

**MEMORANDAM OF UNDERSTANDING**

**BETWEEN**

**THE TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY  
ON BEHALF OF  
THE TANZANIA BIODIVERSITY INFORMATION FACILITY**

**AND**

---

# TABLE OF CONTENTS

<b>ARTICLE I: Preamble</b> .....	<b>1</b>
<b>ARTICLE II: Definitions</b> .....	<b>2</b>
2.1 Biodiversity .....	2
2.2 Biodiversity Data .....	2
2.3 GBIF .....	3
2.4 Participant .....	3
2.5 Participants Node .....	3
2.6 Species Bank .....	3
2.7 TanBIF Secretariat Host.....	4
<b>ARTICLE III: Understandings</b> .....	<b>5</b>
<b>ARTICLE IV: Objectives</b> .....	<b>6</b>
4.1 Purpose.....	6
4.2. Goals of TanBIF.....	6
4.3. Involvement of the Participants.....	7
4.4 Scope of Activity.....	7
2.5 Co-operation and Co-ordination .....	9
<b>ARTICLE V: The TanBIF National Committee</b> .....	<b>10</b>
5.1 Role and Purpose .....	10
5.2 Establishment.....	10
5.3 Composition .....	10
5.4 Responsibilities.....	10
5.5 Procedures.....	11
<b>ARTICLE VI: The TanBIF Secretariat Host</b> .....	<b>12</b>
6.1 Location, Role and Purpose.....	12
6.2 Scope of Authority.....	12
6.3 TanBIF Secretariat/TanBIF Host Relationship .....	12
<b>ARTICLE VII: The TanBIF Secretariat</b> .....	<b>13</b>
7.1 Role and Responsibility .....	13
7.2 Designation.....	13
7.3 Accountability.....	13
7.4 Tasks .....	13
<b>ARTICLE VIII: Intellectual Property</b> .....	<b>15</b>
8.1 Applicable Law .....	15
8.2 Access to Data .....	15
8.3 Intellectual Property Rights to Biodiversity Data and Tools .....	15
8.4 Attribution .....	16
8.5 Access to Specific Data .....	16
8.6 Validity of Data .....	16
8.7 Legitimacy of Data Collection .....	16
8.8 Intellectual Property Rights to Biodiversity Tools.....	17
8.9 Technology Transfer .....	17
<b>ARTICLE IX: Finance</b> .....	<b>18</b>
9.1. Basic Financial Contributions .....	18
9.2. Supplementary Financial Contributions .....	18
9.3. Other Income .....	19
9.4. Costs Borne by Participants.....	19
9.5. Crediting of Income .....	19
<b>ARTICLE X: Association and Disassociation of Participants</b> .....	<b>20</b>
10.1 Association of Participants.....	20
10.2 Participant Status.....	20
10.3 Disassociation of Participants .....	20
<b>ARTICLE XI: Other Matters</b> .....	<b>21</b>
11.1 Establishment of TanBIF .....	21
11.2 Duration.....	21
11.3 Modifications .....	21

## **ARTICLE I**

### **Preamble**

The signatories to this Memorandum of Understanding (MoU), which comprise Ministries, Institutions, Departments, Organizations, or entities designated by them, have decided that a co-ordinated national scientific effort is needed to enable users throughout the country to openly share and put to use vast quantities of country biodiversity data, thereby advancing scientific research in many disciplines, promoting technological and sustainable development, facilitating the conservation of biodiversity and the equitable sharing of its benefits, and enhancing the quality of life of members of society. The importance of making biodiversity data openly available to all is underscored by various national and international agreements.

Recognising this need, the delegates to the second meeting of the National Biodiversity Information Stakeholders held at Golden Tulip Hotel, Dar es Salaam on August 30<sup>th</sup> 2007 endorsed the recommendation that a National Biodiversity Information Facility (hereafter referred to as TanBIF), be established.

Noting that, the signatories to this Memorandum of Understanding hereby express their intention to become Participants of the Tanzania Biodiversity Information Facility (TanBIF) as a form of technical and scientific national co-operation.

## **ARTICLE II Definitions**

### **2.1 Biodiversity**

Is the short form for "biological diversity". The term that stands for the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes genetic diversity, and diversity within species, between species and among ecosystems.

### **2.2 Biodiversity Data**

In the context of this MoU, biodiversity data refers to scientific data, primarily about biological species and specimens or observations of individual organisms. At the species level, such data would include the scientific names of the species and all of its synonyms; the common name(s) of the species; and other information about the species, such as a description of the species, its physiological properties, its genetics, its geographic distribution, its phylogenetic relationships, its role in the dynamics of ecosystem processes including cases of invasions, its applications, etc. Specimen-level data including samples for molecular analysis, would include the scientific name of the species to which the specimen belongs; information on where, when and by whom the specimen was collected; where the specimen is currently located; who identified it; the specimen number; and other associated information derived from the specimen (e.g., living culture, frozen tissues, photographs, parasites, hosts) and any other related field notes written by the collector of the specimen.

## **2.3 GBIF**

GBIF is an open-ended international co-ordinating body set up with the overall aim of furthering technical and scientific efforts to develop and maintain a global information facility for sharing of digital biodiversity data.

## **2.4 Participant**

An institution, organization, agency, or other entity, that has signed this MoU and has expressed its intention to observe the provisions herein. A Participant may designate an entity to take part in the operation of TanBIF.

## **2.5 Participants Node**

A mechanism by which, a Participant coordinates and supports its TanBIF data-sharing activities. A Participant Node includes both physical infrastructure and human resources. Typically a Participant Node encourages and supports the activities of the Participant's data providers to both contribute and use TanBIF-served data, provides information technology (IT) infrastructure and expertise for TanBIF activities, and functions as an information gateway among Participants, other partners, and TanBIF Secretariat.

## **2.6 Species Bank**

It is a repository of accessible information regarding species, both old and new.

## **2.7 TanBIF Secretariat Host**

The institution, agency or other entity which provides administrative and logistical support for the TanBIF Secretariat and in which the TanBIF Secretariat may be located and housed. TanBIF Secretariat Host shall demonstrate its capability to provide institutional arrangements that conform to the closest extent possible, under national laws, with the criteria for the TanBIF Secretariat Host. The TanBIF Secretariat Host shall have technical expertise and experience on Information and Communication Technologies.

## **ARTICLE III**

### **Understandings**

- 3.1 TanBIF is a National co-ordinating body set up with the overall aim of furthering technical and scientific efforts to develop and maintain the Tanzania Biodiversity Information Facility for sharing of digital biodiversity data. It comprises a wide range of participants, including national institutions, agencies, organisations and individuals that intend to provide free and universal access to data and information regarding Tanzania's biodiversity. TanBIF is a national node of the GBIF.
- 3.2 The Participants' involvement in this MoU is subject to the goodwill and effective contribution to TanBIF's activities and operations, either financially or through any of the activities described in Article 4.3 and is subject to the applicable laws and regulations of the Participants.
- 3.3 Nothing in this MoU should be read to contradict the principles of the Convention on Biological Diversity and other relevant conventions.

## **ARTICLE IV Objectives**

### **4.1 Purpose**

The purpose of TanBIF is to promote, co-ordinate, design and implement the compilation, linking, standardisation, digitisation and dissemination of the country's biodiversity data, within an appropriate framework for property rights and due attribution of data sources. TanBIF will work in close co-operation with established programmes and organisations that compile, maintain and use biological information resources. Participants, working through TanBIF, will establish and support a distributed information system that will enable users to access and utilise considerable quantities of existing and new biodiversity data and information.

### **4.2. Goals of TanBIF**

It is the intention of the Participants that TanBIF:

- 4.2.1 Becomes national in scale and scope to meet national development goals and aspirations;
- 4.2.2 Becomes freely accessible to individuals and organizations anywhere in the world with whom we have signed a cooperation agreement, offering mutual benefits, while remaining primarily funded and shaped by participating organizations.
- 4.2.3 Promote standards and software tools designed to facilitate their adaptation into multiple languages, character sets and computer encodings;
- 4.2.4 Serve to disseminate technological capacity by drawing on and

making widely available scientific and technical information; and

4.2.5 Make biodiversity data universally available, while fully acknowledging the contribution made by those gathering and furnishing these data.

### **4.3. Involvement of the Participants**

Each Participant should seek to:

- 4.3.1 Participate actively in the formulation and implementation of the TanBIF Strategic Plan and the Work Programme;
- 4.3.2 Share biodiversity data through TanBIF under a common set of Technical standards and within the Intellectual Property Rights Framework (such that described in article VI)
- 4.3.3 Form a node or nodes, accessible via TanBIF, that will organize and/or provide access to biodiversity data, metadata standards, software tools or other services to enhance the TanBIF network;
- 4.3.4 As appropriate, make other investments in biodiversity information infrastructure in support of TanBIF, as well as helping to coordinate and harmonise the biodiversity informatics programs of the Participants, and
- 4.3.5 As appropriate, contribute to training and capacity development for promoting national and global access to biodiversity data, including implementing specific programs to enhance the biodiversity informatics capacity and technical skills in the country.

### **4.4 Scope of Activity**

Through their participation in the TanBIF Work Programme, the Participants may carry out some or all of the following activities:

- 4.4.1 Improving accessibility, completeness and interoperability of biodiversity databases, including: -
  - 4.4.1.1 Contributing data and technical resources, within an Intellectual Property Rights framework (such as that described in Article VI);
  - 4.4.1.2 Developing novel user interface designs that incorporate features to support their functionality;
  - 4.4.1.3 Developing suitable tools and standards for accessing, linking and analysing new and existing databases, including standards and protocols for indexing, validation, documentation and quality control in multiple human languages, character sets and computer encodings; and
  - 4.4.1.4 Providing access to new and existing databases.
- 4.4.2 Facilitating development of an electronic catalogue of the names of known organisms;
- 4.4.3 Designing and implementing Species Bank;
- 4.4.4 Developing a digital library of biodiversity data;
- 4.4.5 Developing partnerships with other relevant organisations and projects;
- 4.4.6 Improving high-speed networking and computation infrastructures;
- 4.4.7 Sharing computational facilities, including high-volume data storage;
- 4.4.8 Developing model curricula for biodiversity informatics training;
- 4.4.9 Training researchers, data managers and technicians;
- 4.4.10 Implementing specific programs to enhance the biodiversity informatics capacity and technical skills; and

4.4.11 Helping to co-ordinate and harmonise the biodiversity informatics programs of the Participants.

## **2.5 Co-operation and Co-ordination**

The Participants intend to encourage co-operation amongst themselves and the TanBIF Secretariat in the implementation of TanBIF and in the development of joint work programmes in areas of mutual interest in order to avoid duplication of efforts and strengthen benefit sharing from existing resources and expertise.

## **ARTICLE V**

### **The TanBIF National Committee**

#### **5.1 Role and Purpose**

The TanBIF National Committee will be the means by which the Participants will make collective decisions on all matters relating to TanBIF, which will then be put into effect by the TanBIF Secretariat.

#### **5.2 Establishment**

The TanBIF National Committee will come into existence on 30<sup>th</sup> August 2007 after election of its member during the 2<sup>nd</sup> CEPDEC Project Partners meeting.

#### **5.3 Composition**

The TanBIF National Committee will consist of 10 -15 members with representations from biodiversity data providers (academic and research institutions), policy makers, conservators and an ICT institution.

#### **5.4 Responsibilities**

The TanBIF National Committee may:

- 5.4.1 Establish its Rules of Procedures and such subsidiary bodies as it sees necessary for its proper functioning and the achievement of TanBIF goals;
- 5.4.2 Adopt such rules, regulations and policies as may be required for the operations of TanBIF;
- 5.4.3 Select a Chairperson; the National Committee may also remove the Chair if the later fails to perform his/her duties;
- 5.4.4 Decide the timing and scope of independent reviews of TanBIF, implementation, governance, impact or uptake;

- 5.4.5 Adopt the National Strategic Plan, Work Programme and the Budget for TanBIF;
- 5.4.6 Monitor the Strategic Plan, the Work Programme and the Budget and make adjustments as needed;
- 5.4.7 Consider any matters pertaining to TanBIF or its operations submitted to it by the secretariat or by any Participant;
- 5.4.8 Identify opportunities for mobilisation and use of biodiversity data, e.g. for scientific, management, policy making or development purposes;
- 5.4.9 Decide the scales of financial contributions to be made by the Participants;
- 5.4.10 Secure sustainability of TanBIF, including fundraising and promoting relationships with organisations that may assist TanBIF to achieve its goals;
- 5.4.11 Provide guidance and monitor the performance of the TanBIF Secretariat Host;
- 5.4.12 Provide guidance and direction and monitor the Secretariat performance;
- 5.4.13 Approve the annual financial statement;
- 5.4.14 Carry out the other functions conferred upon it by this MoU;  
and
- 5.4.15 Consider applications for TanBIF membership.

## **5.5 Procedures**

The TanBIF National Committee may establish such subsidiary bodies and rules of procedure as may be required for its proper functioning.

## **ARTICLE VI**

### **The TanBIF Secretariat Host**

#### **6.1 Location, Role and Purpose**

The TanBIF secretariat will be based and housed at the Tanzania Commission for Science and Technology (COSTECH) in Dar es Salaam. COSTECH will provide office facilities and services including staff and financial management, accountancy, legal assistance etc. Nevertheless, the TanBIF National Committee may transfer the secretariat to any institution or organization that it deems necessary.

#### **6.2 Scope of Authority**

The TanBIF Secretariat Host will be accountable to the National Committee for all matters pertaining to TanBIF, except as otherwise provided in this MoU;

#### **6.3 TanBIF Secretariat/TanBIF Host Relationship**

The TanBIF Secretariat Host should assist the TanBIF Secretariat to implement the National Committee's decisions.

## **ARTICLE VII**

### **The TanBIF Secretariat**

#### **7.1 Role and Responsibility**

The TanBIF Secretariat will carry out a Work Programme that strictly adheres to the plans and directives of the National Committee, including budget allocation and expenditures.

#### **7.2 Designation**

The TanBIF Secretariat will comprise an Executive Secretary, Node Manager, ICT personnel and a Public relation/scientific Liaison Officer and such personnel as may be prescribed by the National Committee.

#### **7.3 Accountability**

In liaison with the TanBIF Secretariat Host, the Secretariat will be accountable to the National Committee for the execution of all scientific, financial and administrative activities undertaken to implement the TanBIF Work Programme. The activities of the Secretariat will be subject to procedures and regulations of TanBIF Secretariat Host.

#### **7.4 Tasks**

The TanBIF Secretariat will: -

- 7.4.1 Be responsible for day to day operations of TanBIF;
- 7.4.2 Adopt the general lines of action;
- 7.4.3 Prepare and execute the National Strategic Plan, Work Programme and the Budget for TanBIF;
- 7.4.4 Responsible for implementing all TanBIF Programmes and projects;

- 7.4.5 Be responsible for developing financial contracts with Participants specifying how each will make financial contributions;
- 7.4.6 Hold in trust, and for the benefit of the Participants, all assets which may accrue to or be acquired for TanBIF;
- 7.4.7 Evaluate and assess progress and accomplishments.

## **ARTICLE VIII Intellectual Property**

### **8.1 Applicable Law**

Nothing in this MoU should be read to alter the scope and application of Intellectual Property Rights and Benefits Sharing Agreements as determined under relevant National and International laws, bylaws, regulations and agreements.

### **8.2 Access to Data**

To the greatest extent possible, TanBIF is an open-access facility. All users whether TanBIF Participants or others shall have equal access to data made available through TanBIF.

### **8.3 Intellectual Property Rights to Biodiversity Data and Tools**

TanBIF promotes the free dissemination of biodiversity data and, in particular;

8.3.1 should not assert any proprietary rights to the data in databases that are developed by other organisations and that subsequently become affiliated to TanBIF;

8.3.2 should seek, to the greatest extent possible, to make freely and openly available, with the least possible restrictions on reuse, any data commissioned, created or developed directly by TanBIF;

8.3.3 should respect conditions set by data providers that affiliate their databases to TanBIF;

8.3.4 When establishing affiliations or linkages with other databases, TanBIF should seek to ensure that the data so made available will, in effect, be in the public domain, and will not be subject to

limitations on its further non-commercial use and dissemination, apart from due attribution.

#### **8.4 Attribution**

TanBIF should seek to ensure that the source of data is acknowledged and should request that such attribution be maintained in any subsequent use of the data.

#### **8.5 Access to Specific Data**

Nothing in this MoU should be read to restrict the right of owners of databases affiliated with TanBIF to block access to any data.

#### **8.6 Validity of Data**

It should be a condition of access to and use of TanBIF that users acknowledge that the validity of the data in any databases affiliated with TanBIF cannot be assured. TanBIF shall disclaim responsibility for the accuracy and reliability of the data as well as for the suitability of its application for any particular purpose.

#### **8.7 Legitimacy of Data Collection**

Where the collection of new data has entailed access to biodiversity resources, TanBIF should ask for reasonable assurances from the data holder that such access was consistent with applicable laws, regulations of the holder's country and any relevant requirements for prior informed consent.

## **8.8 Intellectual Property Rights to Biodiversity Tools**

TanBIF may claim appropriate Intellectual Property Rights available over any tools, such as search engines or other software products that are developed by TanBIF while carrying out the TanBIF Work Programme.

## **8.9 Technology Transfer**

The Participants acknowledge that, subject to any relevant Intellectual Property Rights, TanBIF should seek to promote the non-exclusive transfer, on mutually agreed terms, to research and/or academic institutions of such informatics technology as it has available, especially in conjunction with training and capacity development programmes.

## **ARTICLE IX Finance**

### **9.1. Basic Financial Contributions**

9.1.1. Financial contributions will be made by Participants in accordance with the scales set by the National Committee. The criteria for calculations of the basic financial contribution scale may be on the institutional budget or amount of biodiversity data generated and linked to TanBIF data portal;

9.1.2. These contributions are to be held by the TanBIF Secretariat in a Central Fund and used as stipulated in the Budget approved by National Committee;

9.1.3. The scales for Basic Financial Contributions are to be reviewed and approved by the National Committee every three years, unless the scales are changed by consensus of the National Committee

### **9.2. Supplementary Financial Contributions**

9.2.1 In addition to Basic Financial Contributions Participants may make Supplementary Financial Contributions to fund specific parts of the Work Programme, or for other specified purposes agreed to by the National Committee. Those specified purposes may include facilitating attendance of Participants to the TanBIF functions including TanBIF and GBIF meetings.

9.2.2 Supplementary Financial Contributions are to be held by the TanBIF Secretariat, kept separate from other contributions, and

used only for the purposes specified by the Participants making them.

### **9.3. Other Income**

The Secretariat may seek and accept other income from additional sources (e.g. foundations, agencies, research councils, and private companies) offered for the purposes set out in this MoU and the Strategic Plan.

### **9.4. Costs Borne by Participants**

Participants bear the costs of their own participation in TanBIF functions, including the costs of establishing and supporting their Node(s), formulating or transmitting reports, travel costs for attending TanBIF and GBIF meetings, events, and activities.

### **9.5. Crediting of Income**

Any income generated in the course of TanBIF activities that accrues to the TanBIF Secretariat is to be used for advancing the TanBIF Work Programme.

## **ARTICLE X**

### **Association and Disassociation of Participants**

#### **10.1 Association of Participants**

Association with this MoU is open to any department, institution, agency or to any entity in Tanzania interested with biodiversity data and information. Such association/person becomes effective upon signing of this MoU.

#### **10.2 Participant Status**

10.2.1 Any Participant who has signed the MoU-becomes a member of TanBIF by making the financial contribution to the TanBIF Secretariat, as approved by the National Committee, and the period for which the arrangement is valid;

10.2.2 In order to retain its membership, a Participant must make its financial contribution each year within six months of the due date set out in the financial arrangement described in Article VII.

#### **10.3 Disassociation of Participants**

10.3.1 Any Participant may disassociate itself from this MoU by advising the National Committee in writing of its intention to do so and of the effective date;

10.3.2 In the event of disassociation of a Participant, the National Committee may agree by consensus to adjust the Work Programme and the Budget to take account of such disassociation or adjust the scale of contribution of Participants to the Budget.

**ARTICLE XI  
Other Matters**

**11.1 Establishment of TanBIF**

TanBIF will come into existence on 30<sup>th</sup> August, 2007 after the election of members of the National Committee.

**11.2 Duration**

TanBIF is intended to be a long-term cooperative endeavour, in order to sustain the benefits of access to biodiversity data and information.

**11.3 Modifications**

Except where otherwise specified, the National Committee may modify this MoU at any time through a consensus vote at the yearly business meeting of the Committee.

**Signed by:** .....

**Signed by:** .....

**Name:** .....

**Name:** .....

**Position**

**Director General**

**Institution/Organisation/Department  
Name**

**Tanzania Commission for Science and  
Technology**

**Date:** .....

**Date:** .....