SciELO SA: Past, Present and Future (September 2018)

1. **Introduction to the SciELO SA Collection – when it was created, institutional affiliation, governance – coordinating institution and scientific committee, evolution and collection performance indicators**

In 2006 the Academy of Science of South Africa (ASSAf) published a consensus study with the title T**he** Report on a Strategic Approach to Research Publishing in South Africa http://research.assaf.org.za/handle/20.500.11911/49. One of the Recommendations was that a South African open access repository had to be established. The South African Department of Science and Technology (DST) mandated ASSAf to establish such a repository. ASSAf's Committee for Scholarly Publishing in South Africa (CSPiSA) investigated various options and decided on the SciELO model as it was such a success in South America and would promote South-South research collaboration. The Collection would be affiliated with ASSAf, governed by the CSPiSA and funded by the DST. In 2009 SciELO SA was introduced as the platform for the collection of prestigious South African open access journals. At first it was a "collection in development" with the help of SciELO Brazil. The first journal to be added to the collection was the ASSAf publication, the South African Journal of Science. By the end of 2009 seven Web of Science South African titles had been added to the SciELO SA platform as part of a pilot project to prove its value. By August 2018 there were 75 titles in the collection. It is expected that at least 180 journals will eventually be published on the platform.

By 2013 the SciELO SA collection complied with the quality and certification criteria of SciELO to become a fully-fledged national SciELO collection. In April of that year SciELO SA was certified as a regular operational collection indexed in the SciELO Network Global Portal.

Being part of larger international search engines has resulted in journals having far more visibility. Since 2009 South African articles have been viewed via SciELO SA more than 17 million times. Clarivate Analytics (previous Thomson & Reuters' Web of Science) indicates that SciELO SA articles are cited an average of 26 times per article. A journal such as *HTS Theological Studies* has received 2 132 citations via SciELO since 2009 and the *South African Journal of Animal Science,* 926, of which latter number 28.5% were from South American journals, indicative of a South-South connection that is developing in certain fields. The same journal's JCR Impact Factor rose from 0.365 in 2008 (the year before the journal joined SciELO SA) to 0.678 in 2016. The nursing journal *Curationis* received 325 citations via SciELO. Fifty of those (i.e. 15% of the total) were from South American countries.

2. **Brief description of the national science and technology system**

The DST is the overall driver of the National System of Innovation (NSI) originally developed in the 1996 White Paper on Science and Technology. The DST consequently promotes the NSI via

key strategies such as the National Research and Development Strategy (NRDS) and the Ten-year Innovation Plan (TYIP). "The latter, in particular, seeks to transform the South African economy into a knowledge-based economy, in which the production and dissemination of knowledge lead to economic benefits and enrich all fields of human endeavour" (DST, 2008:1).

The NSI is based on the generally accepted premise that science, technology and innovation play critical roles in the economic growth and socio-economic development of any country.

To realise these goals, South Africa requires (1) *high-level skilled human capital* and in this regard the DST has identified the need to increase government investment to improve the capacity, equity and productivity of the system. To this end the development of the next generation of researchers, the nurturing and support of emerging researchers and the retention and attraction of established researchers have been identified as priorities.

An investment in researchers also requires a related investment in (2*) high-quality research equipment and infrastructure* to enable the NSI to deliver the tangible benefits of research and innovation. Consequently, the DST seeks to increase national investment in priority research infrastructure which includes research equipment, cyber- infrastructure, specialized laboratories, large high-end infrastructure and global infrastructure

The open access SciELO SA Collection contributes towards the DST goals of optimising the R&D and Innovation of the country and enabling a productive knowledge economy.

3. **National policies on scientific journals - political support, evaluation system and ranking of journals**

The DST funds the SciELO SA initiative and officially launched the certified SciELO SA platform in April 2013.

In South Africa the Department of Higher Education and Training (DHET) evaluates South African journals according to a technical checklist to ensure the journals adhere to good publishing practices. Journals that meet the criteria then become part of the DHET accredited list.
In 2015 the DHET published the Research Outputs Policy of 2015. This policy outlines the criteria for the measurement and evaluation of research outputs of public higher education institutions (HEIs). As part of the strategic objective envisioned by the National Plan for Higher Education, this policy aims "to sustain current research strengths and to promote the kinds of research and other knowledge outputs required to meet (the) national development needs" of South Africa.

The DHET encourages South African researchers at public HEIs to publish in scientific journals by providing monetary rewards for published articles.

According to the new policy SciELO SA journals are automatically accredited by DHET alongside journals included in Clarivate Analytics (previously Thomson and Reuter's Web of Science), Scopus, the International Bibliography of Social Sciences (IBBS) and the Norwegian Scientific Index's Level 2 journals.

In January 2015 South Africa's National Research Foundation (NRF) released an open access statement indicating its support for open access to research publications from NRF-funded research.

 In September 2018 the South African National Government announced the SA Draft White Paper on Science, Technology and Innovation. This White Paper encourages an open science approach which in turn further encourages the open access of journals.

4. **The role of the SciELO SA Collection in the national science and technology system**

By making prestigious South African journals visible and accessible globally, SciELO SA allows South African research to be viewed both nationally and internationally. This enables the DST vision of optimising the R&D and Innovation of the country as well as a productive knowledge economy.   All SciELO journals appear on the Web of Knowledge (WoK) search portal as the SciELO Citation Index. This increased visibility improves the impact factors of local journals.

5. **The operation of the SciELO SA Collection**

ASSAf's Committee for Scholarly Publishing in South Africa (CSPiSA) advises the Director of the Scholarly Programme at ASSAf on the strategic direction of the SciELO SA Collection. The SciELO SA Operations Manager manages the collection. A team of three Online Publishing Administrators publish the SciELO SA journals on the platform using the SciELO Methodology. The SciELO SA Systems Administrator attends to the technical aspects of the SciELO SA platform.

The inclusion of titles is based on the recommendations of the ASSAf-established peer review panels . These panels convene in subject groups to evaluate the quality of South African journals from a subject perspective.

Where a journal is recommended for inclusion in the SciELO SA Collection the journal is also evaluated according to SciELO criteria such the full-text of the articles being available open accessibly, the allocation of DOIs, inclusion in the DOAJ, the amount of articles published a year and if the journal publishes regularly and on time. If the journal meets the SciELO criteria the journal is invited to become part of the Collection.

SciELO SA has an Advisory Committee made up of representative editors and other stakeholders. This committee decides on the performance evaluation criteria for journals to be admitted to the SciELO SA Collection as well as possible removal of journals due to lack of performance and /or delays in publication. Exclusion of a journal from the SciELO SA collection will only be carried out after a decision report is issued by the SciELO SA Advisory Committee and the journal has been given an opportunity to improve its performance.

For more details on the operation of the SciELO SA Collection see:
http://www.scielo.org.za/avaliacao/avaliacao_en.htm

When the SciELO SA collections became independent the journal issues needed to be hosted by a South African company. Sabinet (the South African Bibliographic Network) was the service provider of choice as it is the only South African host connected to the SANREN (the South African Research Network).

Due to the exponential growth in workload some of the more technical aspects of the publication were outsourced to a company called Caboverde that has developed proprietary software for the automatic processing of the time-consuming aspects of the publishing system.

Growth: By the end of August 2018 there were 25 406 South African open access articles in the collection, 1 623 issues and 75 titles. See:

http://www.scielo.org.za/scielo.php?script=sci_alphabetic&lng=en&nrm=iso .

Usage: The usage of the articles in the platform attests to the value the platform offers:

The total number of views of South African open access research via SciELO SA totals more than 17 million to date.

There has been a 9% increase in the views of South African research via SciELO SA:

12 month period comparison	Comparison of views
Jan 2016 – Dec 2016	2 233 284 Page Views
Jan 2017 – Dec 2017	2 584 045 Page Views (9% increase)

The continents and countries that access articles via SciELO SA the most are as follows:
Continental usage: Africa, 60%, Asia 15%, Europe 10%, North America 10%, Southern Americas 6% and Oceania 2%.
Country usage: South Africa 50%, The United States 8%, India 4%, United Kingdom 3%, Nigeria 3%, Philippines 2%, Brazil 1.72%, Australia 1.67%, Kenya 1.4% and Canada 1.3%.

Quality: In November 2017 the collection scored 95% in its bi-annual evaluation by the SciELO Network to assess whether the SciELO SA collection is adhering to the strict SciELO Network

criteria and that all the titles adhere to the SciELO Citation Index (which forms part of the Web of Knowledge search portal) criteria with regard to publishing according to the stated periodicity.

6. **The adoption of the SciELO priority lines of action**

SciELO SA intends to adopt the SciELO priority action lines as follows:

Currently	ASAP	2019	2020
1) Publishing a minimum of 10-20 original articles per year (depending on the subject area) **2)** Publishing on time **3)** Where the journal publishes articles on approval (continuous publication) 3+ articles need to be online by the end of March, 3+ articles need to be online end-June, 3+ end-October and 3+ end-December **4)** Assign DOIs to articles 5) Adhere to CC-BY licenses **6)** Adhere to ethical publishing guidelines	**1)** DOAJ inclusion **2)** DOI Crosslinking to be implemented **3)** Layout changes to be implemented according to the new criteria **4)** Encourage the inclusion of author ORCiDs in the PDFs where possible **5)** By December 2018 all journals need to create a Google Analytics profile for their journal	**1)** New criteria for 'Instructions to Authors' to be implemented **2)** ORCiDs for Editors-in-Chief mandatory and strongly encouraging the submitting/ corresponding author of an article to include ORCiDs in the PDFs of articles **3)** Continuous publication encouraged for quicker dissemination **4)** The use of an Online Content Management System (CMS) to be strongly encouraged, e.g. OJS or Scholar One **5)** Annual reporting by journals of progress made in terms of recommendations, incl the Journal's Google Analytics statistics **6)** The identification of the role of each author in the creation of the article **7)** Provide instructions to authors regarding the journal's criteria for accepting pre-prints	**1)** Continuous publication will be preferred and will be strongly encouraged so as to provide quicker global exposure for articles **2)** ORCiDs for all authors in the PDFs of articles **3)** Online Content Management System mandatory, e.g. OJS or Scholar One **4)** Introduction of pre-print options **5)** Establishment of a social media presence for the journal. Introduction of a (basic) marketing plan for the journal / Research eDissemination/ **6)** Transparency and Openness Promotion (TOP) guidelines to be followed in the citing of data sets.