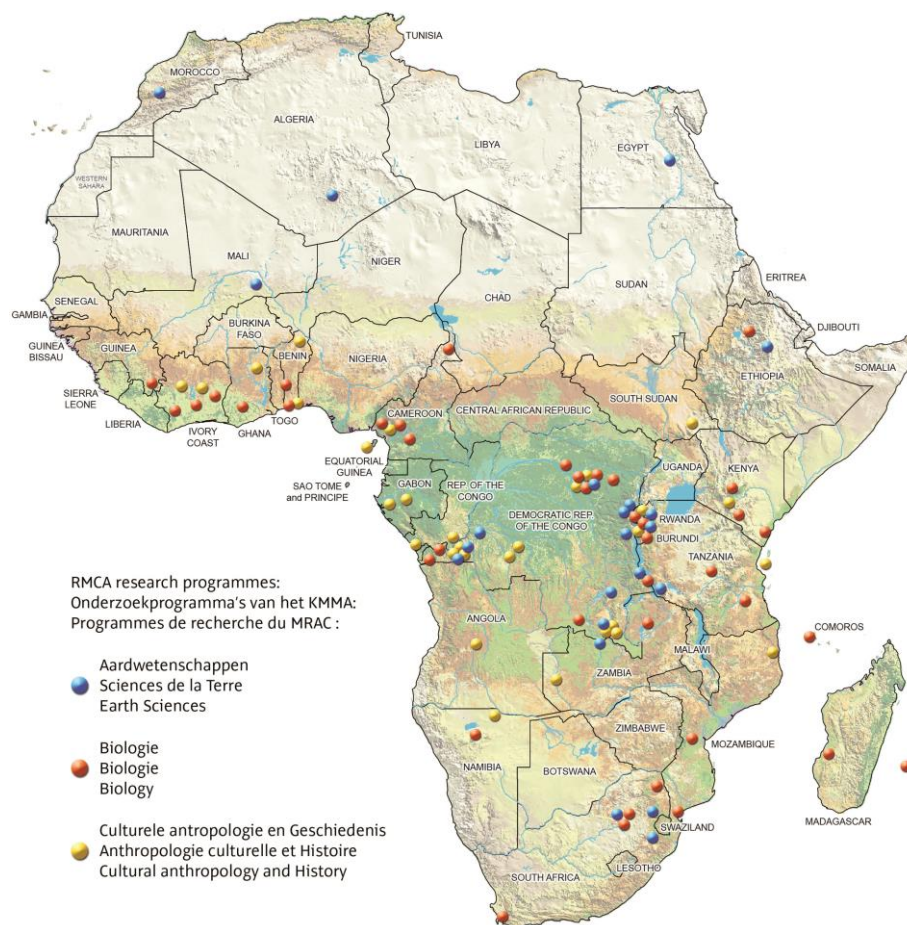


June 2015

Evaluation of the Royal Museum for Central Africa (RMCA)

Management Summary



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Summary

This evaluation

This report presents the results of the evaluation of the research activities of the Royal Museum for Central Africa (RMCA). The evaluation was performed by the Technopolis Group in the period April 2014 - March 2015 and commissioned by the Belgian Federal Science Policy Office (BELSPO).

The purpose of this evaluation is to support RMCA in the development and determination of its research strategy. RMCA is one of the ten Federal Scientific Institutes (FSIs) that will be evaluated in order to optimise the quality and relevance of the research efforts and to increase the national and international visibility of the FSIs.

The report is based on the results of desk study, interviews with RMCA's staff and stakeholders, case studies, benchmark, bibliometric analysis, peer review and a self-assessment by RMCA.

This evaluation focuses on the research, services and collection management tasks. The museum function of RMCA is not part of this evaluation.

Context of the Federal Scientific Institutes

Belgium is a politically complex country: a federal state with three regions (Flanders, Wallonia, Brussels-Capital) and the three communities (French-, Flemish- and German-speaking). BELSPO is responsible for coordinating science policy at the federal level. Among BELSPO's tasks are the design and implementation of research programmes and networks and the supports of ten FSIs. The FSIs of BELSPO have a two-fold mission:

- Delivering scientific public services (including museum activities, collection conservation and policy support).
- Performing research: performing fundamental and applied research.

The FSIs receive structural funding from BELSPO, which consists of a general dotation and funding for part of the FSI personnel.

During this evaluation the Belgian governments announced budget cuts of the dotation of the FSIs of up to 20-30 % and of 12% of the personnel budget, over the next 5 years.. The full extent of the impact of these budget cuts is gradually becoming more visible at this time of writing.

Within the last couple of years FSIs have been asked to modernise and optimise their management, their organisation and their services, to being integrated in the Belgian, European and international research area, to contribute to the international radiance of Belgium and to link with other federated entities. In addition, a commercial logic is little by little imposed to the FSIs, demanding them to have a significant economic impact and to increase the auto financed part of their budget. However regulation does not determine whether the services provided by the FSIs to external partners are free or need to be paid for.

Over the past few years, new sources of financing were found and again lost or minimised over the last years. Some of the FSIs such as RMCA were able to find additional sources of income through longstanding agreements. For RMCA the cooperation agreement with the Directorate General for Development and Humanitarian Aid is very important in this context.

FSIs are subject to certain rules that affect the context in which scientific research is performed. For example, FSIs can only access regional sources of research funding (FWO, IWT, FNRS) through collaboration with universities; they can not recruit PhD students independent of universities. FSIs are also subject to rules regarding the recruitment of

staff (both in selection procedures which involve a federal recruitment agency and/or BELSPO, and in linguistic constraints).

Mission, assignment and activities of RMCA

The Royal Museum for Central Africa (RMCA) was founded in 1898 as the ‘Musée du Congo’ following the organisation of a temporary exhibition on Congo, as part of the World Exhibition that took place in Brussels in 1897. The Royal Museum for Central Africa became a federal scientific institute by royal decree of 18 May 1928. After the independence of Congo in 1960, the name was changed to ‘Royal Museum for Central Africa’. It is now spread over seven buildings, with a total space of of 50,000 m².

The RMCA is a unique research institute and public museum, unusual for the way it brings together scientific collections, collected since the 1880s from a previously colonised region—Central Africa—with the colonial heritage of a once-colonial metropole: Belgium and its king, Leopold II. Other museums in the world have superb natural history and ethnographic collections from Central Africa—London, New York, Berlin, Paris—but not the sense of mission to document, study, and teach about them in relation to a special imperial past and an on-going present of development and cooperation. Also, it is unusual to have highly focused collections from one specific part of the postcolonial world from such a wide scientific spectrum, with natural history and human science collections, all located, managed, and conceptualised in the same institution. Due to the importance of its holdings, students and scholars of Central Africa cannot avoid travel to Tervuren to consult its collections in order to be considered knowledgeable and legitimate in their fields.

If it is exceptional in Europe and globally, this means that special issues of management, public and scholarly strategies, and knowledge dissemination are involved.

The museum’s extraordinary ethnographic and natural history collections, many dating back to the 1880s-1950s, should mean that it continues to serve as a vital repository for external and internal research on Central Africa’s history, populations, climate, and environments, with continued attention paid to linking aesthetic, cultural, political, ecological, biological, geological, archaeological, and linguistic dimensions of the past and present. Building on and deepening existing disciplinary qualities, maintaining a tight regional focus on Central Africa, intensifying scientific conversations across units and in relation to collections, and expanding and deepening access to the collections to non-RMCA scholars and scientists of all ranks, these should be leading principles in the RMCA research strategy (conclusion peer review RMCA).

This is well reflected in the Mission Statement of the RMCA (2001):

“The RMCA must aspire to be a world centre of research and knowledge dissemination on past and present societies and natural environments of Africa, and in particular Central Africa, to foster – among the public at large and the scientific community – a better understanding and interest in this area and, through partnerships, to substantially contribute to its sustainable development”.

The mission is translated into 7 objectives:

1. To remain competitive and innovative by producing high quality research.
2. To ensure proper management, conservation and use of its exceptional collections both physically and digitally.
3. To stimulate the interest in African societies and natural environments of the public at large.
4. To further enhance collaboration with African partners and the African diaspora.
5. To continue to develop partnerships through strategic alliances in networks and collaborative projects.

6. To contribute to cooperation and development activities in and for Africa.
7. To strive to better identify and understand its end users' needs and make all efforts to meet them.

Starting in 2003, a master plan was developed for the renovation of the Museum, which is currently implemented. A new building with underground facilities is being constructed, while the old buildings are completely renovated. As a consequence of the building activities the museum is closed since December 2013 and will reopen in 2017. Other renovation activities (renovation of the Palace de Colonies, Collection management tower or buildings ...) are foreseen after 2017, although financing and implementation are unsure for the time being. The research continues, despite the very large efforts needed for the renovations.

Internal governance structure and management

The organisational structure of RMCA is relatively new: it was formally implemented in 2014 after having been approved in 2009 by the Scientific Council in 2013. Not all positions have been filled yet, in particular the Operational Director for Research.

In the new structure there are five management bodies: the Director General, the Committee of Directors, the Management Committee of the Nature pole, the Scientific Advisory Council and the Jury for recruitment of promotion. There are two advisory bodies: The Basic Consultative Committee of representatives of personnel and labour unions monitors working conditions and well-being in the workplace. COMRAF is an advisory committee of the RMCA and African associations, started in 2003. It formulates opinions during the organisation of cultural events and exhibitions, on the museum renovation, and for the communications of the institution to the African diaspora. The RMCA management should be commended for the creation of COMRAF, and should continue to work with this important group of community stakeholders, negotiating in ways that produce change towards mutually desired goals.

The internal organisation consists of two operational directorates (“research” and “public-oriented services”) and one support directorate. At present the recruitment of the Operational Directors (ODs) is still in process. The reorganisation process took a long time because of the lack of a government of full exercise from December 2009 to December 2011 onwards. This blocked the publication of the position for Operational Directors for two years, and budgetary reasons blocked recruitment after that.

The OD for research has three departments, divided according to research discipline: Earth Sciences, Biology, Cultural Anthropology and History. Each department has several sections, one of which is responsible for collections management. The sections are again organised by research discipline or theme.

Each section is conducting its own scientific research (covering the full spectrum from adaptive, to applied, strategic and fundamental research), if relevant is managing its own collections and archives, providing scientific services, disseminating information and are for most of them involved in development cooperation through capacity building activities in providing for example training or technical support, in exhibition development and in the renovation process.

Although implementation is incomplete, this evaluation concludes that the new organisational structure is generally considered an improvement. Cross-disciplinary activities have been increased and a vision of a more strongly multidisciplinary approach to Central Africa's global scientific significance is emerging.

As this evaluation will conclude, the challenges for the RMCA are large, in times of decreasing budgets. The pressure on the management is enormous. It is therefore of utmost importance that the management is brought at its full capacity.

The ambition to act as a world centre implies a strong management policy fostering cross-disciplinary links, so there is still the need for more synergies and cooperation. This can be done by the development of cross-directorate projects as they promote multi-disciplinary working and minimise the risk of increasing competition between research teams.

It is important to increase intellectual interaction across the Earth/Biological Sciences and Human Sciences divide. Partially adopting an approach by studying “Science & Technology” as socio-material phenomena would be one way to intensify and deepen cross-disciplinary conversations. The object-oriented, network-oriented, STS profile in Africa is deepening from Paris, Berlin, Johannesburg, Amsterdam and diverse sites in the United States, and its concepts and methods enable humanists to grapple with natural scientific methods and findings, while also enabling natural scientists to better understand the historical and anthropological viewpoints on scientific practice. Another tactic might relate to exhibitions; the museum could historicise for a wide public, for example, how colonial scientists went about collecting the thousands of butterflies, insects, and everyday objects of material culture housed in the RMCA collections. This would be preferable to simply displaying the results as “scientific facts.” To do this, the RMCA can build on experience of its in-house staff that has worked on the histories of its natural science collections.

Although the internal communication has already been improved by the reorganisation, it can still be further strengthened. Full implementation of the structure and developing a coherent strategic plan across the departments, will contribute to this, but also the number and the frequency of meetings where researchers meet at institute or department level to discuss research topics and issues important to the whole institute should increase. More internal (social) activities and e.g. communal tea/coffee and/or lunch areas will have a positive impact as well, similar to organising a regular tour of the institute for new employees.

The management and support of the scientific staff is considered adequate, except for the role of the Scientific Advisory Council. The fact that RMCA staff members are council members is somewhat confusing. It is recommended to change this council more into an independent board including international advisors from diverse disciplines. It should also be given a clear role in support of the director and his staff and will need to have a regular programme of meetings and well-presented issues on which to offer their advice.

Funding

After a period of growth of the RMCA budget from 2002 to 2010, a period of budgetary stagnation began. The average annual budget of the RMCA was approximately €18m between 2008-2012, with a decrease to €16.2m in 2013. 58% of this budget comes from the annual allocation (dotation) and the staff envelope allocated by the Belgian Science Policy Office. The dotation of the RMCA is considerably lower than that of the other Federal Museums and did not increase significantly since 1960, according to RMCA. 42% of the budget of the RMCA, comes from its own funds, mainly project income (around €5M/y, with a peak in 2010 of €7.5M) and entrance fees (about €1M/y, however the museum is closed now, so this source of income has been zero since 2014). RMCA’s most important funders of research projects are BELSPO and other federal administrations, the European Commission and FWO. Limited amounts of private sector support are also obtained, usually in the form of sponsoring of exhibitions, or contracts with, for example, the Geology department and the wood biology service.

In 2013 almost half of the RMCA’s budget was spent on scientific research (45.9%). Approximately a fifth was spent on public services (21.5%) and another fifth on management support (20.6%). Just over 10% of the budget was spent on international cooperation. The research expenditure falls into three broad categories, namely humanities (34%), Earth Sciences (32.8%), and biology (28%). 1.9% is spent on digitisation. 3.3% of the budget is spent on interdisciplinary research.

The budget cuts announced by the Belgian governments are expected to have a great impact on the total budget for RMCA for the coming years. Already, the budget of RMCA is mostly non-compressible (budget for salaries, buildings, library, research projects, etc.). There is hardly any ‘free strategic budget’. The announced budget cuts of the dotation of nearly 30% will limit this room for manoeuvre, for example in implementing

research strategies, even more. The budget cuts also pose a possible threat to the maintenance and development of the scientific collections, which budget is already too little to ensure the safeguarding and development of the collections according to common international standards.

The challenge for RMCA to further open up services to public and private sectors in order to generate additional financial resources has increased. The RMCA staff is already active in this respect and was successful in attracting project funding. A different challenge is to expand incidental project funding into more or less secured funding from external resources.

The review panel for this evaluation believes that the strengths of the RMCA research capacity is capable of attracting more grants. This requires a dedicated 'external income' strategy for obtaining the grants and adequate financial and scientific administration to handle EU and other projects. A centralised project management and administrative assistance for researchers applying for external funding and coordinating a project should be installed. The financial part of project proposals should take into account the full relevant RMCA costs.

Human resources

RMCA has 260 staff members, 106 of which are scientists (75 full-time equivalent), and 154 are administrative staff (2013). Of these 75 FTE, 10 are staff with scientists contracts but in educational or administrative positions. In addition to its staff, the RMCA draws on about 50 non-staff contributors such as volunteers, PhD students, retired staff etc. on a daily basis. The staff number has declined considerably over the last years (from 312 persons in 2009). This makes it difficult to keep continuity in personnel. As a consequence projects are adapted for positions allowing keeping the staff that is already there (i.e. not providing always the best person for the best job, but letting job-security prevail).

67% of the scientific personnel work under a non-permanent contract. The gender distribution is fairly equal, although the number of permanent positions is higher among male staff than among female staff. There is a lack of (cultural) diversity in the management and governance of the RMCA. This should be an issue for an Africa related museum and is also key concern for COMRAF. End 2012, 40% of the staff was more than 50 years old. It is therefore of particular importance for the RMCA to ensure the sustainability of its scientific expertise through knowledge transfer within the museum in order not to lose a substantial amount of 'institutional memory' while ensuring adequate replacement with high quality staff.

The allocation of scientific statutory positions plays an important role in RMCA research strategy. By recruiting persons with a specific expertise RMCA tries to ensure that its scientific quality remains at an internationally competitive level. However, RMCA is obliged to follow rigid rules of public sector administration in its human resource management. These restrictions in recruitment clearly contradict with the position of RMCA as an internationally recognised research institution that should look internationally for the best staff with the possibility of a permanent position. RMCA's restrictions in recruitment need to be fundamentally revised and implemented on an international level since current procedures are contradictory and damaging the goals of RMCA.

There is varying but serious frustration with the Federal classificatory system of employees. For scientists on short and long term contracts there are real limitations in terms of career opportunities and incentives for advancement. Functions as project- or programme leader are not accessible to staff on contract even if they would have all qualifications and years of experience in the institution. Salaries in the Federal Administration are mostly based on school or academic degrees and age rather than on job responsibilities, and opportunities to compensate staff for assuming additional responsibilities are limited. Contract positions with a limited duration are only available at the entry salary level. No scientific promotions were granted to the scientific staff since 2006. Department heads have been 'acting heads' since 2006 because the legal

framework to implement organisational changes only came in place in 2014. The function of department head will disappear when the Director of Research takes office.

A large number of statutory scientific staff also has part-time teaching responsibilities at one or more Belgian universities. In addition to the academic prestige and ‘quality label’ such a responsibility gives to the scientist, it also gives them access to promising students and funding for their research on RMCA related topics.

Research strategy

Research prioritisation is very difficult within RMCA. Present priorities are a combination of traditional institutional priorities (e.g. ethnography, taxonomy, geological maps: areas where the RMCA is strong) and new needs (external or internal: new institutional priorities, what is contemporary Africa?). There is no strategic research plan for the whole institute and no formal methodology for strategy planning of RMCA. The Earth Sciences department is the only department with a written departmental research strategy. Decisions on external staff recruitment de facto became the most important instrument of a central research strategy and were as such discussed in the Scientific Advisory Council. External funding opportunities and personal interest of scientists therefore determine a large part of the research agenda.

According to the Management Plan 2012-2017, the RMCA shall expand its vision of Africa in its mandates: Africa outside the African continent will be a core topic for research and public activities of the RMCA between 2012 and 2017. The RMCA also wants to pay more attention to the consolidation of the results of its scientific research and put them at disposal of policy makers and the general public. It is the new operational directors that will have to develop new strategic plans to institutionalise the process.

The development of a central research strategy is becoming more and more imminent, because with the current variety of RMCA activities, with many small and seemingly disconnected projects the institute is spreading itself too thinly. Combined with the decreasing financial means and the retirement of researchers with specific expertise that cannot always be replaced the RMCA research this means that RMCA threatens to become subcritical in certain areas (or maybe already is). It is recommended to bring more focus to scientific activities with a common theme in a few major research lines. A number of research themes and/or collections should be identified to focus on, and scholarly collaboration across disciplines according to those themes should be organised. While this may require some collections to be underused for a period of time, it would create a “critical mass” of researchers within and external to the institute who work on topics, themes, and collections that are pertinent to the outside world (i.e., global warming, energy, mineral and water resource management, colonial violence, etc.). Through this approach, funding may be easier to obtain, collaboration and intellectual interactions with international scholars may be generated, and grant applications may be more likely to succeed. The visibility and scholarly reputation of the RMCA would be enhanced.

Overall organisation of the research activities

As described above, research at RMCA is organised into three thematic departments: Earth Sciences, Biology, Cultural Anthropology and History.

The Department of History and cultural anthropology is the largest department with 43,4 fte (of which 26,3 fte scientists). The department is divided in four scientific services: Archive & Collection management; Culture & Society; History and Politics; Heritage studies. The scientific disciplines covered by the department are: Anthropology; Archaeology; Archivistics; History; Art History; Linguistics; Musicology and Politics. The various disciplines and research topics represent the complexity of societies in the present and in the past, and the complexity of the heritage of the Royal Museum for Central Africa. Most activities (approx. 2/3d) focus on DRC, but 25% is focused on Africa outside

Africa (African diaspora). Collections are both a topic as well as an impulse of research (cf bantu lexical retranscriptions website).

The Department of Biology is the second largest department with 29,5 fte (17,9 fte scientists). It is made of four official units, not focused on themes or disciplines, but taxonomic structures, due to the strong link with collections: Vertebrates; Invertebrates; Wood biology; and Biological collections and data managements. There are two overarching entities, the Molecular laboratory and the Liaison officer for national and international networks. Research topics are biodiversity, anatomy/morphology, taxonomy/systematics/phylogeny, population genetics, relationships & co-evolution, phylogeography, climatology/ecological modelling and identification tools & services. To ensure societal relevance, the researchers are working on groups mainly for sustainable fisheries (e.g. nutrition, value, income) and integrated pest management. The department gets in total around €1.5m/year. The Department is also involved in capacity building activities. The collections play a pivotal role for the activities and are extremely vast: around 10 million specimens (incl. 6m insects), half of the type specimens of African freshwater fishes, 60,000 wood specimens of 13,600 plant species. Because of the size of the collection a unit for collection management was set up to keep the collection in a proper and standardised way.

The Department of Earth and Environmental Sciences is only slightly smaller than the Department of Biology (29 fte, of which 21 fte scientists). They are working from nano scales to spatial scales. In organisational terms the Department is divided in 3 services groups (Geodynamics and mineral resources; Natural Risks; Surface environments and collection management) and 1 programme (PROMINES). Recently the Earth Sciences department also incorporated a researcher from the history department with a human science background to develop policy recommendations on issues of artisanal mining in DRC. The department offers a combination of fundamental research (ca. 35-40%), applied research&expertise (ca. 35-40%) and capacity building (ca. 25%). In terms of collection management, the Department has mainly maps, aerial photographs, rocks, minerals, fossils, and geological archives (no micro-meta data available).

A surprising issue is that RMCA researchers have very limited access to closed-access electronic journals. Access to Web of Science is too costly for RMCA to afford, but so far no investment has been made by BELSPO for the FSIs. The lack of direct access could certainly limit scientific productivity and therefore access to the electronic journals must be ensured.

Collections management

The RMCA has scientific collections, collected since the 1880s. The collection is vast; only 1% of the collections are (normally) on display in the museum.

The ethnographic and cultural collections include 125,000 ethnographic objects, 5,000 historic objects, 8 000 music instruments, 100,000 ethnographic photos, 900,000 historical pictures, 3 000 historical maps, 1,500 meters of archives (institutional, companies, private), the Stanley-archives, 322 m³ of archaeological objects, 650 historical 35, 16 et 8 mm films, Field notes, slides, Field recordings of languages, 2,000 paintings “art populaire congolais”.

The biological collection includes more than 10 million biological specimens from Africa, and holds the most important zoological collections in the world from Central Africa, including half of the type specimens of African freshwater fishes. The Xylarium of the RMCA is a very important worldwide collection of more than 60,000 wood specimens and 14,000 different types of wood. The collections contain a wealth of biodiversity information. Collections also have an historical component: in some cases time-series can be identified and changes in biodiversity studied.

The geographic collection mainly has maps, aerial photographs, rocks, minerals, fossils, and geological archives.

For the human sciences, a Collection Management coordinating department was established in 2006. In 2014 each department established a dedicated collection management service. About one third of all staff in the departments works for these units

for collection management. The expenditure on collection management increased from 4 to 8 % of the total expenditure between 2008 and 2013. Collection management may well be moving to a more professional level with a planned central organisation working according to ISO standards. This seems to hold for essential functions of storage quality, preservation, and digital management. However impending budget cuts will drastically impact the ability to manage collections, since research grants rarely provide funding for such activities.

The current situation for parts of collection storage has higher risks in regard to water damage or fire. Given these irreplaceable and highly valuable collections, these potential risks are too large to ignore. The new collection building (planned for after 2017, but budget not yet approved) may help to remove concerns of the panel about current collection management arrangements. Although the conditions for storing collections are different for working spaces, it is important to not move collections far from the expertise of the resident RMCA scholar who knows these collections best.

Due to the importance of the RMCA holdings, students and scholars of Central Africa cannot avoid travel to Tervuren to consult its collections in order to be considered knowledgeable and legitimate in their fields. With its collections, the RMCA operates as a research infrastructure offering visiting researchers opportunities for studying these collections with the analytical facilities present in the institute. On average, annually around 800 visitors use the scientific collections for their research.

However, there seems to be a variation in the degree of receptivity to outside researchers between various collections. This may be a result of differences in the collections or a result of the burdens that supporting and monitoring visiting scholars place on the already overloaded staff. Communicating these realities to outside researchers would lessen frustration, and help enhance the reputation of the RMCA as an institution receptive to researchers of all disciplines. Protocols of communication may underpin the message that the RMCA is striving to meet the scholarly needs of all researchers, regardless of academic rank, race, and citizenship as efficiently and equitably as possible.

Digitisation is an important aspect of the collection management as there is an increasing trend from physical to digital visits. The FSIs collaborate on digitisation, sharing scientific staff, tools and systems. To illustrate: there are two scientists who have 50% contract at RBINS and 50% in RMCA. Part of the museum collections can already be consulted online via a metadata bank. It contains some fifteen different collections including 10,000 rock and mineral samples, the inventory of the Stanley archives, over 60,000 wood samples, the music collections and the catalogues of 11 libraries. 18,000 ethnographic pieces are visible on the museum website. In terms of its guidance for prospective researchers, the RMCA's website needs improvements.

Research facilities

The RMCA is operating a highly appropriate set of analytical facilities, including:

- The Joint Experimental Molecular Unit (JEMU) laboratory facility RMCA is operating with RBINS. The unit is active in molecular identification of biological specimens, which is also partly guiding the research priorities (e.g. when DNA barcoding does not provide clear answers) and coordinates the Belgian Network BE-BOL (Belgian Barcode of Life);
- Contributions to the European Barcode of Life and Barcode of Life initiatives;
- Involvement in EUROPEANA and the Biodiversity Heritage Library;
- The ichthyology unit acting as African hub for the online repository FishBase;
- The PLASMA laboratory and the Mass Spectrometry laboratory operated jointly with Belgian universities

To increase the visibility of RMCA research infrastructure it would be advantageous to create a distinct portfolio including all research facilities, which should be published on

RMCA website. This would also enhance the possibility to generate additional income by offering services for external clients.

Knowledge dissemination and visibility

The dissemination of knowledge is one of the key objectives of the RMCA. The objective is met through the valorisation of the results of its research through publications and the website, exhibitions, educational and cultural activities, documentation and library activities, and on-line databases. Each year, museum researchers produce an average of 450 publications (incl. catalogues, conference abstracts and chapters in books) of which more than 100 are peer-reviewed. The RMCA has its own publications service. Since 1897, the museum has indeed published more than 1,700 works in the various disciplines studied by its research sections. While Scientific publications – monographs by field, journals, compilations, proceedings – form the bulk of its releases, the museum also publishes catalogues for temporary exhibitions, museum visitor guides, music recordings, and annual reports. Aside from these hard-copy publications, the RMCA is a supporter of digital publishing and Open Access. Since 2004, the museum has been publishing digital-only works in three collections that are freely accessible on its website.

Other dissemination activities of the RMCA include the Tervuren days (on contemporary Africa), education activities (40.000 children/year who participate), conferences, cultural activities, temporary exhibitions, travelling exhibits and a programme on artists in residence, in collaboration with scientists.

Despite the fact, however, that nearly every researcher is involved in knowledge transfer to Africans or on-site cooperation projects, the institute does not have an easy way of “valorising” these activities for the benefit of its reputation and national/international standing. Such activities be coordinated at a higher level, be tracked and assessed for their efficacy in terms of actual improvements in knowledge of African’s lives, pasts, worlds, and livelihoods, and that such data be used to enhance and promote the international reputation of the institute.

Research performance

In general, the RMCA research activities are resulting in outputs that are of a high standard, especially given the reality that each scientist’s workload includes research, grant writing and grant management, cooperation projects and training, and some form of collection management. It must be recognised that expectations for and capacities to produce scholarly publications varies between those researchers working in the Natural Sciences (Earth Science, Biology) and those in the Human Sciences (“Cultural Anthropology and History”). In addition, the departments are required to put varying effort in services for different user communities (i.e. contract research, advisory tasks, exhibitions, community outreach, interactions with donors of artefacts, etc.).

For the period 2005-2011 444 articles and reviews were identified. This is a relative moderate figure, yet an average annual growth of 11% was achieved. An even greater growth was realised with external citations, which grew by 15% on average annually. 32% of the articles remain non-cited, over the years relative more papers get noticed and externally cited. In terms of citations per paper (CPP) we can equally see an average annual growth of 4%. The average CPP was 2,95. In terms of highly cited papers, we did not identify true star publications. There is one “Science” publication from 2010 with more than 130 authors and a total of 175 citations (without self-citations). In total there are 30 publications that obtained ten or more external citations in the chosen citation period (P+2y). Most are from 2010 and 2011. Out of the 30 most cited publications, eight had an RMCA affiliated first author.

The Cultural Anthropology and History Department groups’ expertise related to world-class collections with a strong scholarly and exhibition track record. The quality of its research activities varies, ranging from average to very good, with occasional evidence of true excellence. Recent exhibition-related monographs and edited volumes and book series initiated by the RMCA staff have been widely reviewed and esteemed

internationally. Too often the character of these publications is positivist in emphasis rather than theoretically rich or innovative, but in that they are consistent with humanities work in Africa produced by museum-based researchers. Some of the more average publications are clearly more development-funded and intended for particular audiences in Belgium and Congo; it would not be fair to expect a high scholarly level for these publications, while they do seem to represent the “bread and butter” of funding schemes from key stakeholders.

The Linguistics and Archaeology units of the RMCA have been international leaders in their fields for many decades; in the case of linguistics, work produced by the institute is often considered definitive, the “final word” in terms of method, precision, and accuracy of results. However, among specialists outside of the institution, there is a perception that RMCA scholars often work in isolation from other scholars and scholarly trends, and that they take too long to publish their research findings. The archaeological work of the RMCA is recognised to be of high quality and strengthened by a long-standing tradition of collaboration across disciplines. The history and anthropology sub-sections need clear and perhaps more ambitious acquisitions policies. More work on the colonial material heritage should be undertaken, in Central Africa as well as in Belgian homes, institutions, and businesses. The same goes for colonial, decolonisation, and Mobutu era memory heritages. While the RMCA may be unable to acquire new materials from Central Africa, it should continue acquisition work within Belgium itself; much could be digitised, and acquisitions documents can be written to provide for much institutional flexibility for de-accessioning material.

Many of the scientific results obtained by the Biology Department are of high importance. The publication output of the department is on average 40 peer-reviewed papers/year, which is quite good for the size of the unit (30 researchers). They include few top journal publications (1 in 2013), and some good ones (3-4 in 2013), but the majority of works are published in lower impact journals, which is internationally usual for descriptive research such as in taxonomy. Beside the peer-reviewed papers the biology department also lists ca. 100 non-peer reviewed publications, which are dominated by short summaries in conference abstract books, or in conference proceedings. As a consequence of previous budget cuts the Biology department has already focused its activities to fewer research areas. However, further focus will become required to cope with the on-going decrease of BELSPO funding. It is strongly recommended to bring more focus to the future scientific activities and to discuss a common denominator in a few major research lines.

For the period 2009-2013, the Earth Sciences publications appear as peer-reviewed papers (35%), non-peer-reviewed papers and maps (17%) and abstracts to conferences (48%). Most of the peer-reviewed contributions were published in specialized high impact factor journals (3<IF>5; e.g. Earth and Planetary Sciences Letters, Geology, Precambrian Research, *Geochimica et Cosmochimica Acta*, ...). For the natural hazards area, out of 47 publications there were seven peer reviewed paper in 2013, this relatively low number may have been caused by the Active Volcanism and Continental Rifting Conference that was held in Rwanda in November 2013, co-organized by the Natural Hazards Service.

The CPP of the publications in the field of “Earth and Planetary Sciences” is high (4 and above in recent years) and above benchmark BRGM. The research activities are strongly linked to assessing environmental and societal impacts of geological and human-induced processes. Encouraging results did benefit local authorities and mining companies in Africa through access to new knowledge, ranging from risks management to mining governance and the sustainable use of mineral resources.

National positioning

The federal status of RMCA seems appropriate because of the history of RMCA related to the Belgian colonial past and the national tasks RMCA performs, in international development and the management of collections and research infrastructures. These features make that RMCA is well positioned for collaborations with partners in Belgium.

Most research projects of the RMCA are carried out in formal collaboration with one or more Belgian or foreign universities (or entities related to the universities). Based on co-

publications the universities of the Catholic University of Leuven, Gent, the Université Libre de Bruxelles and Vrije Universiteit Brussel are the dominant partners. In the current economic context direct access for RMCA to regional funding becomes harder and national cooperation become more important, also from a financial point of view.

Many RMCA scientists also have an official teaching/co-sponsor position at the university. The RMCA, shares a research infrastructure and joint laboratories with the VUB and ULB, especially in the field of Earth Sciences and geochemistry

Each year, dozens of university students are supervised by RMCA scientists for their master's thesis or doctoral dissertation. Universities may use the expertise of the RMCA for fieldwork and access to collections, while such cooperation offers the RMCA the opportunity to further integrate into the academic scientific world and associate promising students to the RMCA research activities.

It is worrying though that the connections with RMCA's most important partners are based on the individual networks of scientists. In the Belgian context of separate federal and regional agendas, it is crucial that RMCA develops strategic alliances with the regionally positioned universities, and explores the possibility to formalise relations with these universities.

One of the aims of the BELSPO research policy is to increase cooperation between the FSIs. RMCA is situated in the pole 'Nature' together with the Royal Belgian Institute of Natural Sciences (RBINS). RMCA and RBINS have overlapping research domains and work close together both in science and in (research) support services. In addition to the already existing cooperation, four domains for further collaboration are identified, particularly in the biology area:

- Research and expertise: Working together in research projects, joint research teams (programmes), joint expeditions and international projects (e.g. in Congo and writing co-publications (42 co-publications over the last 5 years);
- Research support: Increased coordination of investments, sharing research infrastructures and facilities (such as JEMU), support for (international) research projects and working together on collection management;
- Services: Explore the possibilities for shared services like an ARBO-advisor and publication service (although name, logos, etc. will protect the own identity of the both institutes);
- Support staff: Both institutes can share support staff and this will be a point of attention in hiring people.

The added value is bringing in complementary expertise, facilities and equipment but also increased efficiency of the management of the institutes.

There is also cooperation with most other FSI's. With the State Archives there is cooperation on the Archives in Central Africa and the State Archives are opening their storage capacity for archives of the RMCA. Joint library management systems are discussed with the Royal Library. The collaboration with the Space Pole relates to natural hazards in Africa, meteorological data in the region, the digitalisation of aerial photos and climate research (mostly use of remote sensing). The collaboration with the Art Pole focuses on the restoration and conservation and access to collections. Furthermore joint exhibitions are organised, and a common educational operation has been developed.

Finally RMCA has important collaboration with non-federal research institutions like the botanic garden of Meise, INBO, VLIZ, Walloon region Nature and forest, VLIR, CUD, BIM.

International positioning

As has been mentioned above RMCA is one of the leading museums on Africa in the world. The RMCA or its scientists are member of a set of national and international networks (active participants but also often member of scientific and governing boards) and participate in conferences in Belgium and worldwide on topics related to their

specific research interests and institutional issues. They participate also in expeditions and fieldwork campaigns in Africa and elsewhere. RMCA has scientific partnerships in 24 African countries.

Establishing contacts and collaborating with Tervuren's scholars and scientists is highly prized, notably among human scientists working on Africa; such interactions add a layer of "lustre" to domestic and international researchers' profiles. There is also a sense in which those who have worked at Tervuren whether as internal or external, or as Belgian or international researchers, form a common intellectual community.

During the evaluation it was found that members of the scientific and support staff do not all seem to be fully aware of the stature of their institution internationally. This may be due to the tendency toward scholarly isolation, but also appears to be related to the fact that, aside from addressing the museum's colonial legacies, little self-assessment or institutional promotion regarding national or international positioning takes place.

RMCA has participated to 10 FP7 projects, three are Marie-Curie actions, not cooperation projects as such. The seven remaining collaborative projects cover pretty diverse priority areas (environment, space, social sciences and humanities and research infrastructures), reflecting the thematic focus of the RMCA.

As regards the partner organisations involved, it appears that within these projects RMCA collaborates with partners from a total of 32 countries: 19 EU countries (incl. Belgium, largest number of partnerships with UK and Germany, most partners are museums as well). The highest numbers of co-publications (besides Belgium) occur with researchers based in France, the US, and Germany, followed by the UK and Congo.

The low number of African partners is explained by the RMCA by the fact that although they are fully eligible as third country partners with a budget from the EU, the non-African scope of many calls associated to the rules and administrative workload make it still difficult for them to be full partners of such EU projects. However, they are often included as associated partners.

The RMCA also participates to some inter-governmental European projects, like ERANETs and JPIs. Here the federal authority is the partner and not the RMCA directly. In such cases, the RMCA participates according to the level of funding contributed by the federal government. One example is the project ERA-Africa in which the RMCA took part in the development as a member of the Joined African and European Expert Group (JAEG 8) that launched the idea for an ERANET call on Africa.

RMCA seems to be well positioned internationally, but less as a research institute than as a museum. The international research activities seem to be rather opportunity driven and based on the networks of individual scientists. Opportunities for international cooperation (and funding) should be explored more intensively and strategically and researcher should receive stronger support for their international funding applications.

Capacity building, social and policy impacts

The Mission Statement of the RMCA clearly specifies that one of its major goals is to contribute to sustainable development of Africa. The RMCA also has an important role in awareness raising and sensitisation on Africa in Belgium. To do so, the museum receives support from the Federal Science Policy Office, African Development Bank, World Bank, and European institutions, but its main partner is the Belgian Development Cooperation (DGD). While DGD began working with the museum more than three decades ago, it became a structural source of funding at the end of the 1990s when a cooperation protocol was signed between the DGD and the RMCA.

Development cooperation is not organised as a separate activity of the RMCA, but is integrated in nearly all of its work in research, information dissemination and training. Its activities with respect to development cooperation are of different types and include:

- Awareness-raising through educational activities, cultural events and exhibitions;

- Scientific research to inform policy choices on sub-Saharan Africa development issues: In 2014-2015, a project involving field work in the DRC will attempt to gather information on disturbances affecting two tree species in African tropical rainforest as well as possibilities of re-establishing them;
- Information dissemination on cultural and natural diversity of Africa (e.g. With the financial support of the DGD, the museum is responsible for data on African freshwater and brackish water fishes within the FishBase project, run by an international consortium of scientific institutions, which is the largest fish encyclopaedia and scientific resource online, containing all available information on the fishes of the world);
- Activities promoting accessibility of information systems and sources to developing African countries;
- Cooperation with African scientific institutes and museums in the fields of research, data management, publications, educational activities and museology (e.g. Collaboration with African partner institutions in Central Africa and Mozambique and Tanzania as part of the 2014-2018 DGD programme and workshops at the RMCA and in Africa for researchers affiliated with African museums and scientific institutions);
- Training for Africans both in Tervuren and in Africa through both individual programmes and group training sessions: The RMCA trains approximately 120 African scientists a year. In addition to training local scientists during its field missions, the RMCA gives researchers the opportunity to come over and refine their skills in the museum's areas of expertise. For African scientists, individual and group workshops are organised in various fields. DGD provides grants to support these workshops and cover the costs incurred by participants from Africa. Many Belgian, European, and African students also complete their doctoral theses or post-doctoral programmes with the scientific and logistic support of the RMCA. Finally, the museum welcomes scientists from all over the world who come to consult their collections as part of their research.
- The museum has been organising and coordinating the Belgian Development Cooperation Prize on behalf of the Minister of Development Cooperation since 1998.

The RMCA research findings are used to provide advice on policy making, especially decisions regarding Central Africa, in areas such as natural resources, biodiversity, administration, and sustainable development. RMCA also provides a number of services to governments, some of these policy services being part of legal or regulatory obligations or the outcome of international treaties and conventions.

Different types of policy and societal impacts achieved through the RMCA research activities, as various example cases show.

The Congo Biodiversity Initiative (CBI) included a large-scale expedition to study the flora and fauna in the Democratic Republic of Congo (DRC) in 2010, which was the International Year of Biodiversity and the 50th anniversary of Congo's independence in cooperation with RBINS, the University of Kisangani and the Belgian National Botanic Garden). This led to the creation of a collection preserved *in* Congo and an open knowledge platform for everyone involved in the conservation, protection, sustainable use, and study of the biodiversity of the Congo basin. The platform gathers relevant projects focusing on Congo basin biodiversity and aims to encourage collaborations and attract new partners and sources of funding. A number of Congolese institutes are now involved in the platform. These institutes specialise in the area of zoological and botanical biodiversity (three botanic gardens and nine herbariums). In this context, the Research Centre for Biodiversity (Centre de Surveillance de la Biodiversité (CSB)) was created, now a full research institute, equipped with laboratories, a library, and (biological) collections from the Congo Basin. The research centre of now nearly 50 employees has become a highly acknowledged institution in Congo that is seen as one of the frontrunners in the area of biodiversity research.

READ-Me and RIME are two projects funded by the European Culture programme 2007-2013 and led by the Royal Museum for Central Africa (RMCA). Both projects were a

success, in that they helped framing a new dialogue between diasporas and scientific experts. If the dialogue proved difficult at times, it contributed to a general shift initiated in 2003 towards a wider involvement of diasporas in the Museum's activities. It also contributed to open the Museum to a new type of public. In this respect, RMCA was one of the most advanced consortia partners and its experience benefited other partners through exchanges of experience and good practice. It was felt that RMCA's openness and its strategic commitment to working with diasporas played a significant role in the success of the projects.

Activities of the RMCA in the geology area are a good illustration of the links that can be made between the research and the capacity-building dimensions. E.g. in DR Congo support to the Geological and Mining Research Centre (CRGM) has strengthened their technical skills and knowledge. Until its first contacts with the RMCA in the late 1990s, the CRGM was isolated on the international scene and its activities were limited. Since then the CRGM has expanded its international contacts with connections to France (BRGM - Mineral and Geological Research Bureau), South Korea (KIGAM - Korean Institute of Geoscience and Mineral Resources), Poland (Polish Geological Institute), etc. The profile of the Centre has been raised and it has become a more dynamic, visible and attractive centre, in particular for young scientists. End-users, mostly local authorities and mining companies in Africa, have benefited from access to new knowledge.

Main conclusions

- The RMCA is a unique research institute and public museum with a wide scientific spectrum, with natural history and human science collections, all located, managed, and conceptualised in the same institution. In times of reduced budgets this broad focus on 'everything related to Central Africa' can also be the pitfall for the RMCA: it may lead to spreading the expertise too thinly and a loss of critical mass in certain research topics.
- In terms of external governance the present position as a national (i.e. federal) institute is fit with the stature and history of the RMCA. However the restrictions of the present federal status especially in the field of HR management are not suitable for the management of an (internationally acclaimed) research institute.
- The RMCA has been in reorganisation for a long time. At a time where demands on management are very high (realising a new museum, coping with large budget cuts, keeping the institute up and running, etc.) the empowerment of the management and its capacity is inadequate because a number of important positions has not yet been filled (esp. Operational Director of Research).
- The majority of scientific staff (67%) has a non-permanent position (under a contract). This, and the consequences of these types of contracts, have led to serious frustration with the HRM policy among present staff.
- The composition of staff is unbalanced; 40% of the staff is more than 50 years old (end 2012) and there is a lack of (cultural) diversity in the management and governance of the RMCA.
- Research prioritisation is very difficult within RMCA. The development of a central research strategy is becoming more and more imminent. With the current variety of RMCA activities, with many small and seemingly disconnected projects, the institute is spreading itself too thinly. Combined with the decreasing financial means and the retirement of researchers with specific expertise that cannot always be replaced the RMCA research, the RMCA is at risk of becoming subcritical in certain areas (or arguably already is in some areas).
- The RMCA has exceptional and large collections with respect to biology, geology and anthropology in Central Africa. This collection forms the basis of the research of the RMCA and makes Tervuren an important research infrastructure for students and scholars of Central Africa.

- The current situation for parts of collection storage brings along considerable risks in regard to water damage or fire. The annual budget for collection maintenance is much too low to ensure the safeguarding and development of the collections according to common international standards. The new collection building (planned for after 2017) may help to remove concerns of the panel about current collection management arrangements, but the budget for this building has not yet been approved.
- Collection management may well be moving to a more professional level with a planned central organisation working according to ISO standards. However impending budget cuts will drastically impact RMCA's ability to manage collections, since research grants rarely provide funding for such activities.
- With its collections, the RMCA operates as a research infrastructure offering visiting researchers opportunities for studying these collections with the analytical facilities present in the institute. However, there seems to be a variation in the degree of receptivity to outside researchers between various collections.
- Digitisation is an important trend as it increases access to the collection. The strategy and approach regarding digitisation are well thought-through especially in the light of limited financial and human resources. (
- The RMCA seems to have the research facilities they need (apart from access to the Web of Science), and has contributed to a number of International Research Infrastructures.
- The publication output for the period 2005-2011 was moderate (slightly less than 1 article/person/year was identified). Yet, it increased strongly over the period. Overall the research quality is average to very good.
- RMCA is well connected to the Belgium universities, although the connections are based on the individual networks of scientists. RMCA and RBINS work close together and RMCA has also cooperation with most other FSI's and non-federal research institutions.
- RMCA is one of the leading museums on Africa in the world. The RMCA or its scientists are member of a set of national and international networks. RMCA has scientific partnerships in 24 African countries. It participates in 10 FP7 projects with partners of 32 countries.
- During the evaluation it was found that members of the scientific and support staff do not all seem to be fully aware of the stature of their institution internationally. More self-consciousness in this respect would help to keep the leading role of RMCA in the network around Central Africa studies.
- The Mission Statement of the RMCA clearly specifies that one of its major goals is to contribute to the sustainable development of Africa. Development cooperation is not organised as a separate activity of the RMCA, but is integrated in nearly all of its work in research (including cooperation with African scientific institutes) and museums. Many African researchers are trained.
- The RMCA research findings are used to provide advice on policy making, especially decisions regarding Central Africa. Different types of policy and societal impacts were achieved through the RMCA research activities.

Main recommendations

- The RMCA should continue to keep its special and strong position as the institution with global expertise on the history, biology, earth and environmental sciences, anthropology, linguistics, musicology and archaeology of Central Africa, a crucial and immense region of Africa. Geographic focus should stay on Central Africa.
- It should be considered how the operational freedom of RMCA could be increased while maintaining the position as a national institute.

- The new RMCA organisation needs to be implemented immediately to empower the management and increase management capacity.
- A dedicated ‘external income’ strategy for obtaining grants and adequate financial and scientific administration to handle EU and other projects should be developed.
- The present situation with regard to HRM at RMCA is not sustainable to maintain a research institute of international standing. RMCA’s restrictions, as a public sector institute, in recruitment and career support need to be fundamentally revised and implemented. Ways need to be found to attract younger staff and increase cultural diversity.
- The bottom up approach currently applied in strategy development would benefit from a complementary top down strategy developing a common vision and profile, promoting multidisciplinary research between departments (currently underdeveloped) and fostering networking with other national and international organisations. (
- It is recommended to bring more focus to scientific activities with a common theme in a few major research lines. A number of research themes and/or collections should be identified to focus on, and scholarly collaboration across disciplines according to those themes should be organised.
- Adequate budgets need to remain available for collection storage and management. This could well include swift approval of the budget for the new collection building so that a long-term perspective for the collection storage becomes clear.
- Access to the collections for visiting scientists needs to be maintained. Protocols of communication may underpin the message that the RMCA is striving to meet the scholarly needs of all researchers, regardless of academic rank, race, and citizenship as efficiently and equitably as possible.
- The digitisation efforts of the RMCA need to be continued. In terms of its guidance for prospective researchers, the RMCA’s website needs improvements.
- The annual funding provision by BELSPO for JEMU provides on-going uncertainty about the financial stability of the centre. Long-term continuity of funding for JEMU should be realised.
- To increase the visibility of RMCA research infrastructure it would be advantageous to create a distinct portfolio including all research facilities, which should be published on RMCA website.
- Access for RMCA researchers to bibliographic sources like Scopus, WoS, and Science Direct, should be realised, possibly as part of a deal at Belspo level.
- Although the research is generally good, there can be more focus in the research and more attention for faster publication in peer reviewed journals.
- It is crucial that RMCA develops strategic alliances with the regionally positioned universities, and explores the possibility to formalise relations with these universities.
- Opportunities for international cooperation (and funding) should be explored more intensively and strategically and with more self-confidence. Researchers applying for international grants need stronger support.
- A business model for capacity building activities should be developed so that the income is increased but that “*mission creep*” is prevented.

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