



Addis Ababa University, Data Repository, Sharing and Use Policy

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Background

Addis Ababa University (AAU) was established in 1950 as the first public university in Ethiopia with 33 students and nine faculty members. Since its establishment, AAU has expanded both in the number of programs and students. As of January 2020, the University had 46,873 students, 2987 faculty, 4497 administration staff and 1202 health professionals who are mainly engaged in health service provision at Tikur Anbessa Hospital. The University runs its teaching and learning, research and community services in 10 colleges and 13 institutes (six teaching and research and seven research only) operated in 20 campuses including the Veterinary Medical College located at Bishoftu, two rural campuses (Butajira Rural Health Program and Ziway Community Health Rural Team Training Program) for students from medicine, nursing, pharmacy, dentistry and laboratory schools.

Having 366 graduate programs of which 96 are PhD, the University is designated as a research University by Ministry of Science and Higher Education though it has been one for the past several years.. Throughout its life time, its faculty and students had been collecting a huge data including, qualitative, statistical, biomedical, seismological, astrological, linguistic, geological, anthropological, plant and animal based and other academic discipline based dataset in relation to collaborative and universities own studies. Since the past two decades, wealth of research data has been collected due to the introduction of graduate studies where research is mandatory as partial fulfillment of the MSc and a full requirement for a PhD program. Apart from collaborative and graduate studies, different colleges have been generating community based data for exploration, following development, change in population and teaching purposes. This wealth of data is very important for the advancement of science in general and teaching and learning process in specific. The use of already accumulated data has several importance including using a panel data to study trends, variations, bringing power to analysis using large dataset, mixing data to ascertain credibility and bringing efficiency in the face of limited resources and decreasing community fatigue. Apart from the above, stored data will enhance creativity and decreases plagiarism.

Considering the above advantages and based on the National Open Access Policy of Ethiopia for Higher Education, by Ministry of Science and Higher Education¹, Addis Ababa University is planning to create a data repository system to store all types of data generated at all colleges including biological materials. This data storage, use and sharing policy is designed to ensure appropriate data storage, use and sharing to protect study participants from unnecessary violation of their privacy, appropriate use of data only for the intended research; and protect the unlawful use of the authors and data owners right and other related items. AAU embraces the principle of MoSHE “as open as possible as closed as necessary”

Scope of the data sharing policy

The data repository and sharing policy applies for all data generated by AAU staff and students using public money. The policy also applies for data generated using collaborative projects based on prior agreements. The university repository will store all digital statistical and qualitative data and biological material based on the nature, time and sensitivity of the data as indicated in the subsequent articles. Data will be accepted for storage when it meets the desired quality and standard which will be explicitly indicated in the data repository and sharing guideline.

Article I: Definition of research data

This data repository and sharing policy defines research data as follows:

Data are the original raw material or factual records collected to conduct a research by a faculty or student at the University. This includes but not limited to statistics, textual records, images, sounds, audiotapes, videotapes, photographs, films, standard operation procedures, methodologies and workflows, models, algorithms and scripts, biological materials. Such research data are results from observations from field works, surveys, interviews, experiments, measurements, observation and follow-ups of geological survey and related data, biological data generated for research, teaching or for sentinel surveillance,^{2,3,4},

¹ Ministry of Science and Higher Education. National Open Access Policy of Ethiopia for Higher Education. June 2019, Addis Ababa

²Borgman, C.L., Wallis, J.C., &Mayernik, M.S. (2012). Who’s got the data? Interdependencies in science and technology collaborations. *Computer Supported Cooperative Work*, 21(6), 485-523.

³Cambridge University Data Sharing Policy Framework

Article II: Purpose of repository and sharing

1. To reduce duplication of effort and use of scarce resources by availing raw data for students and faculty
2. To decrease community fatigue
3. To increase the visibility of the university
4. To facilitate comparison of environmental, cultural, disease, economic, political, structural trends both nationally and globally
5. To create access for researchers and join hands with the international and national universities
6. To facilitate research publication and citation
7. To assure the credibility and validity of data
8. To allow multidisciplinary research work
9. To improve research training through data scrutiny and mining
10. To assure accountability to the public

Article III: Type of data

What type of data are eligible for storage and sharing?

This data repository and sharing policy refers to storing, sorting and sharing of all types of data (quantitative, qualitative, sound, pictorial, graphical and biological).

1. All researches conducted by AAU staff and/or students using public money and collaborative research (based on initial agreement) needs to be deposited at a AAU's Data Repository.
2. For a staff or student who works in collaboration with other institution and data is generated in Ethiopia in which the principal investigator is based, the data can be deposited in the other institution data repository if they have one. However, this should be clearly stated in the research proposal document and agreed upon by the designated

⁴OECD (2007). [Principles and Guidelines for Access to Research Data from Public Funding](https://www.oecd.org/sti/sci-tech/38500813.pdf). Retrieved from <https://www.oecd.org/sti/sci-tech/38500813.pdf>

AAU higher officials both at a school/institute, college and University level before the data collection.

3. Other cases of data generation, storage and sharing should be treated individually in a manner that protects the rights of both the author and the University.

Article IV: Steps to be followed to store data (before providing data to be stored) in the data repository:

Before data is accepted for storage and sharing the following criteria should be met:

1. Data quality should be assured
2. All variables and fields should be clearly indicated and filled
3. The variable labels should be clearly indicated and a key that describe the variables should be attached
4. Variables that identifies the participants or the study subjects anonymously should be indicted clearly
5. All individual identifiers that could directly impact the participants should be anonymize or pseudonym or number should be used

Article V: Data generation and storage

1. Colleges and institutes are the primary sources of data through their schools and departments.
2. The nature, quality and use of data could be best assured by the primary generator of data.
3. The data storage and solicitation of data for sharing should be initiated from the colleges in consultation with their schools and departments.
4. Schools and departments have the responsibility of assuring data quality based on the steps/requirements mentioned in article IV above. Unless data acquires the stated quality, it could not be stored in the data repository. This would also encourage staff and facility to work towards assuring the quality of data.
5. Colleges, being the data generators, shall store their own data and share it with the University main data repository with the requirements mentioned in Article IV.

Article VI Restrictions on data for sharing:

Data sharing is highly dependent upon the nature and content of the data. The following pre questions should be taken before deciding to share data:

1. Data that threatens, instructional and national security should not be shared or should be shared only for bodies that share the concern when it is believed necessary
2. Data that are not fully utilized by the researchers especially by PhD and masters students should not be shared unless it is more than three years old.
3. All data collected by collaborative or any other related funding could be shared after 3 years after data is generated
4. If the researcher asks the University to store and share his/her data (all or in part) before the designated year(three years post generation) the University shall accept the request after a written consent.
5. Data generated by thematic research⁵could be shared after one year of project completion.Hence, researchers are encouraged to write their findings at the end of the thematic research.
6. Biological material should be stored in appropriate data repository/laboratory for examining trends, changes in disease patterns and for conducting further research and teaching. A special consideration should be taken based on the countries law (Proclamation 462/2006 Article 15) before deciding to share biological materials.
7. Traditional/community knowledge related materials will be stored for exploration and research purpose should follow the Ethiopian law (Proclamation 462/2006 Article 15).

Article VII Responsibilities

A. Responsibility of AAU

AAU is responsible for:

1. Creating a data repository at each college and institute depending on the size and type of data generated at each level
2. Strengthening the University server to accommodate all data

⁵Thematic research is a University funding scheme using public money which is funded for three consecutive years

3. Creating a system of data sharing at a cloud level.
4. The development of IT security documents - policy, rules and guidelines
5. Developing infrastructure and training to promote best practice in data management amongst its academics (including postgraduate students), to acknowledge its obligations and achieve compliance with this policy
6. Organizing training on research data management (online and in practice)
7. Preparing booklet (also short video) on managing and sharing data including how to deposit.
8. Disseminating information amongst its academics about the requirements under this policy in relation to research data.
9. Creating and managing a dedicated website providing guidance for the University's academics in good data management practice.

B. University staff and graduate students' responsibility

Staff and students are encouraged to do the following at the design stage of a research project:

1. Prepare a data management plan, in accordance with guidance provided by the University. If funders require a data management plan, such plan needs to be prepared according to the funders' requirements.
2. Ensure that legal, ethical and commercial constraints on release of research data are considered at the initiation of the research process and throughout both the research and data life cycles, which shall be described in the data management plan.
3. Allocate appropriate resources (time and financial resources) for data management in their grant proposal.
4. Ought to make their research data as widely and openly available as possible, ideally by depositing research data in appropriate repositories (discipline-based or institutional). Such data should be assigned persistent Uniform Resource Locators (URLs), such as Digital Object Identifiers (DOIs).
5. Should provide a statement in research articles describing how and on what terms any supporting research data may be accessed (or a statement that all data is contained within the article, if there is no supporting research data).

6. Supporting data should be accessible online no later than the first online publication of the article.
7. Ought to ensure that published research data has appropriate metadata description in accordance with guidance provided by AAU.
8. Should ensure that research data records are retained in appropriate repositories (discipline-based or institutional) for as long as the data seems to be valuable to the data creator or to others, or for as long as is required by the funders or by other regulatory requirements.
9. When depositing research data into external data repositories, they should choose data repositories which support Open Researcher and Contributor ID (ORCID). ORCID provides each academic with a unique identifier, and is increasingly required by publishers and by data repositories at the stage of research output submission. The use of ORCID ensures that each academic's research activities are distinguished from those of others with similar names.
10. Are encouraged to store publicly-funded research data that is not generated in a digital format in a manner to facilitate it being share

Article VIII Data Usage

1. All staffs have access to the database through personal account.
2. Data users should provide to AAU the detailed project proposal whenever he/she wishes to use the metadata in the Data Repository.
3. AAU must identify the different categories of the dataset
 - a) which cannot be accessed,
 - b) can be used with some restriction and
 - c) openly and widely used, and users uses accordingly
 - d) AAU should set a payment scheme for data shared to non-academic units.

4. AAU will produce guidance on application of the data repository and sharing policy which includes but not limited to:
 - a) sensitive data sharing,
 - b) authorship criteria from data and
 - c) data user fee

Article IX Data Quality and Data Security

Internationally accepted data security should be used, however, data security should be regulated at different levels.

1. All Researchers receiving public funding have to submit their Data Management Plans (DMP) to ensure data quality and this can be included as responsibility for the University as well as researchers in the Article.
2. Research data to be handled according to the FAIR principles (i.e. Findable, Accessible, Interoperable and Re-usable under Article
3. At a college level, access to data should be through the library head of the college
4. At the University level, the AAU Library will be responsible for sharing the refined and clean data.
5. At both levels, the libraries will follow the necessary steps in the data repository and sharing policy and the implementation guideline

Article X. Related legislation and documents

Any article or statement of this policy framework that goes in contrary with the statements stipulated in AAU's current legislation shall not be applicable.

Article XI. Feedback

The university community members may forward comments and feed back to this policy framework by directly contacting the office of the President for possible amendment

Article XII. Approval and review details (version control)

Approval and review	Details
Name of document as intended to	Addis Ababa University Data Repository and Sharing and

be cited where needed	Use Policy Framework, 2020/2012 E.C
Document owner	Addis Ababa University
Version reference	Version 1
Approved by	AAU Senate
Next review date	2025
Date of Approval	2020
Effective date July 2020	2020

Article XIII

This Data Sharing Policy is open for amendment every 5 years since its first issuance

End.

References

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Borgman, C.L., Wallis, J.C., & Mayernik, M.S. (2012). Who's got the data? Interdependencies in science and technology collaborations. *Computer Supported Cooperative Work*, 21(6), 485-523.

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Retrieved from <https://www.oecd.org/sti/sci-tech/38500813.pdf>

Cambridge University Data Sharing Policy Framework

Ministry of Science and Higher Education. National Open Access Policy of Ethiopia for Higher Education

Federal Democratic Government of Ethiopia. Proclamation 482/2006, a proclamation to provide access to genetic resources community knowledge and community rights. *Negarit Gazzita*, 13th Year Number 13, 27th February, 2006, page 3353