

Project Report



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|--|--|
| Project title | Enhancing Access to Kenya's Agricultural Sciences and Technology (AS&T) Information in Institutional and KAINet e-Repositories |
| Grant recipient | Kenya Agricultural Information Network (KAINet/KARI) P.O. Box 57811-00200 Phone, fax http://www.kainet.or.ke and http://www.kari.org |
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| Country where project was implemented | Kenya |
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| Partner organizations | Kenya Forestry Research Institute Ministry of Agriculture |
| Total budget approved | US \$ 9,990 |
| Project summary | |

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1.0 BACKGROUND

The Kenya Agricultural Information Network (KAINet) was officially launched on 14 May 2009. The project's overall objective was to establish a pilot implementation of an electronic repository as part of the Kenyan national agricultural sciences and technology information system in relation to the Strategy for Revitalizing Agriculture (SRA). The pilot project was also responding to the need for a platform that would support information management, exchange and impact on food security and development within the sector agricultural in Kenya and the global need for coherence in the management of agricultural information to enhance information exchange and access.

KAINet was set up to foster improved archiving, dissemination and sharing of agricultural content between researchers and other stakeholder groups. KAINet's vision is to make public domain agricultural information and knowledge accessible to all. Its mission is to build a common and freely accessible information system through partnership in the generation, collection, processing archival, and dissemination of agricultural information. Providing access to metadata and their associated full-text documents is one way of working towards achieving the network's vision.

The proposed project is aimed at addressing the above problem and contributing to making public domain agricultural information and knowledge generated in Kenya accessible to all.

The founding partners of KAINet are:

- Kenya Agriculture Research Institute (KARI)
- Kenya Forestry Research Institute (KEFRI)
- Ministry of Agriculture.

2.0 GOAL OF THE PROJECT

The main goal of the project is to enhance access to Kenya's agricultural sciences and technology (AS&T) information by research scientists, extension agents, public policy officials, lecturers, students, and members of the public, through increasing the number of full-text documents available in the institutional e-repositories and on the KAINet e-Repository.

3.0 SPECIFIC OBJECTIVES

The specific objectives of the project are:

1. To digitize and process (based on agreed standards, tools and mechanism for information exchange and long-term preservation) agricultural sciences and technology information documents in the KAINet member institutions and include them in institutional e-repositories;
2. To establish a mechanism for harvesting metadata and associated full-text digital documents for the KAINet e-Repository;
3. To promote KAINet e-Repository and services in Kenya and international level.

4.0 ACTIVITIES AND SUB-ACTIVITIES PLANNED

The following are the main project's activities.

1. **Digitize and process agricultural sciences and technology information documents for the institutional e-repositories, based on agreed standards, tools and mechanism for information exchange.**

Sub-Activities

- Obtain copyright clearance for the documents, where this is required (i.e. for documents co-produced with another institution, articles published in journals, etc), to be digitized and included in the e-repositories;
- Link already digitized documents to their associated metadata;
- Digitize the documents following the established institutional document workflows;
- Create metadata, based on agreed standards and methodologies for information exchange adopted by KAINet;
- Conduct quality control of both the digital documents and metadata.

2. **Enhance the visibility of AS&T content in the institutional and KAINet e-Repositories on the Internet**

Sub-Activities

- Review the existing technical infrastructure supporting institutional repositories in KAINet member institutions;
- Migrate from WebAGRIS tools to AgriDrupal and AgriOceanDspace "suite of solutions" for agricultural information management and dissemination;
- Develop mechanism and guidelines for the exchange of metadata and full-text documents between institutional repositories and KAINet e-Repository, based on AgriDrupal and AgriOceanDspace.

3. **Capacity Development in Agricultural Information Management and Dissemination**

- Train information professionals and IT support staff in KAINet member institutions on AgriDrupal "suite of solutions" for agricultural information management and dissemination.

4. **Promote KAINet e-Repository and Services in Kenya and the International Level**

Sub-Activities

- Hold KAINet introductory seminars/presentations in agricultural research institutes and universities of agriculture
- Design and print KAINet brochures and posters
- Register the KAINet e-Repository with DOAR
- Develop and print promotional materials

5.0 STATUS

5.1 Inception Workshop

To kick off the project, an inception workshop was held in the month of December bringing together members of the 3 participating institutions:-

- Kenya Agriculture Research Institute (KARI)
- Kenya Forestry Research Institute (KEFRI)
- Ministry of Agriculture.

The members were briefed on the objectives of the project and they agreed on the modalities and framework of the projects as follows:-

- i) That the training on technologies of information management should be carried out in early January to facilitate the digitization and input of the same onto the repositories. The training was planned to cover the agricultural knowledge management platforms that meet international standards of sharing, disseminating and management information.
- ii) The meeting to also develop the criteria of recruitment of the staff to assist in the digitization and input of the repository. The meeting recommended the use of universities students managing in ICT and library studies.
- iii) KAINet would then at a later stage harvest from the institutional repositories.

5.2 Training

Of the 3 institutions, only KARI's repository is accessible at <http://www.kari.org:8080/repository> while the other 2 institutions repositories are accessible on the local area networks. It was therefore important to identify technologies that improved access to agricultural information. To achieve this we look at 2 approved, tested and open access technologies developed with the management and sharing agricultural knowledge:

- **AgriDrupal:** - AgriDrupal is a "suite of solutions" for agricultural information management and dissemination, with special functionalities for repository management, built on the Drupal Content Management System.
- **AgriOceanDpace:** - AgriOceanDSpace (AOD) is a joint initiative of the United Nations agencies of FAO and UNESCO-IOC/IODE to provide a customized version of DSpace 1.7.1 (JSPUI version), an open source, digital repository software.

Its main objective is to make scientific literature in the field of oceanography, agriculture and related sciences available in digital form. AgriOceanDSpace is set-up for the digital repository communities of AGRIS (FAO) and Odin (UNESCO-IOC), but can be downloaded and used by any research institution interested.

The training was conducted during the first week of the month January 2014 with 12 officers of the 3 institutions being trained on 2 institutional repository information management platforms. For us to achieve our objectives, we trained a team of librarians and ICT personnel from each institution.

The Librarians main responsibility on the systems is to manage the information and the ICT person to manage the ICT system.

The training included both theory and practical where the officers were able to develop institutional repositories.

Attendances of the Training



**KAINet AFRINIC-FIRE TRAINING WORKSHOP
HELD AT KARI HEADQUARTERS**

REGISTRATION FORM

| No | Name | P/No | Institution | Dates | | | |
|----|-------------------|----------|-------------|--------------------|--------------------|--------------------|--------------------|
| | | | | 21/1/2014 | 22/1/2014 | 23/1/2014 | 24/1/2014 |
| 1 | STEPHEN RONDO | 97029524 | AIRC | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 2 | JOHN KIMANI | 87054315 | MONET-AIRC | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 3 | Lucy Gichuki | 99213313 | MOA | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 4 | Zachary Chipukali | 91026728 | MOA | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 5 | Rachel Mutua | 87094915 | MOA | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 6 | Jonathan Mwangi | 6748 | KEFRI | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 7 | Joseph Kilech | 5871 | KEFRI | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | |
| 8 | Laurie Mwangi | 6329 | KEFRI | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 9 | Pauline Mburu | 6766 | KARI | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10 | Anthony Biegon | 6677 | KARI | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 11 | STEPHE | | | | | | |
| 12 | Jonathan Mwangi | 6748 | KEFRI | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |

5.3 Technical Back stopping

A technical follow-up exercise at all the 3 institutions is on-going to ensure that each institution have a functional institutional repository. KARI's repository is accessible at <http://www.kari.org:8080/repository> while the other 2 institutions repositories are accessible on the local area networks.

All the three institutions were able to engage 2 personnel to start the scanned and the metadada entry onto the developed institutional repositories.

Technical support has been offered fortnightly to ensure that the partner institutions repositories and digitization activities are run smoothly and accessible via local area networks and online. Technical expertise has been given on strategies to ensure that all the partner institutions make their information accessible online.

5.4 KAINet Repository

The Kenya Agricultural Information Network (KAINet) <http://www.kainet.or.ke> has been under-graded to meet international RDF and XML standards of sharing agricultural information. AgriDrupal offers an integrated environment where several types of contents can be managed, searched and browsed on one website, like:

- documents or bibliographic records, using standardized descriptive metadata and controlled subject-indexing based on AGROVOC;
- news, events and vacancies;
- institutions and experts.

Document repository features

The AgriDrupal reference tool has advanced features for managing open access repositories in compliance with widely adopted library standards and the OAI-PMH protocol. The document repository features include:

- a cataloguing interface that out of the box provides the most commonly used metadata elements in bibliographic databases, in particular those defined by the AGRIS AP, but is easily extendable to include any other element;
- internal authority lists for authors (personal and corporate), journals and conferences;
- special input interface for subject indexing with the AGROVOC thesaurus;
- search and browse functionalities;
- exposure of records through the OAI-PMH protocol;
- exposure of records also as RDF feed, XML file, RDF individual records and (in the D7 version) RDF response to SPARQL queries. The XML file is compliant with the above mentioned AGRIS AP, while RDF feeds and query results can be customized in order to include properties from any vocabulary, thus making the repository fully interoperable - the use of Agrovoc URIs also linking it to a published Linked Open Data (LOD) triple store;
- extensible import and harvesting functionalities that also facilitate the exchange of information with other Institutions and the building of networks.

RDF and linked data

AgriDrupal manages documents, news, events, vacancies, institutions, experts and of course web pages. The resulting integrated information system exposes RDF feeds for each type of information managed in the system, and the vocabularies and properties used in the RDF output can be customized, thus making an AgriDrupal installation a potential Linked Data provider.

Besides RDF feeds, AgriDrupal version 7.x.7.9 and above exposes a SPARQL endpoint that accepts queries using several widely used vocabularies: DC and BIBO for documents, FOAF for experts and institutions.

All triples containing terms from AGROVOC are linked to the AGROVOC original URIs, thus making data managed in AgriDrupal Linked Data.

Interlinking with other important agricultural resources and databases has been incorporated into the new KAINet look.

5.5 Promotional Material

The design and development of the promotional material that is complete is shown by the attached images. 1000 flyers and 1000 brochures are planned to be printed and shared among the partners to be used as promotional materials.

5.5.1 Flyer

KAINet
Harvest. Store. Share.

Who we are
Kenya Agricultural Information Network (KAINet) is a national information network set up to promote information exchange and access among stakeholders in the agricultural sector including researchers, extension workers and others in order to support decision making, promote innovation in agriculture and subsequently improve livelihoods.

Vision
"To make public domain agricultural information and knowledge in Kenya truly accessible to all"

Mission
"To build a common and freely accessible information system through partnership in the generation, collection, processing, archival, and dissemination of agricultural information"

Objectives

- To establish and manage performance driven national ICM networking, resource mobilisation and partnerships mechanisms.
- To establish and manage information resources and systems for generation, collection, acquisition, processing and preservation of agricultural and related information.
- To promote the development and implementation of appropriate ICT/ ICM policies, legal frameworks.
- To promote the development and maintenance of adequate ICT/ICM infrastructure and facilities.
- To promote the development and implementation of strategic ICM human resources capacity building.
- To enhance access, sharing and utilisation of agricultural knowledge and information.

Functions of KAINet

- Establish and operationalize National agricultural ICM coordinating mechanism
- Establish and operationalize National agricultural ICM networking mechanisms
- Identify and operationalize resource mobilization strategies.
- Develop and utilize appropriate communication and Knowledge Sharing strategies.
- Promote knowledge sharing strategies in agricultural information management.
- Establish and operationalize mechanisms for information sharing and exchanges.

Why KAINet?
KAINet offers solutions for improved productivity, food security and improved livelihoods by providing access to locally generated information and knowledge. This knowledge will ultimately be transferred by the intermediary organisations such as extension and research institutions to the farming communities.

KAINet has identified a web-based solution that has ability to consolidate knowledge, information and technologies generated by several organisations in Kenya, into a globally accessible information system platform.

Products and Services
KAINet is committed to offering the highest possible quality services and always welcomes your views and comments.

You can access our national agricultural e-repository that contains information in both full-text and metadata on various aspects agriculture. Repository content includes but is not limited to technical notes, manuals, conference proceedings, research notes, annual reports, sessional papers, journals, project reports, among others. Full-text documents are in PDF format.

We have a web portal with links to other national and international agricultural databases such as AGORA, OARE, ANANCY, Ask FAO among others. The portal which is user friendly and easily accessible provide visibility to institutional agricultural repositories.

KAINet provides technical backstopping on agricultural information management to member institutions. With the support of partners, we have developed a critical mass of professionals trained on the management of electronic documents; digitization; web development; promotion of agricultural information services; open access; and the monitoring and evaluation of information projects.

We are committed to agricultural information sharing and exchange. KAINet also promotes and implements international standards in agricultural information management.

Membership
Eligibility
All institution involved in the generation, processing, preservation and archiving of agricultural information

How to join KAINet
We encourage the interested institutions to contact us at info@kainet.or.ke or visit our website at www.kainet.or.ke

Way Forward
KAINet being an initiative of line ministries, research organisation, academic institutions, and environmentally related organisation has drawn valuable lessons. The core supporters of this initiative dream / saw the need for engaging all agriculturally related partners in national goals that KAINet contributes to.

Vision 2030 envisions a revamped agricultural sector encompassing all players. The recent enactment of information laws strengthens then need to transform our operation to information centric organisations and institutions. We believe that KAINet offer the right platform for the vision's prelaunch.

Participating Institutions
ZASARECA, KARI, and others.

P.O. Box 97811-00200 Nairobi, Kenya. Tel: +254 4189901-20 Fax: +254 4189944
www.kainet.or.ke

5.5.2 Brochure

- Advocate effective investments and sustainability of ICT activities of both institutional and national levels.
- Promote coherent systems and services through adoption of common principles and standards to ensure that the research . Information systems add value to others in the overall knowledge systems.

Participating Institutions

- Ministry of Agriculture (MOA)
- Kenya Agricultural Research Institute (KARI)
- Food and Agriculture Organization of the United Nations (FAO)
- Kenya Forestry Research Institute (KEFRI)
- Jomo Kenyatta University of Agricultural and Technology (JKUAT)
- Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
- CAB International (CABI)

Membership

Public and private institutions committed to providing their information to the public domain.

How to join

Participation in KAINet is through membership registration. Details are found at: www.kainet.or.ke

The KAINet approach

Benefits

- Access to a national consolidated content on agricultural information.
- Visibility for information products and services nationally and internationally
- Exposure to new tools and standards for managing agricultural information.
- Access to technical backstopping and consultation from a team of experts.

Participating Institutions

Kenya Agricultural Information Network (KAINet)
P.O. Box 57811-00200 Nairobi, Kenya
Tel: +254 -20- 4183301 Fax: +254 -20- 4183344
email: info@kainet.or.ke website: www.kainet.or.ke

Vision

To make public domain agricultural information and knowledge in Kenya truly accessible to all.

Mission

To build a common and freely accessible information system through partnership in the generation, collection, processing, archival, and dissemination of agricultural information.

Background

The network was initiated in April 2006 in response to demand from national and international communities to promote information availability and access among stakeholders in the agricultural sector. The network evolved from the Kenya Agri pilot project, which aimed at building capacities to manage information and establish institutional repositories of agricultural information.

Objectives

- To establish and manage performance driven national Information and Communication Management (ICM) networking, resource mobilisation and partnerships mechanisms.
- To establish and manage information resources and systems for generation, collection, acquisition, processing and preservation of agricultural and related information.
- To promote the development and implementation of appropriate Information and Communication Technology (ICT)/ICM policies, legal frameworks.
- To promote the development and maintenance of adequate ICT/ICM infrastructure and facilities.

- To promote the development and implementation of strategic ICM human resources capacity building
- To enhance availability, access, sharing and utilisation of agricultural knowledge and information.

The Need for Collaboration and Networking

- At national level KAINet is a response to a recommendation to build a Kenyan national agricultural science and technology information system, made in the Kenya Government Strategy for Revitalizing Agriculture (SRA) and the National Information and Communication Policy.
- Most agricultural research institutions work in isolation and their information does not reach the intended consumers. Therefore KAINet was established to provide a collaboration platform for agricultural information availability and access.
- The network recognizes the concept of comparative advantage of each member institution thus encourages inter connectivity and partnerships to complement each other in addressing national ICM issues.

Products and Services

- Access to the national agricultural electronic repository of information in full-text and metadata. The content includes technical notes, manuals, conference proceedings, research notes, annual reports, sessional papers, journals and project reports.
- Web portal with links to other national and international agricultural resources such as Access to Global Online Research in Agriculture (AGORA), Online Access

to Research in the Environment (OARE), Anancy, Ask Food and Agricultural Organization of the United Nations (FAO), Information Management Resource kit (Imark) and open access tools.

- Open access to public domain agricultural information.
- Technical backstopping on agricultural information management to member institutions.
- Build capacity in the areas of management of electronic documents, digitization, web development, marketing of agricultural information services, open access, monitoring and evaluation of information projects and strategy formulation for members.

Functions of KAINet

- Communicate agricultural content by making public domain information resulting from research publicly available and accessible through repositories, networks and other services.
- Develop and recommend appropriate capacities required to design, deliver and manage research information including policies, process, skills and technologies.

5.6 Institutional Report

5.6.1 KAINet

The screenshot shows the KAINet website homepage. At the top, the logo reads "KAINet Harvest. Store. Share." and "Kenya Agricultural Information Network". A navigation menu includes Home, About us, Online Databases, Services, KAINet Repository, Resources, and Contact Us. The main content area is divided into several sections:

- Documents:** Includes a Catalog with advanced search, browse, and OAI data provider options.
- Related & Quick Links:** Lists various services like e-repository, EAAF Journal, IAALD, and Jua Kali Information.
- Market Information:** Provides market information for varying markets within the country, including wholesale commodity prices.
- ASARECA Databases:** Features icons for Research, Contacts, Publications, and Best Practices.
- Mobile and Development Intelligence Portal:** Announces the launch of the MDI portal by CSMA.
- AGORA:** Celebrates its tenth anniversary, highlighting its role in making scientific literature available to over 100 poor countries.
- News feeds:** Offers the latest news from e-agriculture, including knowledge, training, and access to global positioning systems.
- The KAINet experience:** Features a video player with the title "KAINet, the Kenya".

5.6.2 KARI Respository

The screenshot shows the KARI Institutional Repository website. The header features the KARI logo and the text "Institutional Repository". The navigation menu includes Home, My DSpace, Browse, Search, Language, Help, and About DSpace. The main content area is divided into several sections:

- Communities in DSpace:** Lists various communities such as Animal Health & Production, Biotechnology, Food Crops, Horticultural Land, Industrial, Natural Resources Management, and Socio Economics.
- Feeds:** Provides RSS 2.0 and ATOM FEED options.
- Contact:** Lists the Administrator.
- Links:** Includes search engines like FAO Agris, Google Scholar, and Kenya Open Data.
- Repositories:** Lists other repositories like CGSpace beta, ILRI, University of Nairobi, KAINet, and Kenyatta.
- KARI Repository:** Announces that KARI, with technical support from FAO and ASARECA, has customized a version of DSpace. It describes KARI's research in oceanography, food, agriculture, development, fisheries, forestry, and natural resources.
- Search:** Includes a search box with a "Go" button and the instruction "Enter some text in the box below to search DSpace."
- Recent Submissions:** Displays a table of recent submissions.

| Title - Citation - Author(s) | Type |
|---|-------------------|
| Impact of ground water quality on irrigation in Wajir district, Kenya. Demand-driven agricultural research for sustainable natural resource base, food security and incomes., Kenya Agricultural Research Institute, Nairobi (Kenya).- Nairobi (Kenya): KARI, 2004. Demand-driven agricultural research for sustainable natural resource base, food security and incomes; Proceedings of the 8th KARI biennial Scientific Conference., 8, Nairobi (Kenya), 11-15 Nov 2002.- 9966-879-56-0.- p.257-262, p. 257 | Proceedings Paper |
| Mailu, G. M., National council for science and technology | |

5.6.3 AIRC and Kilimo Repository

AIRC
Agricultural Information Resource Centre

Local breeds at the Dairy Centre of Excellence in Naviasha, Kenya

DOCUMENTS
Catalog

- advanced search
- Browse by...
- OAI data provider

SEARCH
Search this site:

LANGUAGES

- English
- French

USER

- My account / profile
- My contents
- Add new resource
- Harvesters and importers
- Authority files
- Log out

ADMINISTRATOR

- Administration

YOU ARE HERE Documents: catalog

Documents: catalog

By default records are displayed in alphabetical order by title. Clicking on a column header will sort records according to that header.

| TITLE | AUTHOR | DATE OF PUBLICATION |
|--|---|---------------------|
| A collaborative research agenda to develop sustainable wheat production technologies for East Africa Conference Proceedings 8, Regional Wheat Workshop for Eastern, Central and Southern Africa, Kampala (Uganda), 7-10 Jun 1993 | Tanner, D.G. (Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT), Nairobi (Kenya). Wheat Program) Amanuel Gorfu (Institute of Agricultural Research, Addis Ababa (Ethiopia). Kulumsa Research Center) Maina, M.P. (National Plant Breeding Research Center (NPBRC), Njoro (Kenya)) Negussie Tadesse (Debre Zeit Agricultural Research Center (AUA), Debre Zeit (Ethiopia)) | 1994-01 |
| A mathematical function to describe lactation curves of cows used in medium and smallholder dairy systems in Kenya Conference Proceedings proceedings of annual scientific symposium of the animal production society of Kenya 2011 | Wasike, C.B Kahi, A.K. | 2011-05 |
| A pedal-operated grain mill Working Paper | Ayaga, G.O. (Kenya Agricultural Research Institute, Nairobi (Kenya). National Agricultural Research Laboratories) | 1979-03 |
| A review of the biology and control of the rice moth (<i>Corcyra cephalonica</i>) stainton (Lepidoptera: Galleriinae) Technical report | C. Barrett | 1979-04 |
| Agriculture Research and Development for sustainable Resource Management and food security in Kenya Conference Proceedings Agriculture Research and Development for sustainable Resource Management and food security in Kenya | Tadicha, c | 2004-03 |
| Agro-ecological land resources assessment for agricultural development planning. A case study of Kenya. Making land use choices | Fischer, C.W. | 1994-01 |

UPCOMING EVENTS

[compliant with the Ag-Event AP]

Agricultural Tractor Sale
 From: 2013-06-05
 To: 2013-06-07
 Location: Nairobi
 Country: East Africa's premier International Food, Hotel & Agriculture exhibition to host Exhibitors from over 20 countries
 From: 2013-10-04
 To: 2013-10-06
 Location: Nairobi
 Country: more

Documents: catalog

ADMINISTRATOR

- Administration
- Manage contents

ADMIN

- My account
- Create content
- Administer
- Log out
- Code review
- Groups
- Import
- My Unread
- Recent posts

IMPORTANT LINKS

- EAAFARO
- FARA
- INFONET - BIOVISION
- FAO
- KARI
- GEAR
- KAINet

SOCIAL MEDIA

UPCOMING EVENTS

[compliant with the Ag-Event AP]

Agricultural Tractor Sale
 From: 2013-06-05
 To: 2013-06-07
 Location: Nairobi
 Country: East Africa's premier International Food, Hotel & Agriculture exhibition to host Exhibitors from over 20 countries
 From: 2013-10-04
 To: 2013-10-06
 Location: Nairobi
 Country: more

| TITLE | AUTHOR | DATE OF PUBLICATION |
|--|---|---------------------|
| A collaborative research agenda to develop sustainable wheat production technologies for East Africa Conference Proceedings 8, Regional Wheat Workshop for Eastern, Central and Southern Africa, Kampala (Uganda), 7-10 Jun 1993 | Tanner, D.G. (Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT), Nairobi (Kenya). Wheat Program) Amanuel Gorfu (Institute of Agricultural Research, Addis Ababa (Ethiopia). Kulumsa Research Center) Maina, M.P. (National Plant Breeding Research Center (NPBRC), Njoro (Kenya)) Negussie Tadesse (Debre Zeit Agricultural Research Center (AUA), Debre Zeit (Ethiopia)) | 1994-01 |
| A mathematical function to describe lactation curves of cows used in medium and smallholder dairy systems in Kenya Conference Proceedings proceedings of annual scientific symposium of the animal production society of Kenya 2011 | Wasike, C.B Kahi, A.K. | 2011-05 |
| A pedal-operated grain mill Working Paper | Ayaga, G.O. (Kenya Agricultural Research Institute, Nairobi (Kenya). National Agricultural Research Laboratories) | 1979-03 |
| A review of the biology and control of the rice moth (<i>Corcyra cephalonica</i>) stainton (Lepidoptera: Galleriinae) Technical report | C. Barrett | 1979-04 |
| Agriculture Research and Development for sustainable Resource Management and food security in Kenya Conference Proceedings Agriculture Research and Development for sustainable Resource Management and food security in Kenya | Tadicha, c | 2004-03 |
| Agro-ecological land resources assessment for agricultural development planning. A case study of Kenya. Making land use choices | Fischer, C.W. | 1994-01 |

File uploads | AIRC | Permissions | AIRC | A collaborative research ... | A collaborative research ... | A collaborativ

orative-research-agenda-develop-sustainable-wheat-production-technologies-east-africa

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[OAI data provider](#)

A collaborative research agenda to develop sustainable wheat production technologies for East Africa

View Edit Track

Conference Proceedings

<p>Very few studies have been conducted in high lands of Eastern Africa to examine the long-term effects of wheat crop management practices on the farming community's natural resource base. To generate information on sustainable wheat production technology specific to his zone, an informal collaborative research network has been formed amongst several national research institutions in East Africa and the CIMMYT/CIDA Eastern Africa Cereals Project. Recently initiated, strategic research trials are focused on crop rotations, conservation tillage and straw management practices for wheat production in both mechanized and ox- plow cropping systems. This paper discusses the design of several representative long-term trials, and the relevant crop and soil parameters being measured</p>

Date and language
Date of publication: 1994-01
Language: en

Personal Author

[Tanner, D.G. \(Centro Internacional de Mejoramiento de Maiz y Trigo \(CIMMYT\), Nairobi \(Kenya\), Wheat Program\)](#)

[Amanuel Gorfu \(Institute of Agricultural Research, Addis Ababa \(Ethiopia\), Kulumsa Research Center\)](#)

[Maina, M.P. \(National Plant Breeding Research Center \(NPBRC\), Njoro \(Kenya\)\)](#)

[Negussie Tadesse \(Debre Zeit Agricultural Research Center \(AUA\), Debre Zeit \(Ethiopia\)\)](#)

Corporate Author

UPCOMING EVENTS

RSS feed
 [compliant with the Ag-Event AP]
 RDF feed

Agricultural Tractor Sale
 From: 2013-06-05
 To: 2013-06-07
 Location: Nairobi
 Country:

East Africa's premier International Food, Hotel & Agriculture exhibition to host Exhibitors from over 20 countries
 From: 2013-10-04
 To: 2013-10-06
 Location: Nairobi
 Country: more

LANGUAGES

- English
- Français

USER

- My account / profile
- My contents
- Add new resource
- Harvesters and importers
- Authority files
- Log out

ADMINISTRATOR

- Administration
- Manage contents

ADMIN

- My account
- Create content
- Administer
- Log out
- Code review
- Groups
- Import
- My Unread
- Recent posts

Desktop

5.6.4 KEFRI

<http://41.215.78.76:8282/>

Google

Suggested Sites Web Slice Gallery

Kenya Forestry Research Institute Online Repository

Official Repository for KEFRI Research & Publications

Repository Home

THE KENYA FORESTRY RESEARCH INSTITUTE REPOSITORY

Welcome to the Kenya Forestry Research Institute online repository. This is a digital service that collects, preserves, and distributes digital material. Repositories are important tools for preserving an organization's legacy; they facilitate digital preservation and scholarly communication.

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- [KEFRI Publications](#) [323]
- [KEFRI Thesis](#) [70]

RECENTLY ADDED

[Towards Development of a Knowledge Management Strategy](#)

Mbiru, Sheila Shifo; Oeba, Vincent; Chagala, Ebby Odera; Mutua, Gillian; Tunwei, Paul; Ochieng, Dorothy; Ochung, Francis (KEFRI, 2013-10)

In today's global knowledge economy, knowledge is considered a key asset that needs to be effectively managed to give organizations a competitive edge. This is especially true for research organizations where new knowledge, ...

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DISCOVER

Author

KEFRI (46)



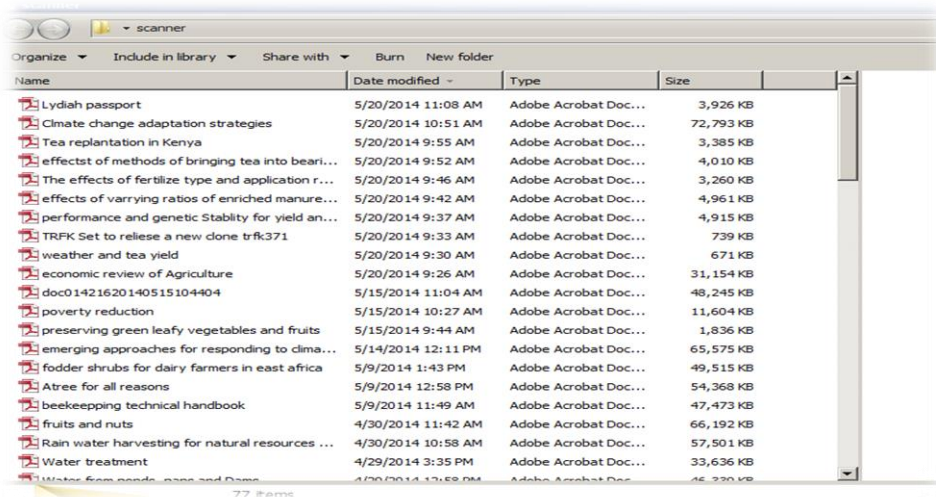
5.6.5 Digitized Documents

The table shows what has been digitized and what is on-going. The work is on-going since we began and we also institutionalized the repository concept with KAINet and its participating institutions.

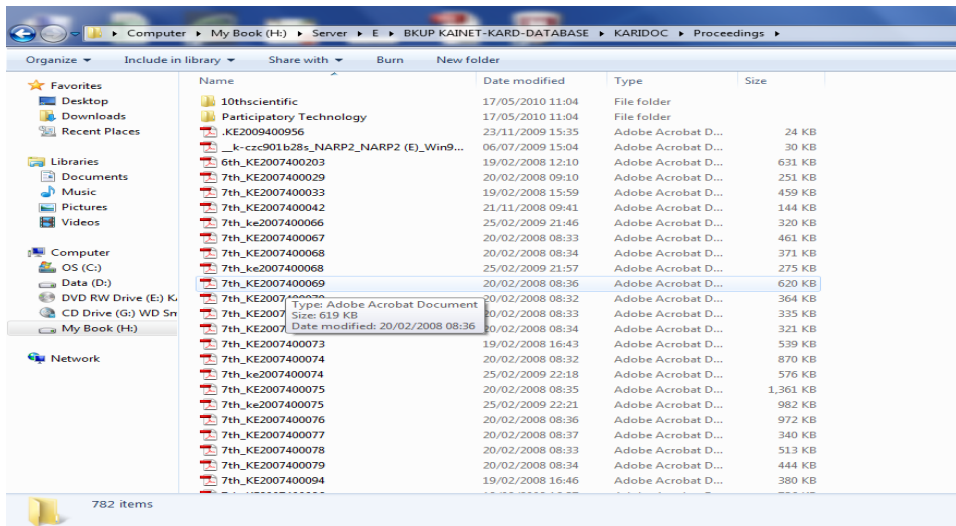
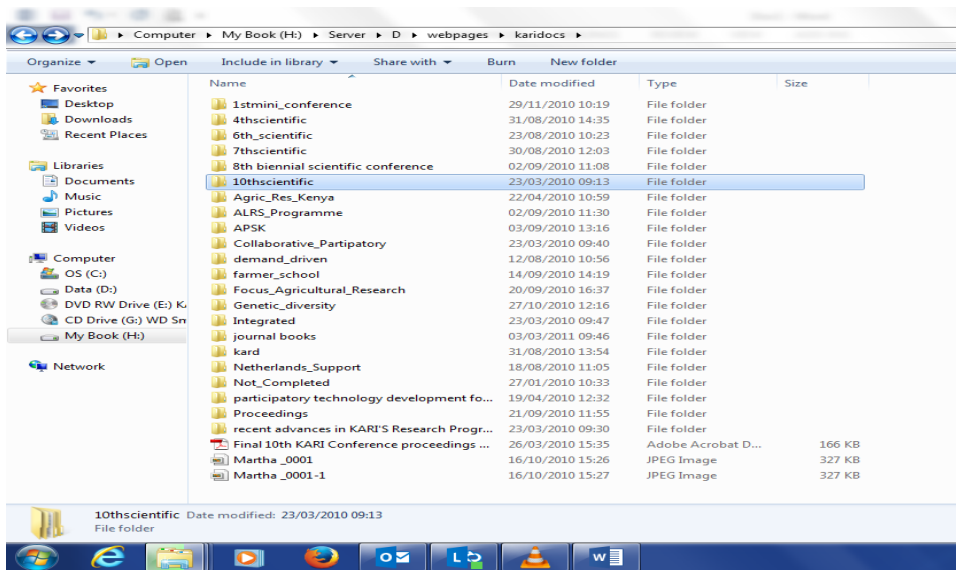
| Institutions | Digitized | Planned to be digitized |
|----------------------------------|-----------|-------------------------|
| AIRC and Ministry of Agriculture | 558 | Over 1,000 |
| KEFRI | 773 | Over 1,000 |
| KARI | 1,158 | Over 2,000 |

Please find below some screen shots of the scanned documents be carried out by the partners: -

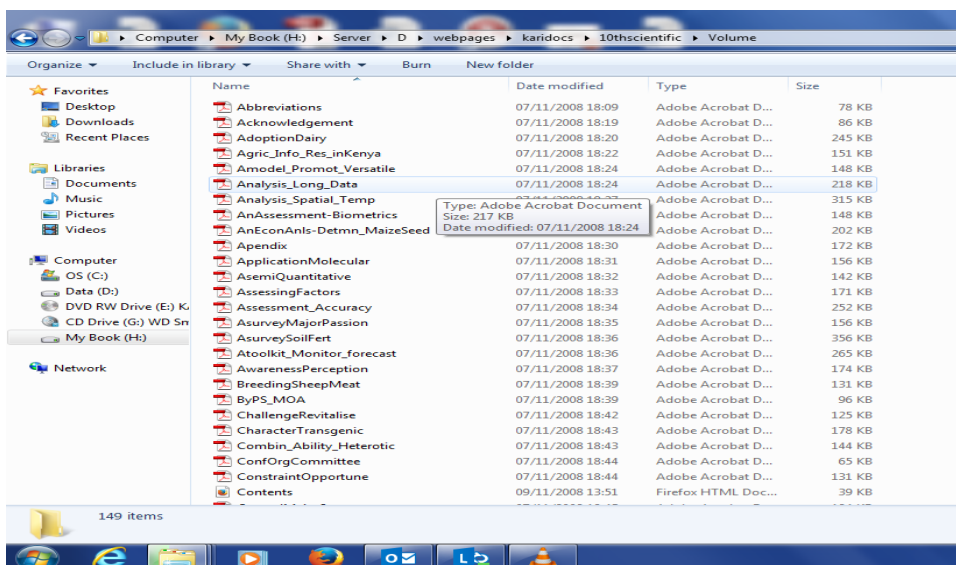
Ministry of Agriculture



KARI

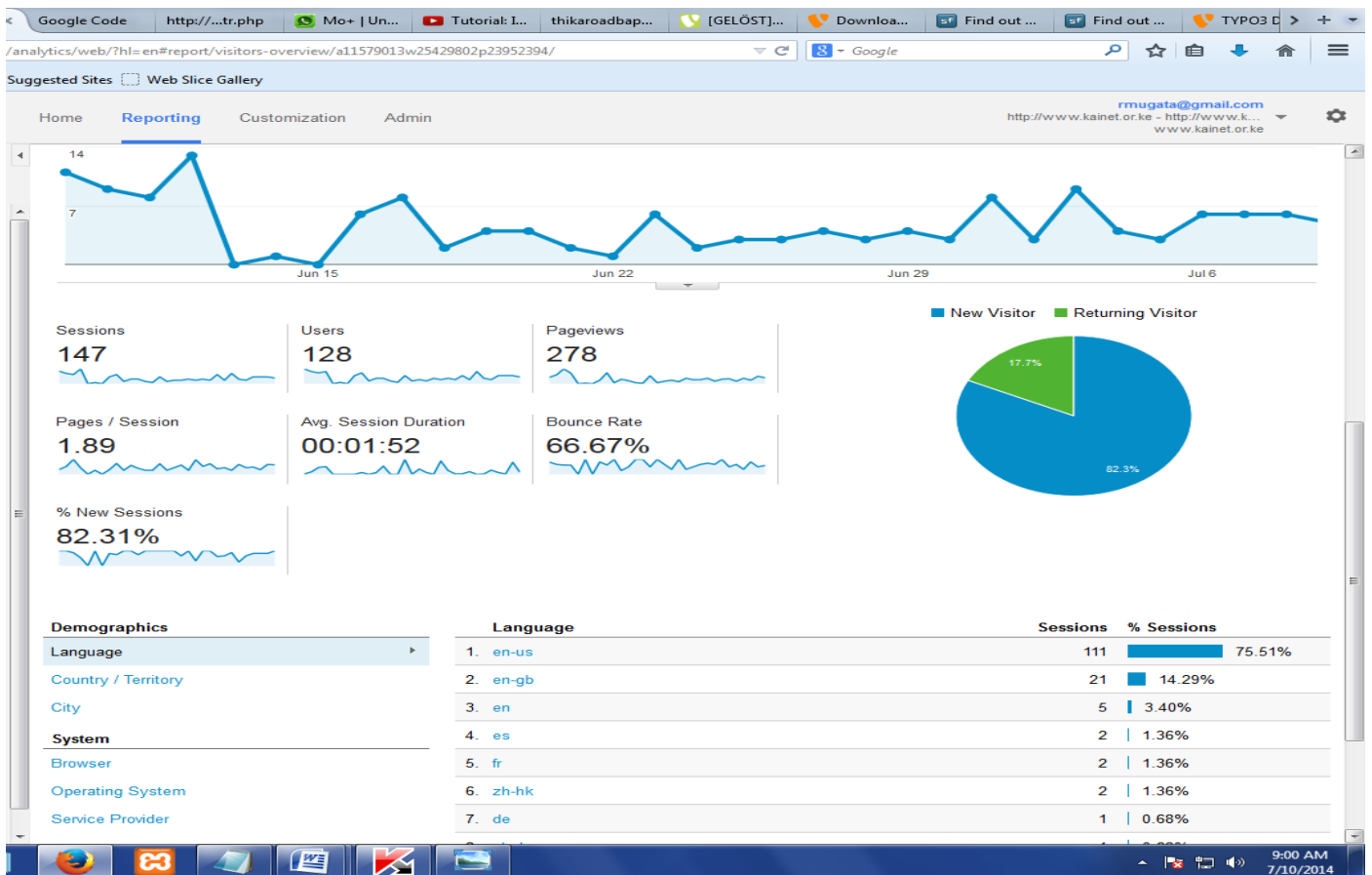
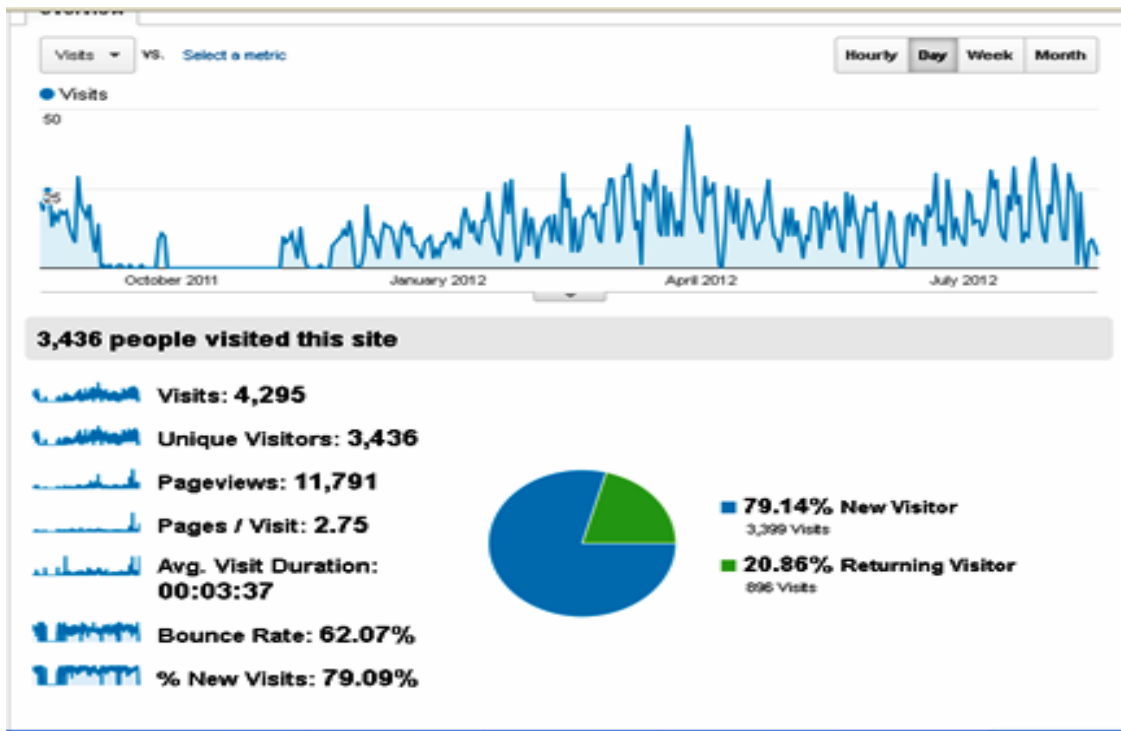


KEFRI



5.6.5 Google Analytics

Google Analytics has been implemented and displays of the usage and access to the KAINet repository.



5.7 Memorandum of Understanding (MoU)

A draft MoU was developed to streamline the operations with KAINet member institutions. The MoU would underline the workflows and the structures of operations of the institutional and national repositories. It gives clear guidelines and responsibilities to all the members of the network hence giving round for growth of the membership.

6.0 PROJECT IMPLEMENTATION

| Input | Project activities | Outputs | Outcomes | Timeline | Status | Assessment |
|---|-------------------------|---|--|--|---|------------|
| Financial, human and material resources | Inception Workshop | Project Inception Project modalities and framework | Likely or achieved short and medium term effects. control | Dates were the listed activity was developed | Successful completed | |
| Financial, human and material resources | Training | | Trained ICT and Library staff | | Completed | |
| Human resources | Technical Back stopping | Repositories established in the 3 institutions | | | Completed and on-going on the technical back stopping | |

7.0 KAINet Monitoring and Evaluation Plan



| | |
|---------------------------------|--|
| Grant by | FIRE |
| Organisation | Kenya Agricultural Research Institute |
| Project title: | Kenya Agricultural Information Network (KAINet) |
| Amount awarded: | \$10,000 |
| Project start date: | November 2013 |
| Project completion date: | June 2014 |

2. Monitoring & Evaluation Plan.

| Objective | Activity | Project Measure | Measure | Tools/ Resources Required | Measured by: | Measure taken every: | Date completed |
|---|--|---|--|--|--------------------|--|--|
| 1. To avail full text content through the Institutional and National Repositories | 1. Digitization of print institutional agricultural information materials | List scanned documents | Number of scanned Documents | Scanners, Institutional Publications, Computers | KAINet Coordinator | Do a baseline survey at the beginning of the project and then measure progress monthly | 1 st June, 2013 Continuous |
| | 2. Enter metadata into existing institutional repositories | Metadata and Full text document in the Repositories | Number of metadata with full text documents | Repository Software, standards and tools | KAINet Coordinator | Monthly | 1 st June, 2013 Continuous |
| | 3. Migration of the metadata into KAINet | Metadata and full text | Increased metadata and full text onto KAINet | Standards and tools | KAINet Coordinator | Monthly | 1 st June, 2013 Continuous |
| 2. To facilitating access to the scientific and technical literature in Kenya | Host KAINet e-repository | Linkage with institutional repositories | Assess number of visits to Institutional and KAINET repositories | Google Analytics KAINet Portal, servers, Internet connectivity | KAINet Coordinator | Monthly | Continuous |
| 3. To Strengthen national and institutional capacities to manage, disseminate and exchange agricultural Information | 1. Train data entry librarians and ICT support personnel on Agridrupal/ AgriocceanDspace | Trained staff at the Institutional level and KAINET coordination office | Number of trained staff | Agridrupal and AGRIOCEAN DSPACE software/trainers and computing facilities/technical Experts | KAINet Coordinator | After the training | Mid January 2014 |
| | 2. Technical support in maintaining database, uploading metadata | Currency of repositories, visits | Currency of repositories and number of visits to | Listed software (AGRIOCEAN DSPACE & AGRIDRUPAL), and | KAINet Coordinator | Monthly | Continues |

| | | | | | | | |
|----------------------------------|--|----------------------------------|---|---|--------------------|---------------------------|------------|
| | and full text and Follow up | and accessibility | partner institutions | back up facilities | | | |
| 4. To Create Awareness of KAINet | 1. Hold multi-stakeholder workshop and consultative meetings | Consultations and workshops held | Number of new participating institutions and the number or new repositories and members | Attendance book, repositories, Google analytics | KAINet Coordinator | Monthly | Continuous |
| | 2. Develop promotional material | Leaflets and brochures | Number of leaflets and brochures | Software and promotional literature | KAINet Coordinator | Before each report is due | Mid March |

8.0 WAY FORWARD

The repositories shall eventually be imported onto the KAINet repository to ensure that we have a one stop resources for agricultural information. We are therefore putting in place the structures in place in readiness of this particular exercise.

To improve usability and accessibility of the KAINet platform, we intend to create awareness of among the various stakeholders in the agricultural sector. We also plan to increase the partners onto the KAINet platform even as we market the resource so as to eventually have a one-stop platform of agricultural information in Kenya.

The digitations, knowledge management and making knowledge accessible kick off with the assistance of AFRINIC-FIRE within the partner institutions shall continue to ensure that all the repositories shall be available online with full text documents.

Recruitment of other research institutions into the KAINet membership is underway with the transitions of Kenya Agricultural Research Institute (KARI) to Kenya Agricultural and Livestock Research Organization which will comprise of over 9 Agricultural research Institute into one body (KALRO). This will therefore mean more agricultural information harvested and uploaded onto KAINet repository.

The success of the initiative has promoted the partner institutions to seek more funds to ensure the digitization of institutional content and making it accessible and available via local and online repositories.

9.0 CONCLUSION

All the partner institutions have embarked on the first of the project with institutions scanning information and knowledge in readiness of metadata entry and linking onto the institutional repository. The ICT teams within the institutions with the assistance of the backstopping team are also setting up and customizing the institutional repositories.

The AFRINIC FIRE initiative is timely in assisting institutions in the agricultural stake to manage, store, disseminate and share agricultural research findings.