

# Facilitating Access to Global Grey Literature in Agriculture

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Partnerships and South-South Cooperation Division (DPS)

Food and Agriculture Organization of the United Nations (FAO)



# End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- Close to 800 million people are chronically undernourished and malnutrition affects almost on in three people on the planet
- By 2050, to feed another 2 billion people, food production will need to increase
   50 percent globally and double in developing countries
- Achieving zero hunger at the heart of FAO







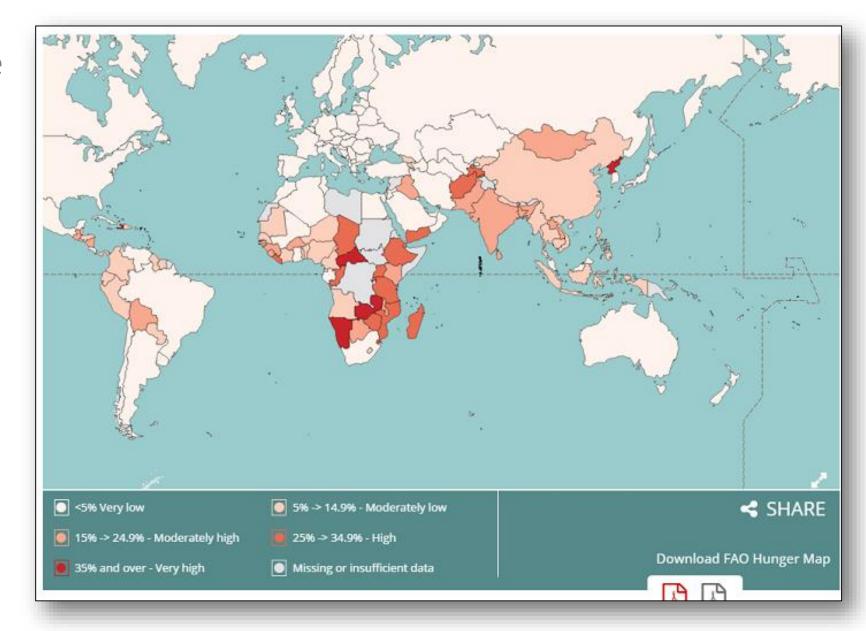






FAO, WFP and IFAD have been monitoring the state of hunger and malnutrition in the world, and they jointly produced SOFI2015.

Based on this data an interactive map was produced to detail *The State of Food Insecurity in the World 2015*.



## FAO's role towards 2050

Custodian' UN agency for 21 indicators, SDGs 2,5,6,12,14 and 15 and as a contributing agency for four more.

Collecting, validating and harmonizing data from national sources, estimating regional and global aggregates and making them available for international reporting.

Establishing partnerships with other international agencies to monitor the increased number of indicators, crucial to achieving interrelated goals



# Importance of information to achieve SDG2

Improved information and communication for transforming food and agriculture systems

Offering cross-sectorial innovation platforms

Support the adoption of open data, open access and interoperability standards

Development of individual and institutional capacities and capacities at the level of the enabling environment

Information Management Visibility Reports Vorldwide **Knowledge Sharing** Partnerships Grev literature Accessibility Research Data Working Groups Open Data Journal articles



### Three Areas of Work

Develop capacity on creating, managing and exchanging open data and research data IGAD/RDA and GODAN Action



Provide access to current scientific literature and data AGORA, AGRIS and AGROVOC

Support users and core communities of practice AIMS, e-Agriculture and DGroups

# Providing access to current scientific literature and data in agriculture and related sciences

- To improve food security by increasing the quality and effectiveness of agricultural research, education and training in low-income countries
- To enhance visibility of the scientific data production in agriculture in low-income countries
- To promote data and information exchange among FAO member countries



# AGORA, AGRIS and AGROVOC



### Partnership

United Nations









US Universities





+200 Publishers

### Programmes









Lack of access to current scientific literature

No budget for important peer-reviewed journals

Up-to-date research needed for discovering evidence, sharing findings, and informing teaching, practice and public policy





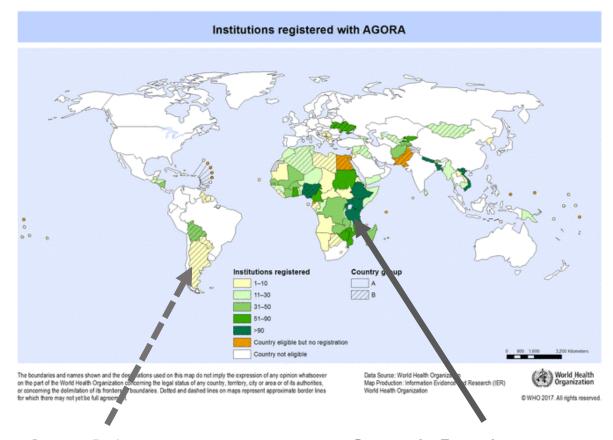


### Goal

Improve food security by increasing the quality and effectiveness of agricultural research, education and training in low-income countries

### Access to Global Online Research in Agriculture (AGORA)

#### \$6M worth per institution



Group B: Low cost access
45 countries

500 institutions

75 countries 75 countries

- Deliver the most recent, high quality and relevant scientific literature to reduce the scientific knowledge gap
- Develop capacities of researchers, lecturers, students, policy makers, development practitioners to access and use the scientific literature

*Up to 6,500 journals & 22,000 books* 

More than 3,000 institutions registered with an increase of 1,000 in the last 3 years!

**Topics**: agriculture, fisheries, food, nutrition, veterinary science, and related subjects

Capacity Development activities: F2F, webinars, e-learning courses...

### International Information System for the Agricultural Science and Technology

Collection of 8,8M multilingual bibliographic resources (1,3M full text)

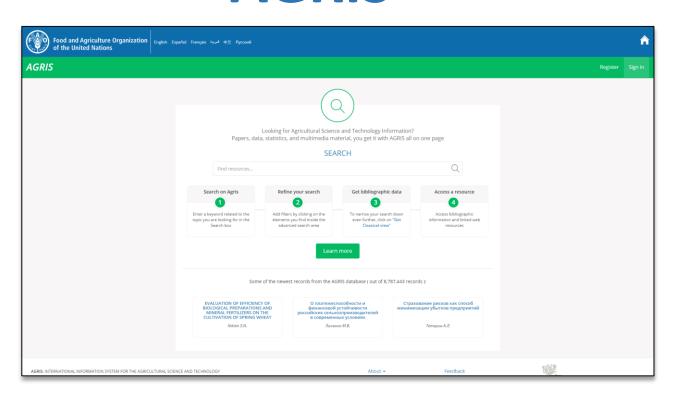
Network of more than 350 institutions from 144 countries, maintained by FAO

Capacity Development activities: F2F, webinars, e-learning courses...

Fully indexed by Google Scholar

One of 3-4 similar global bibliographic databases, but the only one that offers these services free of charge

**AGRIS** 



Uses AGROVOC as a backbone

### **AGRIS Statistics**

#### Usage

#### **Submissions**

#### 01-JAN to 31-AUG 2017

Users: 3.8 million (73% increase)

Page views: 6.9million

#### 01-JAN to 31-DEC 2016

Users: 3.9 million Page views: 7 million

01-JAN to 31-DEC 2015

Users: 1.8 million Page views: 3.3 million

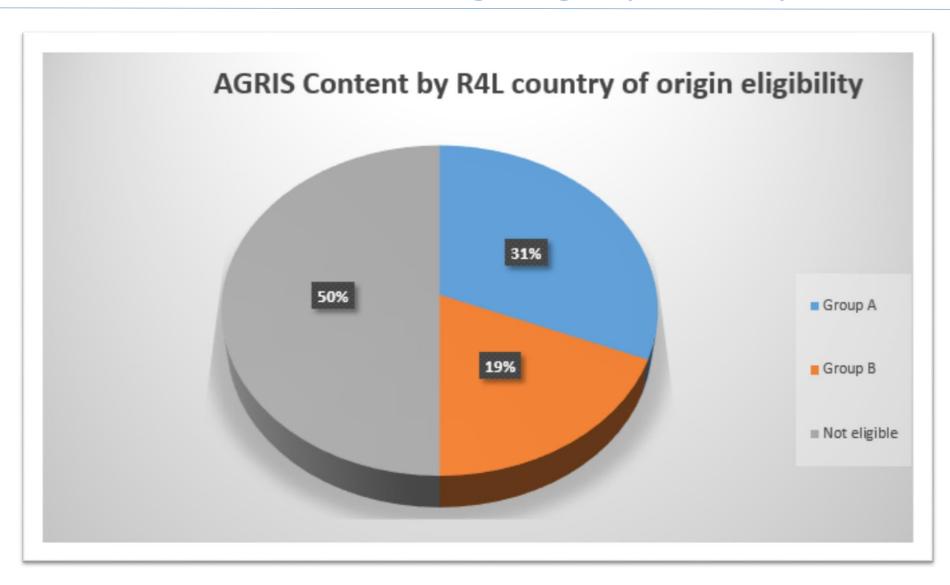
Continent	% Sessions
Asia	43.39%
Europe	18.81%
Northern	13.77%
America	
South	10.19%
America	
Africa	6.88%
Central	3.84%
America	
Oceania	2.29%

AGRIS Total Records 9,200,000
Breakdown of content by type

Journal Article 5,458,823 Conference 287,724 Bibliographies 368,536 Thesis 65,386 Books 34,866

Other 482,596

# AGRIS content looked at geographically

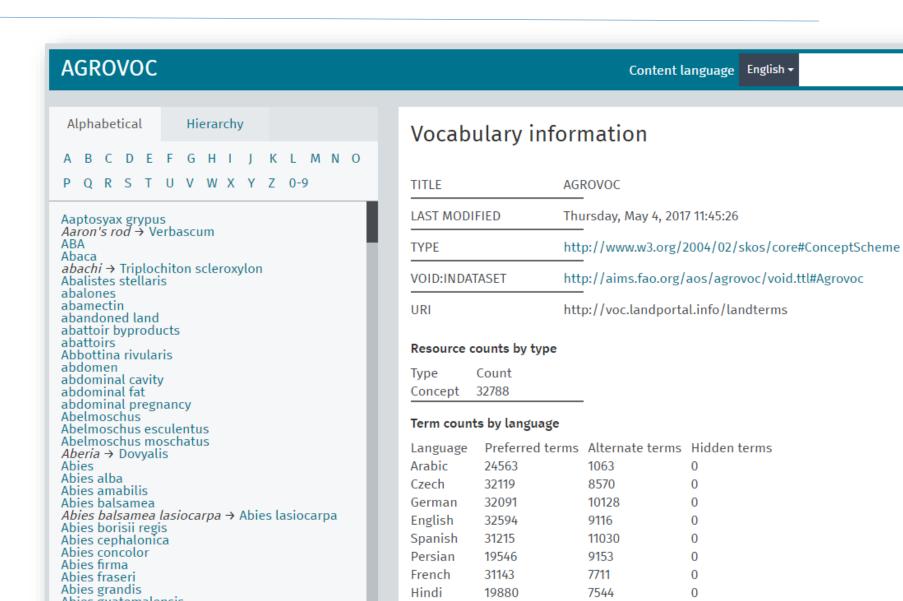


## AGROVOC, the backbone for information services

Thesaurus covering all areas of interest of FAO including food, nutrition, agriculture, fisheries, forestry, environment etc.

It is published by FAO and edited by a community of experts

32,000 concepts available in 20 languages



### What is the value of AGROVOC?

Most used thesaurus in agriculture and related sciences in the world

Unique being translated into 20 languages

Most popular to index and tag information resources in low-income countries

Supports the creation and management of Linked Open Data, with links to 15

thesaurus (e.g. Chinese Agriculture Thesaurus (CAT), NAL Thesaurus...)

Large community of editors maintaining AGROVOC

# Usage

- + Index electronic information resources, e.g. in library catalogues or document repositories
- + Tag content in websites, e.g. integrating AGROVOC as a taxonomy of Typo 3 or Drupal
- + Facilitate search engine discovery
- + Reference for translations
- + Linking datasets and enhancing access to open data
- + Standardization of agricultural information data and services

### **Users**

#### + FAO

- + FAO Website
- + FAO Country Profiles
- + FAO Corporate Document Repository
- + FAO Library Catalog
- + FAOTERM
- + Among others

#### + Worldwide

- + CGSpace Repository
- + International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- + International Maize and Wheat Improvement Center (CIMMYT)
- + International Food Policy Research Institute (IFPRI)
- + National Bibliography on Tropical Biology (BINABITROP)
- + Among others

# Developing capacity on creating, managing and exchanging open data and research data

- To increase capacity and awareness of information policies and standards to achieve open access to information and data
- To promote good practices with regard data sharing policies, data management plans, and data interoperability
- To build capacity to more effective manage, access and use data



Interest Group in Agricultural Data (IGAD) at the Research Data Alliance (RDA) and GODAN Action

## Promoting good practices

### Research Data Alliance (RDA)

Funded by the European Commission, the United States National Science Foundation and National Institute of Standards and Technology, and the Australian Government

With over 5,400 members from 123 countries (April 2017)

# Interest Group on Agricultural Data (IGAD)

Formed in 2013, IGAD has grown in community strength to over 150 members, becoming one of the RDA's most prominent Thematic Groups



DPS co-chairs IGAD

#### **Interest Group**

Agricultural Data Interest Group (IGAD)

#### **Working Groups**

Wheat Data Interoperability Working Group (Completed)
Rice Data Interoperability (endorsed and active)
AgriSemantics (endorsed and active)
On-farm Data Sharing (endorsed and active)

#### **Birds of Feather Groups**

Metrics and Indicators in Agricultural Sciences

#### **Capacity development activities**

Research data management course in Spanish Contribution to Open Science workshops in Africa





Institutional capacities







e-infrastructure Roadmap for Open Science in Agriculture







Open data (wider than research)





Domain specific

Starting

## Building people's capacity to engage with open data

Global Open Data in Agriculture and Nutrition (GODAN) Action

MTF /GLO/694/SDL (\$350K)

In collaboration with Global Forum on Agricultural Research (GFAR)

3 years project funded by UK's Department for International Development (DFID)

Supports GODAN in its mission in creating capacity

### **Objectives**

- To bring together agriculture and nutrition specialists and open data experts
- To contribute to increased farmers' yields, improved nutrition for consumers and better evidence based policy making

### **GODAN Action**

#### Focused on three focal areas:

- 1) Standards Enhancing data standards and promoting good practices in agriculture and nutrition to improve interoperability
- 2) Research Identifying and improving tools and methods for evaluation of the impact of open data usage in initiatives and investments in agriculture and nutrition
- 3) Capacity Building the capacity and diversity of open data users, leading to more effective use of data

### Mooc

The e-learning course **Open** Data and Research Data Management in Agriculture and Nutrition is being developed to strengthen the capacity of data producers and data consumers to manage and use open data in agriculture and nutrition

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### Promoting and Supporting Communities of Practice

- To serve as a catalyst for institutions and individuals in agriculture and rural development to share knowledge
- To raise awareness on information policies and good practices to achieve open access to information and data
- To strengthen the CoP promoted by FAO

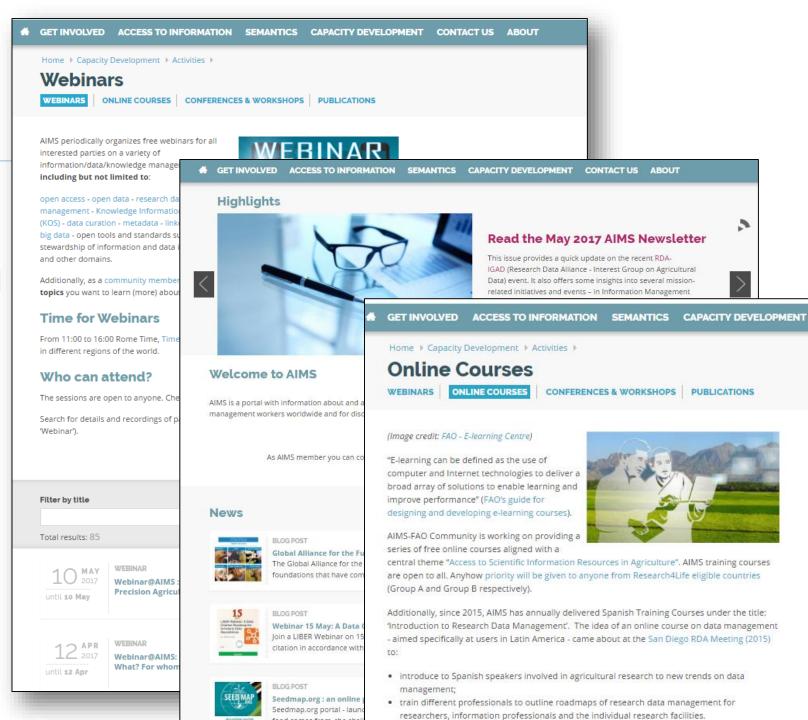


# AIMS, e-Agriculture and DGroups

### AIMS.FAO.ORG

Supports standards, technology and good practices for open access and open data in the agricultural domain.

Its goal is to empower agricultural information management specialists all over the world in creating access to agricultural knowledge.



# e-Agriculture, a Global Community of Practice

Launched in 2007

Platform where people worldwide exchange information and resources related to the use of information and communication technologies (ICT) for sustainable agriculture and rural development

To deliver capacity development activities and e-Forums are the core business of e-Agriculture



# **Usage Statistics**

### aims.fao.org

More than **2,500** registered members from more than **160** countries

More than **3,800** posts and **85** Webinars

Since January 1st, 40,000 users

### e-Agriculture

More than 12,700 registered members from more than 170 countries

More than 3,000 news and events and 30 online forums

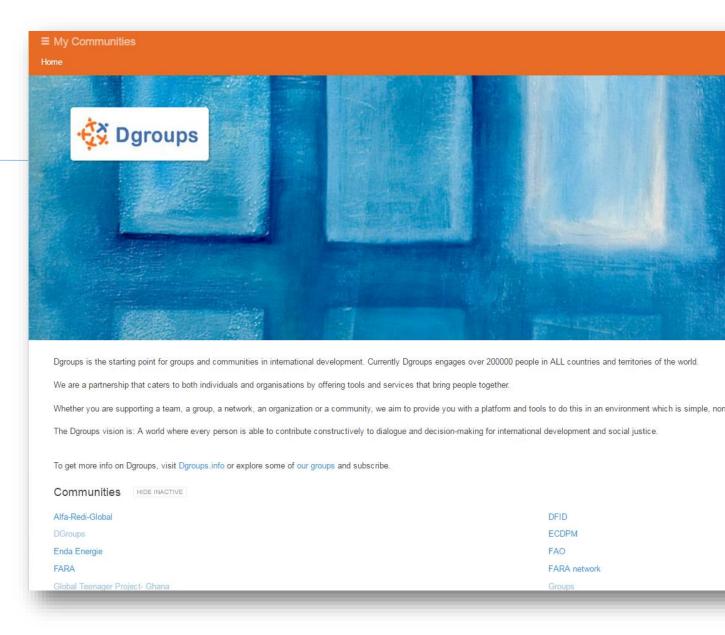
Since January 1st, 65,000 users

## **DGroups**

Online platform for individuals and organisations working in international development

Currently Dgroups engages over 200,000 people in ALL countries and territories of the world

Joint initiative of leading international development organisations such as CTA, DFID, FAO, FARA, HIVOS, IDS and other organisations



DPS hosts 52 FAO communities with more than 25,000 users

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# Any questions?