



Africa Engagement Meeting for the Biodiversity Information for Development (BID) Programme

28 - 29 November 2024, Harare, Zimbabwe

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Executive summary

The Global Biodiversity Information Facility (GBIF) hosted the Africa Engagement Meeting for the Biodiversity Information for Development (BID) Programme, funded by the European Union. The meeting was held in Zimbabwe, Harare on 28–29 November 2024, hosted by Bindura University of Science Education, and gathered regional stakeholders to discuss strategies for enhancing biodiversity data mobilization, data use, capacity building, and regional collaboration. This report has been jointly prepared by the meeting participants listed in Annex I who identified regional priorities and made recommendations for the implementation of the BID programme in Africa.

Key outcomes of the meeting included the identification of significant data gaps in the region, including geographic, taxonomic, and temporal gaps. Undigitized herbaria, museum specimens, and data from the private sector and Environmental Impact Assessments (EIAs) emerged as priority sources that are vital for addressing the data gaps. Equally important is the need to involve students in universities who collect biodiversity data in their research projects into data mobilization. Participants emphasized the need for stronger capacity in data digitization, management, and the integration of new data types like DNA metabarcoding data and camera trap data, along with increased national support to the operations of GBIF nodes.

The meeting also highlighted the importance of making biodiversity data accessible and usable for policymakers and researchers to inform conservation efforts. Regional and cross-border collaboration were identified as essential for scaling the impact of BID, with an emphasis on knowledge-sharing and leveraging existing networks.

The meeting provided actionable recommendations to guide the next phase of the BID programme, supporting Africa's contributions to global biodiversity goals, including those of the Kunming-Montreal Global Biodiversity Framework.

Background

The <u>Global Biodiversity Information Facility</u> (GBIF) is an international network and open data infrastructure funded by the world's governments and designed to provide free and open access to biodiversity data. GBIF's mission is to support research and inform decision-making by enabling anyone, anywhere to discover and use information about all forms of life on Earth.

The <u>Biodiversity Information for Development</u> (BID) programme, funded by the <u>European</u> <u>Union</u> and implemented by GBIF, seeks to strengthen the capacity of developing countries to mobilize and share biodiversity data. By improving access to data, information, and knowledge, the BID programme aims to support the effective implementation of the <u>Kunming-Montreal Global Biodiversity Framework</u> (GBF), contributing to global efforts to halt biodiversity loss and promote sustainable development.

The new phase of the BID programme, running from August, 2024 to July, 2029, will focus on Africa, Latin America and the Caribbean, and the Pacific regions. Planned activities include capacity development workshops and competitive calls for project proposals focused on the mobilization, standardization, and publication of biodiversity data through the GBIF infrastructure. The programme aims to foster a strong regional community of practice dedicated to the sharing and reuse of biodiversity data, supporting scientific research, and integrating biodiversity information into decision-making processes.

Objectives of the Africa Engagement Meeting for the Biodiversity Information for Development (BID) Programme

As part of the BID programme's efforts to strengthen the use of open biodiversity data in research and decision-making to support the achievement of global biodiversity targets, Sustainable Development Goals (SDGs), and the UNESCO Recommendation on Open Science, GBIF organized a suite of regional meetings in the BID target regions. These regional meetings aim to identify the specific capacity and information needs required to support the development of national indicators and the implementation of relevant global frameworks.

The BID Africa Engagement Meeting was hosted by Bindura University of Science Education in Harare, Zimbabwe on the 28th and 29th November 2024. This event brought together representatives from GBIF Participant nodes, biodiversity data-holding institutions, the research community, sub-regional technical support centres for the Convention on Biological Diversity (CBD), and other initiatives involved in the collection, sharing, and use of biodiversity data across the Africa region.¹

The primary objectives of the meeting were to:

• Discuss strategies to strengthen the GBIF Africa network and enhance regional collaboration on the mobilization and use of open biodiversity data.

¹ See Annex I: <u>Meeting participants</u>

- Share progress, lessons learned, and best practices related to biodiversity data mobilization and publication within the region.
- Identify key capacity-building and data requirements to inform the development of the next BID call for proposals aimed at mobilizing biodiversity data in Africa.
- Explore opportunities for synergies between ongoing and upcoming regional initiatives and the BID programme, including potential areas for training, data sharing, and the integration of regional data flows into BID-supported activities.
- Encourage broad participation in future BID calls for proposals by engaging prospective applicants, reviewers, mentors, trainers, and partners.

As a key activity of the current phase of the BID programme, the discussions on regional priorities held during this meeting will play an important role in shaping the regional approach to biodiversity data mobilization in Africa to be implemented under the BID programme.

Key outputs of the meeting

1. Analysis of Data Availability and Gaps for the Africa region in GBIF

We performed a data analysis on the BID eligible countries and areas from the Africa region (Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon,

Central African Republic, Chad, Comoros, Congo, DRC Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Saint Helena, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe). This analysis was focused on finding occurrence data gaps that could be filled through further data mobilization.

A data gap is a place where we suspect there should be occurrence records, but there are not any. In GBIF mediated occurrence records, this can mean a lack of records in certain regions, taxonomic groups, or time periods. Gaps can also exist in publishing, where occurrence records are predominantly published by researchers or institutions outside the BID country or area. In general, it is difficult to know with certainty what occurrences are actually missing, or what gaps need to be filled. Typically, unknown gaps are going to be quite prevalent in undersampled regions, and known gaps will be quite rare. The BID Africa region is likely to be undersampled for many taxonomic groups. Data may also exist but remain inaccessible due to a lack of digitization or awareness of its presence, further contributing to knowledge gaps.

For the Africa region, the BID programme has supported publishing of a few datasets. The BID Africa region has published a large number of datasets. However, we can still see a gap in local publishing (Figure 1). A few countries/areas have published only a few datasets or none at all, with the exception of repatriated eBird records. All countries get citizen science eBird records repatriated to the country of origin.

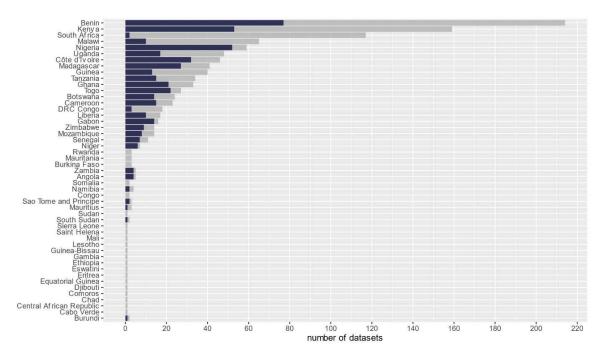


Figure 1. Number of datasets published from the BID Africa region. In blue are datasets published with BID support.

Raw occurrence counts can often mask data gaps, as a high number of records does not necessarily indicate good coverage. Species counts are an effective way to highlight data gaps in occurrence records, as they can reveal under-sampled taxa or regions. Below is a map of the BID Africa region, with lighter colors indicating higher species counts from those hexagons (Figure 2). The dark purple color in many of the Exclusive Economic Zones (EEZ) sea areas indicates a low species count of <100 unique species known for that area.

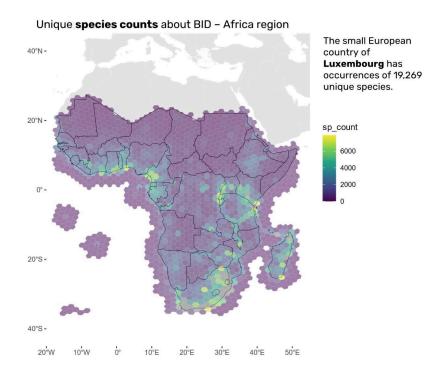
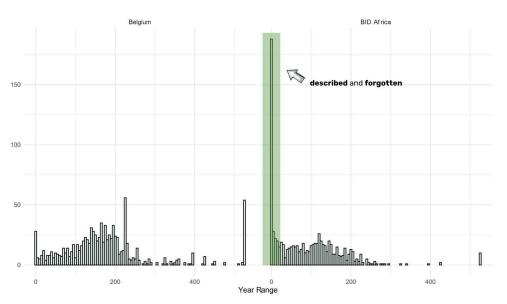
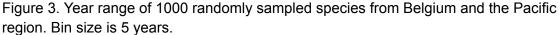


Figure 2. Unique species counts in the Africa countries covered by the BID programme.

Here we use Luxembourg as a useful comparison because, despite its low expected species richness, it has been extensively sampled. This makes it good for highlighting data gaps in less well-sampled regions by providing a comparison to a country that we do not expect to be very species rich, but well sampled. In the figure above (Figure 2), we see that even the most well-sampled hexagons in the region are never greater than the species richness of Luxembourg, strongly indicating significant data gaps in the region.

Temporal gaps occur when a species is initially recorded or described, but subsequent occurrence records for that taxon are missing or scarce over time. Temporal gaps can be found by looking at a taxon's year range, or the time between the first and last occurrence record. Newly described species and undersampled species are expected to have short year ranges. This lack of follow-up data may indicate an absence of monitoring or insufficient sampling efforts, making it difficult to track changes in the species' distribution or population status.





In Figure 3, we see that the BID Africa region has a large amount of "described and forgotten" species. These species were described, with occurrences being published to GBIF, usually through a foreign natural history museum, and then no more occurrences were shared for that species. In this figure, each bar represents 5 years, with the height of the bar indicating the number of species with occurrence only within that interval. This graphic indicates a large number of species with temporal gaps (and likely some newly described species). Species with only a few occurrences in a narrow time range are difficult to use for IUCN risk assessments. Belgium is included as a comparison. Belgium is expected to be well sampled and continuously monitored. The year range histogram reflects that Belgium likely has few temporal gaps.

National checklists can also reveal data gaps by providing a baseline of expected species within a country, against which occurrence records can be compared. While checklist datasets are not as information rich as occurrence datasets, they are useful for identifying

known data gaps. The BID Africa region has published a fair amount of checklist data (Figure 4). We can see that there are many known gaps in the BID Africa region. Known gaps are, of course, better than unknown gaps.

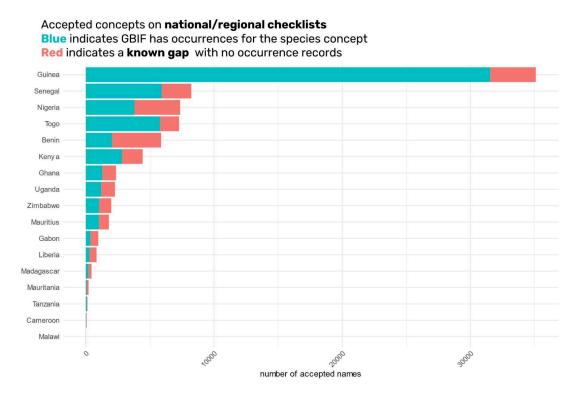


Figure 4. Known gaps in occurrence records in GBIF data

The analysis of the Africa region, revealed many data gaps and a strong need for data mobilization in the region. It is rare that we will have strong knowledge of what exact species occurrences are missing, and unknown gaps are expected to be the largest gaps for such undersampled regions.

2. Regional Recognition of BID as a Contribution to Targets 20 and 21 of the Kunming-Montreal GBF

The Africa Engagement Meeting underscored the importance of the Biodiversity Information for Development (BID) programme in advancing regional efforts toward achieving <u>target 20</u> on capacity building and <u>target 21</u> on data accessibility of the Kunming-Montreal Global Biodiversity Framework (GBF).

Participants acknowledged that the BID programme plays a critical role in supporting national and regional efforts to meet global biodiversity targets through the mobilizing of biodiversity data, the building of individual, institutional, national and regional capacity, and the facilitating of data-sharing mechanisms.

3. Recommendations from the Region on Priority Impact Areas a. Mobilization of Data Sources

Through updates from national nodes, panel members, and general discussions, participants identified needs in the region and made recommendations for satisfactory impact. Under data mobilization, priorities include targeting undigitized and unpublished collections. These are collections in museums and herbaria across Africa that have not been digitized. Expanding data coverage to address gaps in underrepresented regions and taxa, particularly invertebrates and marine ecosystems was also mentioned. Equally important is the need to involve students in universities who collect biodiversity data in their research projects into data mobilization. Engaging the private sector to mobilize data from Environmental Impact Assessments (EIAs) and other biodiversity studies conducted by businesses and private organizations was discussed as a way to mobilize large amounts of data resources. Obtaining data from the private sector requires targeted effort, as none of the nodes in the region reported that they were currently involving the private sector in data mobilization. Challenges to this, as reported by the node managers, include access restrictions. Private sector engagement could be a good theme for cross-regional experience sharing.

Where necessary, conducting data holder assessments to uncover additional datasets within local and regional institutions is important. As data mobilization is conducted, it is essential to raise awareness about GBIF, foster collaboration and partnerships to uncover hidden or underutilized data, and support policy-science collaboration. This will help ensure that the data mobilized contributes to conservation and decision-making. Collaboration and partnerships with organizations that have strong networks is a way to identify smaller data holders institutions and new data sources.

b. Addressing Capacity Needs for Effective Biodiversity Data Management and Sharing

Participants identified many areas requiring capacity building efforts in the region. Participants called for increased capacity for data digitization and data cleaning, including improved access to equipment and tools for digitization, to ensure production of high quality data. Prior to digitization of data, data gap analyses may be conducted to among others, ensure that data mobilization is demand driven. This can include the engagement of decision-makers to understand which decisions are most important and identify the necessary data to inform the decisions. Institutional level support and guidance are necessary to create data policies and workflows that ensure long-term data curation and sharing. Strengthening technical teams and fostering collaboration between institutions is vital. Where possible, these collaborations can be strengthened through regional and national collaboration. This can include organizing regional workshops, establishing networks for data sharing, and promoting best practices to address common challenges.

When training occurs for capacity building, participants recommend the creation of resources like tutorials and protocols that can be referred to after training. One-time training sessions are often insufficient, and encouraging participants to continue their self-study post workshop is important. Workshop replication by participants is another way to extend the impact of training efforts.

Another major area of focus for capacity building is the need to strengthen nodes because well-equipped and capable nodes can build capacity for other participants at the national level more effectively.

Participants called for deliberate efforts to build the capacity of the region to be able to mobilize richer data resources using the new data model². This includes mobilizing emerging data types like DNA metabarcoding data and camera trap data to ensure the continent remains competitive globally and is not left behind other regions.

Finally, there is a need to empower researchers with communication skills to be able to, as an integral part of the data-use cycle, communicate effectively with decision-makers or policymakers. This is necessary because policymakers, as end-users of biodiversity data, should work closely with researchers to facilitate data use.

Meeting participants raised the growing need for regional coordination to align efforts and to maximize the impact of actions such as the BID programme. This is particularly important due to often limited human resources, resulting in people needing to engage across multiple platforms and initiatives. GBIF Participant nodes in the Africa region have worked on the concept of the Africa Coordination Mechanism (ACM) for increased coordination in the region since 2010. The South African node, hosted by SANBI, has coordinated these efforts to date, and received renewed encouragement from the nodes in the region to pursue this endeavor, for example, through South Africa's presidency of the G20 in 2025.

Participants also proposed engagement with the African Union (AU), to enable proper coordination of all the efforts on the continent. Without this, there is a risk of duplication of effort leading to lack of lasting impact. Participants proposed the representation of GBIF during appropriate events such as those of the AU or the G20, to highlight the contribution of all countries through, for example, the amount of data mobilized.

c. Delivering biodiversity data for use

Participants emphasized the importance of delivering biodiversity data effectively to meet the needs of its diverse users, including governments, businesses, NGOs, students and researchers. Accessibility was identified as crucial to ensure the data reaches its intended users. Participants noted that not all users are aware of how to utilize the data effectively, underscoring the need for capacity building for data use. Strengthening capacity building for data use could also improve the long-term sustainability of data sharing, as users gain a better understanding of how to utilize and contribute to open data.

Students, they observed, often produce valuable work using biodiversity data, and it is essential to ensure their outputs are designed to inform policy and decision-making. In Zimbabwe, the Ministry of Environment has demonstrated experience in utilizing data from various information systems, though there are limitations in integrating local knowledge.

Key priorities for the BID programme were also highlighted. Participants pointed out that much of the biodiversity data remains scattered and fragmented, stressing the importance of consolidating it into accessible, centralized repositories. They also emphasized the need to

² Diversifying the GBIF Data Model: <u>https://www.gbif.org/new-data-model</u>

document and integrate Indigenous knowledge into the GBIF framework and suggested exploring how such data could be included in GBIF's new data model. Additionally, participants stressed that robust and comprehensive data is essential for effective reporting under CBD commitments.

4. Suggested Mechanisms for Addressing Regional Priorities

4.1 BID Calls for data mobilization projects proposals

The feedback provided by participants underscored the importance of developing a comprehensive strategy to enhance the effectiveness and reach of the call for proposals. Central to this approach is an enhanced outreach strategy that leverages the networks and platforms of GBIF Nodes. Nodes should be encouraged to post and share the call through their social media channels and to distribute it within their networks, including institutions, NGOs, and academic groups.

The structure of the call for proposals should align with global priorities, such as the Global Biodiversity Framework (GBF) targets, while addressing regional needs, particularly biodiversity data gaps. Eligibility criteria must emphasize institutional hosting, supported by endorsement letters from the hosting institution and the GBIF node (when applicable), while highlighting the importance of governmental cooperation and partnerships. The call for proposals should provide a comprehensive timeline, evaluation criteria, and guidelines for applicants.

The engagement of target groups—such as students and NGOs—was deemed critical to the success of capacity-building initiatives. Similarly, promoting governmental involvement was considered equally important to strengthen institutional frameworks. Additionally, fostering collaboration among countries was recommended to support cross-border data initiatives.

A clear scope definition should outline the involvement of stakeholders and key data holders—identified in collaboration with nodes—in submitted proposals. Proposals should also include plans to secure agreements from data holders to share their data openly, build institutional capacity for data management and use, and mobilize demand-driven data that informs decision-making and addresses biodiversity data gaps.

Moreover, proposals should demonstrate how mobilized data meet identified demands, ensuring that projects deliver impactful, data-driven results. They should clearly articulate the expected outcomes of their projects. This includes showing how mobilized data are relevant to GBF targets and decision-making processes by addressing specific biodiversity data gaps and strengthening institutional data management and usage capabilities. Proposals could also consider outlining possible plans for the development of data-sharing agreements with aligned regional and global initiatives, such as the European Union-funded regional centers of excellence and the CBD subregional Technical and Scientific Cooperation Centers, to ensure data interoperability.

Lastly, to recognize and motivate reviewers, it was recommended that GBIF provide acknowledgement letters and consider featuring reviewers on a dedicated webpage highlighting their profiles and contributions.

4.2. Capacity Enhancement Workshops

Participants emphasized the need for a structured, inclusive, and sustainable approach to capacity building, ensuring long-term benefits for institutions and communities.

Building capacity begins with the active engagement of GBIF Nodes, which have an overview of trained individuals within their countries. These Nodes play a crucial role in facilitating data mobilization and should be connected with the funded projects to enable ongoing capacity support. Nodes can also assist in expanding the reach of BID workshops by suggesting other opportunities to connect with.

Data mobilization workshops will be essential, and remain a priority. In addition, including some training on data analysis and use, for example through the development of indicators, will help ensure the integration of data into policy frameworks. Workshops should emphasize the value of biodiversity data in connection with policy objectives, and projects such as CEBioS may have some training materials and approaches that can be reused here. Data quality should also be incorporated into the training to ensure robust and comprehensive datasets.

Developing local trainers during onsite sessions is key, requiring careful selection of participants and some sessions devoted to how to replicate the training. To support the replication of training workshops, the BID-funded projects should allocate funding for capacity-building activities within their projects. Given the limited time available for onsite training workshops, some online training sessions could be provided beforehand, as prerequisites for those attending. GBIF's Data Use Club³ offers participants access to an online learning platform called DataCamp, via the DataCamp Donates programme, and completion of some entry-level analytics training in that platform could be considered for all workshop attendees.

In the past, BID grantees have found the project management and reporting processes challenging, and therefore capacity enhancement workshops should include some help sessions on reporting requirements. Past grantees could be invited to facilitate these sessions and share best practices from their own regionally-relevant experiences.

To ensure accessibility and professional recognition, participants should be introduced to updated tools and techniques through workshops and certified online courses. Foundational knowledge, including data compilation and basic analytics, must be a core focus to empower participants with essential skills. GBIF currently offers recognition of skills through digital badges, which are greatly valued by the community. Short online refresher courses could be offered to past trainees as options to renew their digital badges and stay up to date with the latest data publishing practices.

Collaboration and partnerships are integral to effective workshops. Inclusivity must remain central, actively involving Indigenous peoples, local communities, youth, and women. Academic institutions can bolster training programs and foster research opportunities, while trainers from other regions encourage cross-regional knowledge exchange. Reaching out to the Global Biodiversity Youth Network (GBYN) can engage youth in biodiversity efforts, and

³ Data Use Club: <u>https://www.gbif.org/data-use-club</u>

leveraging mobility schemes funded by the EU and African Union can enhance regional collaboration. Programs like the Darwin Initiative also offer opportunities to expand capacity-building efforts, and opportunities like IPBES fellowships to encourage global collaboration.

Finally, recognizing achievements and fostering community building are essential for sustaining capacity-building momentum. Sharing lessons learned from past projects and scaling successful BID activities through GBIF Nodes can provide a blueprint for success. Past BID grantees should be utilized as local trainers and mentors, while partnerships can promote self-funded participation to increase local involvement. Mentorship programs and recognition initiatives, such as awards and LinkedIn features, can further highlight good practices and inspire continued engagement.

4.3 Regional and Cross-Regional Support and Knowledge Sharing

Participants highlighted the importance of engaging regional networks and forming partnerships with large data-holding organizations to drive data mobilization activities. They also proposed learning exchange programmes to foster cross-country collaboration, enabling experienced institutions to mentor others and share best practices. Collaboration with African CBD subregional Technical and Scientific Cooperation Centers was recommended to strengthen biodiversity data collection and integration, ensuring alignment with broader conservation goals.

Participants further stressed the need to promote the use of mobilized data. They suggested organizing webinars and workshops to demonstrate how biodiversity data underpins decision-making, research, and conservation efforts, reinforcing its value to stakeholders. To ensure accountability and track progress, participants emphasized the importance of strengthening monitoring activities to measure the impact of these initiatives and guide future improvements.

For funded projects, participants recommended providing tailored support to enhance their success. They proposed conducting needs assessments through visits and consultations to align capacity-building activities with project requirements. Nodes, they suggested, should offer continuous support through monitoring and back-stopping, helping grantees overcome challenges and meet their goals. Encouraging collaboration between grantees and nodes was identified as a way to improve project outcomes and foster shared expertise. Participants also emphasized the importance of documenting best practices and lessons learned to build a knowledge base for future projects.

To integrate new nodes into the network, participants suggested prioritizing cross-node learning opportunities. Workshops and webinars were recommended as platforms for new nodes to gain insights from established ones, accelerating capacity development and fostering a cohesive network.

4.4 Additional Opportunities to Strengthen and Sustain the Impact of BID

Participants listed several programmes, networks, and projects that could be relevant to the BID programme in the region. Engaging with these might provide opportunities for raising funds, capacity building, data mobilization, and increasing visibility. The national and regional

delegations of the EU and delegations of other countries such as the UK were proposed as potential sources of funding. However, the engagement of these requires prior efforts to demonstrate the linkages between biodiversity data and climate change to tap into their funding on climate finance. Other programmes proposed as sources of funding include the Global Environmental Facility (GEF) and Innovate UK research partnerships. Engagement of the private sector including banks as well as regional bilateral and multilateral institutions as sources of funding was also encouraged. The bilateral and multilateral institutions include The Southern African Development Community (SADC), The East African Community (EAC), The Common Market for Eastern and Southern Africa (COMMESA), and The Economic Community of West African States (ECOWAS). To promote data mobilization and capacity building, several programmes, networks, and projects were proposed as follows:

- Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a big community of universities in Africa that works mainly on agriculture. It has a regional training programme to which the training workshops under BID can be mainstreamed to promote data mobilization within the network.
- The Global Environmental Facility (GEF) funds many biodiversity projects that could be sources of data for mobilization.
- Congo Basin Forest Partnership (CBFP) :https://pfbc-cbfp.org/fr/
- The Science Panel for the Congo Basin (SPCB), launched on 3rd December 2023, at COP28 in Dubai (<u>https://www.spcongobasin.org/</u>)
- Centers of Excellence (COEs) under the CBD. There is a need for strong linkages with the COEs and encourage participation in their events including webinars and meetings. Some of the COEs are networks of other institutions that could be sources of new data.
- International Plant Sentinel Network (IPSN)
- UN Forum on forests
- Africa Forestry Community Workspace.
- Central African Botanists Network for data mobilization
- Tropical African Plants Project
- International Botanical Congress (IBC)
- ITHAKA-ALUKA which sponsored the digitisation of African plant types under the African Plants Initiative (API).
- National Ecological Societies and National Biodiversity Societies
- Association for Tropical Biology and Conservation
- Central African Protected Area Network to mobilize data on protected areas
- Capacity Development for Biodiversity and Ecosystem Service (CABES) program for capacity building
- UNESCO Man and Biosphere Program
- Capacities for Biodiversity and Sustainable Development (CEBios) program of the Royal Belgian Institute of Natural Sciences (RBINS).

In addition to the programmes, networks, and projects, participants identified key events including conferences where the BID programme could be represented to raise visibility and encourage future related actions. Provided below, the list includes some conferences that will occur in 2025. In addition to these, participants called the GBIF community in the region to actively participate in the ongoing processes to revise the NBSAPs within their countries,

national communication workshops under the UNFCCC and the events associated with IPBES.

- The 15th Meeting of the Conference of the Contracting Parties (COP15) of the Ramsar Convention, 23-31 July 2025 in Victoria Falls, Zimbabwe.
- International Union for Forest Research Organisations (every 4 years)
- Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT), 2025, Ghana
- Congo Basin Forest Partnership (CBFP) : https://pfbc-cbfp.org/fr/
- World Conservation Congress of the IUCN, 9–15 October in Abu Dhabi, United Arab Emirates
- International Congress on Marine Protected Areas (IMAPC 6), 2027, Dakar, Senegal.

The GBIF has many engagement opportunities such as webinar series and mailing lists. Participants also discussed ways that could be used to increase the visibility of these opportunities. It was noteworthy that participants in the region exhibited limited knowledge of these engagement opportunities and others such as the community of practice. Suggestions to increase their visibility included linking to other communities of practice for example the African Forestry Community Workspace, SANBI community of practice, and CIRIA community of practice (https://www.ciria.org/SOILCOP/SOILCOP/About/About.aspx). Nodes in the region were also encouraged to harness social media to (i) publicize the visibility of engagement opportunities and (ii) share success stories and engaging videos.

Finally, participants considered how other countries or networks can contribute to the objectives of the BID programme. Countries can contribute by deliberately supporting the activities of national nodes financially to empower them. This would result in stronger nodes with capability to strengthen the community of practice within their countries. Participants recommended that nodes could contribute more to the activities of the BID programme by among others, linking with relevant departments in universities to engage students, activating communities of practice within their countries, support the creation of national herbaria to preserve specimens, advocate for the use of biodiversity data in decision making, and develop biodiversity applications and platforms tailored to local needs.

Annex I: Meeting participants

Participants on site

- Tanyaradzwa Mundoga, Director, Wildlife and Forestry Resources Management, Ministry of Environment, Zimbabwe (Guest of Honor)
- Professor Eddie Mwenje, Vice Chancellor, Bindura University of Science Education
- Saïdou Doumbouya; Centre d'Observation, de Surveillance et d'Information Environnementales; Guinea
- Hulda Gideon, Tanzania Commission for Science and Technology (COSTECH), Tanzania, United Republic of
- Fatima Parker-Allie, South African National Biodiversity Institute-Cape Town, South Africa
- Jean Cossi Ganglo, University of Abomey-Calavi, Benin
- Lawrence Monda, National Museums of Kenya, Kenya
- Raoufou Pierre RADJI, Université de Lomé, Togo
- Denis Beina, Université de Bangui, Central African Republic
- Lizanne Roxburgh, Endangered Wildlife Trust, South Africa
- Omokafe Alaba Ugbogu, Forestry Research Institute of Nigeria, Nigeria
- Luke Jimu, Bindura University of Science Education, Zimbabwe
- Jean François Moussa, Ministry of Environment, Protection of Nature and Sustainable Development, Cameroon
- John Ajjugo, HoAREC/N, Ethiopia
- Kennedy Senagi, International Centre of Insect Physiology and Ecology, Kenya
- Florence Palla, Observatoire des Forêts d'Afrique Centrale Centre d'Excellence (OFAC-CE), Cameroon
- Douglas Bwire, CIFOR-ICRAF, Kenya
- Patrick Muhire, Ministry of Environment, Rwanda
- Koua Serge Beranger N'GORAN, Centre National de Floristique, Cote d'Ivoire
- Alex Asase, University of Ghana, Ghana
- Judith Ochieng, A Rocha Kenya, Kenya
- Ntaka Tshidada, Director of biodiversity policy advice at SANBI, also leading the establishment of the CBD sub-regional support centre within SANBI, South Africa
- Agree Dube, MCC Zimbabwe, Zimbabwe
- Beavan Ngoshi, Ministry of Environment, Climate, and Wildlife, Zimbabwe
- Pomerayi Mutete, Forestry Commission, Zimbabwe
- Lizzie Mujuru, GBIF, Zimbabwe
- Admore Mureva, GBIF, Zimbabwe
- Kudakwashe Mutasa, National Herbarium and Botanic Garden, Zimbabwe
- Edson Gandiwa, Zimbabwe Parks And Wildlife Management Authority
- Wellington Matsika, African Wildlife Foundation
- Julia Pierini, BirdLife Zimbabwe
- Kudzai Kusena, FAO, Zimbabwe
- Kyle Hinde, African Parks / Matusadona Conservation Trust, Zimbabwe
- Joseph Ndana, RCMRD
- Liam Lysaght, GBIF Board Chairperson, Ireland
- Mélianie Raymond, GBIFS, Denmark
- Maheva Bagard Laursen, GBIFS, Denmark
- Sanja Novakovikj, GBIFS, Denmark

- Tsiky Rabetrano, GBIF Africa regional support team, Madagascar
- Laban Musinguzi, National Fisheries Resources Research Institute (NaFIRRI), Uganda & GBIF Africa regional support team

Participants online

- Adja Aïssatou, Centre de Suivi Ecologique (CSE) et de Biodiversité et OBAPAO
- Anne-Julie Rochette, Institute of Natural Sciences, Belgium
- Benedictus Freeman, William R. Tolbert College of Agriculture and Forestry, Liberia
- Chabwera Phiri, Zambia
- Clare Mateke, Zambia
- Dorothy Madamba, National Museums and Monuments of Zimbabwe-
- Marième Diallo, OFAC Center of Excellence, Senegal
- Franck MASUDI MUENYE MALI, Université de Kisangani, DRC
- Jaona Ranaivo, Centre National de Recherches sur l'Environnement (CNRE), MadBIF, Madagascar
- Joe Miller, GBIFS, Denmark
- John Waller, GBIFS, Denmark
- Kudzai Mafuwe, Zimbabwe
- Longin Ndayikeza, Burundi
- Martha Imakando, Zambia
- Moira FitzPatrick, Natural History Museum of Zimbabwe
- Moulaye Mohamed Baba Ainina, Ecole Normale Supérieure de Nouakchott, Mauritania
- Raymond Owusu-Achiaw, Ghana
- Shiela Broadley, Natural History Museum of Zimbabwe, Zimbabwe
- SY Adja Aissatou, Senegal
- Tania D'haijere, Institute of Natural Sciences, Belgium
- Thomas Wouters, CEBIoS, Brussels
- Tim Robertson, GBIFS, Denmark

Annex II: Format of the meeting

Day 1: Setting the Scene for the Next Phase of the BID Programme

The first day of the meeting was open for online participation and focused on setting the scene for the next phase of the BID programme. It ensured that all participants had a clear understanding of the meeting's scope, goals, and the expected outcomes, encouraging active engagement in the discussions.

Participants were reminded of the overarching goals of the BID programme, including its mission to enhance biodiversity data availability and capacity in developing countries. An overview of the programme's main activities and timelines was provided, outlining key milestones and opportunities for involvement.

Invited speakers reflected on their experiences from the previous phase of BID, sharing insights on the challenges and successes of data mobilization and capacity development in the region. These reflections provided valuable context for shaping the priorities of the next phase.

A video presentation by John Waller - Data Analyst at the GBIF Secretariat - offered an overview of the current availability of biodiversity data from the Pacific region through GBIF. His presentation underscored significant gaps in data access and publishing, including geographic and temporal gaps, highlighting the critical need for enhanced data mobilization across the region

Lastly, invited speakers shared their perspectives on the most pressing regional needs for biodiversity data mobilization, capacity development, and biodiversity data for use particularly in relation to the Kunming-Montreal Global Biodiversity Framework through a series of lightning talks and panel discussion.

This session helped frame the discussions on priority regional data sources, stakeholders and capacity needs that were held during the second day of the meeting.

Reflections on Experiences from the Previous Phase

Key points from the presentations are provided below. Full presentation materials can be accessed through the event page at:

https://www.gbif.org/event/66nG0263ySAwZtIOTJ8gsu/africa-regional-nodes-meeting-or-eng agement-meeting-for-bid-africa

- Judith Ochieng, A Rocha Kenya
 - Brief outline of the project funded under the previous BID phase and key results
 - Long-term impacts
 - Recommendations and Lessons learnt
- Luke Jimu, Bindura University of Science education
 - Brief outline of the various projects funded under the previous phase in Zimbabwe and key results
 - Long-term impacts including Zimbabwe becoming GBIF voting participant

• Reflections on data uses in policy and valuation of ecosystem services

Update from the GBIF Africa nodes on regional status and priorities

Key points from the presentation are provided below. Full presentation materials can be accessed through the event page at:

https://www.gbif.org/event/66nG0263ySAwZtIOTJ8gsu/africa-regional-nodes-meeting-or-eng agement-meeting-for-bid-africa

- Overview of Participant network in Africa
- Objectives for regional meetings
- Regional trends for Africa: Data mobilization
- Role of the GBIF nodes within data mobilization
- Data use in research in Africa and connections to policy
- Priorities to strengthen GBIF network in Africa
- Challenge of disparity among nodes
- Regional opportunities

Exploring Regional Needs for Biodiversity Data Mobilization - Summary of the lightning talks

- Douglas Bwire, CIFOR-ICRAF
 - Introduction to CIFOR-ICRAF
 - Regional Centres of Excellence (RCoEs) for Biodiversity, Forests and Seascape Ecosystems
 - Opportunities for biodiversity data sharing in the region and plans from the Centres of Excellence
 - Partnerships
- Ntakadzeni Tshidada, SANBI
 - Introduction to SANBI
 - SANBI Value chain and Action Plan
 - National Biodiversity Assessment
 - Translating science into implementation
 - Data Management and Systems
 - Mainstreaming Tools
 - Opportunities for Biodiversity Data Sharing in the Regional Context
- Kyle Hinde, Matusadona Conservation Trust and African Parks Network
 - Introduction to African Parks
 - Biodiversity Data and Conservation Efforts
 - Data Management
 - Biodiversity Data Sharing
- Anne-Julie Rochette, CEBioS (video)
 - Introduction to the CEBIoS programme
 - Indicators for Policy
 - The CEBioS approach
 - Cycle of IP projects

- Lessons learnt
- Joe Miller, GBIF Director (video)
 - GBIF Strategic Framework 2023 2027
 - GBIF and International Fora
 - GBIF & CBD COP16: Invasive alien species
 - The Global Biodiversity Framework (GBIF): Targets and Goals
 - CBD Regional Centres
 - GBIF nodes and subregional TSC centres
 - GBIF's role in CBD Regional Centers

Day 2: Identifying regional priorities

The second day was conducted in a workshop format, designed to build on the discussions from Day 1 and develop concrete recommendations. It aimed to empower participants to contribute directly to shaping the implementation of the BID programme in the Africa region, ensuring it addresses the specific opportunities and challenges they had identified for the region.

Workshop Session : Recommendations for implementing the BID programme in the region

This workshop session used the World Café facilitation method to encourage collaborative discussions among participants. The participants were split into four groups, rotating once between four "café tables," each focusing on one of the following key topics:

- BID Calls for Data Mobilization Projects
- BID Capacity Enhancement Workshops
- Regional and Cross-Regional Support
- Knowledge Sharing and other Related Opportunities and Projects

Closing Session

Participants were invited to share key insights or actionable ideas from the meeting fostering a dynamic exchange of thoughts.