



LESSONS LEARNT FROM 'MOBILISING AFRICA'S BIODIVERSITY DATA'

A discussion document to inform the design & execution of future activities in the region

Mr Russell Galt & Dr Don Doering

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The project, Mobilising Africa's Biodiversity Data, which is funded by the JRS Biodiversity Foundation and coordinated by the South African National Biodiversity Institute (SANBI), commenced in October 2013 and will draw to a close in August 2015. It entails engaging a network of African partners to develop a strategy for mobilising Africa's policy-relevant biodiversity data while strengthening regional capacity and collaboration in biodiversity informatics. This document comprises a set of lessons distilled from the current project. They may help SANBI, JRS and their partners to build on the successes of the current JRS project and avoid repeating its mistakes. They may also stimulate discussion and debate about the most effective approaches to building biodiversity information systems in the region.

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1. INTRODUCTION

The project, Mobilising Africa's Biodiversity Data, which is funded by the JRS Biodiversity Foundation and coordinated by the South African National Biodiversity Institute (SANBI), commenced in October 2013 and will draw to a close in August 2015. It entails engaging a network of African partners to develop a strategy for mobilising Africa's policy-relevant biodiversity data while strengthening regional capacity and collaboration in biodiversity informatics. For further information including project documentation, please visit: <http://biodiversityadvisor.sanbi.org/participation/mobilising-africas-biodiversity-data/>

This document comprises a number of lessons learnt through the current project. It has been prepared to help inform future African biodiversity informatics activities sponsored or implemented by the JRS Biodiversity Foundation, Global Biodiversity Information Facility (GBIF), United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), and SANBI.



Caption: Delegates to the 3rd JRS project workshop in Cotonou, Benin, in June 2014 (image: SANBI).

2. LESSONS LEARNT

In the course of the project, a number of lessons have been learnt which may be of value to SANBI and its partners, when planning future work in the region.

2.1. Not all activities require regional cooperation

Regional cooperation is merited when addressing trans-boundary environmental issues (e.g. straddling fish stocks, migratory species, river catchments, zoonotic diseases and invasive alien species), delivering regionally-relevant training, facilitating lesson-sharing, mentoring, fostering 'norms', and promoting the principle of free and open access to biodiversity data. However, regional cooperation is far less essential when undertaking country-specific activities like conducting national information assessments, mapping national institutional landscapes, identifying national priorities for data mobilisation and encouraging institutions to publish their data through national portals.

2.2. There is a trade-off between scale and intensity

With finite resources, there is a trade-off between the extensiveness and intensiveness of project activities. By ambitiously taking both regional and country-specific approaches, the current JRS project has arguably sought to accomplish too much, too soon, in too many countries. It has been difficult to strike a balance between the implementation of extensive (i.e. regional) and intensive (i.e. national) activities. It is recommended that future projects, give greater consideration to the scale at which activities are most cost-effectively executed. In short, a *regional* project should focus on activities which merit *regional* cooperation.

2.3. Political commitment does not equate to financial commitment

Many partners appear to participate in GBIF Africa without receiving meaningful political support from their national governments, and political commitment rarely manifests as financial commitment. Few of the African partners have an operational budget with which to fund their attendance at regional meetings and in some cases, the role of 'GBIF Node Manager' is a voluntary extraprofessional undertaking. This has made the achievement of certain project deliverables largely dependent on the goodwill of African partners and their propensity to fulfil unfunded mandates.

2.4. Biodiversity data mobilisation is capital intensive

The relationship between investment in biodiversity informatics and the mobilization of biodiversity data is non-linear. Before biodiversity data can be mobilized and used in decision-making processes, there are several 'ceilings' which must be penetrated. These ceilings include minimum levels of technical infrastructure, human capacity, and political will. Given that many African countries are at an early stage of biodiversity information management, substantial investments may be necessary before significant volumes of policy-relevant biodiversity data can be published through national portals. Nevertheless, it should be noted, that labour is relatively cheap in Africa. Thus the incremental capital-output ratio of certain labour-intensive activities (e.g. the digitization of herbarium specimens) may be attractively low in Africa, assuming of course that labour productivity is competitive.

2.5. Alternatives to national data portals merit consideration

The conventional wisdom promulgated by SANBI and GBIF is that countries should set up their own national portals to effectively manage biodiversity data. Such national portals have the advantage of being tailor-made to complement existing national data systems. Importantly, they may also instil a sense of national ownership and responsibility for biodiversity information management. However, they have drawbacks which ought to be acknowledged and discussed. National data portals are expensive to establish and maintain which makes them vulnerable to cuts in funding. Furthermore, they are usually maintained by a thin, fluctuating layer of human capacity which makes them additionally vulnerable to changes in staffing. Without sustained funding or robust human capacity, national portals exist precariously, with the recent closure of one African GBIF participant's portal being a case in point. It could be argued that Africa's few currently operational national and regional data portals are yet to demonstrate good value for money, at least when appraised in terms of the publication of policy-relevant biodiversity data.

Perhaps, insofar as conventional wisdom applies to Africa, it should be challenged. At the very least, alternative models and approaches should be explored. One alternative may be to improve and expand the country-specific services offered to GBIF Voting Participants through the GBIF website. It may be more cost-effective to invest in strengthening GBIF's country-specific online services – backed by strong global institutional support and stable human capacity – than to establish precarious national portals. Another alternative is to transfer 'front end' designs from other countries that can draw upon GBIF and other sources to serve and visualize data in a culturally and institutionally appropriate way for national needs.

2.6. National priorities may be highly subjective

Through a series of consultative workshops, email exchanges and web research, the project coordinator has sought to distil from each participating African country, a set of national priorities for biodiversity data mobilisation. The African partners were encouraged to follow a number of prescribed methods to determine priority policy-relevant biodiversity data in their respective countries. They were encouraged to undertake national consultations with a view to refining and corroborating their national priorities. The subjectivity of the exercise came to light when two representatives of a large SADC country proposed entirely different priorities for their single country. Thus, national priorities are likely to reflect personal experiences and viewpoints, even when derived through national consultations.

2.7. Trust-building is a prerequisite for fruitful cooperation

Across Africa, countless social divisions are drawn along racial, tribal, religious and political lines, and it is well-known that the continent's complicated history has left many suspicious of foreigners and of white foreigners in particular. From time to time, even South Africa is regarded with wariness by other African countries. To dispel such negative preconceptions and foster productive ties with African partners, it is necessary to invest heavily in building trust. To this end, emails and phone calls may not always suffice. Face-to-face meetings on the other hand, especially through dedicated institutional visits, can

demonstrate genuine commitment to a particular cause or partnership such as those needed for mobilizing and sharing data.

Although many African countries are at a relatively early stage of biodiversity information management, it is important to acknowledge that continuous progress is being made and pockets of success abound to tell the tale. It is helpful to remember that the rest of the world stands to learn much from African biodiversity informaticians, many of whom operate under severe resource constraints, rendering their achievements all the more remarkable. Moreover, solutions which find traction in Africa may be of special interest to developed countries seeking inspiration on how to achieve 'more with less'. Comments stressing the superiority of biodiversity information management in Europe or South Africa are invariably perceived by African partners as condescending. In short, by operating with a sense of humility and respect, cognisant of Africa's unique context and giving credit where due, it is easier to win the trust of African officials and pave the way for fruitful cooperation.

2.8. Champions and partnerships are indispensable

To exert a meaningful impact on biodiversity information management across such a large, diverse continent as Africa, it is essential to identify and cooperate with partners and champions. They can serve catalyse progress in a given project by expanding its reach, intensifying its activities, identifying shortcuts and sharing local insights. Indeed, the current JRS project has relied largely on the inputs and cooperation of GBIF Node Managers to chart institutional landscapes, identify data gaps, and distil thematic priorities for biodiversity data mobilisation.

2.9. Language barriers pose formidable obstacles

Although there are between 1000 and 2000 native languages in Africa, virtually all of the government officials encountered through the current JRS project have been able to communicate in English, French, or Portuguese. It is, however, relatively uncommon for African officials to have a command of more than one of these three European languages. Thus when operating across the region, one encounters significant language barriers. The francophone and Lusophone partners are clearly disadvantaged by a strong Anglophone bias in biodiversity informatics learning resources, development cooperation processes, funding opportunities, and donor behaviour. Indeed, the francophone partners frequently protest for greater language equality, while engagement with Lusophone partners has been severely constrained by the language barrier.

Implementing the project in French, English and Portuguese is an ongoing challenge. It takes considerable time to translate project outputs while workshop interpreters are expensive. Although these efforts have helped to strengthen regional engagement and appear to be well-appreciated by the francophone partners at least, it has proven to be infeasible to translate everything. Thus, by necessity, a decision was taken to limit translation to key documents only.

To help address the language inequality, it has been recommended that GBIF Africa strengthens its cooperation with relevant non-African institutions – such as those in Belgium, France, Brazil and Portugal – which have substantial resources available in French and Portuguese.

2.10. Financial assistance policy should be communicated clearly

Given that Africa's aviation and embassy network is relatively limited, arranging travel for workshop invitees is complicated, administratively-heavy and often exacerbated by ambitious or self-interested 'special requests'. To pre-empt such special requests, it is necessary to communicate from the outset any policies relating to per diems, travel class and flight routes. In the current JRS project, SANBI has strictly refrained from paying per diems and booked only the cheapest, most direct economy-class flights. The decision not to pay per diems was taken to compel African partners to seek a minimum level of commitment from their own institutions and prevent them from attending with dubious motivations. It may also be worth adopting and communicating a policy which places liability on the invitees to cover any unrecoverable costs incurred on their behalf, should they make a late cancellation without good cause. SANBI adopted this policy after incurring significant unnecessary expenditure pertaining to the 2nd JRS project workshop, when several delegates casually missed their flights or cancelled their participation after receiving their air-tickets. There are of course several legitimate reasons why delegates may be prevented from boarding their flights. To date, these have included state-level diplomatic feuds, disease epidemics, political crises and civil unrest.

2.11. There is a delicate balance between offering incentives and managing expectations

Persuading African partners to fulfil unfunded mandates is challenging at the best of times, but the task is rendered far easier if clear incentives can be provided. These incentives may include enhanced prospects of future funding, strengthened national capacity or international recognition. Whether recruiting countries into GBIF or requesting partners to complete surveys, incentives must be given. For example, in the current JRS project, the project coordinator has stressed that major international donors are considering investing in mobilising Africa's biodiversity data and that it is in the interest of African partners to identify funding priorities in their respective countries. Flexible donors such as JRS might provide long-term planning and training efforts that are explicitly linked to competitive awards or prizes. There is of course a risk. If the incentives are overstated, African partners may lose patience and grow distrustful, hampering cooperation. Thus a delicate balance must be struck between offering incentives and managing expectations.

2.12. End-users can help to identify data needs

Whilst millions of records have been mobilized in recent years, the nature of these efforts has been predominantly opportunistic, focusing on low-hanging fruits that can be readily published, rather than data of strategic importance to research, policy and decision-making. As such, insufficient biodiversity data continues to constrain important policy areas, while the publication of low-value data (i.e. data which is only suitable for basic research and has negligible policy-relevance) does not make the case for further investment. Adopting a more strategic, purpose-driven, and policy-oriented approach to biodiversity data mobilization can help to alleviate these constraints and would constitute a more efficient use of limited conservation resources. To this end, it is helpful to consult end-users when deciding how to focus biodiversity data mobilization efforts. Doing so can help to ensure that such efforts are actually useful.

2.13. Political will and human capacity are central to sustainability

While it is important to establish appropriate biodiversity information management systems and infrastructure, it is far more important to build human capacity and foster political will. It may be futile to establish a national portal if there is not the know-how to use it or the will to sustain it. In some African countries, the human capacity in biodiversity information management is alarmingly thin. Few African governments regard biodiversity information management as a priority for conservation or development – despite national and international declarations stressing the importance of improved biodiversity information. The result is that many of the African partners are extremely stretched, sometimes occupying multiple roles with meagre operating budgets. A dual approach must be taken to: i) sensitize African governments to the opportunities that biodiversity data presents for sustainable development; while ii) equipping a new generation of Africans with appropriate skills in biodiversity informatics and taxonomy. To find traction, capacity-building efforts should align with Africa's developmental aspirations; training should be geared towards addressing current and projected demands for skills in areas where there is likely to be future employment. With greater political support and enhanced expertise, the infrastructure and systems should follow suit.

3. CONCLUSIONS

The lessons learnt through the current JRS project – to date, one of the most significant African initiatives of its kind – must help to inform the design and execution of future activities in the region. Current and future donors, implementing agencies and other actors concerned with the mobilisation of Africa’s biodiversity data, would be wise to take heed of these lessons. They may help SANBI and its partners to build on the successes of the current JRS project and avoid repeating its mistakes. They may also stimulate discussion and debate about the most effective approaches to building biodiversity information systems in the region.



Caption: Delegates to the 2nd JRS project workshop in Pretoria, South Africa, in March 2014 (image: SANBI).