



# Monitoring, Evaluation and Learning Efforts by Visualizing Impact

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15 November 2019



# **Introduction**

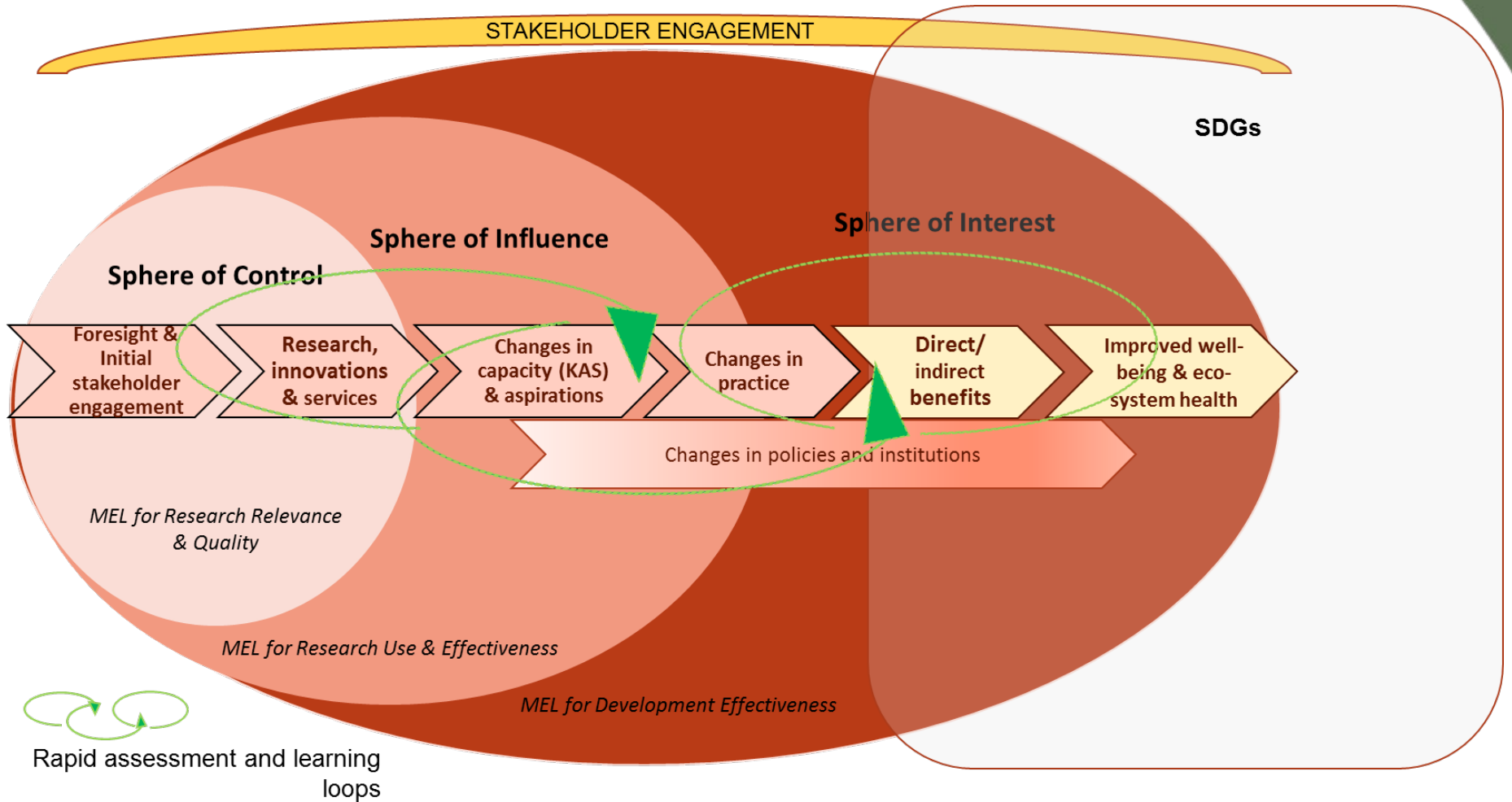


## **MEL a tool for Institutions and R&D Programs**

### Key messages

- Rethinking M&E and KM for optimized impact reporting and time saving
- Conceptual and technical integration with framework and tools
- Response to management needs at different levels, streamline harmonized processes
- Interoperability with multiple platforms and modular/flexible development

# Integrated RBM Framework



# Monitoring, Evaluation and Learning (MEL) processes to

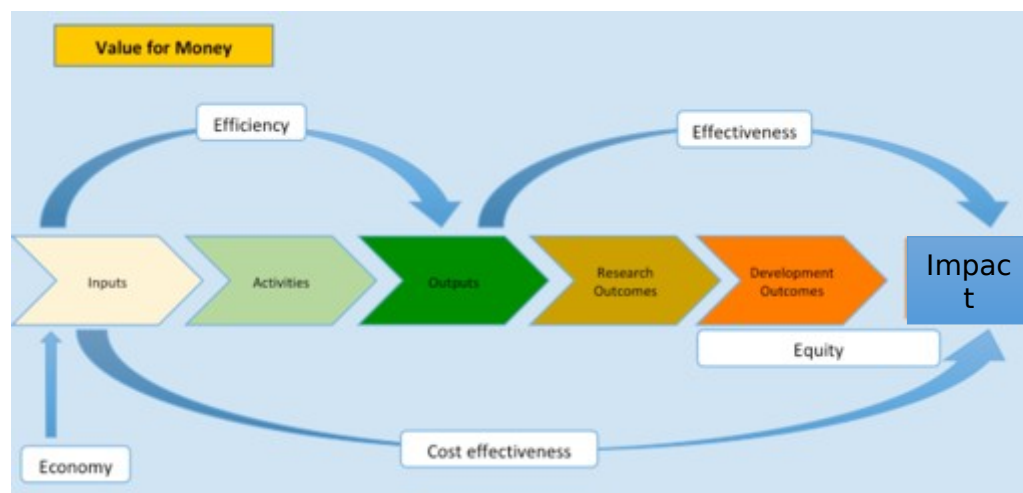
1. Communicate the impact of research while contributing to solve development challenges
2. Implement agile learning to effectively design and deliver research impact at scale through strategic partnerships
3. Demonstrate accountability, benefits and value for money in research
4. Allow evidence-based decisions on how and where targeting public spending

## Outputs

-Timeliness and quality of expected research results (Knowledge, Data, Technologies, Tools)

## Outcomes

-Indicator based monitoring  
-Participatory monitoring looking at processes and causal relationships among outputs and outcomes



## M&E Areas of Action and Interest

### Logical Framework

- Indicators @ Goals, Objectives, Outcomes and Outputs + Process indicators (Activities)
- Disaggregation (e.g. gender, country, crops) & responsibilities
- Risk management along the log-frame

### Data Collection and Information management systems

- Main hub (Primary data storage): Monitoring, Evaluation and Learning Systems (MEL)
- Linked hubs (w/depositing workflows): DSPACE, DATAVERSE
- Data depositing, indexing and sharing of permanent identifiers
- Processing Hubs: GeoODK, ODK, GEOC
- Raw data collection, curation and processing



## Reporting Results

- ✓ Aggregate indicators (ICARDA and CGIAR) based on data we have

-Processes/Guidelines/Tools

### CGIAR Common Reporting Indicators

<a href="#">#C1 Innovations</a>	--> <a href="#">pdf print version</a> - 1MB - 03.05.2018
<a href="#">#C2 Partnerships</a>	--> <a href="#">pdf print version</a> - 878KB - 03.05.2018
<a href="#">#C3 Participants + #C4 Trainees</a>	--> <a href="#">pdf print version</a> - 1MB - 03.05.2018
<a href="#">#C5 Peer review papers</a>	--> <a href="#">pdf print version</a> - 460KB - 03.05.2018
<a href="#">#C6 Altmetrics*</a>	--> <a href="#">pdf print version</a> - 1021KB - 20.07.2018
*only for CRPs with Altmetrics subscription	
<a href="#">#I3 Policies</a>	--> <a href="#">pdf print version</a> - 1014KB - 03.05.2018

- ✓ Collect Data for indicators (e.g. SDG / Impact Studies)

-Funds/Scale/Team/Methodologies



# Knowledge Management: Cycle

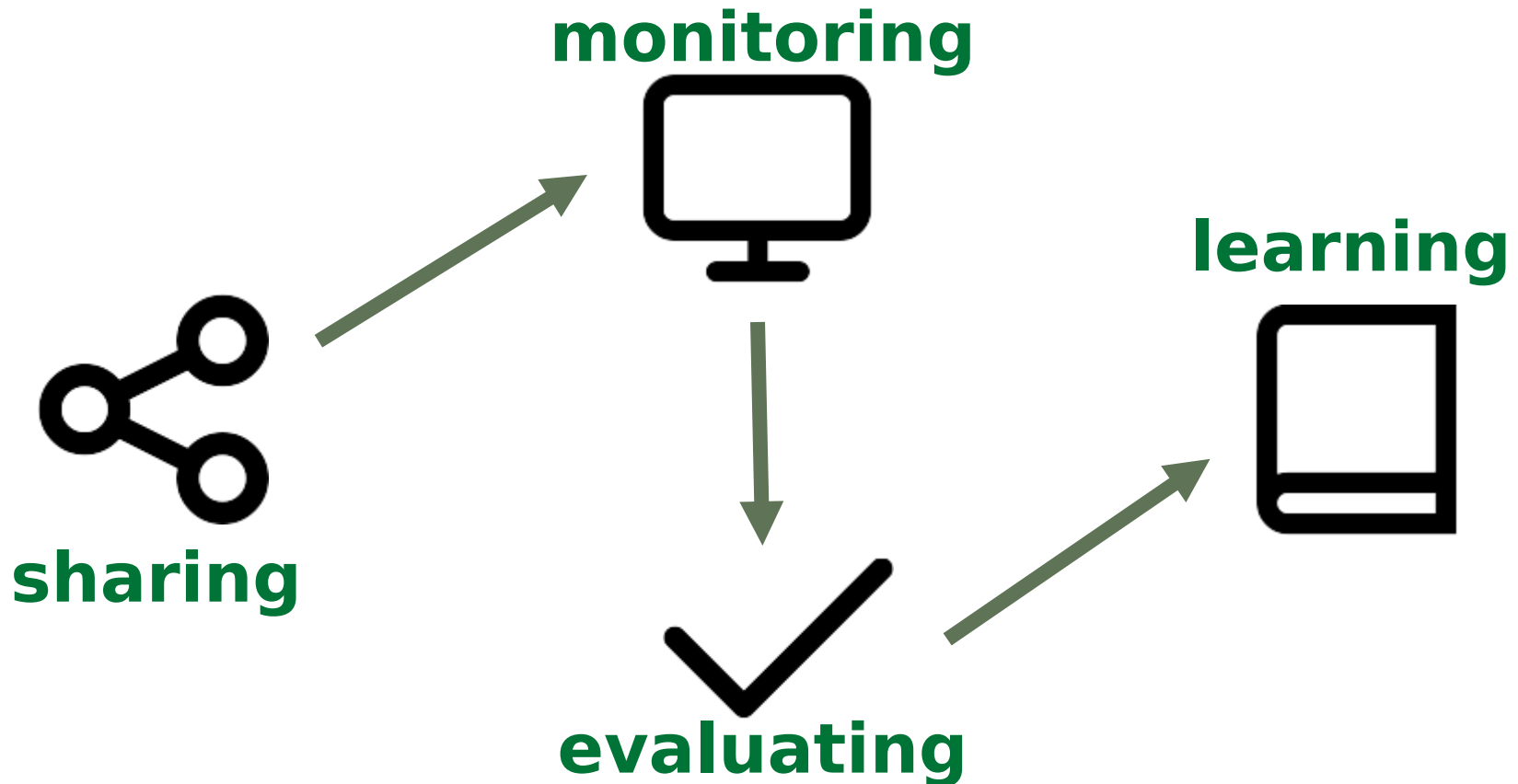


1. **Monitoring** projects, institutions and media resonance...
2. **Evaluating** progress through indexes and metrics...
3. **Learning** from indicators in frameworks for institutional awareness...
4. **Valuing impact** through policy informing, innovations generation and best practices adoption...
5. **Partnership** building for research alliances, innovation platforms and science-policy interfaces...
6. **Research** on-field and in laboratory for scientific advancement, capacity development, gender equality and opportunities for youth...
7. **Sharing** the results through information products publication and dissemination...



# The value of Knowledge Management

Knowledge Management means more than optimizing the data flow within an institution, itself an essential and valuable asset, it also means enabling and foster post-research impact over time, through:





# **Background, Data and Approach**



# Timeline: Development, Adoption and Long Term Investment



Adoption Pathway	Start date	End date	Mar-20	Dec-21	Apr-22	Dec-22	Dec-23	Dec-26	Dec-30
Prototyping: CRP-DS	06/01/2014	12/31/2014							
Launching for Program M&E: CRP-DS	01/01/2015	12/31/2016							
CRP-DC and CRP-GL	01/09/2015	12/31/2016							
ICRAF (Project Module: IFAD)	01/01/2015	03/31/2020							
CRP-RTB	01/01/2016	12/31/2021							
ICARDA (Full Center)	01/01/2017	12/31/2026							
CIP (Full Center)	01/01/2017	12/31/2023							
CRP-GLDC	01/01/2017	12/31/2021							
IITA (Full Center)	11/01/2017	12/31/2030							
CRP-FISH	03/03/2018	12/31/2021							
WORLD FISH (Full Center)	01/01/2019	12/31/2022							
ICRISAT (Project Module: USAID)	05/01/2019	04/30/2022							

## MEL by Numbers



[Explore](#)

## Welcome to MEL API

### Project

[Show/Hide](#) [List Operations](#) [Expand Operations](#)

GET	/v1/projects/{id}	Read Object(s)
GET	/v1/projects	Read Object(s)
GET	/v1/projects/{parentId}/project_manager_id/{id}	Read Object(s)
GET	/v1/projects/{parentId}/project_co_manager_id/{id}	Read Object(s)

### Publication

[Show/Hide](#) [List Operations](#) [Expand Operations](#)

GET	/v1/publications?id={id}	Get a publication by id
GET	/v1/publications/search	Get publications count
GET	/v1/publications/count	Get publications count

Information  
Sharing

[Home](#) > [Our experts](#) > Mourad Rekik

#### Mourad Rekik

Small ruminant production scientist

[m.rekik@cgiar.org](mailto:m.rekik@cgiar.org)

Mourad Rekik is livestock scientist based in Amman, Jordan with more than 25 years of experience in animal reproduction and small ruminants' production and management in drylands. His expertise includes sheep and goats reproduction and its interaction with nutrition, health and genetics. He is involved in the CGIAR research program on dryland systems as well as livestock and fish. His current research interests focus on boosting resilience and productivity of the livestock production systems at the household level and attenuating the impact of environmental and economic stressors.

Prior to joining ICARDA, Rekik was researcher and lecturer in several universities in Tunisia. He was also coordinator of several research-for-development projects, involving multidisciplinary teams. He served as member of the British Society of Animal Science and FAO-CIHEAM network on sheep and goats nutrition. Rekik is author of more than 80 peer-reviewed journal publications, book chapters, and conference papers.

Rekik holds a Ph.D. in animal production from the University of Reading in the UK.

#### Publications

*Molecular detection and phylogenetic analyses of Toxoplasma gondii from naturally infected sheep in Northern and Central Tunisia*

Mariam Routbi, Yosra Amdouni, Safa Amairia, Mohammed Rijeibi, Said Sammoudi, Mourad Rekik, Mohamed Gharbi. (20/12/2017). Molecular detection and phylogenetic analyses of Toxoplasma gondii from naturally infected sheep in Northern and Central Tunisia. Veterinary Medicine and Science, 3(1), pp. 22-31.

*Molecular survey and genetic characterization of Anaplasma centrale, A. marginale and A. bovis in cattle from Algeria*

Mohammed Rijeibi, Mourad Rekik, Mohamed Gharbi, Omar Ayadi. (30/4/2018). Molecular survey and genetic characterization of Anaplasma centrale, A. marginale and A. bovis in cattle from Algeria. Transboundary and Emerging Diseases, 65(2), pp. 456-464.

# Sharing Data to other sites

## Innovations

Innovations are new or significantly improved outputs or groups of outputs - including management practices, knowledge or technologies.

[ACCESS RAW DATA](#)

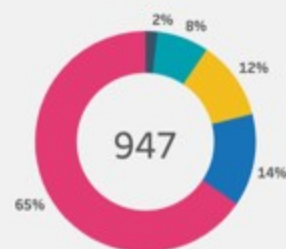
### Innovation Location

Select one or more countries (press ctrl) to filter.



### Innovations by Type

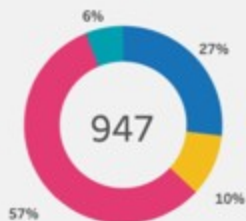
Click on donut to filter.



- Genetic (Varieties and Breeds)
- Research & Communication Methodologies & Tools
- Production Systems and Management Practices
- Social Science
- Biophysical Research
- N/A or Not Provided

### Innovations by Stage

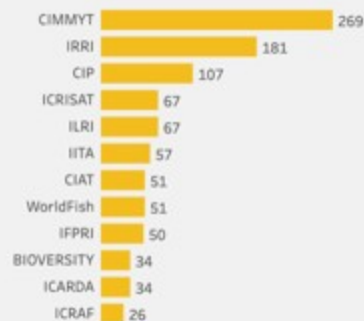
Click on donut to filter.



- Stage 1: End of Research
- Stage 2: End of Piloting
- Stage 3: Available for Uptake
- Stage 4: Uptake by Next Users

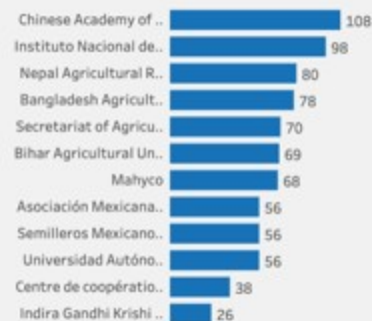
### Contributing CGIAR Organizations

Click on bars to filter.



### Contributing non-CGIAR Organizations

Click on bars to filter.





## Business Model

### Incubation, Start-up & Partnership with the Private and NGO Sector

- ✓ Internal Staff investment
- ✓ Start-up of Young developers company
- ✓ Partnership with NGO
- ✓ Balancing the coverage among CG Centers
- ✓ Global coverage (working hours and week days)
- ✓ Sustainable solution



	Solution Creators	QA Officers	Developers	Total
ICARDA	1	3	1	5
CIP	1	1	1	3
WorldFish	1	2	2	5
IITA	1	3	2	6
Codeobias	1	0	2	3
IMMAP	1	1	2	4
Total	6	10	10	26



# **A platform @ Work**

# Aggregated views

General information

Public documents

Program structure and key leaders / contact persons

Result Frameworks, Outcomes and Indicators

Output typologies, multi-stakeholders working environment, process (%) reporting

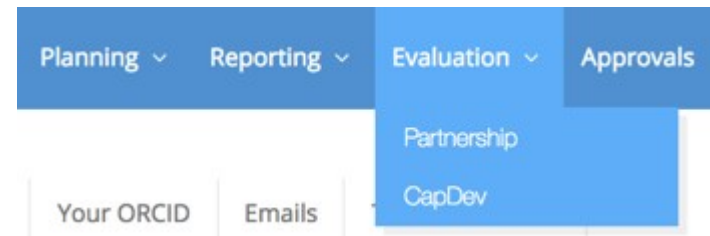
- Details on deliverable status
  - Icons
  - Note with short explanation
  - Download of open access files

Projects

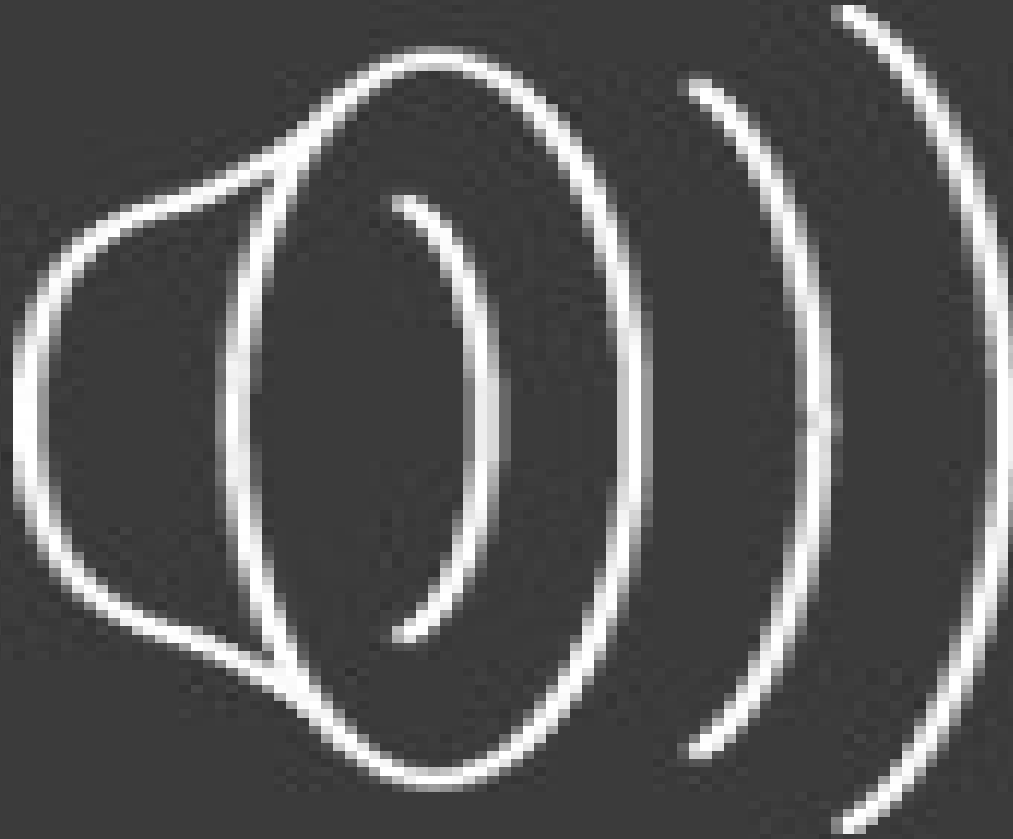
Partners (two-ways evaluation)

Capacity development activities

Outcomes and Indicators

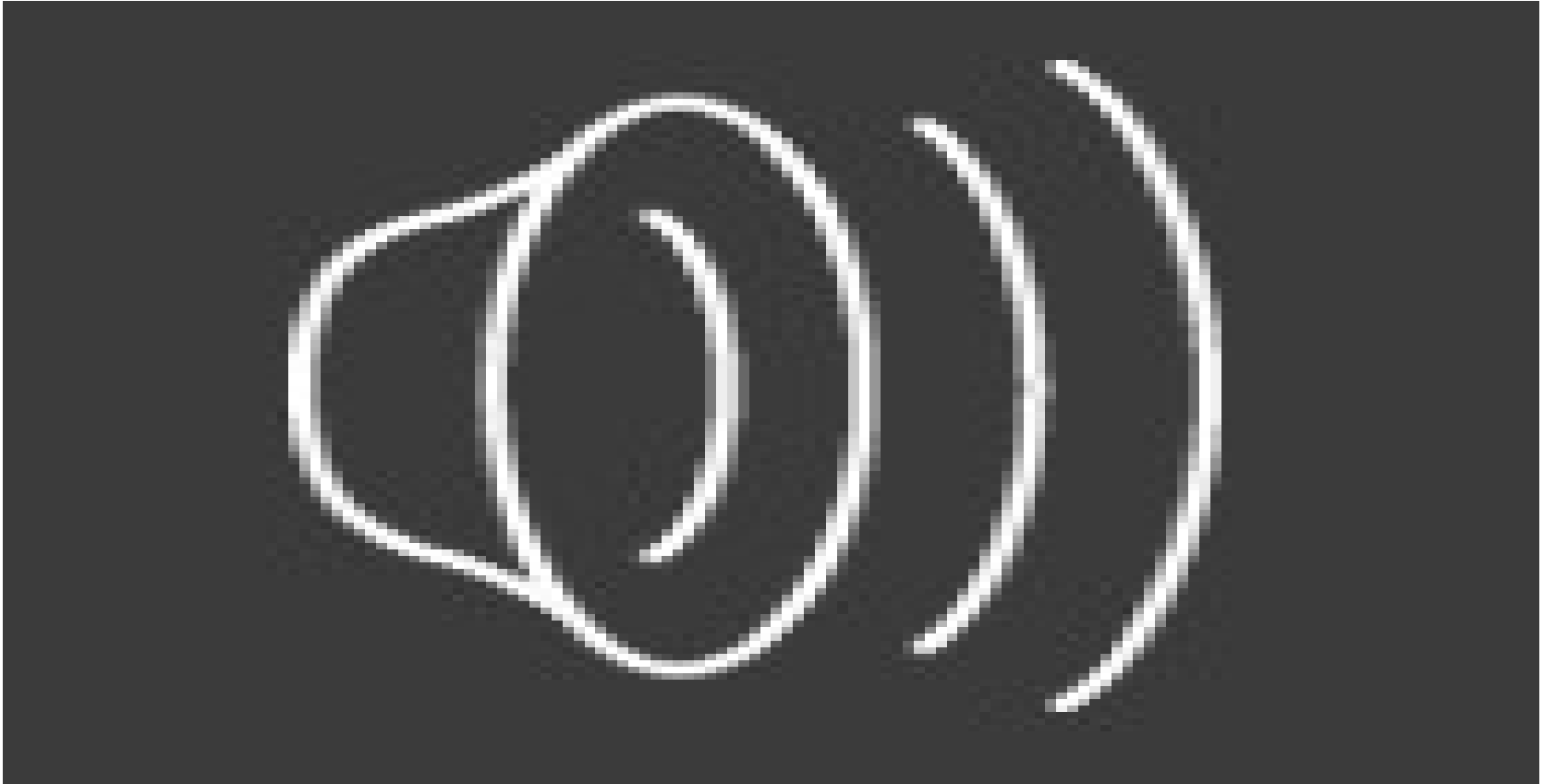


## Program Overviews (Thematic Areas / Open Objectives)

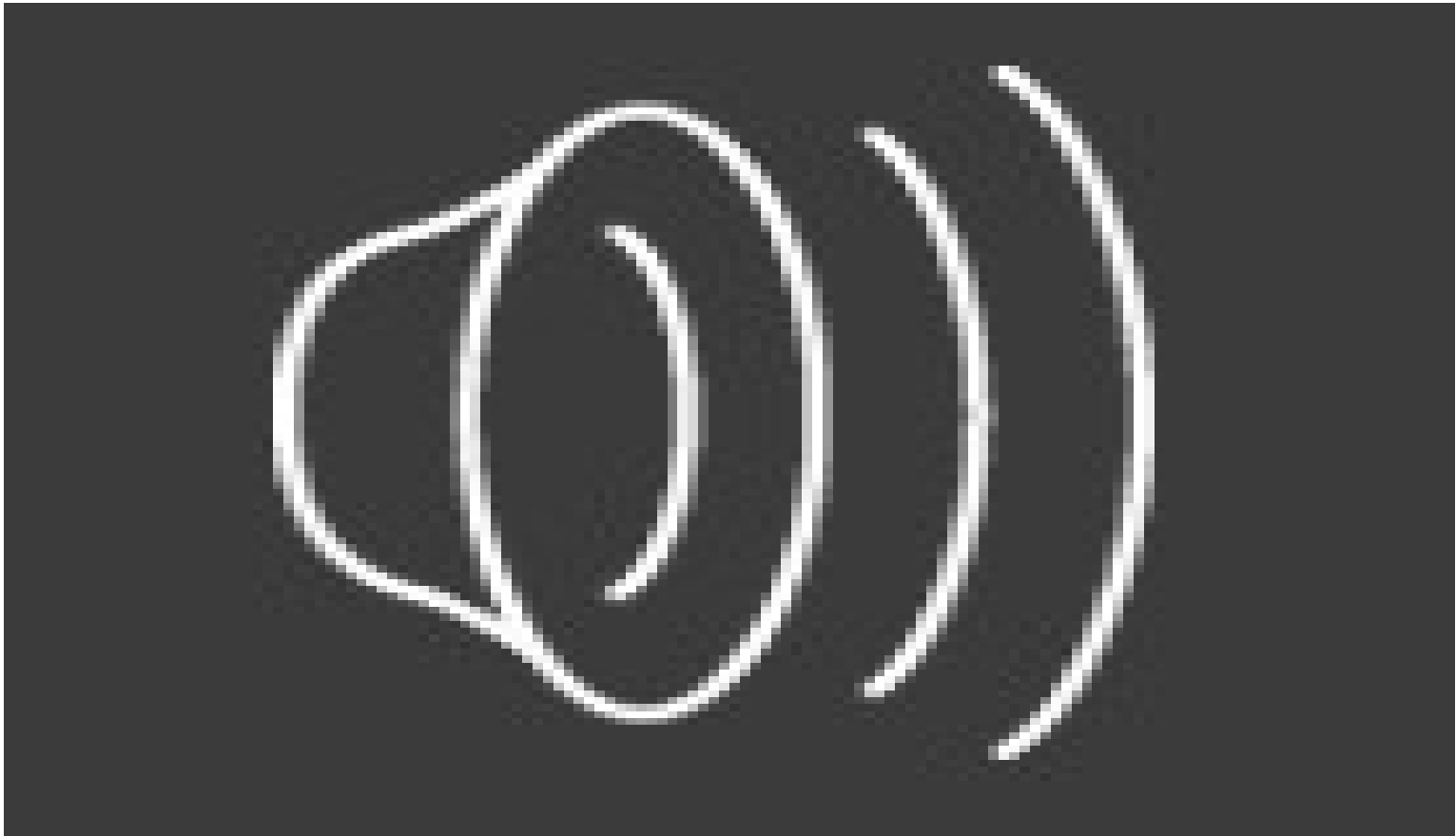




## Project page



## Plan of Work and Budget - POWB



## Capacity Development and outreach activities - Dashboard



# Partnerships

Project

AFESD/KF/BMGF/OFID Support for Enhancement of Food ...

region

AFESD/KF/BMGF/OFID Support for Enhancement of Food Security in the Arab Region, Phase II

Optimizing Subsidiary Crop Applications in Rotations (OSCAR)

**Institut National des Grandes Cultures**

Location :  
Tunisia, Jendouba

[visit the Website](#)

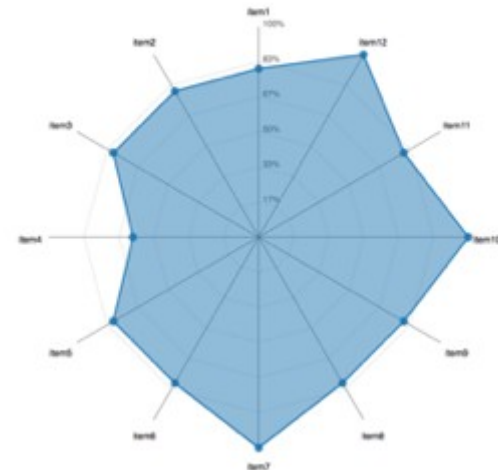


Working Areas

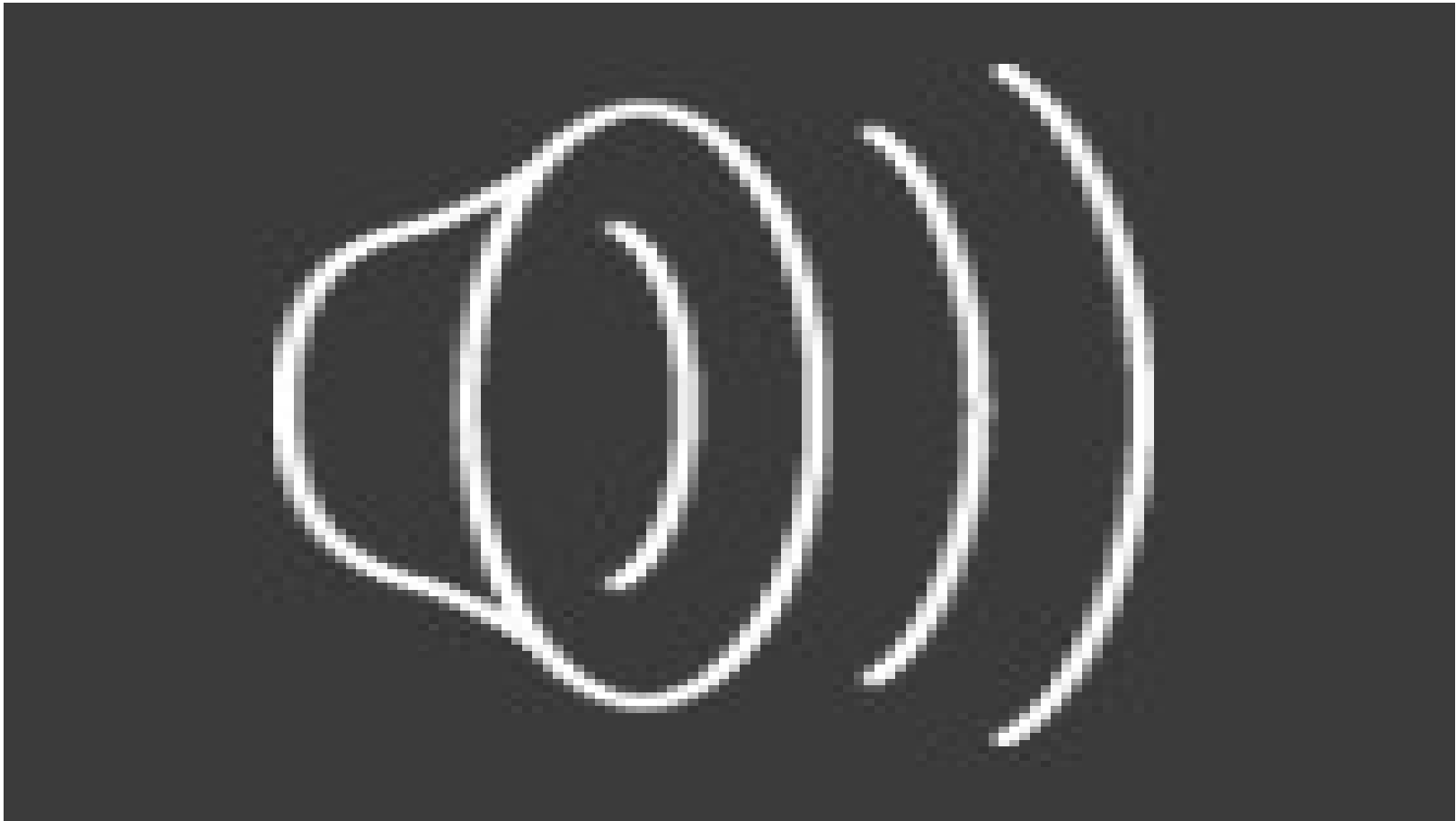
Partners

Knowledge Partners

Partnership health check-up



## Outcome/Impact Case Study



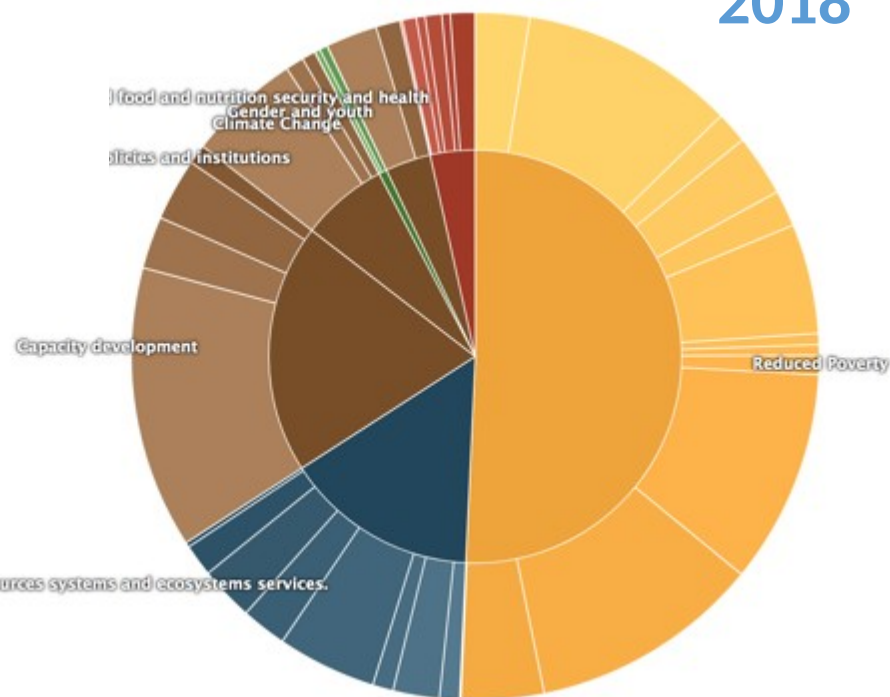
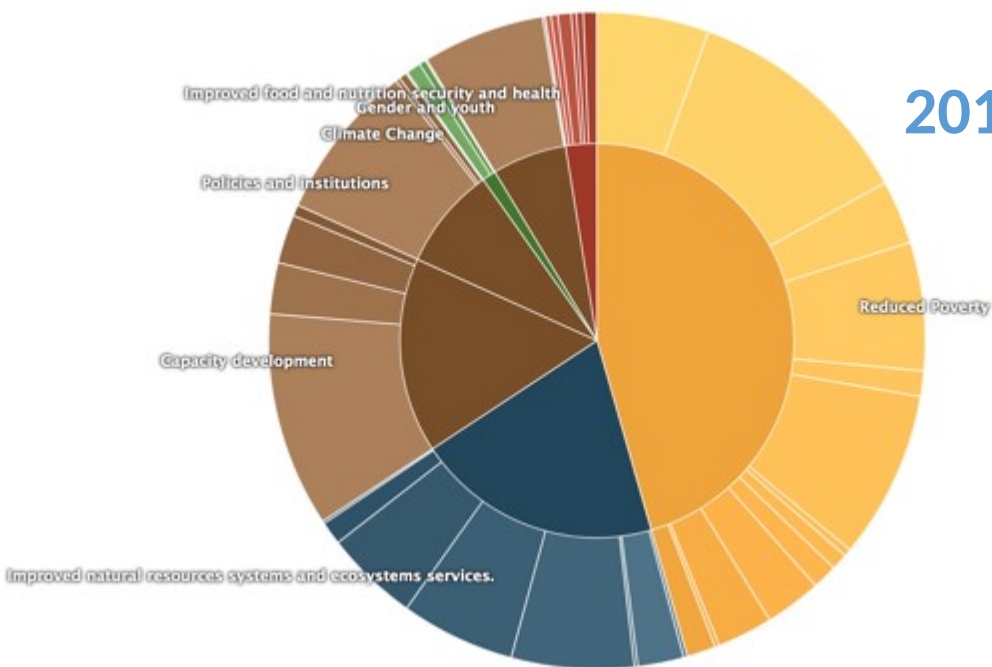
# Visualize Investment



# Portfolio analysis

2017

2018



# Key Performance Indicators

Add Flagship Indicator

Indicator \*

Enter indicator name...

Unit of Measurement \*

Select Unit of measurement...

Unit Type \*

Select Unit type...

+ Add Disaggregation criteria

Disaggregation criteria \*

Select Disaggregation criteria...

Aggregation Rule \*

Select Aggregation Rule...

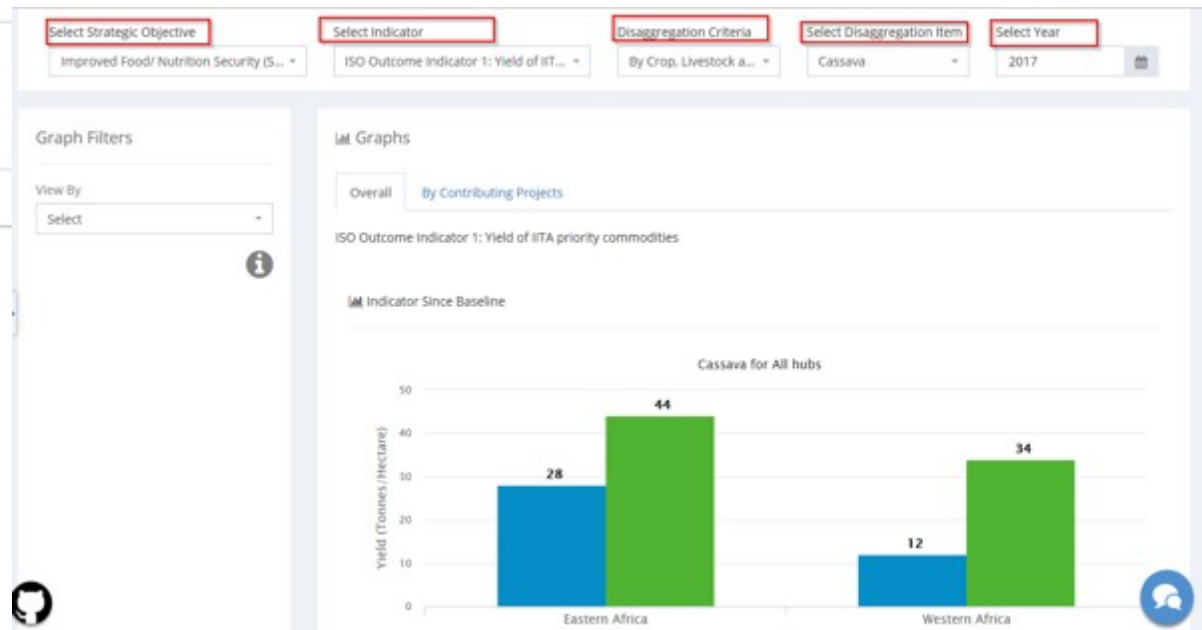
Unit Description \*

Enter the unit description...

Explanation \*

Enter the unit explanation...

1. Impact Level / General Goal
2. Outcome Level / Specific Objectives
3. Thematic Areas and Priorities







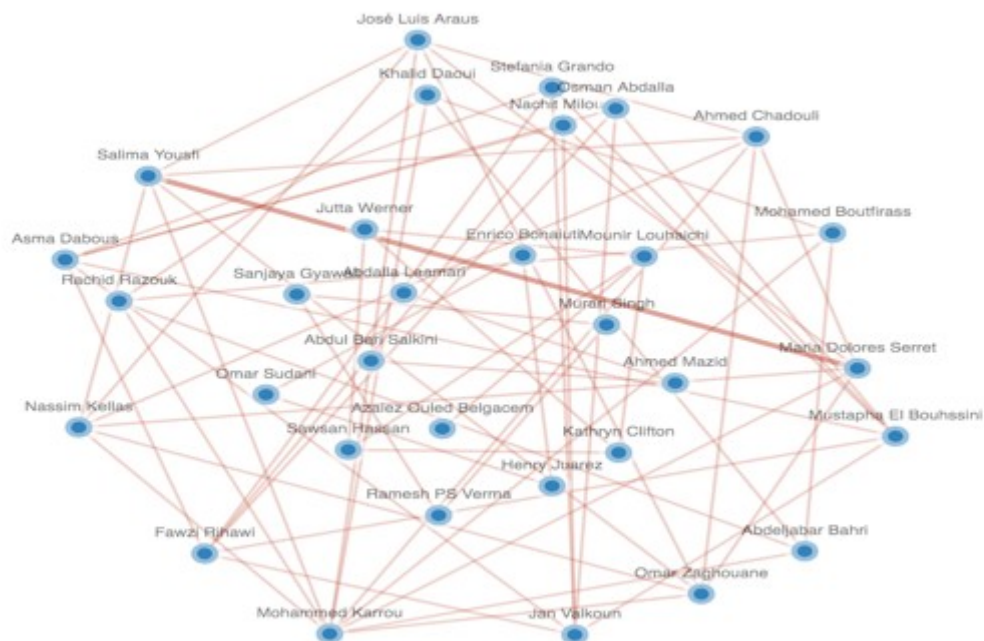
# **Data Flows and Mining**

# Network Analysis for Impacts

SDG(s) 


Keyword(s)  

The list is provided by [AGROVOC Web Service](#). You can add new subjects by typing or copy & paste them from another source, if comma separated. All new, non-AGROVOC subjects are coloured in green: please ensure these are coherent with the knowledge reported.




## An Agricultural Research e-Seeker (AReS) to find, explore and visualize open repository resources

DSpace repositories → Repository explorer → AReS configuration




**CGSpace**  
A Repository of Agricultural Research Outputs

- Used by 14 CGIAR centers, Research Programs and partners
- Contains about 80,000 research outputs
- More than 27 million views and downloads every year



Configurable repositories and platforms

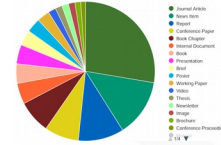
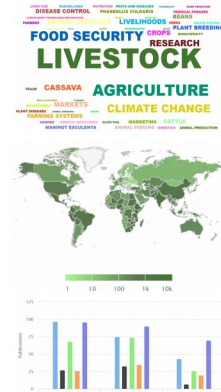


**WorldFish**  
DSpace

- Open Access repository safeguarding intellectual assets
- Provides credits for more than 3,000 knowledge products
- Customized and interoperable

### Open Repositories Explorer and Visualizer tool (OpenRXV)

- Harvest multiple repositories
- Explore and visualize search results
- Explore and visualize by metadata fields
- Explore and visualize content collections and categories
- Generate reports for queries



### The Agricultural Research e-Seeker (AReS):

- Allows us to view and navigate single or multiple repository content in a visual way
- Shows relationships, patterns and trends for different metadata filters authors, countries, topics, investors, years, etc
- Incorporates public usage data from DSpace and Altmetric
- Preserves original repository configurations (good and bad)
- Exposes inconsistencies
- Will ultimately include other repository types such as Dataverse
- Is configured for 'our' metadata fields
- Open Online <https://cgspace.cgiar.org/explorer>



Get OpenRXV  
on GitHub



Start Exploring  
with AReS!



Peter Ballantyne 1, Moayed Al-Najdawi 3, Enrico Bonaiuti 2, Valerio Graziano 2, Alan Orth 1, Jane Poole 1, Mohammed Salem 3, Abenet Yabawork 1  
International Livestock Research Institute (ILRI) 1,  
International Research for Agricultural Research in Dry Areas (ICARDA) 2, CodeObia 3  
[Valerio.Graziano@cgmel.org](mailto:Valerio.Graziano@cgmel.org), [A.Yabawork@cgiar.org](mailto:A.Yabawork@cgiar.org)



Funding for this work was provided by CGIAR Trust Fund contributors.  
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Where does IFAD concentrates its effort during the last five year? And on which subjects?



Select Year «2013-2018» and Funder «International Fund for Agricultural Development» and find out!

Region and Countries are shown in the atlas, while the «Subject» filter will automatically sort for those available in the Info Products List of Results. The same list if sorted by Subject.

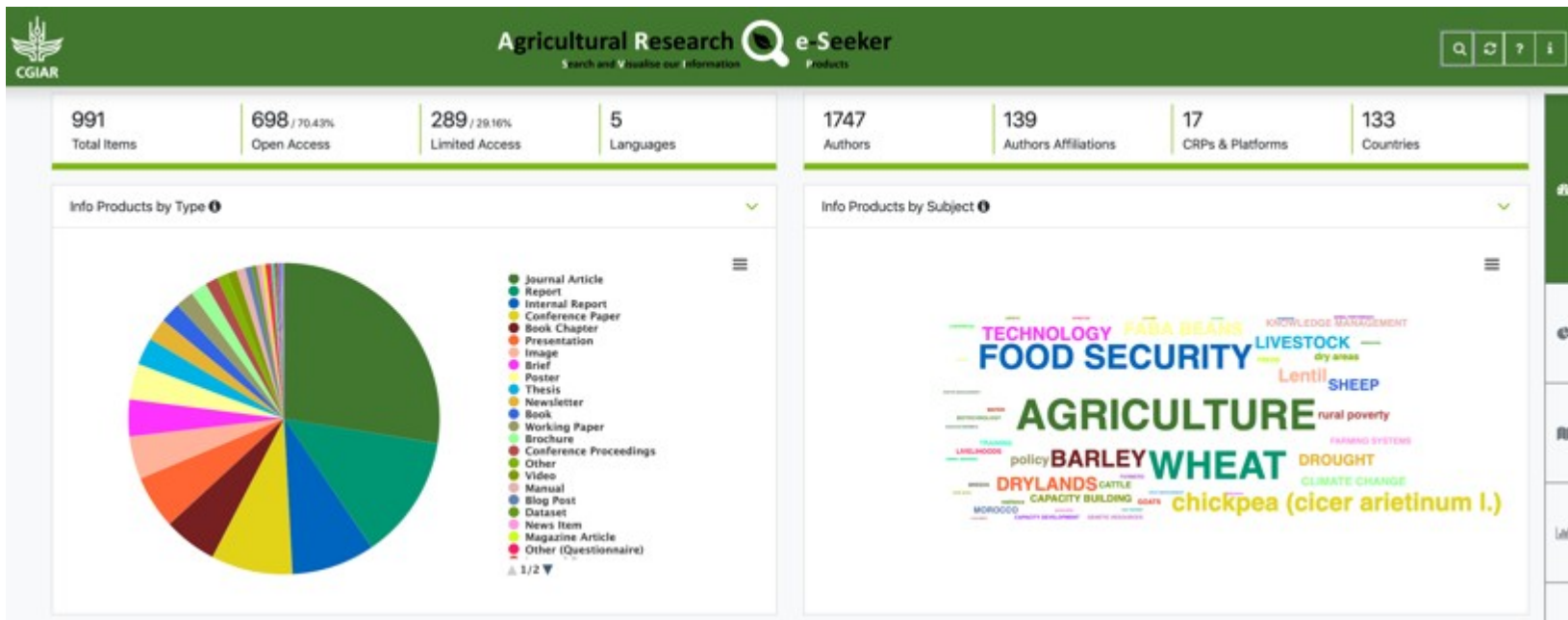


Are IFAD and ADB funding the same projects? If yes, what have they produced and where?



Select Funder «International Fund for Agricultural Development» then check if «African Development Bank» appears in the Funder filter too. If no, they are not related in our repositories, if yes select it!

The Info Products List of Results and the Info Products Overview will provide you with all information.



### Info Products List of Results



**Turn Down the Heat : Confronting the New Climate Normal, Bajemos la temperatura : cómo climática (Vol. 4), Baissions la chaleur : Face à la nouvelle norme climatique - résumé analytique**  
This report focuses on the risks of climate change to development in Latin America and the Caribbean and parts of Europe and Central Asia. Building on earlier Turn Down the Heat reports, this new science assesses the impacts of present day (0.8°C), 2°C and 4°C warming above pre-industrial temperatures on agricultural ecosystem services, and coastal vulnerability for affected populations. Data show that dramatic climate extremes are already impacting people, damaging crops and coastlines, and putting food, water, and livelihoods at risk. In the three regions studied in this report, record-breaking temperatures are occurring more frequently, raising the risk of crop failure and livestock mortality.

Sort Options  
Altimetric: Attention Score

Order  
Descending





### **D Key issues for livestock and pastoralism in Sudan**

IGAD LPI. 2007. Key issues for livestock and pastoralism in Sudan. IGAD LPI Policy Brief. Addis Ababa, Ethiopia: IGAD Livestock Policy Initiative.

**Publisher:** IGAD Livestock Policy Initiative | **Subject:** PRO-POOR LIVESTOCK,LIVESTOCK,POLICY,PASTORALISM

**Type:** Brief | **Status:** Open Access | **Date issued:** 2007 | **Attention Score:** 3 | **Downloads:** 701 | **views:** 861



## Key issues for livestock and pastoralism in Sudan

Overview of attention for article published in this source, January 2007



Mentioned by

1 policy source

### SUMMARY

Policy documents



So far, Altmetric has seen 1 policy document that references this research output.



### Study on small-scale family farming in the Near East and North Africa region

Cited by Food and Agriculture Organization of the United Nations on 01 Jan 2017

The Food and Agriculture Organization (FAO) of the United Nations is an intergovernmental organization whose mission is to achieve food security, ensuring that people have regular access to enough high-quality food to lead active, healthy lives.



United Nations  
Statistics Division



ORCID

Connecting Research  
and Researchers



AIMS



ArcGIS®

## Data Curation

Reporting CRP

Donors

Partners

SDG(s)

Keyword(s)

The list is provided by [AGROVOC Web Service](#). You can add new subjects by typing or copy & paste them from another source, if comma separated. All new, non-AGROVOC subjects are coloured in green: please ensure these are coherent with the knowledge reported.

Crop(s)

MELSpace

Abstract

Number of dataset users

Dataverse

Data Collector

Dataverse Subjects

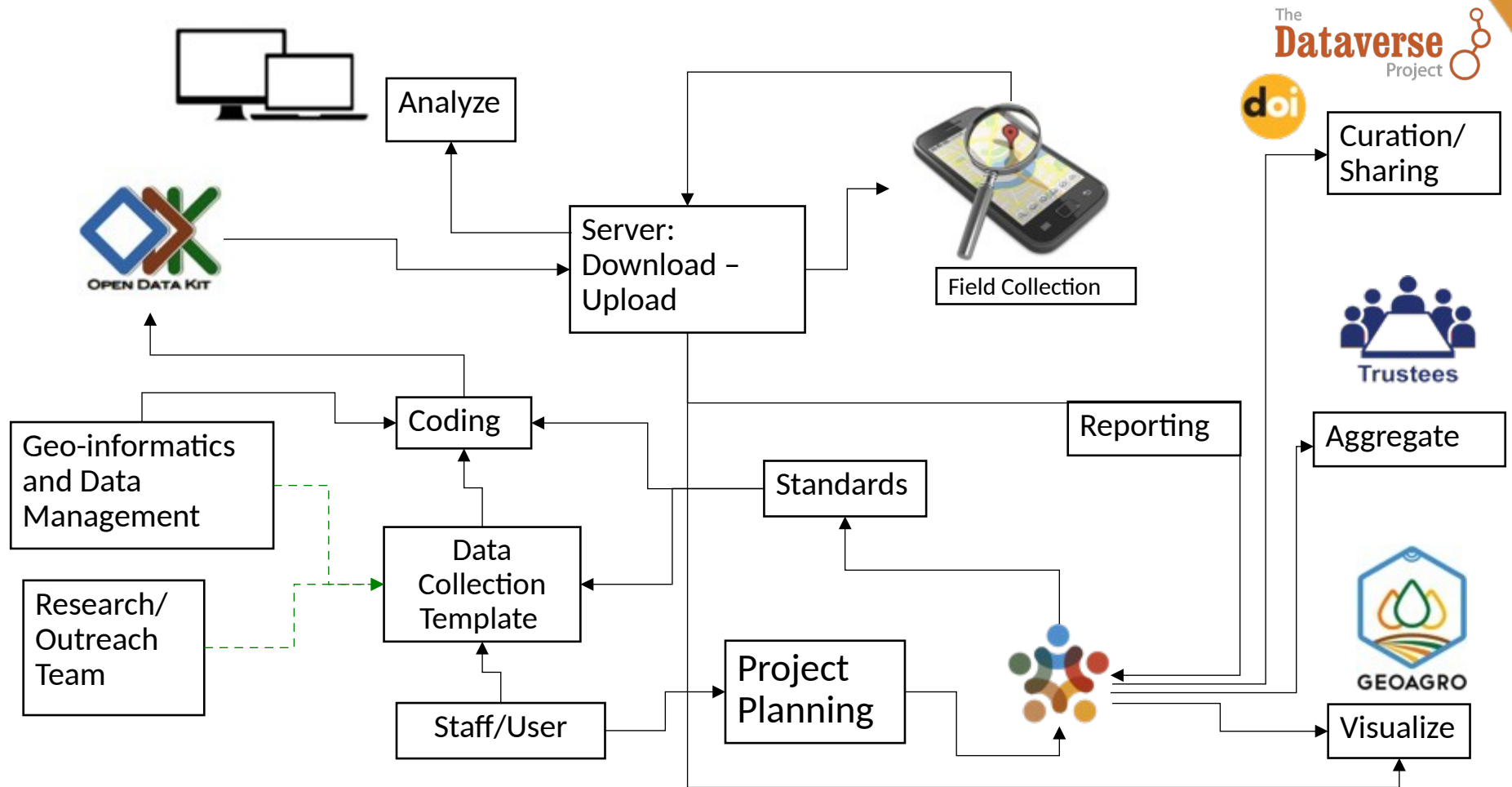
Related publications

URL

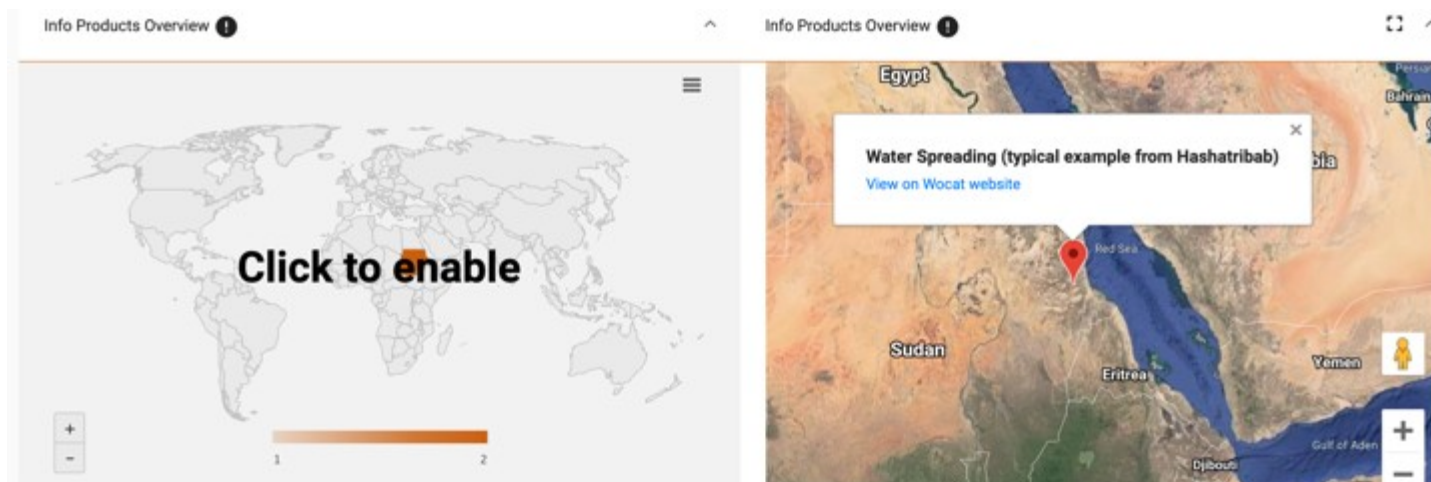
Please, provide any DOI, Research Gate, Google Scholar, CGSpace or other URL if any.



# Field Data Collection

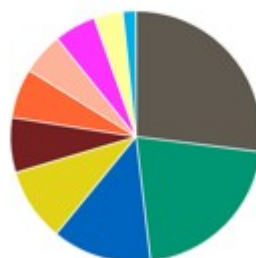


# World Overview of Conservation Approaches and Technologies (WOCAT)



## Institutions

3.23%	Exploitant. Douar Chiakh, Sidi Azouz, Commune des Shoul	1
3.23%	HCEFLCD/Centre de Recherche Forestière	1
3.23%	Haut Commissariat aux et Forêts et à la Lutte Contre la Désertification, DCEFLCD Centre, DPEFLCD Settlat	1
3.23%	Agriculteur	1
3.23%	Agriculteur	1
3.23%	CRF-Rabat	1
3.23%	Centre de Travaux agricoles	1
3.23%	Centre des travaux agricoles Bouknadel	1
3.23%	Chaire Unesco Environnement.	1
3.23%	Coopérative Mousstaqbali	1



- reduce, prevent, restore land degradation
- improve production
- create beneficial economic impact
- preserve/ improve biodiversity
- conserve ecosystem
- adapt to climate change/ extremes and its impacts
- create beneficial social impact
- reduce risk of disasters
- mitigate climate change and its impacts
- protect a watershed/ downstream areas - in combina

## SLM groups

32.26%	agroforestry	10
19.35%	cross-slope measure	6
12.90%	area closure (stop use, support restoration)	4
12.90%	improved ground/ vegetation cover	4
12.90%	natural and semi-natural forest management	4
12.90%	pastoralism and grazing land management	4
12.90%	water harvesting	4
9.68%	ecosystem-based disaster risk reduction	3
9.68%	forest plantation management	3
9.68%	integrated crop-livestock management	3





# Geo-Informatics Option x Context

National and Actors **target** their **investment** for Agricultural **Technologies** & Natural Resources Management **Practices**

Context-specific **evidence** available to support sound **investment decisions**

Promote **scaling** of Technologies and Practices for **socio-economic impact**

Shareable **global knowledge** applicable at **local dimension**

**Spatio-temporal** linkages for **evaluation** and dissemination

**Flexible entry points** to accommodate **users requirements**



*A tool for Better Investment Decisions in Agriculture and Rural Development*



Select

**GeOCC™**  
System-based Options by Context

**Filter Options**

Region  
Select region ▼

Sub-Region  
Select subregion ▼

Search country... ✕

**Theme**  
Context/Driver's Database ▼

**Sub-Theme**  
National economic devel... ▼

**Dataset**

☐ GDPCAP  
☐ GDPCAP-GRW  
☐ AGRI-POVERTY

**Theme**  
Outcome-Impact Databa... ▼

**Sub-Theme**  
Affected population ▼

**Dataset**

☒ **AFFECTED-POP**  
☐ AFFECTED-RPOP

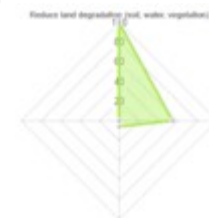
Select all Deselect all

Visualize



Rank

SLMs in the area of interest	Socio-economic Impacts-Production
Afforestation	Slightly positive
Area enclosure	Very positive
Biological fixation of sand dunes	Very positive
Buried diffuser	Very positive
Cisterns	Slightly positive
Cisterns	Slightly positive



Scale



*A tool for Better Investment Decisions in Agriculture and Rural Development*



# **Legal and GDPR**

# Legal Aspects of KM: Attribution and Licensing



**+21%**  
**ICARDA**  
**Scientists**  
**Registered in**  
**1 Quarter.**  
**Over 5 Million**  
**Worldwide.**



**400+ Millions**  
**licenses of**  
**which more than**  
**40% Open**  
**Access\*.**



**GDPR Safe**  
**Measures**  
**for Data**  
**Sharing and**  
**Interoperability**

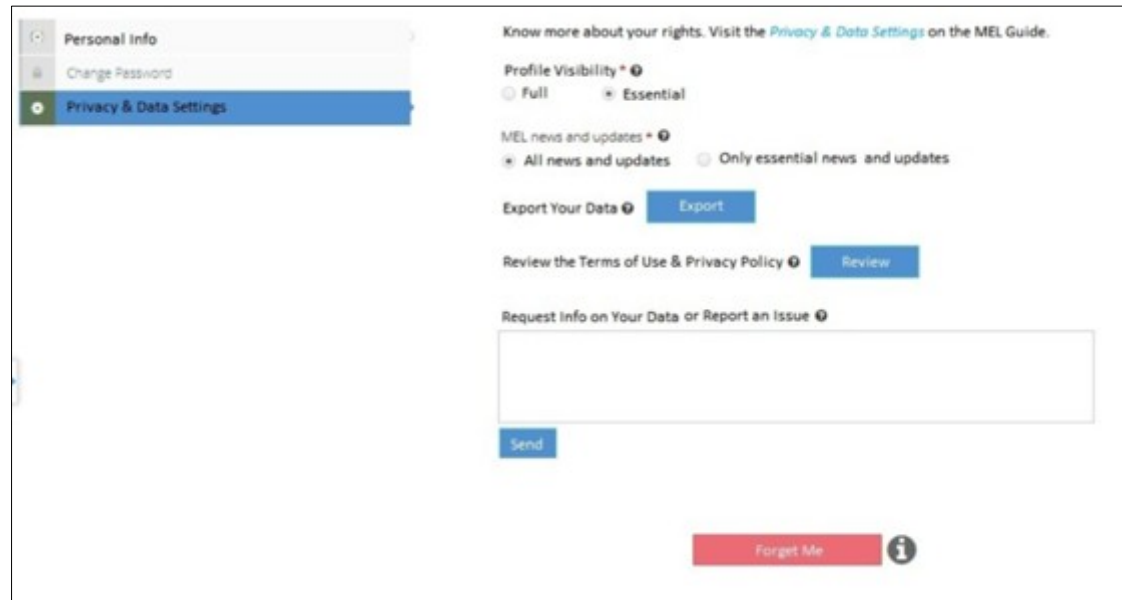


**2500+**  
**Publishers, 30k+**  
**Journals**  
**and Related**  
**Policies for**  
**Archiving and**  
**Sharing.**



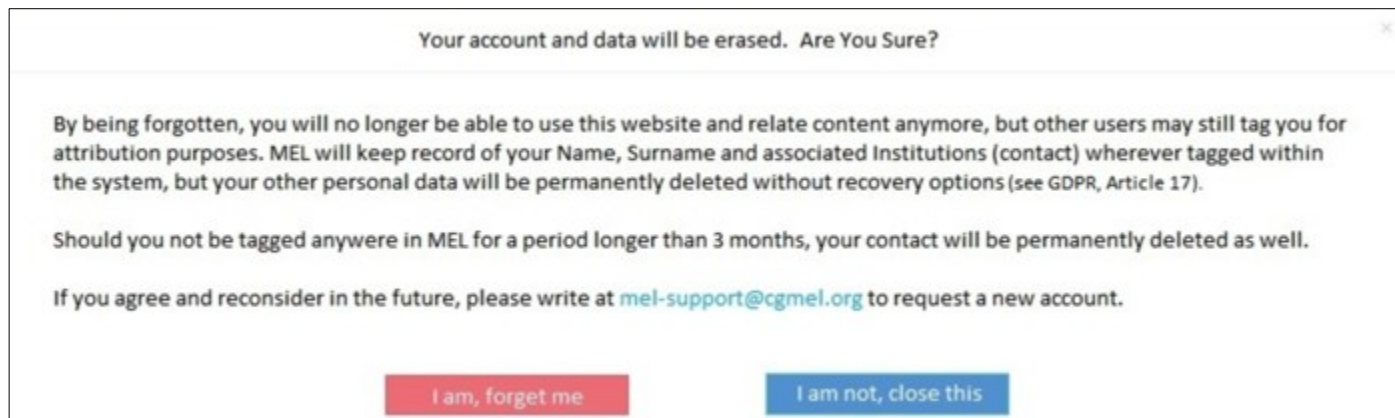
# GDPR Compliance

1. Consent agreement in place
2. User access to his/her data
3. Right to be forgotten in place
4. Institutional Profiles for data access (incl. data sharing agreement)



The screenshot shows the 'Privacy & Data Settings' page of the MEL system. On the left, a sidebar menu includes 'Personal Info', 'Change Password', and 'Privacy & Data Settings' (which is highlighted). The main content area contains the following sections:

- A link: 'Know more about your rights. Visit the [Privacy & Data Settings](#) on the MEL Guide.'
- 'Profile Visibility' with radio buttons for 'Full' and 'Essential' (selected).
- 'MEL news and updates' with radio buttons for 'All news and updates' (selected) and 'Only essential news and updates'.
- 'Export Your Data' with an 'Export' button.
- 'Review the Terms of Use & Privacy Policy' with a 'Review' button.
- 'Request Info on Your Data or Report an Issue' with a text input field and a 'Send' button.
- A 'Forget Me' button with an information icon at the bottom right.



The screenshot shows a confirmation dialog box with the title 'Your account and data will be erased. Are You Sure?'. The dialog contains the following text:

By being forgotten, you will no longer be able to use this website and relate content anymore, but other users may still tag you for attribution purposes. MEL will keep record of your Name, Surname and associated Institutions (contact) wherever tagged within the system, but your other personal data will be permanently deleted without recovery options (see GDPR, Article 17).

Should you not be tagged anywhere in MEL for a period longer than 3 months, your contact will be permanently deleted as well.

If you agree and reconsider in the future, please write at [mel-support@cgmel.org](mailto:mel-support@cgmel.org) to request a new account.

At the bottom, there are two buttons: 'I am, forget me' (red) and 'I am not, close this' (blue).



# Awards

## Appreciation Abroad and within Centers

- 2018 Enterprise Business Collaboration Award in Berlin in the category of 'Best Collaboration Infrastructure'



- 2019 WorldFish Board Award for Organizational Development to WF M&E Leader for the adoption of MEL





# Thank you

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