

PHOTO

Building a Fish Ontology

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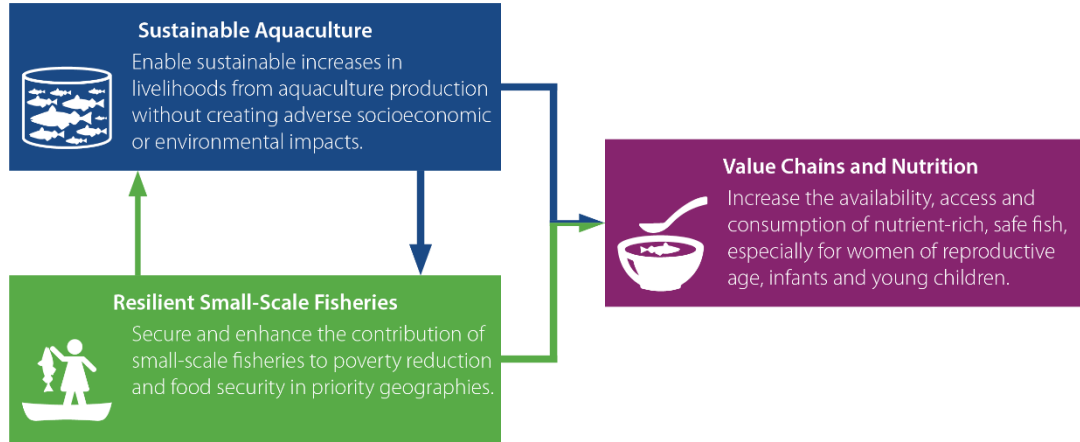
Introduction



Our goal is to reduce poverty and hunger by improving fisheries and aquaculture



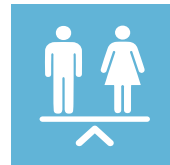
WorldFish Research Programs



Crosscutting themes



Climate Change

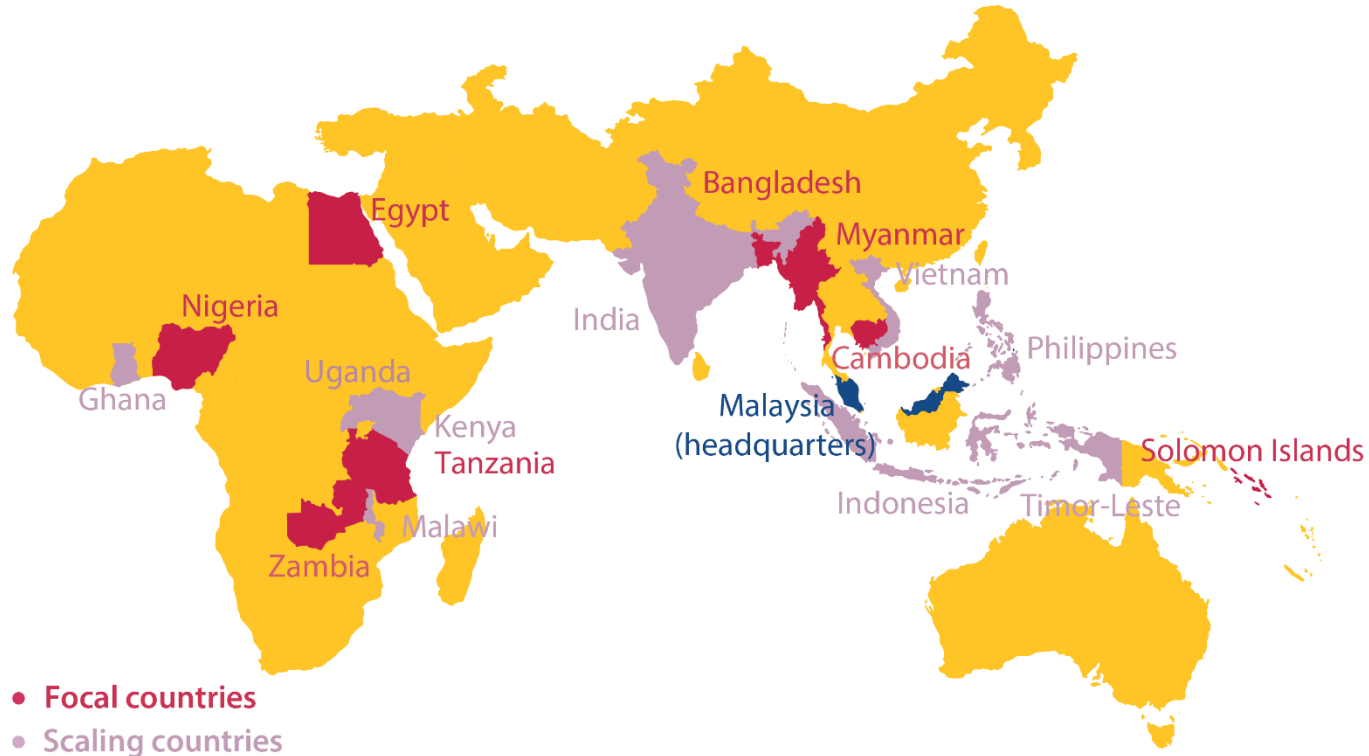


Gender



Entrepreneurship

Where We Work



- Focal countries
- Scaling countries

WorldFish Data Streams

Geo-spatial Data

Social-Economic Data

Fish Health Data

Fish Disease Data



Catch Data

Genetics Data

Fish Breeding Data

Nutrition Data

Open Access and Data Management



Consortium

Adopted as P1.5 Policy - Open Access for CIAT since November 2013.

CGIAR Open Access and Data Management Policy (the "Policy")

1. Preamble

CGIAR regards the results of its research and development act and is committed to their widespread dissemination and use to advantage the poor, especially smallholder farmers in developing countries. Open Access (defined below) to be an important practical application of the visibility, accessibility and impact of its research and development



Research Data and Open Access Policy

Document Summary & Version Control

Document Summary	
Policy Title:	Research Data Management and Open Access Policy
Policy Owner:	Research Knowledge and Data Manager
Policy Sponsor:	Director, Aquaculture and Fisheries Sciences
Responsible Office:	Research Data Management
Effective date:	<u>April, 2018</u>



Not only Open but FAIR Data

The key consideration when selecting where to publish data is to ensure that data will at the end adhere to the FAIR data principles.

Findable

- unique identifier, rich metadata, indexed

Accessible

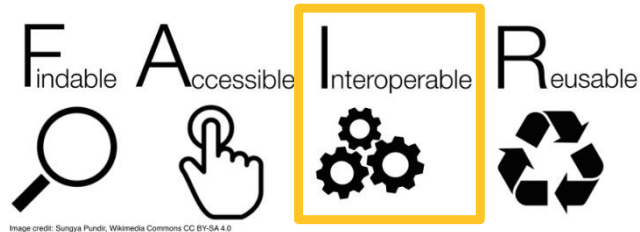
- Retrievable by identifier, by: standard, open, free, authenticatable protocols

Interoperable

- uses formal, shared & applicable knowledge representation, human readable/machine readable, FAIR vocabularies

Reusable

- Provenance, data usage license, domain relevance standards



Fish Ontology Working Group

- Make use of existing vocabularies and ontologies
- Address inconsistent use of terms
- Highlight gaps
- Connect and collaborate on common interests

Steps Taken

1. Establishment of A lead centre
2. Identification of an Ontology curator and a data manager
3. Choose your objective
4. Check what ontology and vocabularies are available outside and in house
5. Work with the domain experts to validate the concepts, definition, variables
6. Check data sets and annotate
7. Work with Ontology CoP to submit to their repository

Repository Level Annotation

Subject ?

Keyword ?

Language ?

Contributor ?

Medicine, Health and Life Sciences

Fish (AGROVOC) http://aims.fao.org/aos/agrovoc/c_15903

bacterial and viral diseases

Diagnostics

Vaccines (AGROVOC) http://aims.fao.org/aos/agrovoc/c_8130

Artificial Intelligence (AGROVOC) http://aims.fao.org/aos/agrovoc/c_15903

Bioinformatics (AGROVOC) http://aims.fao.org/aos/agrovoc/c_15903

English

Sponsor : FISH CRP

cg.subject.agrovoc

fisheries

cg.subject.agrovoc

developing countries

cg.subject.agrovoc

saltwater fish

cg.subject.agrovoc

marine fisheries

cg.subject.agrovoc

nutrient deficiencies

cg.subject.agrovoc

nutrient improvement

cg.subject.agrovoc

nutrients

cg.subject.agrovoc

nutrition

cg.subject.agrovoc

research

DSpace

Dataverse

WorldFish Repository Home

BROWSE

All of WorldFish Repository

Communities & Collections

By Issue Date

Authors

Titles

Subjects

Search

Open Access at WorldFish

WorldFish research is regarded as international public goods, and we make our research products available as open access. One of the organizational objectives of WorldFish is to make Data Management and Open Access Policy and the CGIAR Open Access publications, data and tools, ensures that more people can read and apply the impact of our work.

This repository is built on the DSpace platform, and we hope this will

HARVARD
Dataverse

WorldFish
WorldFish Dataverse (WorldFish)

Harvard Dataverse > WorldFish Dataverse

Dataset Level Annotation

Definition	AGROVOC	Other Controlled	Variable synonyms	Context of use
Species farmed in different techniques				
Extensive farming Black tiger shrimp				
Extensive farming White leg shrimp				
Intensive farming White leg shrimp				
Species				
<i>Penaeus monodon</i>		http://purl.obolibrary.org/obo/NCBITaxon_6687		
<i>Litopenaeus vannamei</i>		http://purl.obolibrary.org/obo/NCBITaxon_6689		
<i>Litopenaeus vannamei</i>				
<i>Penaeus monodon</i>				
<i>Litopenaeus vannamei</i>				
<i>Litopenaeus vannamei</i>				
Pond Size	http://aims.fao.org/aos/agrovoc/c_6105	http://bioportal.bioontology.org/ontologies/FISHO#		
Survival Rate		http://purl.obolibrary.org/obo/OBI_0000789		
Time cycle				
Total harvest				
Shrimp size				
Revenue obtained				
Revenue shrimp				
Revenue milkfish	http://aims.fao.org/aos/agrovoc/c_4834			
Revenue tilapia	http://aims.fao.org/aos/agrovoc/c_32720			

Variable name	AGROVOC	Other Controlled Vocabulary
Reference diet		
PKC conventional		
PKC processed		
Rice Bran	http://aims.fao.org/aos/agrovoc/c_77d35680	
Maize Bran	http://aims.fao.org/aos/agrovoc/c_d859f064	
Sagoo		
Temperature	http://aims.fao.org/aos/agrovoc/c_7657	
DO mg/L		
PH	http://aims.fao.org/aos/agrovoc/c_5753	
Ammonia	http://aims.fao.org/aos/agrovoc/c_349	
Nitrite	http://aims.fao.org/aos/agrovoc/c_5190	
Nitrate	http://aims.fao.org/aos/agrovoc/c_5187	
Hardness	http://aims.fao.org/aos/agrovoc/c_25422	

Next Steps

- Engage with more institutions working on animal research
- Grow the Fish Ontology Working group beyond WorldFish
- Agree on annotation standards
- Develop guidelines on setting up an ontology
- Bring in domain experts in the working group

Thank You



This work was undertaken as part of



RESEARCH
PROGRAM ON
Fish

Led by WorldFish