

# **Toward an application profile for enhancing Agri-Nutrition knowledge discovery in Kenya**

Best Practice Presentation. Dublin Core Metadata Initiative Virtual Conference,  
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# CONTENT

- 1.0 About the Kenya National Agri-nutrition Conference
- 2.0 Communication for Agri-nutrition Conference
- 3.0 Metadata Management

# About the Kenya National Agri-nutrition Conference



"Accelerating Nutrition Outcomes Through Agriculture"

FEEDIFUTURE

USAID



Ministry of Agriculture, Livestock and Fisheries

## Introduction

- Inaugural Agri-nutrition Conference conceptualized and planned by Ministry of Agriculture, Livestock and Fisheries (MoALF)
- Agri-nutrition is a rebranding from Home Economics

# About the Kenya National Agri-nutrition Conference



## Introduction

- Financial & technical support provided by respective Ministries and organizations represented

# Why Agri-nutrition Conference?



## SDG 2

- End hunger and achieve food and nutrition security



## Kenya Constitution 2010

- Right to food



## Kenya Vision 2030

- Investment in Agriculture for food and Nutrition

# Why Agri-nutrition Conference?

## Food Security

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The Government targets to achieve 100% national food and nutrition security through the Ministry of Agriculture, Livestock, Fisheries and Irrigation. In execution of this mandate, the Ministry needs a national database of farming households and subsequently all farmers in the country. Achieving national food security will be largely informed by a comprehensive register of all farmers in Kenya. The Huduma Namba database will provide biometric data of farmers which will be a reference point for further registration of other fields while avoiding duplication of bio data capture. This will enhance efficiency in the use of public resources.

## Affordable Housing

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## Affordable Healthcare

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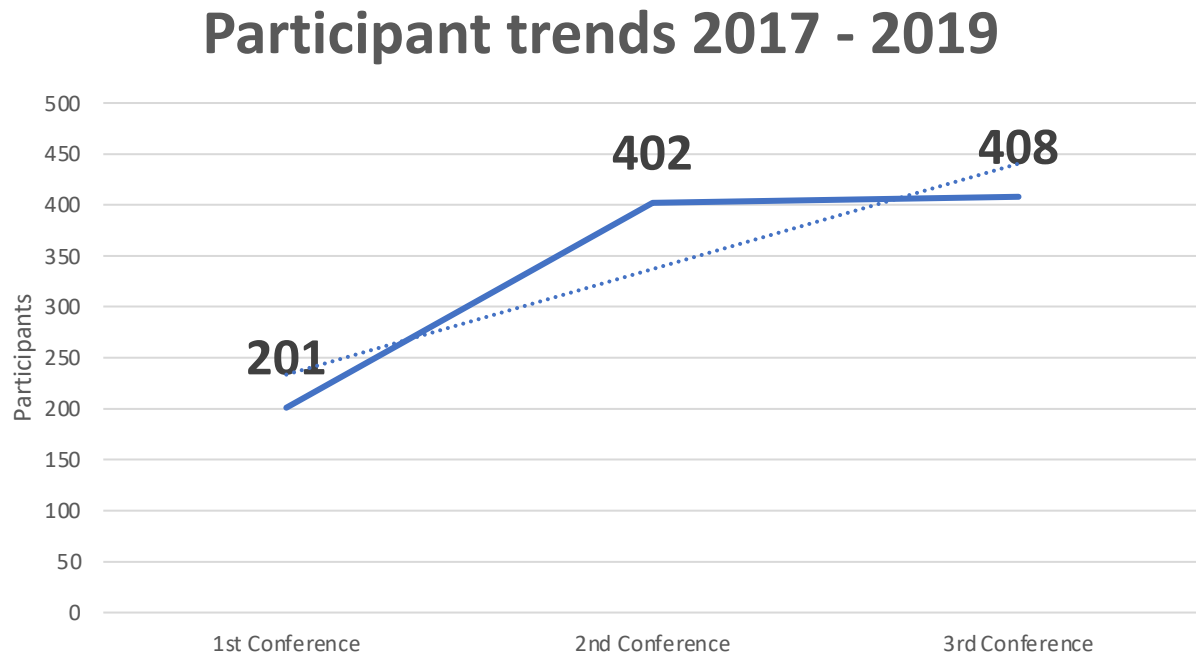
Huduma Namba data will assist in planning for achievement of universal healthcare through provision of background information needed for registration for provision of universal healthcare services under the National Hospital Insurance Fund (NHIF). The same information will be easily accessible for use by relevant stakeholders in the health sector. Accurate patient identification is necessary in order to administer proper diagnosis and treatment. Further, Huduma Namba will provide data that will avert fraud or manipulation for access to services.

## Manufacturing

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- Part of Big 4 agenda of the President
- Agriculture Sector Transformation and Growth Strategy 2019-2029
- 100% food and nutrition security
- Showcase Agri-nutrition experiences
- Platform for experience sharing in role of agriculture in improving nutritional outcomes
- Bridging disconnect between nutrition and agriculture

# Trends in Agri- Nutrition Conference



## Collaborators

11 organizations part of  
Conference Organizing  
Committee

## Partners

25 organizations

# **Agri- Nutrition Conference Activities**

## **1. Unveiling key documents**

- i. Agri- Nutrition Resource Manual
- ii. Agri- Nutrition Dialogue cards (14)
- iii. Kenya Food Composition Tables, 2018
- iv. Kenya Food Recipes Book, 2018
- v. National Dietary and Health Guidelines
- vi. Agri- Nutrition Curriculum

## **2. Exhibition of materials and posters presentation**

## **3. Topical presentations by key speakers**

## **4. Panel discussion**



# What Next?

- Research findings and evidence based intervention to inform policy
- Capacity building of policy development and implementing units
- Collaboration and partnerships
- Exposing investment opportunities for nutrition
- Bridging the disconnect between nutrition and Agriculture

# Communication for Agrinutrition Conference



The Food and Nutrition Linkage Technical Working Group, through the Ministry of Agriculture, Livestock, Fisheries and Irrigation, Ministry of Health and Ministry of Education and implementing partners announce that the 3rd Annual Agri-Nutrition Conference will take place on September 24th - 26th 2019 in Nairobi. This year's theme is "Enhancing Multisectoral Agri-Nutrition Approaches for Improved Nutrition Outcomes in Kenya". Focus on one of eight multisectoral priorities identified in the 2018 conference. The 2019 National Agri-Nutrition Conference proposes to demonstrate national efforts to improve nutrition outcomes through multisectoral agri-nutrition approaches by evidence exchange and learning.

## Objective

The conference aims to contribute to global efforts to address malnutrition through agriculture by providing a platform for experience sharing and learning on practical national and county-level actions as well as programme and policy interventions that have contributed to addressing malnutrition in Kenya.

## Specific objectives

- Improve understanding on agri-nutrition based on the relevant evidence and translation into multisectoral programming
- Share practical examples of agri-nutrition multisectoral approaches based on implementing partners' experiences, tools and approaches
- Identify national needs for ongoing technical assistance, tools, information and data on agri-nutrition

## Conference Structure

Three days (24th - 26th September 2019) conference comprising presentations, plenary discussions, themed break away sessions and exhibitions from National and County agri-nutrition stakeholders and actors.

## Call for abstracts and deadline

Submit abstracts to [agri\\_nutrition@ilri.org](mailto:agri_nutrition@ilri.org)  
Abstracts deadline: 12th August 2019  
Successful authors notified by 20th August 2019  
Confirm participation by 6th September 2019.

## Conference Thematic Tracks

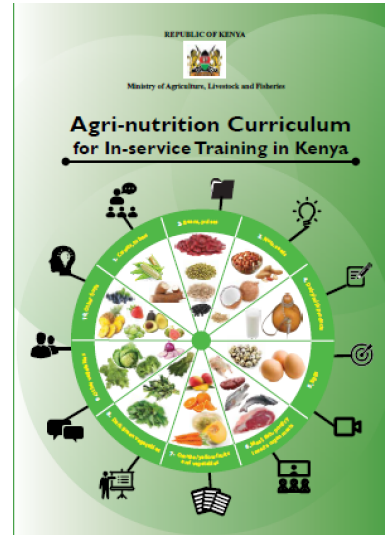
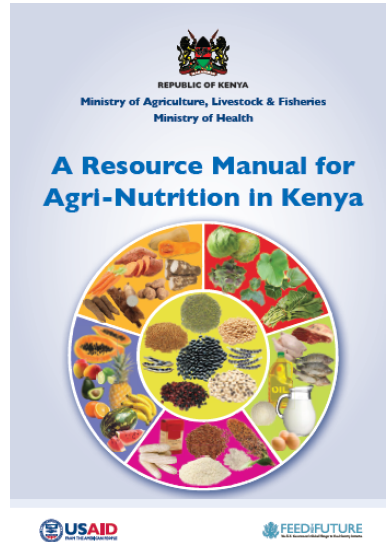
Track 1:	Track 2:	Track 3:	Track 4:
<b>Strengthen Multisectoral Coordination, Partnerships and Mutual Accountability</b> <ul style="list-style-type: none"> <li>• Strategic investments for demand driven extension services at country level</li> <li>• Effective multisectoral engagement and coordination for delivery of results</li> </ul>	<b>Increase Productivity of Food and Market Systems</b> <ul style="list-style-type: none"> <li>• Innovation and use of digital and non-digital technologies</li> <li>• Improve market linkage and private sector investments in food and market system</li> </ul>	<b>Sustain Resilience of Households</b> <ul style="list-style-type: none"> <li>• Promote sustainable dietary diversity approaches at household level</li> <li>• Increase capacity of households to manage income from agricultural activities</li> </ul>	<b>Effective Knowledge Management and Communication for Agri-Nutrition</b> <ul style="list-style-type: none"> <li>• Capacity for generation, analysis, use of data and information</li> <li>• Collaborative Learning and Adaptation</li> </ul>



## Communication solutions

- Brand and position annual conference flagship event for agrinutrition unifying logo for conference
- Extensive pre-event promotion
- Post-event dissemination and learning activities

# Communication for Agrinutrition Conference

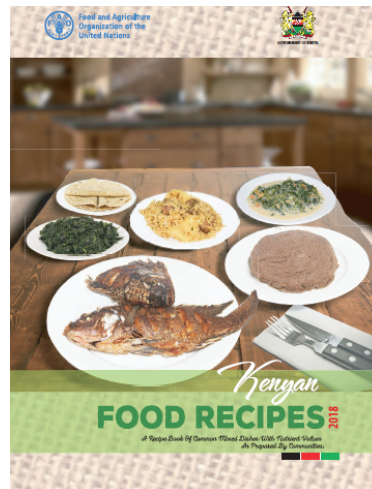


## Challenge:

Lack of national reference and training materials

## Knowledge products:

- In-service training curriculum
- National recipe book
- Agri- Nutrition resource manual
- Agri- Nutrition Dialogue cards (14)
- Kenya food composition tables 2018
- National Dietary and health guidelines



# Communication for conference – mass media

## State set to meet millers over fuel tax

Agriculture CS, however, downplays effect of 16pc extra levy on price of extra

by Nicholas Wanjau

The government has gradually increased the price of motor fuel to help cover the 16 per cent value added tax (VAT) on petroleum products, which came into effect on September 1. Agriculture Cabinet Secretary Musang Kiunjuri who was responding to questions from journalists yesterday, however, downplayed the likely effect of the fuel hike on food prices. "We do not expect the increase of VAT to have great impact on the price of sugar. But it is a concern, we do not expect the millers, both large and small-scale millers, to start increasing maize flour prices because VAT has gone up," he said. Kiunjuri said the ministry is yet to meet Cereal Millers Association (CMA) which announced that its members plan to increase prices for maize and wheat flour as a result of the tax. "However, some of us will have a meeting with the millers with a view to agreeing what is possible on the matter of the VAT increase," he said after opening the 2nd National Agri-Nutrition Conference at

## Maize harvest to hit 46m bags, says Agriculture CS Kiunjuri

WEDNESDAY SEPTEMBER 12 2018



### GRAIN HANDLING

Cereal Millers Association says Treasury's decision to change the status of wheat and maize flour to exempt from zero-rated means that, millers can no longer claim VAT on production.

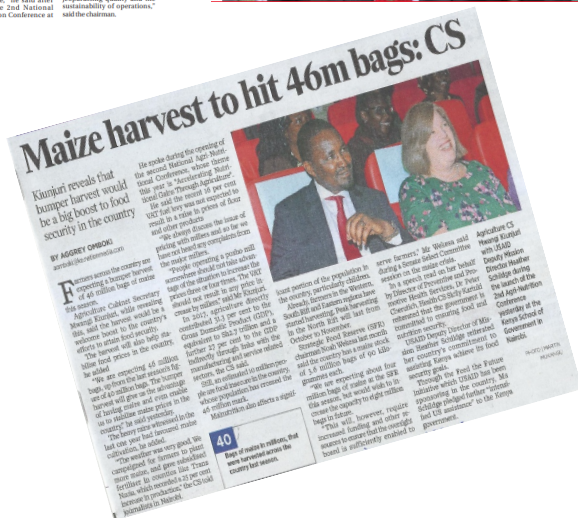
Additionally, the change of this status has increased the cost of wheat and maize flour, packaging and distribution costs, leading to inflationary pressures.

Kiunjuri said the introduction of VAT on flour has exacerbated the situation as millers and all players along the supply chain are now factoring in these additional costs to their production and marketing. Last week, CMA chairman Mwanjiru Kiunjuri said introduction of VAT on flour has exacerbated the situation as millers and all players along the supply chain are now factoring in these additional costs to their production and marketing.

The changes in VAT for processed wheat and maize flour have led to an increase in the price of flour, which has led to an increase in the price of maize and wheat flour as a result of the tax.

"However, some of us will have a meeting with the millers with a view to agreeing what is possible on the matter of the VAT increase," he said after opening the 2nd National Agri-Nutrition Conference at

the chairman.



## Social media #agrinutrition

## Mass media – Print & Online

The Standard

NATIONAL WORLD ECONOMY POLITICS COVID-19 SPORTS ENTERTAINMENT THE INSIDER Login

- <https://www.standardmedia.co.ke>
- <http://www.mediamaxnetwork.co.ke>
- <https://www.the-star.co.ke/>
- <https://www.kenyandigest.com>
- <https://www.nation.co.ke/>
- <https://www.businessdailyafrica.com>
- <https://www.youtube.com>



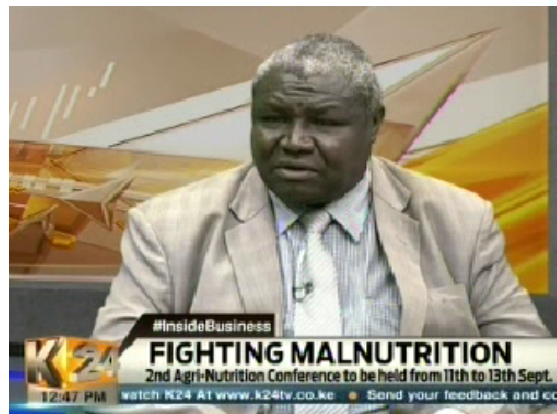
USAID Kenya @USAIDKenya · Nov 22, 2017

"Unless #women become more empowered, it will be difficult to sustain productivity growth and have an impact on malnutrition and stunting," @USAID's Tina Dooley-Jones. Speech: [ow.ly/6PJo30gK57Q](https://www.youtube.com/watch?v=6PJo30gK57Q) #agrinutrition



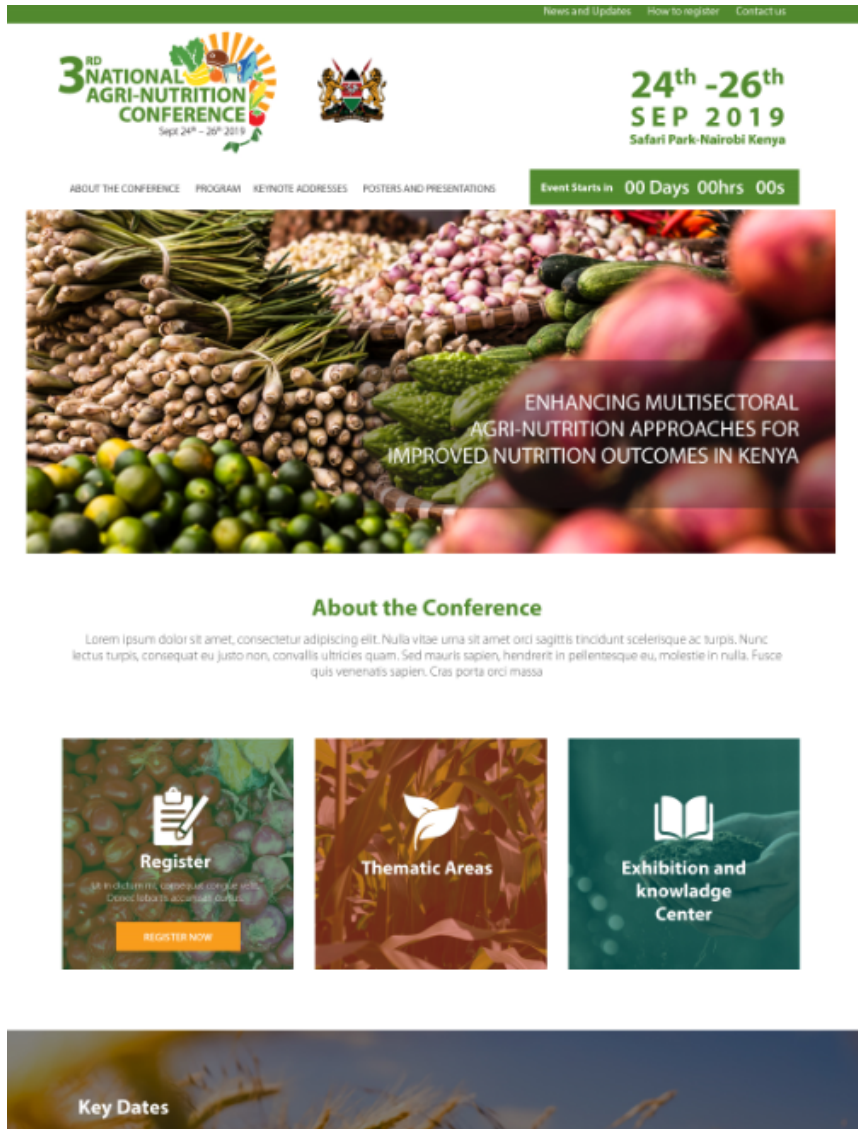


# Communication for agrinutrition conference



- Mass media – TV
- Prime time new on major channels
- Pre-event talk show appearances
- Townhall style segment in 3<sup>rd</sup> conference

# Communication for agrinutrition conference



## Conference website

- Online registration
- Program
- Livestreaming content
- Repository
  - Abstracts and presentations
  - Final conference report
  - Conference videos and photos

## Agrinutrition portal

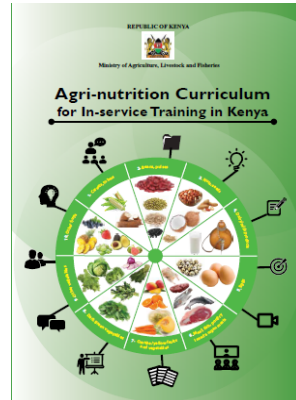
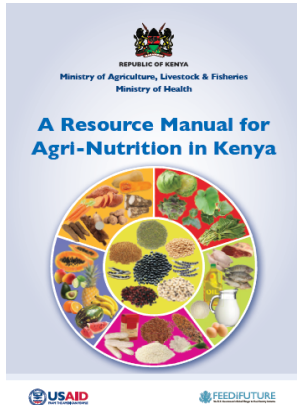
- Curation of growing body of field experiences
- Exchange of emerging & best practices
- Practitioner listservs/communities of practice
- Online training and learning events

## **Metadata Management**

Agri-Nutrition Conference to AGRIS data provider

# Metadata Management

## Examination of knowledge products



- Book of Abstracts
- In-service Training Curriculum
- Conference Programs
- Posters
- Agri-Nutrition Resource Manual
- National recipe book
- National Dietary and health guidelines





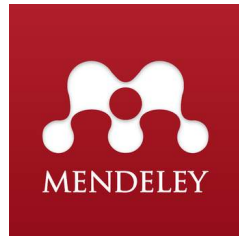
# Metadata Management

Standardized metadata required to share Agri-nutrition knowledge products



Created Mendeley Archive of  
Agri-nutrition knowledge products

# Metadata Management



## Mendeley Archive of Agri-Nutrition knowledge products

Library of 47 items

Mendeley Desktop

File Edit View Tools Help

Add Folders Related Sync Help

Search...

Recently Added

★	●	📄	Authors	Title	Year	Published In	Added
☆	●		Makena C, Murage L (Nutrition International)	Utilizing the school platform to reach adolescents with Nutrition Education and Weekly Iron folic supplementatio...	2019	3rd National Agri-Nutrition Confe...	7:40pm
☆	●		Mbanda Susan, Hillary Nyang'anga, Evans L. Chim...	Makena C, Murage L(Nutrition International) for Enhancing Sorghum Uptake Farmers in Homa Bay County, Kenya (...)	2019		10:22pm
☆	●		Jecinta W. Mwirigi a*, Rosemary N. Mwanza b	Phase 1: A multisectoral extension service delivery model (Track 1A)	2019		10:23pm
☆	●		Ms. Florence Akeyo (akeyo0838@gmail.com;Cel...	Men as Community agents on food and Nutrition security: An integrated approach in addressing malnutrition on a m...	2019		10:27pm
☆	●		Koen Dekeyser, Policy Officer Agricultural Transformation ...	Exploring public policy options for diversification through multi-criteria mapping. (Track 1B)	2019		10:29pm
☆	●		0710266737, Elizabeth Herman1: Elizabeth_Herman...	Multisectoral Approach to improving maternal, newborn and child health and Nutrition outcomes in Elgeyo Marakwet C...	2019		10:30pm
☆	●		Linda Mdhune: World vision Kenya -Linda_Mdhune@wvi...	The role of county government in addressing malnutrition through agriculture. (Track 1B)	2019		10:32pm
☆	●		Githinji J.N. email: joseph_ndegwa@wvi.org, c...	Empowered World View (EWV): A Sustainable Approach for Accelerating Diversified Agricultural Value Chains for Nutri...	2019		10:33pm
☆	●		Dave Irieria, Catherine Kilelub, Oscar Ayuyaa, Asaah Ndam...	Milk "ATM" growth in Kenyan urban markets- Consumer option for safe and affordable milk? (Track 2A)	2019		10:36pm
☆	●		Jasper K. Imungi - Department of Food Science...	Aflatoxin Contamination of Food in Kenya and The Potential Of Collaboration In Postharvest Handling and Processing ...	2019		10:38pm
☆	●		Janet Ntobo 1, Jovce Njenga2 1Kenya Marine and...	Aquaculture, A promising solution for food insecurity poverty and malnutrition in Kenya (Track 2A)	2019		10:41pm
☆	●		J. C. Onyango, jconyango@yahoo.com Nati...	Overview On Rice Productivity And Value Chain System In Kenya (Track 2A)	2019		10:43pm
☆	●		Kevin Onyango, Christine G.K. Chegea, and Matthias ...	Role of proximity to wet markets on food diversity among urban informal settlement dwellers in East Africa (Track 2A)	2019		10:45pm
☆	●		Annah Wanjala Mnyika1*	Irrigation delays maturity but increases yield and extends harvesting period of eggplant (Track 2B)	2019		10:47pm
☆	●		Catherine Lengewa1, Consolata Musita1*, Suzan ...	Empowering Rural Smallholder Farmers with Appropriate High Quality Agri-nutrition Content Using the DigiSomo Ta...	2019		10:48pm

Filter by Authors

All

0710266737, Elizabeth Herman1: Elizabeth\_H...  
2B), supply (Track  
3rd National Agri-Nutrition Conference  
Annah Wanjala Mnyika1\*  
Anthony Nderitu1, Henry Narangui1, Karl Frey...  
Authors: Judith Kimiywe School of Applied Hu...  
Authors: Judith Waudu School of Applied Hum...  
Bungoma, Bibiana Khaemba Nutritionist From  
Caroline Tanui, Jasper K. Imungi, and Sophia ...  
Catherine Lengewa1, Consolata Musita1\*, Su...  
Chumba, Reuben KB1; Andika, Darius Otiato...  
Dave Irieria, Catherine Kilelub, Oscar Ayuyaa,...  
Elizabeth Kimani-Murage1, Z, Teresia Machari...  
Florence. O. Odiwuor School of Agriculture, N...  
Githinji J.N. email: joseph\_ndegwa@wvi.org, ...  
J. C. Onyango. jconyango@yahoo.com Natio...

Details Notes Contents

Type: Conference Proceedings

**Utilizing the school platform to reach adolescents with Nutrition Education and Weekly Iron folic supplementation. (Track 1A)**

Authors: M. Makena C

[View research catalog entry for this paper](#)

Proc. Title: 3rd National Agri- Nutrition Confer...

Year: 2019

Pages:

**Abstract:**

Introduction and Background: Adolescence is a critical stage in the life cycle, and adequate nutrition is necessary for the proper growth and development of individuals. Anemia is a key public health concern among adolescent girls. Anemia is associated with micronutrient deficiencies resulting in retarded growth, poor school performance and poor physical activity. Weekly Iron and Folic acid Supplementation (WIFS) is recommended as a public health intervention in adolescent girls where anemia is highly prevalent (WHO, 2011). This paper describes the utilization of the school delivery platform in an adolescent's demonstration project that was implemented by Nutrition International in partnership with the Ministry of Education, Ministry of Health and Population Services Kenya through the counties of Nakuru, Kitui and Busia in Kenya.

**Tags:**

1 of 47 documents selected

# Metadata Management

Mendeley Archive of Agri-Nutrition knowledge products

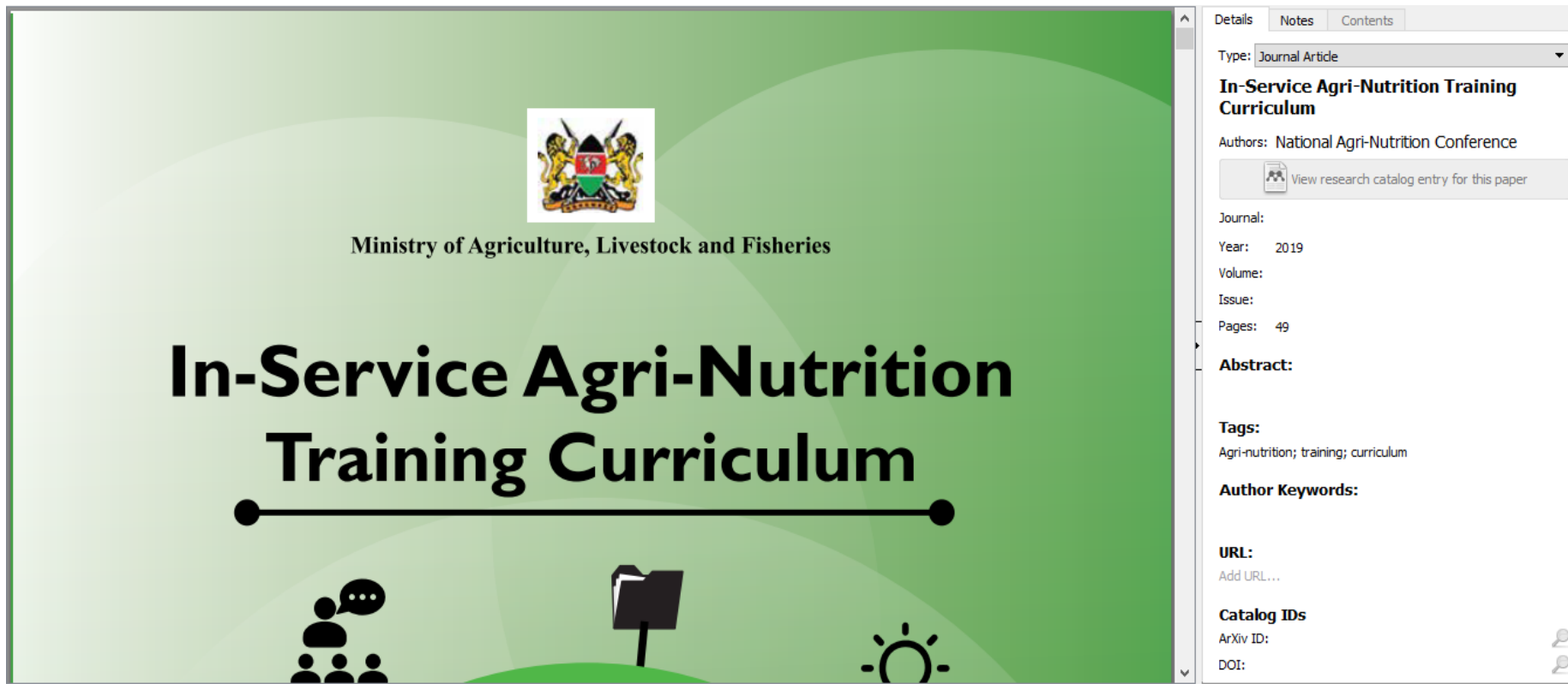
Knowledge product

Metadata



# Metadata Management

Mendeley Archive of Agri-Nutrition knowledge products

The image shows a Mendeley record for a document. The main part of the image is a green cover for the "In-Service Agri-Nutrition Training Curriculum". At the top center of the cover is the coat of arms of Nigeria. Below it, the text "Ministry of Agriculture, Livestock and Fisheries" is written. The title "In-Service Agri-Nutrition Training Curriculum" is prominently displayed in large, bold, black letters. At the bottom of the cover, there are icons representing a group of people, a document on a stand, and a sun. To the right of the cover is a sidebar with metadata details. The sidebar has tabs for "Details", "Notes", and "Contents". Under the "Details" tab, it shows the document type as "Journal Article", the title "In-Service Agri-Nutrition Training Curriculum", and the authors as "National Agri-Nutrition Conference". There is a button to "View research catalog entry for this paper". Below this, it lists the journal, year (2019), volume, issue, and pages (49). There is an "Abstract" section, a "Tags" section with the tag "Agri-nutrition; training; curriculum", and an "Author Keywords" section. At the bottom, there is a "URL" section with a link to "Add URL..." and a "Catalog IDs" section with fields for "ArXiv ID:" and "DOI:". The Mendeley logo is visible in the bottom right corner of the sidebar area.

Details Notes Contents

Type: Journal Article

**In-Service Agri-Nutrition Training Curriculum**

Authors: National Agri-Nutrition Conference

[View research catalog entry for this paper](#)

Journal:

Year: 2019

Volume:

Issue:

Pages: 49

**Abstract:**

**Tags:**

Agri-nutrition; training; curriculum

**Author Keywords:**

**URL:**

[Add URL...](#)

**Catalog IDs**

ArXiv ID:

DOI:

# Metadata Management

## Common Metadata for Agri-Nutrition knowledge products

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### AGRI-NUTRITION CONFERENCE METADATA

Knanp:Author

Knanp:Affiliation

Knanp:Corporate\_author

Knanp:Title

Knanp:Subtitle

Knanp:Abstract

Knanp:Date

Knanp:Place

Knanp:Publisher

Knanp:Extent

Knanp:Geographical\_coverage

Knanp:Objective

Knanp:Methodology

Knanp:Recommendations

Knanp:Author\_keywords

Knanp:Agrovoc\_descriptors

Knanp:URL

Knanp:Type

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LEGEND

Knanp = Kenya National Agri-Nutrition Profile

# Metadata Management

## Mapping Knanp to Dublin Core Metadata Schema

AGRI-NUTRITION CONFERENCE METADATA	MARC-21	DUBLIN CORE
Knanp:Author	100\$a	dc:Creator
Knanp:Affiliation	100\$b	dc:contributor
Knanp:Corporate_author	110\$a	dc:Creator
Knanp:Title	245\$a	dc:title
Knanp:Subtitle	245\$b	dc:title:part
Knanp:Abstract	520 3#\$a	dc:description
Knanp:Date	260\$a	dc:date
Knanp:Place	260\$c	dc:coverage
Knanp:Publisher	260\$b	dc:publisher
Knanp:Extent	300\$a	dc:format
Knanp:Geographical_coverage	522 ##\$a	dc:coverage
Knanp:Objective	658 ##\$a	
Knanp:Methodology	567 ##\$a	
Knanp:Recommendations	500\$a	
Knanp:Author_keywords	653\$a	dc:subject
Knanp:Agrovoc_descriptors	655\$a	dc:subject
Knanp:URL	856 40\$u	dc:identifier
Knanp:Type	008/18-34	dc:type

# Metadata Management

## FAO's AGRIS Discovery Interface

The screenshot displays the FAO AGRIS Discovery Interface. The top navigation bar includes the FAO logo, the text 'Food and Agriculture Organization of the United Nations', the 'AGRIS' logo, and a home icon. A language menu on the right offers options: English, Español, Français, العربية, 中文, and Русский.

On the left sidebar, under 'Content types', there is a list of document types: Bibliography, Book, Conference, Dataset, Journal Article, Thesis, and Other. Below this, the 'Filters' section allows users to filter records containing explicit links to the full text, with 'Enable' and 'Disable' radio buttons. A 'Refine search' button is also present. At the bottom of the sidebar, a 'Publication Date' filter is shown with 'from' and 'to' dropdown menus.

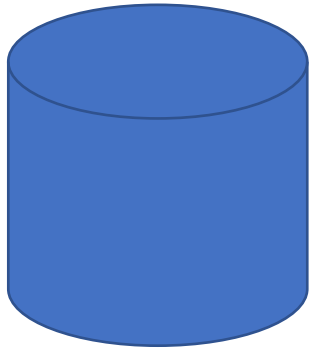
The main search area features a search bar with the query 'Agri-nutrition', a language selection dropdown set to '-- Select a language --', and a 'Publications & Datasets' dropdown. A green 'SEARCH' button and a link to 'Add query option +' are located below the search bar. A link to 'Get Advanced Search' is in the top right of the search area.

The search results section shows 'Query : Agri-nutrition' and 'Results 1 - 10 of 293'. The results are ordered by 'Relevance' in 'Descending' order. The first result is titled 'An Overview of the Canadian Agriculture and Agri-Food System 2011' and is categorized as a 'Written Paper'. The description of the paper is partially visible: 'This 2011 report provides an economic overview of the Canadian agriculture and agri-food system. It is meant to be a multi-purpose reference document to provide: an introduction to the agriculture and agri-food system; a snapshot of'.

293 Agri-nutrition  
entries

# Metadata Management

## What next?



National Agri-Nutrition Repository

### Host

- Ministry of Agriculture, Livestock, Fisheries & Co-operatives

## Proposed Systems





# Metadata Management

## What next?

Enrich Agri-Nutrition metadata with  
FAO's Agrovoc descriptors

Share final **Knanp** metadata with FAO's  
AGRIS discovery interface



The screenshot shows the AGROVOC Multilingual Thesaurus interface. The top navigation bar includes the FAO logo, the text "Food and Agriculture Organization of the United Nations", and links for "Vocabularies", "About", "Feedback", and "Help". Below this, the "AGROVOC Multilingual Thesaurus" title is displayed, along with a "Content language" dropdown set to "English" and a "Search" button. The main content area is divided into two sections. On the left, under the "Alphabetical" tab, there is a list of terms starting with 'A', including "A horizons", "Aptosyx grypus", "Aaron's rod", "ABA", "Abaca", "abachi", "Abalistes stellaris", "abalone culture", "abalone fisheries", "abalones", "abamectin", "abandoned land", "abattoir byproducts", "abattoirs", "Abbottina rivularis", "abdomen", "abdominal cavity", "abdominal fat", "abdominal pregnancy", "Abelmoschus", "Abelmoschus esculentus", and "Abelmoschus moschatus". On the right, under the "Hierarchy" tab, there is a "Vocabulary information" section with fields for "TITLE" (AGROVOC Multilingual Thesaurus), "LAST MODIFIED" (Wednesday, July 8, 2020 09:42:42), "TYPE" (http://www.w3.org/2004/02/skos/core#ConceptScheme), "VOID:INDATASET" (http://aims.fao.org/aos/agrovoc/void.ttl#Agrovoc), and "URI" (http://aims.fao.org/aos/agrovoc). Below this is a "Resource counts by type" table and a "Term counts by language" table.

Type	Count
Concept	37436

Language	Preferred terms	Alternate terms	Hidden terms
Arabic	25381	1100	0
Catalan	189	2	0
Czech	35029	8708	0
Danish	338	6	0



The screenshot shows the AGRIS discovery interface. The top navigation bar includes the FAO logo, the text "Food and Agriculture Organization of the United Nations", the "AGRIS" title, and a home icon. Below this, there is a language selection bar with options for "English", "Español", "Français", "العربية", "中文", and "Русский". The main content area is divided into two sections. On the left, under the "Content types" tab, there is a list of content types: "Bibliography", "Book", "Conference", "Dataset", "Journal Article", "Thesis", and "Other". Below this is a "Filters" section with a "Refine search" button and a "Publication Date" dropdown. On the right, under the "AGRIS" tab, there is a search bar with the text "Agri-nutrition", a language selection dropdown, and a "Publications & Datasets" dropdown. Below the search bar is a "SEARCH" button and a link to "Add query option +". The search results section shows "Query : Agri-nutrition" and "Results 1 - 10 of 293". The results are ordered by "Relevance" and "Descending". The first result is "An Overview of the Canadian Agriculture and Agri-Food System 2011", which is a "Written Paper".

**THANK YOU**