



Kasetsart University Knowledge Repository

Notes Before Completing the Application

We have read and understood the notes concerning our application submission.

True

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:
accept

CORE TRUSTWORTHY DATA REPOSITORIES REQUIREMENTS

Background & General Guidance

Glossary of Terms

BACKGROUND INFORMATION

Context

R0. Please provide context for your repository.

Repository Type. Select all relevant types from:

Institutional repository

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:
Accept

Brief Description of Repository

Kasetsart University Knowledge Repository (KUKR) digitally curates publication and innovation of Kasetsart University staff, using the methods that meet international standards. Kasetsart University Repository disseminates intellectual output of the university at the website <https://kukr.lib.ku.ac.th>

The data curated in Kasetsart University Knowledge Repository consist of research, academic work, teaching materials, textbooks, academic journals, academic articles, conferences proceedings and all categories of publication of the university published by faculties and institutes under Kasetsart University, all 4 campuses, namely Bangkhen Campus, Kamphaeng Saen Campus, Sriracha Campus, and Chalermphrakiat Sakon Nakhon Province Campus (University archives collection does not include in this submission).

To date, the repository holds the university publication and innovation since 1943, totaling 80,009 items (as of May 2021)

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:
accept

Brief Description of the Repository's Designated Community.

Users of the repository are

1. Internal users: university council and administrators, academic staff, university researchers, students, and supporting staff
2. External users: scholars, students, entrepreneurs, and the public

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

Accept

Level of Curation Performed. Select all relevant types from:

C. Enhanced curation – e.g. conversion to new formats; enhancement of documentation

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

Accept

Comments

Reviewer Entry

Reviewer 1

Comments:

Not applicable

Reviewer 2

Comments:

Insource/Outsource Partners. If applicable, please list them.

Partners

Kasetsart University Knowledge Repository is a collaboration among faculties and institutes in the university, with the Information Division of Kasetsart University Library being the key personnel. The Library Information Technology Division works collaboratively with the Office of Computer Services, the Office of Quality Development and Risk Management, 31 faculties which own the work, 3 research institutes in 4 campuses, namely Bangkok Campus, Kamphaeng Saen Campus, Sriracha Campus, and Chalermphrakiat Sakon Nakhon Province Campus. There is a repository operation network of the four campuses libraries. For the development of the Kasetsart University Knowledge Repository. Four campus libraries are responsible for discovering, collecting, submitting, and verifying data or publications of the Kasetsart University Knowledge Repository to keep updated information and to follow the standards continuously. And all four campuses utilize the single Kasetsart University Knowledge Repository.

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:
accept

Summary of Significant Changes Since Last Application (if applicable).

Reviewer Entry**Reviewer 1**

Comments:
Not applicable

Reviewer 2

Comments:

Other Relevant Information.

The Kasetsart University Honored Person Database, a collection of the university honored person publication developed as a database. Supported by the university, the database began in 2000. The university 107 honored person publication were collected in the database for the 60th anniversary of the university in 2003. The collection continuously developed to preserve academic output of faculties and researchers retired in each year.

Upon the 72nd Anniversary of Kasetsart University in 2015, the focus of the preservation extended to cover all categories of publication contributed by staff and students of the university. The collection was developed to be a repository of the university "Kasetsart University Knowledge Repository".

National and global role that the Kasetsart University Knowledge Repository serves

The information about agricultural research in Kasetsart University Knowledge Repository is constantly being transferred to the AGRIS database, the International Information System for Agricultural and Technology of FAO (Food and Agriculture Organization of the United Nations). Moreover, there is a national network of data linkage with the National Office of Higher Education Commission Database, the Research Council of Thailand Database, and Thailand Agriculture Knowledge Base.

Reviewer Entry**Reviewer 1**

Comments:
Accept

Reviewer 2

Comments:
accept

ORGANIZATIONAL INFRASTRUCTURE

1. Mission/Scope

R1. The repository has an explicit mission to provide access to and preserve data in its domain.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Response:

Since 2000, Kasetsart University has entrusted the Office of the University Library (Main Library) to preserve the university publication in a database under “Kasetsart University Honored Person Database Development Project” (1.4). The database later developed into “Kasetsart University Knowledge Repository” (<https://kukr.lib.ku.ac.th>).

From 2010 to 2018, the Main Library Director vision (1.5, 1.6) focused on university repository initiative. The development of Kasetsart University Knowledge Repository was set as goals and contain in organization plan (1.9). Budgets from the university allocated to develop the digital repository. Function of university repository development has been the mission of the Main Library, Information Division since 2010

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/8)

Kasetsart University has provided guidelines to every department of the university to deposit their intellectual output to Kasetsart University Knowledge Repository. The repository was initiate by collaborating work (1.2) with every faculties and research institutes in whole campus, starting with 24 faculties on Bangkheng Campus in 2016. In 2018, the university issued a knowledge management policy (1.3) which required the faculties and research institute to deposit knowledge management reports in the university repository.

The Information Resource Management and Preservation Policy (1.1) and committee (1.7) of Kasetsart University

Knowledge Repository were announced in 2021. The terms and conditions for the preparation of the Kasetsart University Knowledge Repository (1.8) has defined explicitly, including data deposit, copyright management, preservation, quality, accessibility and reuse of data.

The policy, operational guidelines, and data preservation requirements of Kasetsart University Knowledge Repository are made public and accessible on the repository website Menu > About Us <https://kukr.lib.ku.ac.th>

Links to Documentation

1.1-Kasetsart University Announcement Regarding Policy of Information Resource Management and Preservation of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R1/KUKR-Policy.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/202

1.2-Memorandum of Understanding on the cooperation to develop Kasetsart University Knowledge Repository (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R1/MOU-KUKR.pdf>)

1.3-Kasetsart University Knowledge Management Policy for the year 2018-2021 (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R1/KM-2018.pdf>)

1.4-Kasetsart University Honored Person's Publication Database (Thai language)

(https://kukr.lib.ku.ac.th/cts/files2/R1/kuvip_rep2005_en.pdf)

1.5-Vision of the (old) website of the Library

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Vision-KUlib-oldwebsite.pdf>)

1.6-Vision (Management agenda for the year 2010-2018) (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Vision-2010-2018.pdf>)

1.7-Command of Kasetsart University No. 750/2021 Regarding Appointment of Committee Members to Kasetsart University Knowledge Repository Development

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Committee-New.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/201

1.8-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

1.9-Kasetsart University Knowledge Repository (KUKR) Project Report : 2010-2020 (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Report2010-2020.pdf>)

Reviewer Entry

Reviewer 1

Comments:
Accept.

Reviewer 2

Comments:

2. Licenses

R2. The repository maintains all applicable licenses covering data access and use and monitors compliance.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Response:

In creating the Kasetsart University Knowledge Repository, the operational approaches are prepared into an agreement for depositing data (2.1). The depositor of data must record the data in accordance with the requirements based on the international standards. This includes the digital file management according to digital media standards. The right must be granted for the dissemination of works in the service system. The licenses are available in both hard copy forms (2.1) that the owner of the work must sign in writing and the selection for the license to publish the work in online form (2.3) via the data entry system (2.2). The service system will disseminate the works as authorized by the owner only. Moreover, Kasetsart University Knowledge Repository will announce the license under the Creative Commons License (2.10) assigned by the license owner.

Kasetsart University Knowledge Repository has prepared the operational approaches into a deposit agreement, accessing, implementing, and disseminating by notifying on the website (2.6) to acknowledge and practice prior for data entry (2.7).

Kasetsart University Knowledge Repository has examined the details of sensitive information or the information classification in the process of checking the data licenses and limitations on use (2.11 page 13-20) before the dissemination. There is also the protection of personal information (2.5) in accordance with the Personal Information Protection Act B.E.2562 (PDPA) and the Notification on the Privacy Policy Protection of Kasetsart University B.E. 2563 (2.14).

Regarding the practice to the information protected by law, the copyright statement of information in the system (right statement) has been made in compliance with the Copyright Act B.E.2537, amended by the Copyright Act (No. 2) B.E.2558 and the Copyright Act (No. 3) B.E.2558 in the area of the Library's works.

Kasetsart University Knowledge Repository has prepared the privacy policy and website terms of service (2.4) by notifying on the website.

The repository metadata identify the details for the access, use of information, and the right holders including the fields of accessRights, rights and rightsHolder specified in the Worksheet of information record (2.8).

Kasetsart University Knowledge Repository has an audit process from the import of data and file management in accordance with the declared agreement. The watermark (2.9) is specified on the message on the digital file. In addition, the procedures for handling the non-compliance data usage (2.12) are also informed with the contact channel on the website of Kasetsart University Knowledge Repository (2.13) in case of notifying when the data are breached.

Links to Documentation

2.1-Form for the permission of right in dissemination from the author of the work

(<https://kukr.lib.ku.ac.th/cts/files2/R2/form-permission-author.pdf>)

2.2-Permission to disseminate works in the KUKR Dataentry system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/permission-dataentry.jpg>)

2.3-Permission to disseminate works in the KUKR Input system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/permission-input.jpg>)

2.4-Terms of Service Article 2,4,7,8,9

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/198)

2.5-Privacy policy

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/197)

2.6-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

2.7-Terms and conditions for the operation before the information record

(<https://kukr.lib.ku.ac.th/cts/files2/R2/terms-record.jpg>)

2.8-Identification of text fields on copyright and license

(<https://kukr.lib.ku.ac.th/cts/files2/R2/indentification-copyright.pdf>)

2.9-Watermarking the digital files downloaded from the system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/watermarking-digital-files.pdf>)

2.10-Bibliographic page

(<https://kukr.lib.ku.ac.th/cts/files2/R13/Bibliographic.pdf>)

2.11-Manual for data verification and dissemination of Kasetsart University Knowledge Repository

(Review/Confirm/Publish) page 13-20

(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf#page=16>)

2.12-Procedures in the case that the work in Kasetsart University Knowledge Repository received notification of misconduct and technical ethics

(<https://kukr.lib.ku.ac.th/cts/files2/R4/procedures-ethics.pdf>)

2.13-Contact channel on the KUKR website

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/11)

2.14-Personal information protection, Kasetsart University (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R2/PersolInfoProtect.pdf#page=2>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

Accept

3. Continuity of access

R3. The repository has a continuity plan to ensure ongoing access to and preservation of its holdings.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept. Please see below.

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

Response:

Kasetsart University Knowledge Repository provides the data management agreement (3.1, 3.2, 3.3) from data import, storage, access, implementation and dissemination for ensuring the depositors and the information users that the information available on the system will remain intact, unlost, and accessible at all time.

In preparing the continuity management plan (3.5) and succession plan (3.9) of Kasetsart University Knowledge

Repository to prepared individuals and teams for the tasks of providing information services, preserving data and managing such services on short and long-term basis as well as during the crisis or emergency. The Office of the University Library (Main Library) assigned as mission under the responsibility of the Information Division (3.7) and contains Kasetsart University Knowledge Repository under the Library's strategic plan (3.6) (prepared every 4 years according to the agenda of the executives) and the official action plan of the Main Library Information Division (prepared every year). The plan has been monitored to report the operational performance of the fiscal year. Administrative aspect, in case there are structural changes or responsibility changes, has prepared the plan for preparedness to transfer the Kasetsart University Knowledge Repository to another institution for the continuous of the administrative and prepared a channel for the work owner or data depositor can download their data via the record system. Personnel aspect has designated a responsible person for Kasetsart University Knowledge Repository development in case there are resignation, retirement, or death. And prepared Individual Development Plans for each position, such as Head of Task, Officer, Computer Technical Officer, and New Personnel, to develop their competencies, skills, and expertise required in professional development. For budget aspect, the Information Division has put Kasetsart University Knowledge Repository under a performance plan and filed budget planning to the library to become the operating expenses of the Kasetsart University Knowledge Repository if the university does not support the budget or the budget has been reduced or depleted.

There is also the risk assessment and an information technology emergency response plan (3.5 page 4) are also conducted to prepare for the restoration of information system for being able to open the service as soon as possible in the event of an emergency due to uncertainty and potential disaster

Kasetsart University has the policy to maintain the Kasetsart University Knowledge Repository system for continuity by providing budget support and support in information technology policy in maintaining the hardware system, improving the software, and supporting the network system with the Office of Computer Service to join the system monitoring (3.8).

Links to Documentation

3.1-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

3.2-Terms and conditions for the operation before the information record

(<https://kukr.lib.ku.ac.th/cts/files2/R2/terms-record.jpg>)

3.3-Form for the permission of right in disseminating from the author of the work

(<https://kukr.lib.ku.ac.th/cts/files2/R2/form-permission-author.pdf>)

3.4-Website Terms of Service, Article 2, Terms and conditions of website usage

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/198)

3.5-Kasetsart University Knowledge Repository Continuity Plan

(<https://kukr.lib.ku.ac.th/cts/files2/R3/BCP-KUKR.pdf>)

3.6-The Office of the University Library, Kasetsart University Strategic Plan for 2010-2024

(<https://kukr.lib.ku.ac.th/cts/files2/R3/Library-Strategic-Plan-2010-2024.pdf>)

3.7-Mission and structure for the development of Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/8)

3.8-Support budget to operate the Kasetsart University Knowledge Repository by Kasetsart University and the Office of Library Budget year for 2016-2022

(<https://kukr.lib.ku.ac.th/cts/files2/R5/Budget-KUKR.pdf>)

3.9-Kasetsart University Knowledge Repository Succession Plan

(<https://kukr.lib.ku.ac.th/cts/files2/R3/SP-KUKR.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept.

I am satisfied with the updated information provided about disaster management, including the transfer of responsibility and data to another institution at the university.

Reviewer 2

Comments:

4. Confidentiality/Ethics

R4. The repository ensures, to the extent possible, that data are created, curated, accessed, and used in compliance with disciplinary and ethical norms.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Response:

The data storage and use in the Kasetsart University Knowledge Repository follow the codes of ethics (4.1) in compliance with the mission of creating the university repository to be standardized and easily accessible from the knowledge base development network and knowledge service of Kasetsart University. This aims at disseminating the university knowledge and publication for the public or those who are interested to be able to use it widely with the access format and usage policies in the Terms of Service (4.5).

The data deposit in the Kasetsart University Knowledge Repository must be licensed by the owner under the Creative Commons license agreement. If any reference is provided from the publications or sources of information, the sources of information must be identified according to international reference principles. Details of all data (Full item) (4.7 page 10) must not be harvested from the Robot in full-text indexing or citation analysis. Besides, the data contained in the Kasetsart University Knowledge Repository must be non-commercial (unless explicitly authorized by the attached license (4.9)) apart from the permission of the copyright holders

The owners of the works or the right owners who deposit to the repository must record their own work that they have been granted the right to keep and distribute only. If there is a joint owner, they must have a name appearing in the work and must be a person who is actually involved in the implementation of the work. The work owners and the work co-owners, or the license owners reserve the legal right to retain and disseminate the information in other resources according to their own rights. (See detail in Procedures in the case that the work in Kasetsart University Knowledge Repository received notification of misconduct and technical ethics) (4.3).

Links to Documentation

4.1-Ethics of data storage and use in the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/199)

4.2-Summary of announcements about the ethics of Kasetsart University personnel and complaints about violations of the ethics

(<https://kukr.lib.ku.ac.th/cts/files2/R4/Ethics-KU-summary.pdf>)

4.3-Procedures in the case that the work in Kasetsart University Knowledge Repository received notification of misconduct and technical ethics

(<https://kukr.lib.ku.ac.th/cts/files2/R4/procedures-ethics.pdf>)

4.4-Manual for verification and dissemination of information, Kasetsart University Knowledge Repository (Review / Confirm / Publish) pages 33-37

(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf#page=36>)

4.5-Website Terms of Service

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/198)

4.6-Privacy policy

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/197)

4.7-Kasetsart University Knowledge Repository User Manual, Bibliographic information page 10

(<https://kukr.lib.ku.ac.th/cts/files2/R15/KUKR-UserManual.pdf#page=14>)

4.8-List of personnel in the Information Division participating in the activities dealing with the risk in the disclosure of sensitive information or information classification

(<https://kukr.lib.ku.ac.th/cts/files2/R4/info-division-part.pdf>)

4.9-Form for the permission of right in dissemination from the author of the work

(<https://kukr.lib.ku.ac.th/cts/files2/R2/form-permission-author.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

5. Organizational infrastructure

R5. The repository has adequate funding and sufficient numbers of qualified staff managed through a clear system of governance to effectively carry out the mission.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

At present, Kasetsart University Knowledge Repository is installed in the server system (5.1) of the Office of the University Library (Main Library) connected to the university's network through the Office of Computer Service.

Kasetsart University supported the budgets (5.2) since the beginning of the system development in 2000. The budgets were for the operation, hardware, host computer, and related equipment including the budgets for system development. In

the year 2021, the university has allocated the budgets for providing the host computer system to replace the old one and installed at data center in Office of Computer Service. The budgets were allocated for the year 2022 to upgrade system software.

The operation plan for Kasetsart University Knowledge Repository Development Project (5.6) which consists of created, curated, accessed, and used management activities and other related activities has been included in the strategic plan (5.3) of the Library.

The Office of Computer Service Director, Director of Research and Development Institute, Director of the Staff Division, Director of the Office of Quality Development and Risk Management, and Library Director of all campus are responsible for the supervision of related operations (5.4). The Library Information Technology Division staff monitor the computer system and network. Mainly having the personnel in the Information Division to supervise and manage the system development, data entry, data quality control, preservation, and utilization.

The Main Library Information Division is the main unit in charge of supervising and managing Kasetsart University Knowledge Repository with a total of 14 personnel (5.5) including 9 information specialists, 1 librarian, 1 computer technician, and 3 data entry officers. All personnel are well trained on data quality control and repository management. Training program (5.7) about Data Protection Act, Copyright and Intellectual Property, Digital Information Standardization will be update frequently. Study visits to the information repository of relevant agencies arranged for human resource development.

Personnel in the Main Library Information Division had knowledge and expertise in the information management with more than 40 years of experience in developing the AGRIS - International Information System for Agricultural Sciences and Technology System in collaboration with FAO (Food and Agriculture Organization). This includes the experience in the development of agricultural information repository in collaboration with various agencies as the Thai National AGRIS Centre.

Links to Documentation

5.1-Information Technology and Communication Infrastructure, Library of Kasetsart University

(<https://kukr.lib.ku.ac.th/cts/files2/R15/ICT-Infrastructure.pdf>)

5.2-Support budget to operate the Kasetsart University Knowledge Repository by Kasetsart University and the Office of Library Budget year for 2016-2022

(<https://kukr.lib.ku.ac.th/cts/files2/R5/Budget-KUKR.pdf>)

5.3-The Office of the University Library, Kasetsart University Strategic Plan for 2010-2024

(<https://kukr.lib.ku.ac.th/cts/files2/R3/Library-Strategic-Plan-2010-2024.pdf>)

5.4-Command of Kasetsart University No. 750/2021 Regarding Appointment of Committee Members to Kasetsart University Knowledge Repository Development

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Committee-New.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/201

5.5-Mission and structure for the Kasetsart University Knowledge Repository development

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/8)

5.6-Operation Plan for the Kasetsart University Knowledge Repository Development Project and archival database of Kasetsart University 2016-2021 (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R5/OperationPlan-KUKR-2016-2020.pdf>)

5.7-Confirmation documents for personnel attendance at meetings/seminars (Thai language)

(<https://kukr.lib.ku.ac.th/cts/files2/R5/Personal-Meeting.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept.

Reviewer 2

Comments:

accept

6. Expert guidance

R6. The repository adopts mechanism(s) to secure ongoing expert guidance and feedback (either inhouse or external, including scientific guidance, if relevant).

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository
accept

Response:

Kasetsart University Knowledge Repository is developed by Information Division of the Office of the University Library and supported by Kasetsart University. University network service provider based at Office of Computer Services. The

repository is managed by dedicated staff in the Information Division with expertise in information management, as detailed in R5.

Kasetsart University Knowledge Repository Development Committee (6.1) has the University President as the Advisor, the Vice President for Quality Development as the Chairman, the Vice President for Academic Affairs, the Vice President for Research and Creativity, and Vice President for Digital Technology. The committee oversees strategic matters related to the repository development and provision of budget support, while the repository operational team is responsible for operational developments and repository management following guideline and standard.

A guidance of domain experts (6.2) provided from in-house and external. There are computer and database design expert from Office of Computer Services, Intellectual property and service design expert from Chulalongkorn University, Digital content management expert from Science and Technology Knowledge Services (National Science and Technology Development Agency). Academic staff from faculties in the university will be involved as subject expert when highly specialized collections are acquired.

The communication channel of the Kasetsart University Knowledge Repository Development Committee (6.3) can be done through a forum. For experts, the informal communication channels of telephone and social media such as email and Line will be used. For the Four Campus Repository Working Group, the communication channel is provided via Line Group of "KUKR".

There are several communication channels provided for users (6.4) for public relations and feedback in several channels such as via Facebook of "Kasetsart University Knowledge Repository", email of the Information Division, contact of the system administrator through the website (6.5). There is also the receiving of information through the satisfaction assessment in online form and through questionnaire from dissemination exhibition.

Links to Documentation

6.1-Command of Kasetsart University No. 750/2021 Regarding Appointment of Committee Members to Kasetsart University Knowledge Repository Development

(<https://kukr.lib.ku.ac.th/cts/files2/R1/Committee-New.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/201

6.2-List of experts

(<https://kukr.lib.ku.ac.th/cts/files2/R6/experts.pdf>)

6.3-Document for explaining the communication methods and channels

(<https://kukr.lib.ku.ac.th/cts/files2/R6/communication.pdf>)

6.4-Channel to communicate with the user of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R6/channel-commun.pdf>)

6.5-How to contact the system administrator on the KUKR website

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/11)

Reviewer Entry

Reviewer 1

Comments:
Accept.

Reviewer 2

Comments:
accept

DIGITAL OBJECT MANAGEMENT

7. Data integrity and authenticity

R7. The repository guarantees the integrity and authenticity of the data.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:
4 – The guideline has been fully implemented in the repository
Accept

Reviewer 2

Comments:
4 – The guideline has been fully implemented in the repository
accept

Response:

Kasetsart University Knowledge Repository has the policy of data preservation (7.2) clearly declared. together with the implementation manual from recording, examining, and disseminating (7.4). The details of agreement for data depositing both in the online and offline form are clarified. The data dissemination is following the rights are granted by the owner. The depositor or the person being assigned by the right owner must determine the right for the publication on their own by recording the data and attaching the license documents according to the specified form.

The depositor must be personnel of Kasetsart University only. In depositing the data into the system, the account of Kasetsart University must be used and it must pass the verification according to university procedures (7.7).

The operator of Kasetsart University Knowledge Repository will review and edit the bibliography data according to the established standards (7.3). In every process of implementation, the system will store the log of various states of the data

(7.1). For personal information (7.6), the owner can turn on/off the display by himself/herself.

The depositor's data may be linked to other databases (7.5) such as the data related to the agricultural field which will be linked to the AGRIS / FAO database, etc.

In the version control of Kasetsart University Knowledge Repository (7.1). A checksum is kept for each file and a history of file modifications is kept to be used to track changes (The deleted files are not stored). The Kasetsart University Knowledge Repository use SHA256 for checksum of file. The depositor's data and staff of Kasetsart University Knowledge Repository can be accessed to checksum and history.

Links to Documentation

7.1- version-control, log, SHA256 (<https://kukr.lib.ku.ac.th/cts/files2/R7/version-control.pdf>)

7.2-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository
(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

7.3-Manual for data verification and dissemination of Kasetsart University Knowledge Repository (Review / Confirm / Publish)
(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf>)

7.4-Manual for data recording of Kasetsart University Knowledge Repository
(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf>)

7.5-Examples of links to Kasetsart University Knowledge Repository
(<https://kukr.lib.ku.ac.th/cts/files2/R13/examples-links.pdf>)

7.6-Display of personal information page
(<https://kukr.lib.ku.ac.th/cts/files2/R7/PDPA.pdf>)

7.7-Authentication
(<https://kukr.lib.ku.ac.th/cts/files2/R16/KUKR-authen.pdf>)

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:

8. Appraisal

R8. The repository accepts data and metadata based on defined criteria to ensure relevance and understandability for data users.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository
Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository
accept

Response:

Kasetsart University Knowledge Repository has formulated the policy (8.1) to develop the digital repository served as the guideline for the collection and storage of conforming information (8.2). There is the clear data management guideline for nonconforming data or insufficient for long-term preservation. Moreover, there is also the manual for the information management in the Kasetsart University Knowledge Repository that contains various procedures for the preparation of the Kasetsart University Knowledge Repository from the data collection based on the type of collected data, data recording (8.6) in accordance with the established international standard format for long-term preservation. There are explanations and examples of data recording. There are options based on the defined framework to reduce errors (8.4) in recording. This helps to record the information more convenient and accurate. The preferred format is prescribed for the digital file by creating the digital file management manual (8.5) to be disseminated to the depositors. In the process of depositing and recording information, the depositors can ask for details and grievances about the data depositing and recording through all designated communication channels.

The verification on data quality (8.3 page 3-9) follows the specified steps as announced to the data importers for acknowledgement (8.3 page 13-17) so that the data entered into the system can be standardized. If the agreement is not met, there will be guidelines for removing or deleting the item from the system. The data depositors will be informed for acknowledgement. There are some communication channels provided for the depositors to inquire and protest the action (8.3 page 20-21, data rejection). However, the items that have been removed or deleted (8.3 page 33-37) from the Kasetsart University Knowledge Repository will be listed with the date of data deletion and reasons (8.3 page 37).

Links to Documentation

8.1-Kasetsart University Announcement Regarding Policy of Information Resource Management and Preservation of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R1/KUKR-Policy.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/202

8.2-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/multi_menu/index/200)

8.3-Manual for data verification and dissemination of Kasetsart University Knowledge Repository

(Review/Confirm/Publish)

(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf>)

8.4-Use of Authority to reduce the errors in the data recording of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R8/dataentry-authority.pdf>)

8.5-Manual of file management of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R14/file-management.pdf>)

8.6-Manual for data recording of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept.

Reviewer 2

Comments:

accept

9. Documented storage procedures

R9. The repository applies documented processes and procedures in managing archival storage of the data.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository is installed in Virtual Machine Servers (VM Server) and Network Attached Storage (NAS) of the Office of the University Library, Kasetsart University. For service systems 3 VMs (Web Application Server, Database Server, Elastic Engine Server) and 1 VM for management system. The received data is stored and processed on the KUKR management system. The bibliographic data are sent to the Database Server and the digital files are sent to the Network Attached Storage. The approved and published data is sent daily to the KUKR service system. (Detail of HW and SW Infrastructure, see 9.3 page 1)

The server and the storage of Kasetsart University Knowledge Repository have a plan to maintain and improve both hardware and software (9.3 page 6) continuously. In addition, there is a replacement purchase plan according to the useful life of approximately 5-7 years by requesting the budget to support the master ICT plan of Kasetsart University.

The implementation of Submission Information Packages (SIP), creation of Archival Information Packages (AIP) and creation of Dissemination Information Packages (DIP) are based on the Open Archival Information System (OAIS) reference framework (9.2 page 3). The data management system starts with the ingesting of data. The data depositors submit the bibliography and upload the digital files into the process of data verification and authorization and data dissemination, respectively. The bibliographic data and digital files submitted by the data depositors into the system will be curated by an editor according to conditions and digital information preservation standard (9.2 page 4). All digital files will be managed according to file management process (9.1) and stored in the server and storage of Kasetsart University Knowledge Repository. The data licensed to be disseminated will be copied and watermarked (9.7) to be published according to the license. The original files will be preserved unchanged according to the conditions defined by the depositors. The history, revision, and changed digital files can be viewed via the system.

Kasetsart University Knowledge Repository has a backup and recovery plan (9.4) and a business continuity plan (9.5) in case of an emergency or systematic problem to prepare the system for the recovery to continue service and have the lowest downtime. Backups are performed regularly. The repository's data, including application database and digital files, are stored in multiple versions and locations, including on-site local disks, off-site tape library that is deposited in a bank safe, and replicated data to the DR storage site. For the details on the backup of Kasetsart University Knowledge Repository, see R15. The risk management plan (9.6) is prepared to prevent the occurrence of problems and possible consequences of disasters.

Links to Documentation

9.1-Manual for the file management of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R14/file-management.pdf>)

9.2-Digital Information Preservation Plan Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R10/digital-preservation-plan.pdf>)

9.3-Kasetsart University Knowledge Repository System Manual

(<https://kukr.lib.ku.ac.th/cts/files2/R15/KUKR-SystemManual.pdf>)

9.4-Data Backup and Recovery Plan

(<https://kukr.lib.ku.ac.th/cts/files2/R15/backup-recovery-plan.pdf>)

9.5- Kasetsart University Knowledge Repository Continuity Plan

(<https://kukr.lib.ku.ac.th/cts/files2/R3/BCP-KUKR.pdf>)

9.6-Report on the risk management results of Office of the University Library, Kasetsart University

(<https://kukr.lib.ku.ac.th/cts/files2/R9/Risk-Report.pdf>)

9.7-Watermarking the digital files downloaded from the system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/watermarking-digital-files.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

10. Preservation plan

R10. The repository assumes responsibility for long-term preservation and manages this function in a planned and documented way.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository has formulated the policy of information resources management and preservation (10.1) as declared by Kasetsart University. The Manual for data recording (10.10) is provided with the messages to announce the process of data preservation. The terms and conditions, and responsibilities are clearly specified. The depositor must understand in terms and conditions for the preparation of the Kasetsart University

Knowledge Repository (10.3) and agree to the terms (10.4) for transferring the responsibility in the preservation and management of information as well as giving permission to copy, convert and store data (10.6). Includes the grant to access and future data transfer.

Kasetsart University Knowledge Repository has digital information preservation plan (10.2), backup and recovery plan, (10.5) and business continuity plan (10.8) to preserve and make accessible digital resources for the long-term.

The supervision of operation (10.7) shall be in accordance with the requirements provided by the Kasetsart University Knowledge Repository Development Committee (10.9) having the president of the university as an advisor. There is the Vice President of Quality Development being the Chairman of the Committee. At the operational level, the Head of Information Division is the primary management to report the results to the Director of the Library. For the management of the server and the network administration system in order to preserve the information security in the long term, the Director of the Office of Computer Services shall be responsible as a member of Kasetsart University Knowledge Repository Development Committee.

Links to Documentation

10.1-Kasetsart University Announcement Regarding Policy of Information Resource Management and Preservation of Kasetsart University Knowledge Repository (<https://kukr.lib.ku.ac.th/cts/files2/R1/KUKR-Policy.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/202

10.2-Digital Information Preservation Plan Kasetsart University Knowledge Repository (<https://kukr.lib.ku.ac.th/cts/files2/R10/digital-preservation-plan.pdf>)

10.3-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository (https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

10.4-Terms and conditions for the operation before the information record (<https://kukr.lib.ku.ac.th/cts/files2/R2/terms-record.jpg>)

10.5-Data backup and recovery plans (<https://kukr.lib.ku.ac.th/cts/files2/R15/backup-recovery-plan.pdf>)

10.6-Form for the permission of right in dissemination from the author of the work (<https://kukr.lib.ku.ac.th/cts/files2/R2/form-permission-author.pdf>)

10.7-Procedures to monitor the implementation following the requirements (<https://kukr.lib.ku.ac.th/cts/files2/R10/WF-KUKRMonitor.pdf>)

10.8- Kasetsart University Knowledge Repository Continuity Plan (<https://kukr.lib.ku.ac.th/cts/files2/R3/BCP-KUKR.pdf>)

10.9-Command of Kasetsart University No. 750/2021 Regarding Appointment of Committee Members to Kasetsart University Knowledge Repository Development (<https://kukr.lib.ku.ac.th/cts/files2/R1/Committee-New.pdf>)

Online Link: https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/201

10.10-Manual for data recording of Kasetsart University Knowledge Repository (<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

11. Data quality

R11. The repository has appropriate expertise to address technical data and metadata quality and ensures that sufficient information is available for end users to make quality-related evaluations.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository is an information repository to store the publication of Kasetsart University. The quality of the work is determined in accordance with the university regulations in terms of the quality of the published works, the quality of the work to request for an academic position, quality of research work, textbooks and teaching materials.

The approaches for depositing and management of information (11.5) are clearly defined in the manual (11.2 page 3). The recording system has a clear workflow defined by requiring 3-step verification of data. The 1st step is to verify the data depositors. The 2nd step is the review and confirmation by the reviewer or the agency supervising the depositor. The 3rd step is to edit the metadata by the officers of Kasetsart University Knowledge Repository. The data must go through all 3 quality checks in order to be confirmed to publish and appear to the users in the service system. Apart from displaying the information through the service system of the Kasetsart University Knowledge Repository, there are citations of related

information and links sent to other citation indices (11.4).

The service users can comment, criticize or oppose the information displayed in the system through specified communication channels (11.1). There is a satisfaction assessment (11.3) of the information quality on the website of the Kasetsart University Knowledge Repository in the event that the user reports an error of the information (11.1 page 4). The Kasetsart University Knowledge Repository has set the audit process to correct errors and notify the user until the end of the process.

Links to Documentation

11.1-Data quality management in the service system of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R11/KUKR-data-quality-management.pdf>)

11.2-Manual for Data Verification and Dissemination of Kasetsart University Knowledge Repository

(Review/Confirm/Publish) page 3

(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf#page=6>)

11.3-Assessment form on the satisfaction of the information quality in the Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R11/assessment-form.pdf>)

Online Link: <https://forms.gle/o5GJjJe7nin9gSDUA> (Thai language)

11.4-Dissemination of works in the information system both domestically and internationally, Agris/ FAO ThaiLis TNRR

(<https://kukr.lib.ku.ac.th/cts/files2/R13/dissemination-FAO-ThaiLis-TARR.pdf>)

11.5-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository

(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

12. Workflows

R12. Archiving takes place according to defined workflows from ingest to dissemination.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository prepares the plan for working step by step (12.1) starting from collecting and selecting information according to the requirements. The data depositing can be performed in two ways. The 1st method is for the depositor to submit and authorize manually online through the system (12.3, 12.4). The 2nd method is an offline operation. The data depositor gives the work and signs a license form (12.2) to the officers of Kasetsart University Knowledge Repository to operate because it is inconvenient to do this manually. Most of them are the senior depositors.

Data deposition online and offline has an explicit procedure according to the requirements. From data deposits (12.5 page 4-19), data quality management until the data dissemination (12.6 page 3) and reject to improve (12.6 page 20-21). With obviously assigned staff to responsible for coordinate with data depositor (12.8) through the suitable channel to communicate as follows telephone, email, Line, until data is disseminated. In case of having an error, the data depositor can objection and inform to correct the data (12.7 page 4-5). And assess a satisfy at the end of the process.

Links to Documentation

12.1-Plan for the preparation of Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R12/WF-KUKR.pdf>)

12.2-Form for the permission of right in dissemination from the author of the work

(<https://kukr.lib.ku.ac.th/cts/files2/R2/form-permission-author.pdf>)

12.3-Permission to disseminate works in the KUKR Dataentry system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/permission-dataentry.jpg>)

12.4-Permission to disseminate works in the KUKR Input system

(<https://kukr.lib.ku.ac.th/cts/files2/R2/permission-input.jpg>)

12.5-Manual for data recording of Kasetsart University Knowledge Repository page 4-19

(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf#page=6>)

12.6-Manual for Data Verification and Dissemination of Kasetsart University Knowledge Repository

(Review/Confirm/Publish) page 3, 20-21

(<https://kukr.lib.ku.ac.th/cts/files2/R8/KUKR-Data-verification.pdf>)

12.7-Data quality management in the service system of Kasetsart University Knowledge Repository page 4-5

(<https://kukr.lib.ku.ac.th/cts/files2/R11/KUKR-data-quality-management.pdf#page=5>)

12.8-Document for explaining the communication methods and channels

(<https://kukr.lib.ku.ac.th/cts/files2/R6/communication.pdf>)

12.9-Manual for File management of Kasetsart University Knowledge Repository, Table showing the details of file management and features

(<https://kukr.lib.ku.ac.th/cts/files2/R14/file-management.pdf#page=3>)

12.10 -Archives and Records Management (especially Classified Documents)

(<https://kukr.lib.ku.ac.th/cts/files2/R12/Workflow-AR.pdf>)

12.11-Decision management in the work plan

(<https://kukr.lib.ku.ac.th/cts/files2/R12/WF-DecisionManagement.pdf>)

12.12-Methods for management in correspondence with changes

(<https://kukr.lib.ku.ac.th/cts/files2/R12/WF-KUKRManagement.pdf>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

13. Data discovery and identification

R13. The repository enables users to discover the data and refer to them in a persistent way through proper citation.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository has the information retrieval system (13.1) which can be searched from the menu as basic search (13.2) and advanced search (13.3) defined with the search conditions.

Kasetsart University Knowledge Repository has the record of bibliography (13.4) based on the international standards using the AgMes standard in conjunction with Dublin core (13.9). The Kasetsart University's journal and articles of academic conferences will have Persistent Identifiers or the DOI number (13.5) of the Data Cite for reference purposes.

Kasetsart University Knowledge Repository has exchanged information with national data archives (13.8) such as TDC (ThaiLIS Digital Collection) of OHEC (Office of the Higher Education Commission), Thai Agricultural Research Data Archive (TARR) of ARA, ARDA -The Agricultural Research Development Agency (Public Organization) and AGRIS / FAO International Agricultural Research Information System using the data exchange model in accordance with international OAI and API standards (13.6).

Links to Documentation

13.1-Image of data searching system

(<https://kukr.lib.ku.ac.th/cts/files2/R13/search-system.pdf>)

13.2-Basic search window

(<https://kukr.lib.ku.ac.th/cts/files2/R13/BasicSearch.pdf>)

13.3-Advanced search window

(<https://kukr.lib.ku.ac.th/cts/files2/R13/Advanced-Search.pdf>)

13.4-Bibliographic page

(<https://kukr.lib.ku.ac.th/cts/files2/R13/Bibliographic.pdf>)

13.5-Identification of permanent storage sources of URI and DOI

(<https://kukr.lib.ku.ac.th/cts/files2/R13/identification-KUKR-URI-DOI.pdf>)

13.6-Data transfer and linkage via API and OAI-PMH

(<https://kukr.lib.ku.ac.th/cts/files2/R13/data-transfer-OAI-API.pdf>)

13.7-Examples of links to Kasetsart University Knowledge Repository

(<https://kukr.lib.ku.ac.th/cts/files2/R13/examples-links.pdf>)

13.8-Dissemination of works in the information system both domestically and internationally, AGRIS / FAO ThaiLis TNRR

(<https://kukr.lib.ku.ac.th/cts/files2/R13/dissemination-FAO-ThaiLis-TARR.pdf>)

13.9-AGRIS AP Metadata Mapping with KUKR Metadata

(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf#page=70>)

Reviewer Entry

Reviewer 1

Comments:

Accept

Reviewer 2

Comments:

accept

14. Data reuse

R14. The repository enables reuse of the data over time, ensuring that appropriate metadata are available to support the understanding and use of the data.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository
Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository
accept

Response:

Kasetsart University Knowledge Repository has an international standard bibliographic metadata using the AgMes standard of AGRIS/FAO (14.3) in conjunction with the Dublin core. The metadata is displayed according to the user preferred format, short format and full format. There are 4 formats of bibliographic display to be used as reference following the demands of the users who are in the community of Kasetsart University including APA, Chicago, MLA and Vancouver.

The users (14.7) can search and benefit from the information in the Kasetsart University Knowledge Repository as specified by the depositors to indicate the conditions of the Creative commons license agreement. There is also digital file management (14.8) according to the requirements and standards of digital media of the Library of Kasetsart University (14.5) in order to control the quality of digital information to agree with the standards and support future us.

Kasetsart University Knowledge Repository can store (14.4) and disseminate (14.2) various types of information (14.1). The formats of the digital files are in compliance with the standards (14.8 page 5, 14.6) in order to be able to support long-term use without any problem (14.8 page 7) such as PDF/A format archives, image files saved in JPEG format, video files saved in MP4 format, etc.

[Links to Documentation](#)

- 14.1-Manual for data recording of Kasetsart University Knowledge Repository
(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf#page=3>)
- 14.2-Dissemination of works in the information system both domestically and internationally, AGRIS/ FAO ThaiLis TNRR
(<https://kukr.lib.ku.ac.th/cts/files2/R13/dissemination-FAO-ThaiLis-TARR.pdf>)
- 14.3-AGRIS AP Metadata Mapping with KUKR Metadata
(<https://kukr.lib.ku.ac.th/cts/files2/R7/kukr-data-recording-manual.pdf#page=70>)
- 14.4-Terms and conditions for the preparation of the Kasetsart University Knowledge Repository
(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/200)
- 14.5-Requirements and standards of digital media of the Library of Kasetsart University (Thai language)
(<https://kukr.lib.ku.ac.th/cts/files2/R14/digital-standard-kulib.pdf>)
- 14.6-Website Terms of Service, Data files that can be imported
(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/198)
- 14.7-Privacy policy
(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/197)
- 14.8-Manual of file management of Kasetsart University Knowledge Repository
(<https://kukr.lib.ku.ac.th/cts/files2/R14/file-management.pdf>)

Reviewer Entry

Reviewer 1

Comments:
Accept

Reviewer 2

Comments:
accept

TECHNOLOGY

15. Technical infrastructure

R15. The repository functions on well-supported operating systems and other core infrastructural software and is using hardware and software technologies appropriate to the services it provides to its Designated Community.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository

Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository

accept

Response:

Kasetsart University Knowledge Repository installed in the server system of the Office of the University Library, Kasetsart University. It is the high-performance server system that is connected with the Nontri network to the Office of Computer Service, Kasetsart University at 10 Gbps speed. There are network security system (Firewall) (15.1 page 5) and daily automatic data backup system (15.1 page 7).

The hardware infrastructure of Kasetsart University Knowledge Repository (15.2) consists of

1. Virtual Machine Servers 4 VMs. For service systems 3 VMs (Web Application Server, Database Server, Elastic Engine Server) and 1 VM for management system.
2. Network Attached Storage (NAS) size 6 TB.

The system of Kasetsart University Knowledge Repository is developed using the well-known and widely used Open-Source Software, with many supportive community groups such as Ngnix, Mysql, Elastic Search, PHP etc. Kasetsart University Knowledge Repository has a system maintenance plan, data backup and recovery plan (15.8) and business continuity plan (15.7). The operation follows the policy and guidelines for information security of the Office of the University Library, Kasetsart University (15.9) for efficiency and security of the system. The operation is in conjunction with the continuity management plan (Details in R3- Continuity of access).

The Kasetsart University Knowledge Repository system is an information system that stores the works of the university which is important information. There are 3 backup systems: (1) Daily snapshot backups of virtual machine servers to onsite disk. The data is backed up in 14 versions and it can be recovered for 2 weeks. (2) Weekly backup to offsite tape libraries. The data is backed up in 8 versions and it can be recovered for 2 months. (3) Automatic replication of data to DR storage site at Office of Computer Services, Kasetsart University.

The system of Kasetsart University Knowledge Repository is the designed and developed software with DSpace as a prototype. The Information Management Infrastructure (15.2 page 4-5), Data Import (SIP), Storage (AIP) and Access (DIP) are operated based on the standards of OAIS reference model.

Kasetsart University has the policy for supporting. In 2021, the budget of 4 million baht was allocated to purchase the server system at the University's Data Center with the supporting budgets for continuous system development. (15.3, 15.4)

Links to Documentation

15.1-Information and Communication Technology Infrastructure of Office of the University Library, Kasetsart University
(<https://kukr.lib.ku.ac.th/cts/files2/R15/ICT-Infrastructure.pdf>)

15.2-Kasetsart University Knowledge Repository System Manual
(<https://kukr.lib.ku.ac.th/cts/files2/R15/KUKR-SystemManual.pdf>)

15.3-Information and Communication Technology Master Plan, Kasetsart University Year 2017-2021
(<https://kukr.lib.ku.ac.th/cts/files2/R15/ICT-master-plan2017-2021.pdf>)

15.4-Digital Action Plan Kasetsart University Year 2021-2025; Project Yor4-2 page 60 (Thai language)
(<https://kukr.lib.ku.ac.th/cts/files2/R15/digital-action-plan2021-2025.pdf>)

15.5-Kasetsart University Knowledge Repository Administrator Manual
(<https://kukr.lib.ku.ac.th/cts/files2/R15/KUKR-AdminManual.pdf>)

15.6-Kasetsart University Knowledge Repository User Manual (Thai language)
(<https://kukr.lib.ku.ac.th/cts/files2/R15/KUKR-UserManual.pdf>)

15.7- Kasetsart University Knowledge Repository Continuity Plan
(<https://kukr.lib.ku.ac.th/cts/files2/R3/BCP-KUKR.pdf>)

15.8-Data Backup and Recovery Plan
(<https://kukr.lib.ku.ac.th/cts/files2/R15/backup-recovery-plan.pdf>)

15.9-Policy and Guidelines for Information Security of Office of the University Library, Kasetsart University
(<https://kukr.lib.ku.ac.th/cts/files2/R16/IT-policy-guideline.pdf>)

Reviewer Entry

Reviewer 1

Comments:
Accept.

Reviewer 2

Comments:
accept

16. Security

R16. The technical infrastructure of the repository provides for protection of the facility and its data, products, services, and users.

Compliance Level:

4 – The guideline has been fully implemented in the repository

Reviewer Entry

Reviewer 1

Comments:

4 – The guideline has been fully implemented in the repository
Accept

Reviewer 2

Comments:

4 – The guideline has been fully implemented in the repository
accept

Response:

Kasetsart University Knowledge Repository has an information technology security system operated in accordance with the policy and guidelines for information security (16.1) with international standards. For the system to be efficient, stable, safe and perform the operation continuously.

For the security of the information system, the firewall (16.2 page 5) is installed and properly configured to control the server's access through the network. Includes regular configuration reviews. The persons responsible for the network security system are designated to be responsible for investigating and monitoring any attack or intrusion from outside the network and establishing the guidelines for the security of the information technology system (16.1 page 38-46).

For the physical security of the data center room (16.1 page 46-47) located in the Information Technology Division in the Office of the University Library, Kasetsart University building, there is limited access to the data center room. There are security systems in the room such as CCTV cameras, room access system, temperature, and humidity monitoring system, FM200 fire alarm and protection system, UPS to prevent power failure, Generator, etc. Includes regular maintenance plans for the data center room.

For the information security, data backup and recovery plan (16.3) and business continuity plan (16.4) are provided to prepare for the restoration of information systems to be able to open for service as soon as possible in the event of an emergency due to uncertainty and potential disaster. The data from the DR storage site can be immediately recovered to the DC storage site in an emergency.

The server and the storage of Kasetsart University Knowledge Repository has the system administrator (16.6) responsible for managing, monitoring, maintaining both hardware and software of the system to be always ready for use. The SSL security certificate is installed in the server for secure access to information via https. The operating system and software versions are updated to the latest or supported versions from the manufacturer. The Antivirus software is installed for the security of the information system.

For secure access to the system, (16.5) Kasetsart University Knowledge Repository uses the LDAP authentication system

that maintains user accounts and passwords by the Office of Computer Services, Kasetsart University. The rights of access to information systems are set appropriately for the users together with the duties and responsibilities in the performance of the information system users including regular reviews of access rights.

Links to Documentation

16.1-Policy and Guidelines for Information Security of Office of the University Library, Kasetsart University (Thai language)
(<https://kukr.lib.ku.ac.th/cts/files2/R16/IT-policy-guideline.pdf>)

16.2-Information and Communication Technology Infrastructure of Office of the University Library, Kasetsart University
(<https://kukr.lib.ku.ac.th/cts/files2/R15/ICT-Infrastructure.pdf>)

16.3-Data Backup and Recovery Plan
(<https://kukr.lib.ku.ac.th/cts/files2/R15/backup-recovery-plan.pdf>)

16.4- Kasetsart University Knowledge Repository Continuity Plan
(<https://kukr.lib.ku.ac.th/cts/files2/R3/BCP-KUKR.pdf>)

16.5-Authentication and authorization procedures for secure access to the system
(<https://kukr.lib.ku.ac.th/cts/files2/R16/KUKR-authen.pdf>)

16.6-Missions and development project of Kasetsart University Knowledge Repository
(https://kukr2.lib.ku.ac.th/kukr_es/kukr/language/en?next=kukr/multi_menu/index/8)

Reviewer Entry

Reviewer 1

Comments:
Accept.

Reviewer 2

Comments:
accept

APPLICANT FEEDBACK

Comments/feedback

These Requirements are not seen as final, and we value your input to improve the CoreTrustSeal certification procedure. Any comments on the quality of the Requirements, their relevance to your organization, or any other contribution, will be considered as part of future iterations.

Response:

Reviewer Entry

Reviewer 1

Comments:

I am satisfied with the updated information and have set all levels to 4 at this point.

Reviewer 2

Comments:

recommend Approve