

Digitalization of Biodiversity Collections in Tanzania: Lessons Learnt and Challenges

By

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Outline

- **Introduction**
- **Best Practice**
- **Lessons Learnt**
- **Challenges**
- **Conclusion and Call**

Introduction ---I

- **TanBIF** promotes mobilization, sharing and utilization of biodiversity data and information in Tanzania
- **TanBIF** is also a national node of the GBIF
- **TanBIF** through 4 years capacity enhancement project (CEPDEC-GBIF Pilot Project) considered digitalizing local Institutions biodiversity collections

Introduction ---II

- Tanzania has over 65 Biodiversity Institutional collections
- These include different life forms e.g. mammals, reptiles, birds, Insects, and plants
- TanBIF has limited funds to digitalize all collections at once
- Therefore, prioritization was required

Best Practice---

- TanBIF initiated prioritization process and organized decision meeting
- Plants was chosen as first priority
- Reason: Tanzania has greatest diversity of plant species including 1000 endemic species
- Digitalization trainers training workshop organised by TanBIF

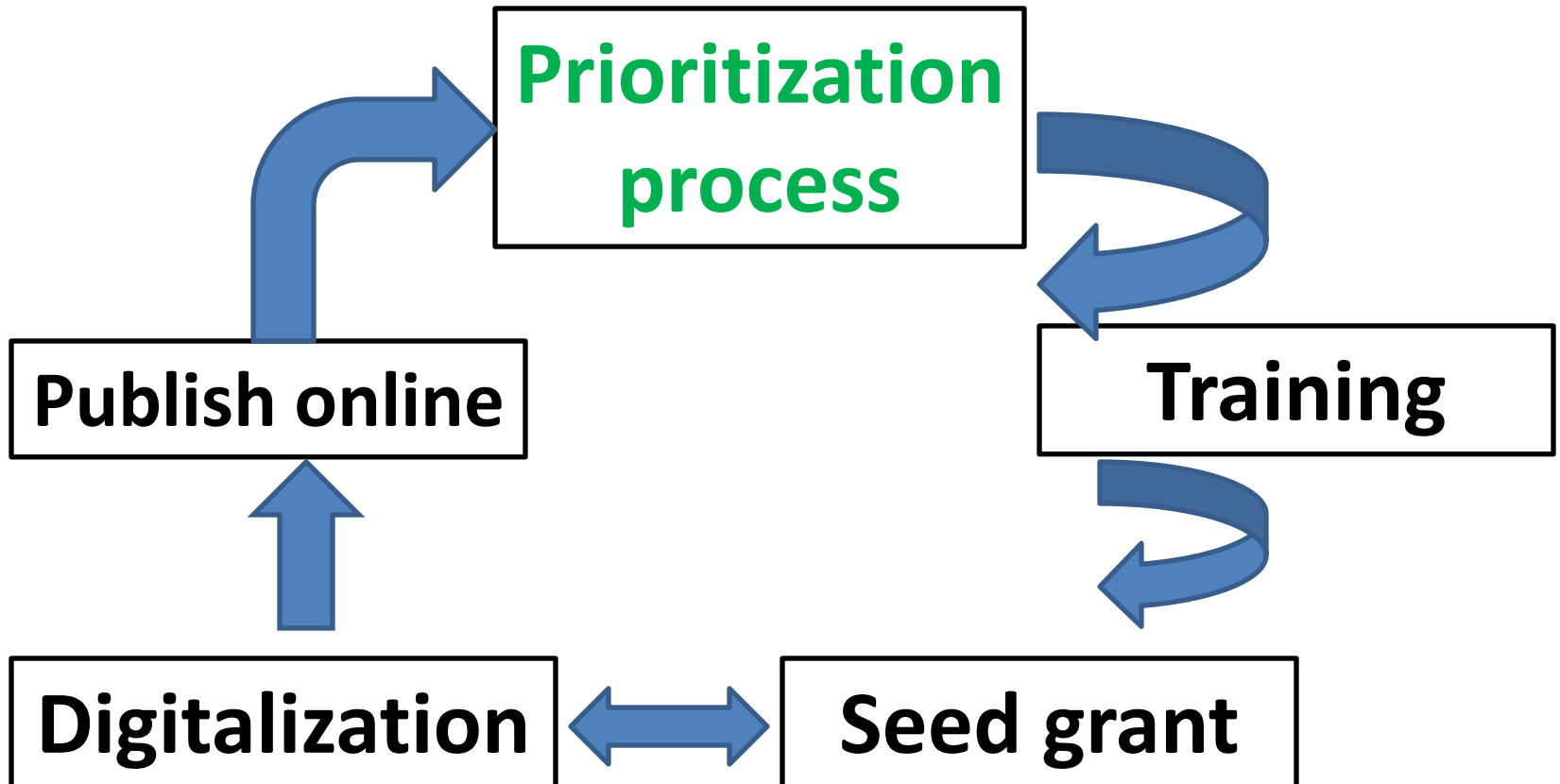
Best Practice---II

- Call for proposal to apply seed grants to digitize herbarium
- Review and selection of three Institutes, **i.e.**
 - i. National Herbarium of Tanzania,
 - ii. Herbarium of Medicinal plants
 - iii. Herbarium of the University of Dar es salaam

Best Practice---III

- Award of Seed grants
- Providing guideline, formats and GBIF standards
- Monitoring digitization process
- Publish online through TANBIF and GBIF portals (www.tanbif.or.tz/ipt)

DIGITALIZATION PROCESS



Lessons Learnt ---I

- Tanzania has numerous small institutional collections, but not digitized
- Digitalization start-up costs is far high for most Tanzania biodiversity collection hosting Institutions
- The country has limited human capacity on biodiversity collections digitalization

Lessons Learnt ---II

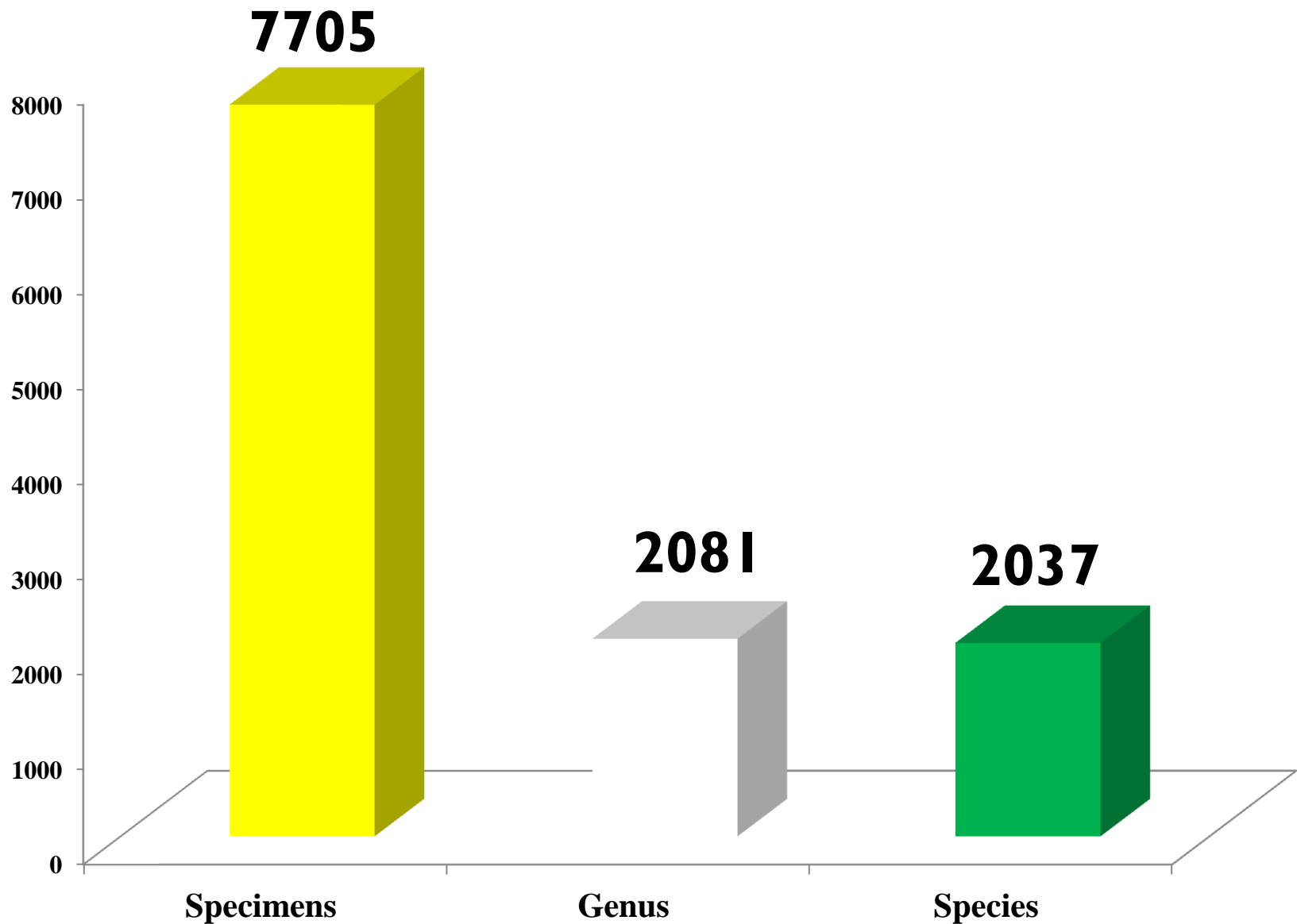
- Competitive seed grant application justifies the willingness to digitize and globally share data from collections
- Digitalization priority setting through stakeholders reduces conflict of interests
- Digitalization made ~ 12, 000 records of plants specimen available online

Challenges ---I

- Based on Cost Unit analysis- 3 USD is required to digitize as specimen or a species.
- One collection may be hosting over 10 specimens of the same species e.g.

OUT OF **7705** DIGITIZED SPECIMENS,
REPRESENT ONLY **2035** SPECIES

Challenges---II



Challenges---III

- **Challenge:** With limited funds, Should we Promote species digitization per collection instead of specimen?
- If yes:
- What specimen to digitize, earliest specimen or the most recent specimen to represent a species?
- Is this professionally acceptable as Biodiversity Collection digitalization?

Challenges---IV

- Image resolution, source of light, and file size pose challenges to ensure uniformity across the country
- Low Internet bandwidth and slow Internet pose challenges of managing and sharing large file online
- Insufficient institutional commitment to long-term digitalization against competing priorities

Challenges--V

- Poor infrastructure and expertise appropriate for digitization, preservation, and storing of biodiversity data and images
- Transparent financial constraints
- TanBIF has also a challenges of Meeting stakeholders expectations under constraints economical and technical environments.

Call

- ▶ “ Lets build a collaborative partnership towards making Rich African Biodiversity Information accessible and meaningful opportunity for the future ”
- ▶ « Bâtissons un partenariat collaboratif à rendre riche information sur la biodiversité en Afrique et être accessibles sens opportunité pour l'avenir »
- ▶ “Laten we een samenwerkingsverband op te bouwen naar het maken van Rich-Afrikaanse biologische informatie toegankelijk en worden betekenis kans voor de toekomst”

Acknowledgment



Thank you for great support

THANK YOU

- SEND comments and/or questions to:

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Be assured of timely RESPONSE