption statistics"@en
"responsible investment in agriculture"@en
"social safety nets"@en
"food losses"@en
"child advocacy"@en
"risk coping strategies"@en
"risk transfer"@en
"microbiological risk assessment"@en



Adding COVID-19 content

Sources used for concepts, definitions and translations included World Health Organization (WHO) websites, FAO website and FAOTERM, the UNBIS Thesaurus, EuroVoc and Inter-Active Terminology for Europe (IATE). Trusted sources key.



COVID-19 multilingual terminology available in IATE

270 multilingual entries related to the current pandemic are now available in IATE, the European Union terminology database. With 8 million terms in the 24 official languages, IATE is the terminology referen not only for language professionals, but also for national experts, policy advisers, public administration academics and private sector companies.

Food and Agriculture Organization of the United Nations

ENHANCED BY Google

Arabic 中文 English Français Русский Español

Entry: 175056 - Collection: FAOTERM

العربية

مرض فيروس كورونا

مصدر المصطلح

WHO, 2020 ([https://www.who.int/ar/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/ar/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it))

كوفيد-19

English

coronavirus disease 2019

Term source

Coronavirus disease (COVID-19) outbreak, WHO, 2020 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>).

Coronavirus disease 2019 (COVID-19) - Situation Report No. 59, OMS, 2020 (https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200319-sitrep-59-covid-19.pdf?sfvrsn=c3dcdcf9_2).


Coronavirus disease (COVID-19) outbreak, FAO, 2020 (<http://www.fao.org/2019-ncov/en>).

The AGROVOC editors also encouraged to use trusted sources, like ministries of health.

Definitions are essential for shared understanding and reducing ambiguity (here, from WHO).

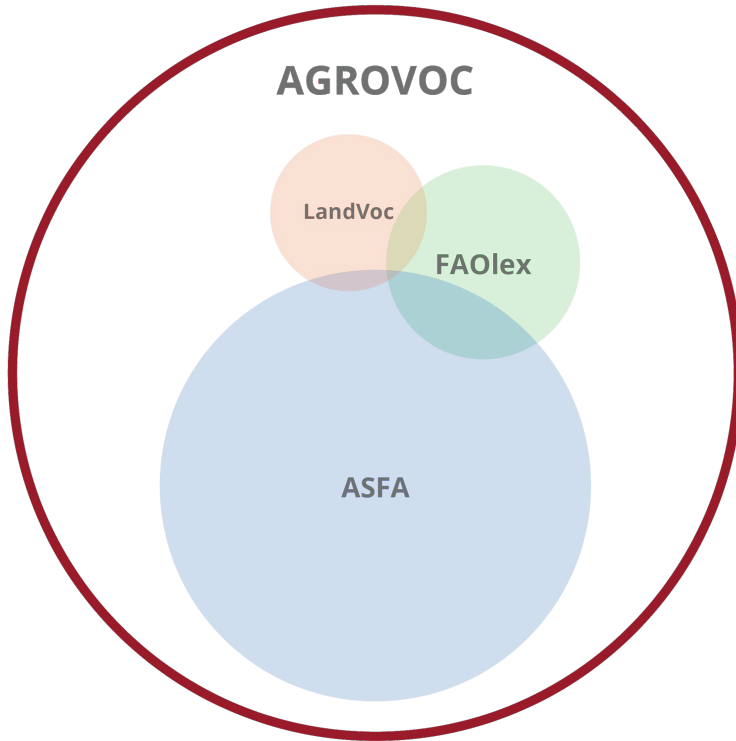
The vocabulary used must be understood by everyone, and it is important that consistent terminology is used.

[activité](#) > [Gestion](#) > [disease management \(en\)](#) > [mesures non pharmaceutiques](#)

PREFERRED TERM	① mesures non pharmaceutiques 	
DEFINITION	① Non-pharmaceutical interventions (NPIs, also known as non-pharmacological interventions) include all measures or actions, other than the use of vaccines or medicines, that can be implemented to slow the spread of influenza [and other illnesses] in a population. (en)	
BROADER CONCEPT	disease management (en)	
NARROWER CONCEPTS	distanciation physique (fr)	
INCLUDES	distanciation physique (fr) Isolement (fr) lavage des mains (fr) movement restrictions (en) quarantaine (fr)	
IN OTHER LANGUAGES	① non-pharmaceutical interventions ① არაფარმაცოლოგიური ჩარევა ① არაფარმაცოლოგიური ინტერვენცია ① nicht-pharmazeutische Maßnahme ① <i>nicht-pharmakologische</i>	English Georgian German



Specialized sub-vocabularies



Sub-vocabularies like LandVoc, ASFA and FAOLEX concepts are now part of AGROVOC. These can have different hierarchies, but **shared infrastructure**, so concepts use the same AGROVOC **unique resource identifier (URI)**, **translations and definitions**.

Curation not only of a language but a **subject**: aquatic sciences and fisheries, land governance, law and policies.



These schemes provide a way for an expert community to have their sub-vocabulary with customized hierarchy, using AGROVOC concepts. Note: **all concepts have to be AGROVOC concepts.**

In this way, AGROVOC concepts can belong to other schemes and appear in different hierarchies.

All concepts will have a valid AGROVOC URI that will be resolved via the AGROVOC infrastructure (Loddy, to be precise).



Multischeme/multihierarchy management

When a user is modifying a concept (e.g. adding or changing a translation) in a given scheme, the user is not editing data only for that scheme; the user is editing the data associated to a concept, so changes will be seen in ALL schemes containing the concept.

New schemes benefit from translations and alignments already in AGROVOC. At the same time, AGROVOC is enriched with this new vocabulary, which needs to be mapped to AGROVOCs hierarchy. Influx of new expertise, shared curation. AGROVOC is interested in working with relevant specialized communities.

ASFA

FAOLEX

AGROVOC Multilingual Thesaurus

Content language English ▾

Alphabetical

Hie

Alphabetical

Alphabetical

Hierarchy

- modes
- narcosis
- nonlinearity
- overcrowding
- oxic conditions
- permafrost
- permanence
- persistence
- physical states
- pregnancy
- protandry
- protogyny
- ← safety
- biosecurity
- ← health and safety
- accident prevention
- consumer protection
- maritime safety
- medicine
- public health**
- radiation protection
- therapy
- sample contamination
- saturation
- sea state
- sleep

- poultry meat
- poverty
- precautionary
- prescription
- prior informed
- prioritization
- private forest
- private land
- procedural m
- processing
- producer orga
- product trace
- prohibited cro
- prohibited fis
- propagation r
- protected are
- protected fish
- protected spe
- protective for
- public health**
- public particip
- public water
- public-private
- quarantine
- radiation
- radioactive po
- rain forests
- rainwater
- rangelands

- body condition
- captivity
- carrier state
- colloidal state
- coma
- constraints
- disaster preparedness
- dormancy
- economic situation
- employment
- financial situation
- genetic equilibrium
- ← health
- animal health
- forest health
- maternal and child health
- mental health
- occupational health
- plant health
- public health**
- reproductive health
- homeostasis
- hygiene
- ischaemia
- liquidity
- maternity
- nationality

state > health > public health

PREFERRED TERM

① **public health** 

BROADER CONCEPT

[health \(en\)](#)

RELATED CONCEPTS

[food chain approach \(en\)](#)
[human trafficking \(en\)](#)
[quarantine regulations \(en\)](#)

IS INFLUENCED BY OR
DEPENDS ON

[food inspection \(en\)](#)
[health services \(en\)](#)
[hygiene \(en\)](#)
[waste disposal \(en\)](#)
[water management \(en\)](#)

IS OBJECT OF ACTIVITY

[health protection \(en\)](#)
[public health legislation \(en\)](#)

IN OTHER LANGUAGES

① صحة عامة	Arabic
① 公共卫生	Chinese
① zdravotnictví	Czech
① Santé publique	French
① საზოგადოების ჯანმრთელობა	Georgian
① Volksgesundheit	German



AGROVOC statistics

Figure 1. Evolution of AGROVOC content 2017–2020, Source: FAO, 2020

Content evolution	2017	2018	2019	2020 January–October
Concepts	34 700	36 000	36 700	37 900
Terms	661 000	680 000	750 000	787 000
Languages	32	33	37	40

Figure 2. Usage statistics AGROVOC 2017–2020. Source: FAO, 2020

	2019	2020 January - October
Single resources	29 500 000	31 000 000
Multiple resources	465 000	780 000



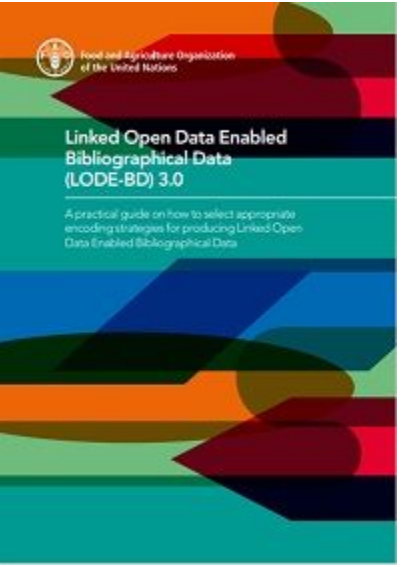
How to access AGROVOC

AGROVOC data can be accessed in different ways:

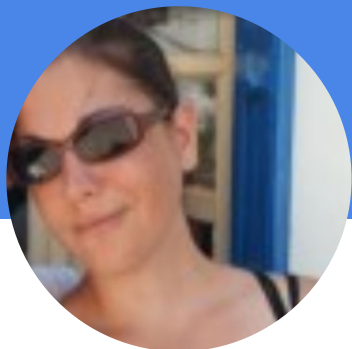
- AGROVOC **EDITORS** use *VocBench* to edit AGROVOC
- AGROVOC **HUMAN USERS** consult mainly *SKOSMOS GUI* to search concepts and navigate the hierarchy, or SPARQL
- **LEGACY TOOLS** still interact with *SOAP Web Services*.
- **AUTOMATIC TOOLS** consult *SKOSMOS APIs*, *URI resolution* or *SPARQL endpoint*



To learn more



www.fao.org/agrovoc



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