Open Access After Transformation – A Funder Perspective

OASP Webinar

Faranah Osman
Executive Director: ICT & Information Management
National Research Foundation
(South Africa)
The South African Context: The Research Enterprise

Universities
- Universities receive state funds in the form of block grants as well as National Skills Funds for needs-based student funding
  - R93 billion or (€4.7 billion)

Department of Science & Innovation
- Supports the national system of innovation which is a set of interacting organisations and policies
  - R9.1 billion or (€460 million)

National Research Foundation
- National Funding Agency responsible for supporting and promoting research
  - R5.9 billion or (€300 million)

Postgraduates Supported by the NRF
- 95% Total Postgrads
- 5% NRF Funded Postgrads

Researchers Supported by the NRF
- 84% Total Researchers
- 16% NRF Funded Researchers

Publications by NRF Funded Researchers
- 75% Total Research Publications
- 25% NRF Funded Publications

Investment in the Research Enterprise (R billion)
- National Research Foundation
- Department of Science & Innovation
- Universities

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The South African Government has placed **Open Science** and **Open Access** on the **National Agenda**:  

- The White Paper on Science, Technology & Innovation (March 2019) defines Open Science as "...an approach to research based on greater access to public research data..."  
- The draft **Open Science Policy** confirms the open-access mandate and makes it applicable to all publicly funded research processes and outputs. The policy also addresses:  
  - The constitution of a **national forum** to promote best practice;  
  - The issues of **incentives**;  
  - The creation of a **Centre for Citizen Science**;  
  - The creation a **South African Open Science Observatory** to monitor the move towards open science in the country  
  - The requirement for a **national agency** to be established to **curate publicly-funded research data**  
  - Longer term vision of a “**federated open science infrastructure**” to support the accessibility of research outputs
<table>
<thead>
<tr>
<th>Country</th>
<th>% All Open Access Documents</th>
<th>Africa Baseline</th>
<th>Global Baseline</th>
<th>% Gold Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>123.87</td>
<td>56.12</td>
<td>76.04</td>
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<td>South Africa</td>
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<td>Sudan</td>
<td>79.23</td>
<td>72</td>
<td>72</td>
<td>79.23</td>
</tr>
</tbody>
</table>

The African Context: Percentage Open Access Journal Articles (2018 to 2022)
The Economics of Open Access for Africa

- **1.46 Billion**: Population on the African Continent
- **17.9%**: Africa as a Percentage of Global Population
- **37%**: Percentage Economically Active Population
- **44%**: Percentage of population that is urbanised
- **40%**: Percentage of population living under $1.90/day
- **1.3%**: Percentage investment in the global enterprise
- **2.2%**: Contribution to Global research Output
- **<=$100**: R&D spend per capita
- **0.4%**: Research & Development Intensity

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The Economics of Open Access for South Africa

- Population (Millions of People): 60.41
- Real GDP Growth in 2023 (Q2): 0.6%
- Unemployment Rate: 31.9%
- Contribution to global research output: 1%
- Research Intensity (Gross expenditure on R&D as a percentage of GDP): 0.85%
- Exchange rate today: R18.16/$, R19.71/€
The South African Context: Challenges

- Africa, including South Africa, has a mix of **pay-to-read** and **pay-to-publish** arrangements;

- The dominant **transformative agreement** shifts the cost burden from the **reader/libraries** to the **researcher/funder**;

- The transition to full Open Access is impacted by **prohibitive Article Processing Charges (APCs)** especially in the **global south**:
  - The average research grant in the public sector is on average R146,000 or €7,600;
  - The average APC cost is approximately R30,656 or €1,600;
  - High impact journals can range from €3,000 (R57,480) to €9.500 (R168,000) for a journal like Nature.
Towards an Equitable Costing Model

Implied PPP conversion rate: National currency per international dollar

https://www.imf.org/external/datamapper/PPPEX@WEO/OEMDC/ADVEC/WEOWORLD

Science & Innovation
Department of Science and Innovation
REPUBLIC OF SOUTH AFRICA

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Towards an Equitable Costing Model

Gross National Income (GNI) per capita is a country’s annual income divided by population.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>GNI</th>
<th>POVERTY LINE</th>
<th>RESEARCH INTENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>$2,120</td>
<td>- 80% of the population live below $5.5/day</td>
<td>0.4</td>
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<tr>
<td></td>
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<td>- 59% of the population live below $3.2/day</td>
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<tr>
<td></td>
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<td>- 34% of the population live below $1.9/day</td>
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<td>South Africa</td>
<td>$6,310</td>
<td></td>
<td>0.85</td>
</tr>
<tr>
<td>Egypt</td>
<td>$3,540</td>
<td>- 80% of the population live below $5.5/day</td>
<td>0.72</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>$1,230</td>
<td>- 80% of the population live below $5.5/day</td>
<td>0.27</td>
</tr>
<tr>
<td>Tunisia</td>
<td>$4,120</td>
<td></td>
<td>0.6</td>
</tr>
</tbody>
</table>

Questions?

Faranah Osman
Executive Director: ICT & Information Management
f.osman@nrf.ac.za
National Research Foundation
(South Africa)