This template was developed by the LIBSENSE Policy Working Group. The aim is to provide a draft text of an open science policy, which can be used and amended by any country interested in adopting an open science policy. This template expands the scope of the earlier Version 1, to move beyond open access articles and includes research data and other types of research outputs.

NATIONAL OPEN ACCESS/OPEN SCIENCE/OPEN RESEARCH POLICY OF [Country]

1. Aims and Scope of the Policy

The **[Ministry… - adjust to your needs]** commits to the advancement of science and the wide dissemination of knowledge for the benefit of research and society by adopting practices on open, reproducible and responsible research. The **[Ministry… - adjust to your needs]** recognizes "openness" as one of its guiding principles and commits to promoting it by, among other things, requiring open access to publications and research data; building the necessary infrastructure, skills, rewards and incentives to support open science; and supporting research processes and tools that enable collaboration, new working models and new social relationships. The **[Ministry… - adjust to your needs]** also recognizes that open access advances the principles of social justice through promoting a culture of open sharing, mentorship and skills development. The **[Ministry… - adjust to your needs]** actively seeks to share research and learning content that addresses national and African research and teaching and learning imperatives; and share research and learning content that contribute to national and African social and economic development.

For this purpose, the **[Ministry]** has defined the following policy which must be observed by all recipients of research funding as of **[date]**.

2. Rights, Roles and Responsibilities

The **[Ministry]**:

1. Fosters the transition to Open Science through the adoption of the present policy and the provision of appropriate guidance and training to ensure the implementation of the policy.

2. Supports the necessary infrastructure and services to support this transition such as open access repositories for publications and data, and open access journals in **[Country]**.

3. Requests the use of persistent identifiers such as ORCID, DOIs, or others which are free or affordable.

4. Encourages the uptake of Open Science practices (in addition to open access to publications and data) such as the involvement in collaborative community science projects, the use of open educational resources etc., by including "openness" as one of the criteria during research assessment and evaluation.

5. Practices responsible and fair research assessment and considers the intrinsic merit of the work, not the title of the journal or publisher, when research outputs are assessed. This commitment is aligned with the San Francisco Declaration on Research Assessment, Leiden Manifesto and equivalent.

6. Monitors policy compliance and provides public accounts of this policy progress and research impact.

Researchers:

1. Manage research outputs in adherence with the principles and requirements expressed in this policy.

3. Open Access to Publications

1. The **[Ministry]** requires that a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication of all peer reviewed publications produced as a result of research supported, either in entirety or in part by **[Ministry]**, is deposited in a suitable open access repository. Deposit should be made immediately upon acceptance for publication or at the latest at the time of publication. Metadata should be made fully open, searchable and machine-readable from the time of deposit under CC0 or equivalent license.

2. The **[Ministry]** requires that the full-text of all such publications be made openly available immediately where possible and in any case no later than 6-months after publication in Science, Technology, Engineering and Mathematics (STEM) or 12 months after publication in the Social Sciences and Humanities (SSH). If a journal's permitted embargo period is longer than these, authors should either negotiate with the publisher to retain the rights so as to comply with this policy, or find a journal that enables them to comply without the need for negotiation.

3. The **[Ministry]** requires researchers to retain ownership of copyright and to license to publishers only those rights necessary for publication. This is possible through the use of addenda to the publishing contract. Templates are available at https://sparcopen.org/wp-content/uploads/2016/01/Access-Reuse_Addendum.pdf.

4. The **[Ministry]** strongly encourages researchers and PhD students to post preprints of their work under a CC BY license on a preprint platform/open access repository and prominently state whether or not it has undergone peer review. Preprint authors should certify that their manuscript will be submitted to a peer-review journal, and should regularly update the manuscript status. When the article is published, a researcher/PhD student should inform the repository to add a link to the journal DOI to the preprint record (e.g. via a related identifier/DC relation field).

5. While the dominant type of scientific publication is the journal article, researchers are strongly encouraged to provide open access to other types of publications such as monographs, book chapters, conference proceedings, grey literature, reports, etc.

6. For purposes of individual or institutional evaluation of the research output of the institution and its members, the **[Ministry]** will only consider as publications those whose metadata and full texts are deposited in the repository according to the requirements stated above.

4. Open Access to Theses and Dissertations

1. The **[Ministry]** requires that an approved final version of the thesis or dissertation must be deposited in a **[national/University's institutional repository]**.

2. This policy applies to all graduate and post-graduate students who author a thesis or dissertation as part of their University graduate degree requirements and following issuance of this policy.

3. To assist the University in archiving and openly disseminating theses and dissertations within the scope of this policy, all of the University's graduate students will submit the final version of the student's thesis or dissertation to the University before conferral of the student's graduate degree, regardless of whether an embargo is obtained. Such thesis or dissertation will be made freely and openly available to the public after filing, unless the graduate student obtains an embargo.

4. Graduate and postgraduate students may delay the date their theses or dissertations become available in an open access repository by specifying the embargo period – up to two years – upon filing. Upon compelling circumstances, the University may grant embargoes of longer than two years or embargoes requested after filing.

5. Open Access to Research Data

1. The **[Ministry]** requires the deposit of the research data needed to validate the results presented in scientific and scholarly publications resulting entirely or partly from its funding and their metadata, preferably in a research data repository.

2. The **[Ministry]** also requires the deposit of all relevant research data needed for policy making and innovation **[insert data type here: soil, fertilizers, climate, productivity and so on]** that may not be necessary for research purposes.

3. The **[Ministry]** follows the principle "as open as possible as closed as necessary". The **[Ministry]** requires research data to be handled according to the CARE Principles for Indigenous Data Governance and FAIR principles (i.e. Findable, Accessible, Interoperable and Re-usable). If data cannot be open due to legal, privacy or other concerns (for example personal or sensitive data) this should be clearly explained.

4. Researchers are encouraged to submit a Data Management Plan (DMP) showing how data will be managed through the research process and handled according to the CARE and FAIR data principles.

6. Licensing

1. The **[Ministry]** encourages that funded publications are made available under an open content license, such as Creative Commons (CC BY).

2. The **[Ministry]** requires that research data must be made available under an open content license, such as Creative Commons (CC BY or CC0).

7. Resources for training/ awareness-raising on Open Science

The **[Ministry]** ensures researchers have access to appropriate training and support activities on Open Science on their institutional level.

8. Research Assessment and Evaluation

The [Ministry] commits to:

1. Developing a framework for research assessment and evaluation that incentivizes research quality and Open Science behaviors and practices. Such systems should take into consideration disciplinary differences and their impact on researchers at different career stages.

2. Setting up reward mechanisms for researchers using Open Science practices (e.g. sharing provisional results through open platforms, using open software and other tools, participation in open collaborative projects (citizen science), sharing data, etc.); adopt open science metrics and 'responsible metrics', along with ways of rewarding the full diversity of outputs and of recording the broader social impact of research ('next generation metrics').

9. Policy Review

An evidenced-based review of the policy implementation will take place three years following its adoption and subsequent reviews will take place on a biennial basis.

ANNEX I: Definitions

- **CARE Principles for Indigenous Data Governance** The emphasis on greater data sharing alone creates a tension for Indigenous Peoples who are also asserting greater control over the application and use of Indigenous data and Indigenous Knowledge for collective benefit. This includes the right to create value from Indigenous data in ways that are grounded in Indigenous worldviews and realise opportunities within the knowledge economy. The CARE Principles for Indigenous Data Governance are people and purpose-oriented, reflecting the crucial role of data in advancing Indigenous innovation and self-determination. These principles complement the existing FAIR principles encouraging open and other data movements to consider both people and purpose in their advocacy and pursuits.

· **Data Management Plan (DMP)** is a brief plan that defines how the data will be created, how it will be documented, who will be able to access it, where it will be stored, who will back it up and whether (and how) it will be shared and preserved.

· **Embargo** is the period during which a publication can be 'closed' while deposited in the repository (i.e. the publication is not openly available).

· **FAIR Data Principles for scientific management and data stewardship** refer to a set of principles to make data Findable, Accessible, Interoperable and Reusable https://www.force11.org/group/fairgroup/fairprinciples.

· **Metadata** are the descriptors used for describing, tracing, use and management of the deposited item (indicatively: title of publication, author(s), institutional affiliation, name of journal where the publication has been accepted, etc.).

- **Research Data** is any information that has been collected, observed, generated or created to validate original research findings (such as raw data captured from instruments sensors, visualizations, models, algorithms, images, audio and video files, etc.).

- **Research** is defined as any creative and systematically performed work with the goal of furthering knowledge.