CGIAR-AGROVOC Task Group of the CGIAR Ontology Working Group

CGIAR Platform for Big Data in Agriculture

ONTOLOGIES WEBINAR SERIES

WEBINAR
CGIAR CONTRIBUTION TO AGROVOC THESAURUS

Why & how to engage with the team?

21 JUNE, 15:00 PM UTC

Sara Jani
Project Monitoring & Knowledge Management Coordinator MEL
ICARDA

Asma Jeitani
Project and Data Management Officer, MEL
ICARDA

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Information Management Officer, AGROVOC curator
FAO

CGIAR contribution to AGROVOC thesaurus: Why & how to engage with the team ?

Sara Jani & Asma Jeitani ◦ ICARDA
Kristin Kolshus ◦ FAO
Elizabeth Arnaud ◦ Alliance Bioversity-CIAT

Ontologies Webinar Series. 21 June 2022

"If agriculture is going to take advantage of the digital revolution, it's critical that data resources can talk to each other through ontologies and standards – this is a necessary foundation.

Bringing CGIAR and FAO together ensures two major players in agricultural research and development are promoting common standards and approaches, for ourselves and for our large partner networks"

Andy Jarvis, DDG Research Alliance
Bioversity-CIAT

"FAO acts as a catalyst and a platform for leveling the playing field so that countries can make evidence-based decisions on the most appropriate technologies and innovations to adopt and adapt in sustaining their food security and nutrition.

FAO can only achieve this by collaborating with the global scientific community of experts such as the CGIAR"

Ismahane Elouafi, Chief Scientist at FAO

Content

CGIAR-AGROVOC Collaboration:

- Collaboration Objectives
- Collaboration October 2021 – June 2022
- New Work Process July 2022 – December 2022

AGROVOC June 2022 Release

40,180 Concepts

939,648 Terms

41 Languages

CGIAR – AGROVOC
Collaboration Objectives

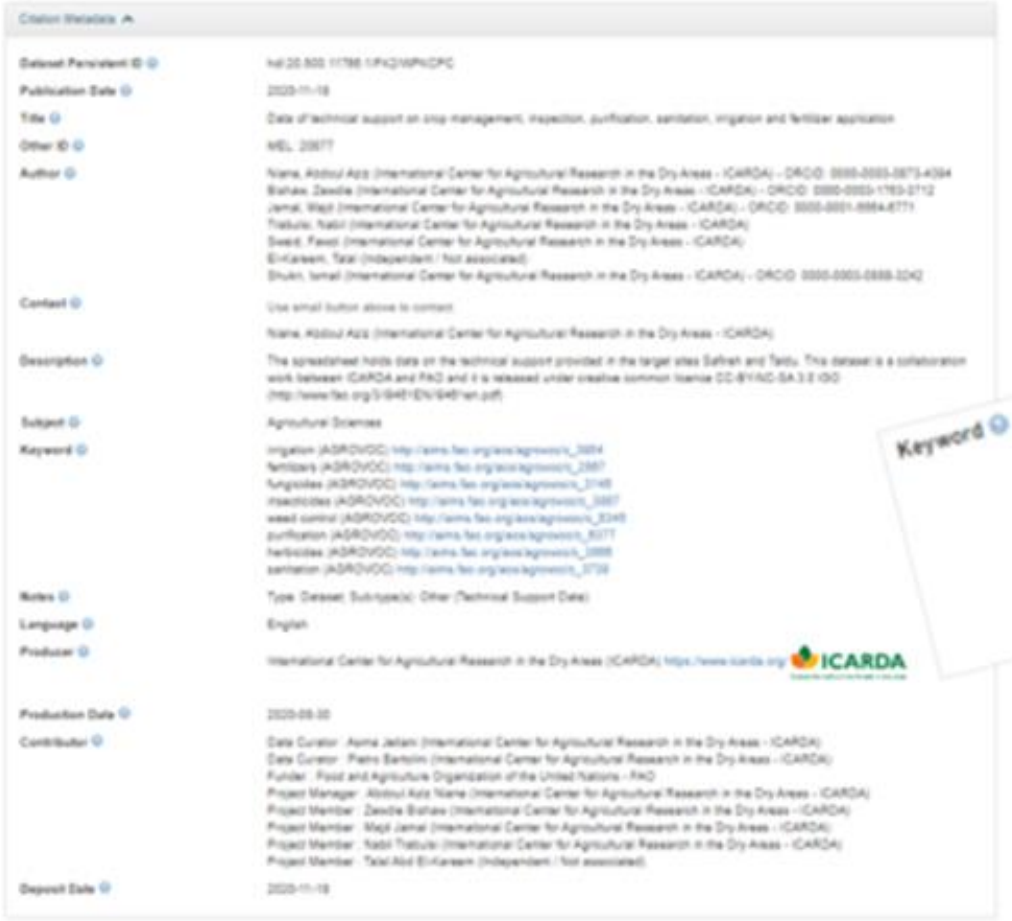
CGIAR usage of AGROVOC

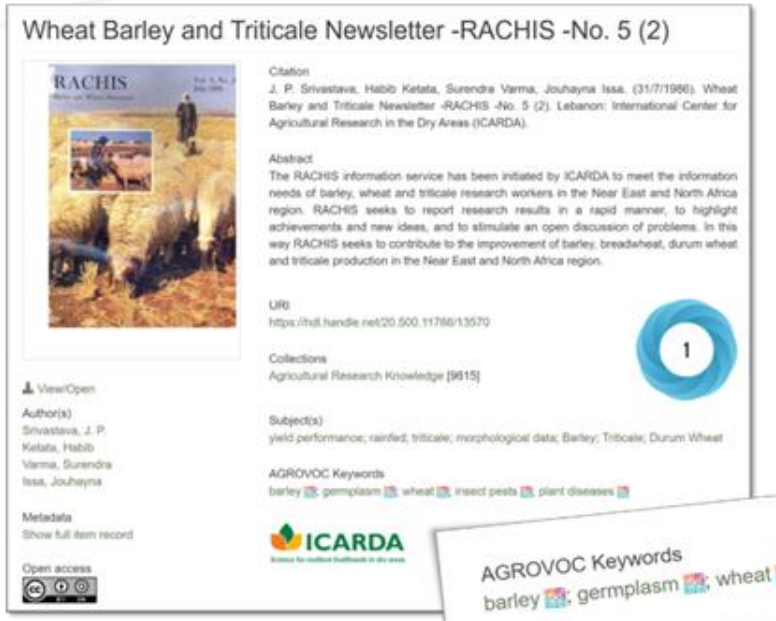
➤ Recommended by the CGIAR Metadata Schema

➤ Used by all of CGIAR repositories and MEL platform as a source of keywords

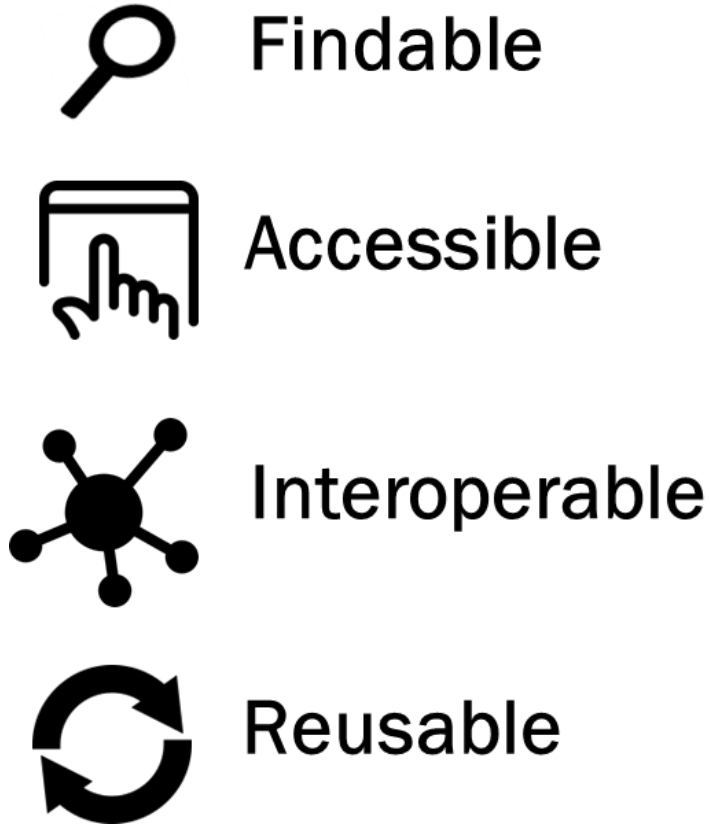
➤ Important contribution of some CGIAR centers to AGROVOC

Example of AGROVOC keywords usage in MELSpace & MELData





CGIAR usage of AGROVOC



FAIR principles recommend to use controlled vocabularies (thesaurus, ontologies) that are widely accepted and applied by the community of the science domain to label data and tag information products

Increasing interoperability between food and agricultural systems: CGIAR and FAO collaboration

CGIAR Open and FAIR Data Assets Policy

AGROVOC & the MEL platform: Standardizing metadata and following FAIR principles

Objectives of a collaboration framework with One CGIAR perspective

- ➤ Get more streamlined submission from CGIAR.
- ➤ Improve AGROVOC content cover with CGIAR terms.
- ➤ Support the quality indexation.
- ➤ Improve the keyword-based search.
- ➤ Provide global visibility of CGIAR contribution to AGROVOC.
- ➤ Remain a key player in the international community effort to develop semantics.

Increasing Interoperability Between Food and Agricultural Systems: CGIAR & FAO Collaboration: Task Group and Curation Team Report

Objectives of a collaboration framework

- ➤ Enhance the stewardship role in the development of semantics for agrifoods.
- ➤ Develop capacity building for partners.
- ➤ Leverage a team of domain experts.
- ➤ Strengthen the AGROVOC coverage.
- ➤ Reduce the duplicated efforts/costs.
- ➤ Improve efficient use of knowledge for users.

Increasing Interoperability Between Food and Agricultural Systems: CGIAR & FAO Collaboration: Task Group and Curation Team Report

CGIAR-AGROVOC Collaboration
October 2021 – June 2022

CGIAR - AGROVOC Task Group Members

Co-chairs:

Olatunbosun Obileye (IITA)

Elizabeth Arnaud (Alliance Bioversity-CIAT)

Members:

Enrico Bonaiuti, Sara Jani (ICARDA)

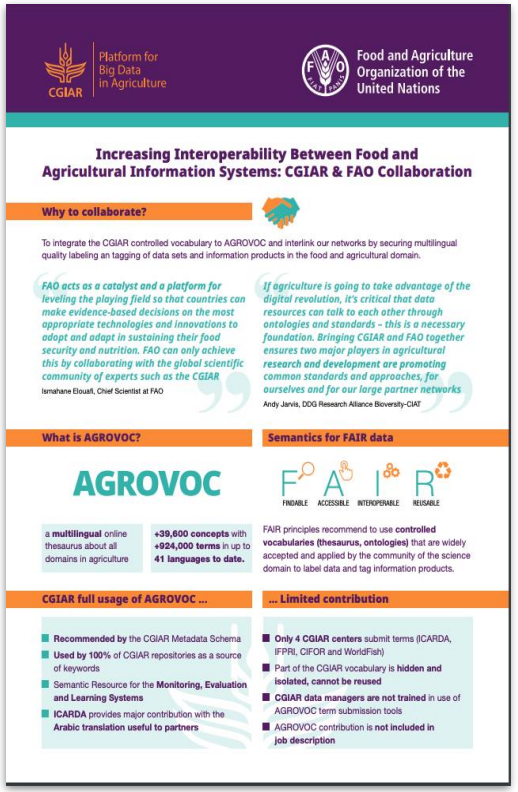
Soonho Kim, Erica Saito (IFPRI)

Marie-Angélique Laporte (Alliance Bioversity-CIAT)

Jacqueline Muliro (WorldFish)

Abenet Yabowork (ILRI)

Kristin Kolshus, Imma Subirats (FAO)


Platform for Big Data in Agriculture

Food and Agriculture Organization of the United Nations

Increasing Interoperability Between Food and Agricultural Information Systems: CGIAR & FAO Collaboration

Why to collaborate?

To integrate the CGIAR controlled vocabulary to AGROVOC and interlink our networks by securing multilingual quality labeling an tagging of data sets and information products in the food and agricultural domain.

FAO acts as a catalyst and a platform for leveling the playing field so that countries can make evidence-based decisions on the most appropriate technologies and innovations to adopt and adapt in sustaining their food security and nutrition. FAO can only achieve this by collaborating with the global scientific community of experts such as the CGIAR

Ismahane Elouafi, Chief Scientist at FAO

If agriculture is going to take advantage of the digital revolution, it's critical that data resources can talk to each other through ontologies and standards - this is a necessary foundation. Bringing CGIAR and FAO together ensures two major players in agricultural research and development are promoting common standards and approaches, for ourselves and for our large partner networks

Andy Jarvis, DDG Research Alliance Bioversity-CIAT

What is AGROVOC?

AGROVOC

a **multilingual** online thesaurus about all domains in agriculture

+39,600 concepts with **+924,000 terms** in up to **41 languages to date.**

Semantics for FAIR data

FAIR

FINDABLE ACCESSIBLE INTEROPERABLE REUSABLE

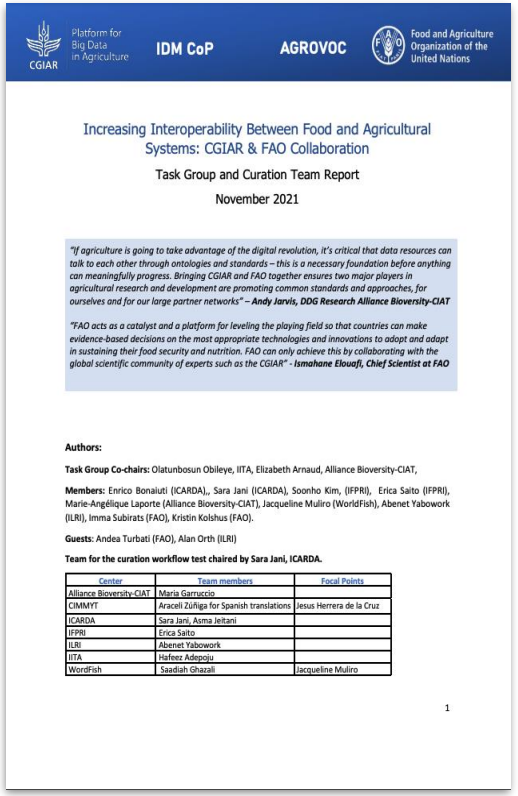
FAIR principles recommend to use **controlled vocabularies (thesaurus, ontologies)** that are widely accepted and applied by the community of the science domain to label data and tag information products.

CGIAR full usage of AGROVOC ...

- **Recommended by** the CGIAR Metadata Schema
- **Used by 100%** of CGIAR repositories as a source of keywords
- Semantic Resource for the **Monitoring, Evaluation and Learning Systems**
- **ICARDA** provides major contribution with the **Arabic translation useful to partners**

... Limited contribution

- **Only 4 CGIAR centers** submit terms (ICARDA, IFPRI, CIFOR and WorldFish)
- Part of the CGIAR vocabulary is **hidden and isolated, cannot be reused**
- **CGIAR data managers are not trained** in use of AGROVOC term submission tools
- AGROVOC contribution is **not included in job description**


CGIAR Platform for Big Data in Agriculture | IDM CoP | AGROVOC | Food and Agriculture Organization of the United Nations

Increasing Interoperability Between Food and Agricultural Systems: CGIAR & FAO Collaboration

Task Group and Curation Team Report

November 2021

*"If agriculture is going to take advantage of the digital revolution, it's critical that data resources can talk to each other through ontologies and standards – this is a necessary foundation before anything can meaningfully progress. Bringing CGIAR and FAO together ensures two major players in agricultural research and development are promoting common standards and approaches, for ourselves and for our large partner networks" – **Andy Jarvis, DDG Research Alliance Bioversity-CIAT***

*"FAO acts as a catalyst and a platform for leveling the playing field so that countries can make evidence-based decisions on the most appropriate technologies and innovations to adopt and adapt in sustaining their food security and nutrition. FAO can only achieve this by collaborating with the global scientific community of experts such as the CGIAR" - **Ismahane Elouafi, Chief Scientist at FAO***

Authors:

Task Group Co-chairs: Olatunbosun Obileye, IITA, Elizabeth Arnaud, Alliance Bioversity-CIAT,

Members: Enrico Bonaiuti (ICARDA),, Sara Jani (ICARDA), Soonho Kim, (IFPRI), Erica Saito (IFPRI), Marie-Angélique Laporte (Alliance Bioversity-CIAT), Jacqueline Muliro (WorldFish), Abenet Yabowork (ILRI), Imma Subirats (FAO), Kristin Kolshus (FAO).

Guests: Andea Turbati (FAO), Alan Orth (ILRI)

Team for the curation workflow test chaired by Sara Jani, ICARDA.

Center	Team members	Focal Points
Alliance Bioversity-CIAT	Maria Garruccio	
CIMMYT	Araceli Zúñiga for Spanish translations	Jesus Herrera de la Cruz
ICARDA	Sara Jani, Asma Jeitani	
IFPRI	Erica Saito	
ILRI	Abenet Yabowork	
IITA	Hafeez Adepoju	
WordFish	Saadiah Ghazali	Jacqueline Muliro

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Report: https://cgspace.cgiar.org/handle/10568/116236

Factsheet: https://cgspace.cgiar.org/handle/10568/116448

CGIAR - AGROVOC Curation Team

Chair:

Sara Jani (ICARDA-MEL)

Members:

Maria Garruccio (Alliance Bioversity-CIAT)

Jesus Herrera (Focal Point) & Araceli Zuniga (curation) (CIMMYT)

Vilma Hualla (CIP)

Sara Jani & Asma Jeitani (ICARDA)

Hafeez Adepoju (IITA)

Abenet Yabowork (ILRI)

Rasika Thushantha & Yamuna Udumalagala (IWMI)

Saadiah Ghazali (WorldFish)

CGIAR Contribution to AGROVOC Work Process October 2021 - June 2022

Step 1. Centers submit keywords indexed in their repositories (CGSpace, CIMMYT, CKAN-IITA, IFPRI, MEL, WFDSpace-WF)

↓

Step 2. Identification of keywords unmatched with AGROVOC

↓

Step 3. Selection of most used 50 keywords.

↓

Some centers proposed adding their keywords (IFPRI, IWMI, WorldFish)

Step 4. Keywords assigned to centers by alphabetical order. Centers that submitted their own keywords worked on those.

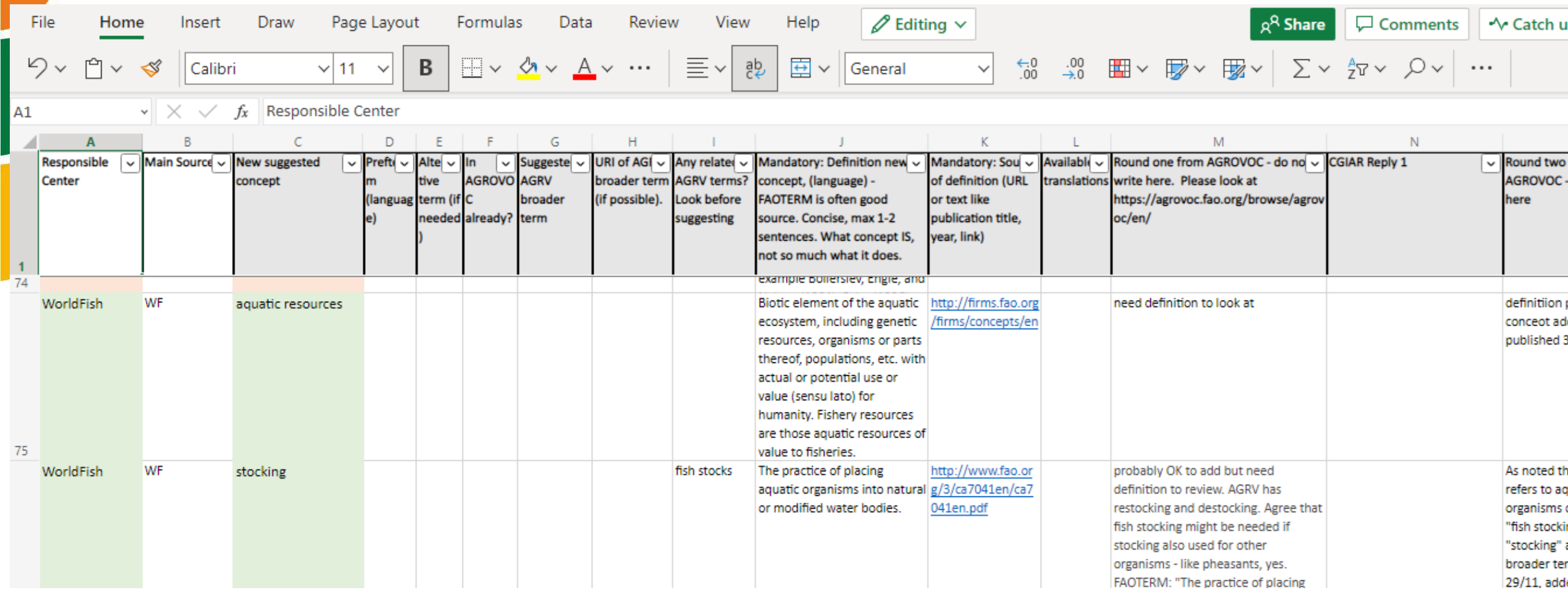
↓

Step 5. Work done through a "shared template" allowing curators to contribute and AGROVOC's team to review.

↓

Repetitions of **Steps 3, 4, and 5**.

The used “shared template”



File Home Insert Draw Page Layout Formulas Data Review View Help Editing Share Comments Catch u

Calibri 11 B General

A1 Responsible Center

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Responsible Center	Main Source	New suggested concept	Prefe m (languag e)	Alte tive term (if needed)	In AGROVO C already?	Suggeste AGRV broader term	URI of AGI broader term (if possible).	Any relate AGRV terms? Look before suggesting	Mandatory: Definition new concept, (language) - FAOTERM is often good source. Concise, max 1-2 sentences. What concept IS, not so much what it does.	Mandatory: Sou of definition (URL or text like publication title, year, link)	Availabl translations	Round one from AGROVOC - do no write here. Please look at https://agrovoc.fao.org/browse/agrov oc/en/	CGIAR Reply 1	Round two AGROVOC here	
74										example Bollerslev, Engle, and					
75	WorldFish	WF	aquatic resources							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. Fishery resources are those aquatic resources of value to fisheries.	http://firms.fao.org /firms/concepts/en		need definition to look at		definitiion conceot ad published 3
	WorldFish	WF	stocking						fish stocks	The practice of placing aquatic organisms into natural or modified water bodies.	http://www.fao.or g/3/ca7041en/ca7 041en.pdf		probably OK to add but need definition to review. AGRV has restocking and destocking. Agree that fish stocking might be needed if stocking also used for other organisms - like pheasants, yes. FAOTERM: "The practice of placing		As noted th refers to aq organisms "fish stocki "stocking" broader ter 29/11, add

Implementation of the work process
October 2021 - June 2022

309 keywords suggested

41 concepts & terms added to AGROVOC

65 keywords open-discussion

203 keywords not considered

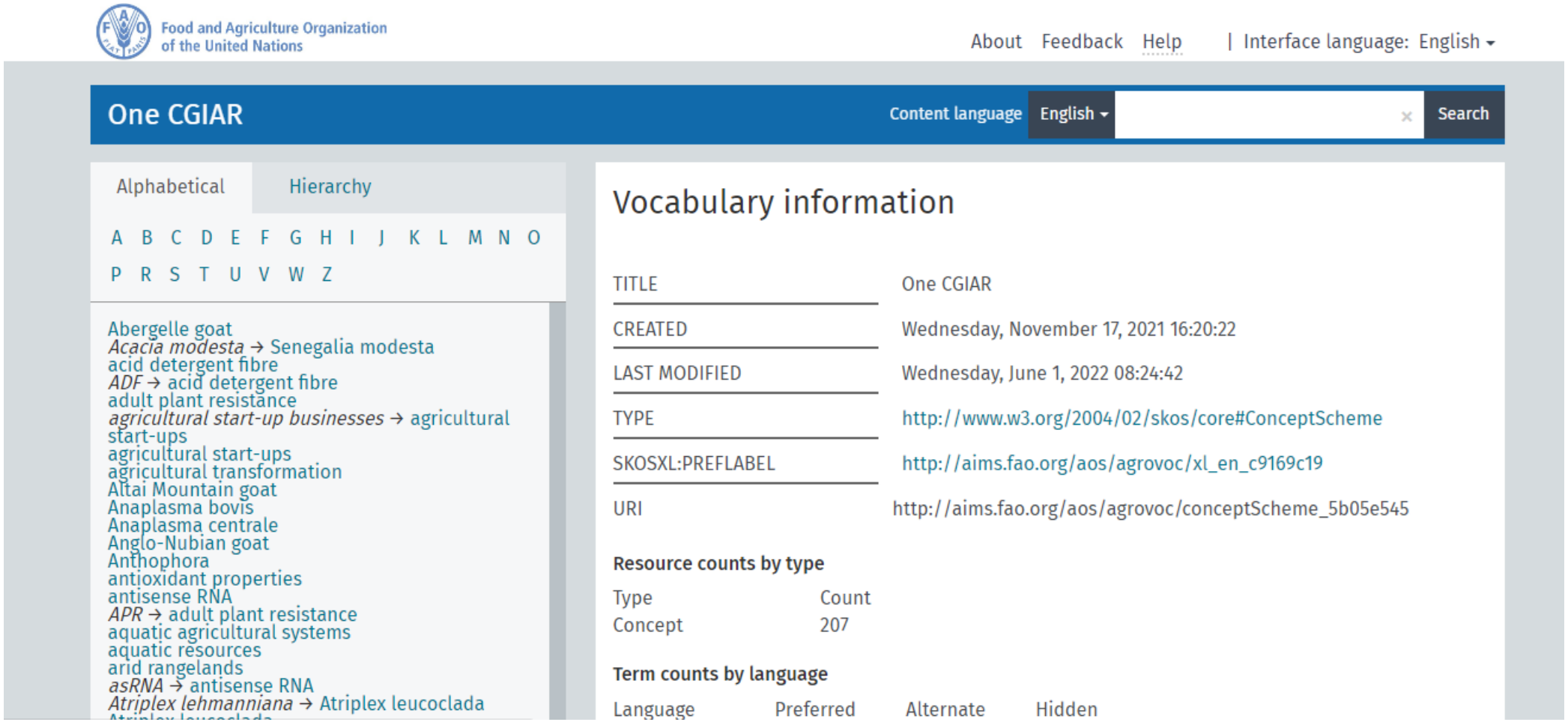
4 training sessions delivered

6 centers participated

-Introduction and submission workflow
-Training on definitions
-2 Individual training on submission workflow

Creation of the One CGIAR concept sub-schema

https://agrovoc.fao.org/skosmosOneCGIAR/cgiar/en/



*Contributions made separately from other CGIAR centers (ICARDA [～150], IFPRI, WorldFish) are also included in the sub-schema.

New Work Process
July 2022 – December 2022

New Work Process Description

Each center submits its own 10 keywords unmatched with AGROVOC whether through their repositories or other means and includes them in the “shared template” file.

⬇

ICARDA’s curators review the file to remove any duplicates.

⬇

AGROVOC team at FAO reviews and comments on the file.

⬇

Curators work on the file.

65 pending keywords from the Oct 21-June 22 work process

Target: submit 35 concepts in 3 months.

Next deadline: end of September 2022.

Joining CGIAR & AGROVOC curation teams

➤ Interested to join

- Colleagues from all CGIAR centers

- Contact Sara Jani: S.Jani@cgiar.org

➤ CGIAR-AGROVOC Task Group Public page

https://cgiar.sharepoint.com/sites/ontology-wg/SitePages/CGIAR-AGROVOC-TASK-GROUP.aspx

Annual AGROVOC Editorial Community Meeting

★ The 5th Annual AGROVOC Editorial Community Meeting will take place on **Tuesday, 19 July 2022, 13:00 - 16:00 CEST**.

★ The objective is to revise the work carried out during the last months and to define priorities for 2022/2023.

★ Event registration at: https://fao.zoom.us/meeting/register/tJArf-6vqDIrHdS2Ul-bufet2mVCv8IYg5qE .

Thank you

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Kristin Kolshus ◦ FAO kristin.kolshus@fao.org
Elizabeth Arnaud ◦ Alliance Bioversity-CIAT e.arnaud@cgiar.org