OA IN INDIA

STATUS, CHALLENGES AND THE WAY FORWARD

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CEO, WELLCOME TRUST/DBT INDIA ALLIANCE
India has about 700 universities; almost all have faculties of sciences, including life sciences
- ~50 Central Universities
- ~320 State Universities
- ~130 “Deemed” Universities
- ~200 Private Universities

20 IITs
~40,000 UG students;
8 IISERs
each ~2000 students
each ~200 faculty

~7000 R&D Institutes;
~30-50 scientists each
~50-200 PhD students each
INDIA – R&D BUDGETS AND EXPENDITURE

INR 1 Trillion
$ 14.1 Billion
NATIONAL R&D INVESTMENT
2017-18

Source: Research & Development Statistics at a Glance, 2017-18
INDIA – R&D INVESTMENT, PUBLICATIONS AND OPEN ACCESS

• In 2017-18 National R&D investment was INR 1 Trillion or $ 14.1 Billion

• In 2017 researchers in India produced 140,000 peer reviewed articles (Scopus)

• Only 27,000 publications (19%) were available to the public to freely read and share

• This imbalance does disservice to the scientific ecosystem and public interest

Source: Research & Development Statistics at a Glance, 2017-18
REASONS FOR POOR OPEN ACCESS PRACTICES

42.75% NOT WILLING TO PAY THE PUBLISHER AN APC

28.26% UNABLE TO FUND THE APC
REASONS FOR POOR OPEN DATA PRACTICES

15.73% WERE DISCOURAGED FROM SHARING DATA BY THE ABSENCE OF INSTITUTIONAL MANDATE

11.24% WERE DISCOURAGED FROM SHARING DATA BY THE ABSENCE OF FUNDING AGENCY MANDATE
<table>
<thead>
<tr>
<th></th>
<th>DBT / DST OA Policy</th>
<th>CSIR OA Mandate</th>
<th>ICAR OA Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. What is covered</strong></td>
<td>Final accepted manuscript; full text; metadata; supplementary materials</td>
<td>All CSIR journals; full text of other manuscripts, metadata</td>
<td>OA for all publications; IR mandate; MSc and PhD theses; summary of research projects; metadata</td>
</tr>
<tr>
<td><strong>2. Where to make available or accessible</strong></td>
<td>Institutional Repository (IR) If IR is missing central repository set up by DBT / DST</td>
<td>IR</td>
<td>IR</td>
</tr>
<tr>
<td><strong>3. Institutional Repository (IR) requirement</strong></td>
<td>Mandatory for institutions requiring core funding; recommended for others</td>
<td>Mandatory for all CSIR labs</td>
<td>Mandatory for all ICAR institutes</td>
</tr>
<tr>
<td><strong>4. Projects / Researchers in the policy ambit</strong></td>
<td>Projects fully/partially funded by DBT/DST; work carried out using infrastructure built by DBT/DST</td>
<td>Papers published by CSIR labs or from research supported by CSIR</td>
<td>Papers published by ICAR institutes or from research supported by ICAR</td>
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<tr>
<td>5. When to deposit / embargo limit</td>
<td>IR deposit of accepted manuscript within 2 weeks of acceptance; full paper after journal embargo</td>
<td>Not mentioned</td>
<td>IR deposit of accepted manuscript immediately after acceptance; maximum embargo of 12 months</td>
</tr>
<tr>
<td>6. Usage restrictions</td>
<td>Lacks clarity</td>
<td>Not mentioned</td>
<td>ICAR own copyright; written permission required</td>
</tr>
<tr>
<td>7. Exemptions / exceptions</td>
<td>When IP protection is sought</td>
<td>Not mentioned</td>
<td>When IP protection is sought; If OA policy infringed legal commitments of institute/author</td>
</tr>
<tr>
<td>8. Compliance / Sanctions for non-compliance</td>
<td>Deposit ID to be quoted in annual reports of institutes, core facilities and funded projects</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
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</table>
An initiative established in 2008 by the Wellcome Trust, UK and Department of Biotechnology, Govt. of India

- First funder in India to mandate Open Access – Publications, Invited Reviews, Metadata, Supplementary Information
- Followed Gold Open Access mandate for the first ten years – 2008-09 to 2018-19
- Policy changed in 2019
  - Encourage Fellows to submit accepted manuscript to IRs as per DBT/DST policy
  - Prefer Green OA; Gold OA if >6 months embargo by journal
  - APC in open access journals are treated as publication charges to be paid from grants
  - For past Fellows pay APC and OA charges (if embargo >6 months)
  - Preprints in international repositories are given due consideration
INDIA ALLIANCE – OA EXPENDITURE

INR 320 LAKHS (EURO 0.4 MILLION) SPENT IN PHASE 1

Total Grants-related costs = INR 500 million
Total spent on Gold OA = INR 32 million i.e. 6.5%

$ 180,500

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount Spent (INR x Lakhs)</th>
</tr>
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<tbody>
<tr>
<td>2008-09</td>
<td>8</td>
</tr>
<tr>
<td>2009-10</td>
<td>16</td>
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<tr>
<td>2010-11</td>
<td>39</td>
</tr>
<tr>
<td>2011-12</td>
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<td>2012-13</td>
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<td>2017-18</td>
<td>128</td>
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<tr>
<td>2018-19</td>
<td>100</td>
</tr>
<tr>
<td>2019-20</td>
<td>$ 180,500</td>
</tr>
</tbody>
</table>
INDIA – APCs AND JOURNAL SUBSCRIPTIONS
AN EXAMPLE OF DOUBLE CHARGING

• During 2010-14 Indian researchers used 488 OA journals with fee of $7.5 to $5,000 per article; ~15,400 papers published; total outlay ~ $ 2.4 million.

• During 2018 India spent an estimated INR 1500 crores ($ 212 million) for subscription to online and/or print journals.

• In 2016-19, Indian researchers spent an estimated INR 38 crores ($ 5.4 million) to publish in just two OA journals – PLOS One and Scientific Reports.

• An estimated INR 30 to 50 crores ($ 4.2 to 7.1 million) were spent on access to Scopus and Web of Science databases.
INDIA AND PLAN S –

VIEW FROM GOVERNMENT

"Outputs of publicly funded research should be openly accessible... The high fees charged by publishers for allowing access to publicly funded research, and the simultaneous system of APCs, encouraged some-what by the kind of metrics that we use to evaluate re-ruitment and promotion, is a problem."

Prof. K. VijayRaghavan, Principal Scientific Adviser to the Government of India 'Science, Technology and Innovation in Building a Knowledge Economy', Science, Technology and Innovation Policy Forum Lecture Series, Delhi (June 19, 2019)

1/2 India joining cOAltion S: Journal subscriptions, publishing charges block access to publicly funded knowledge. Access, dissemination, use of knowledge should be free; allowing all to build on research funded by the Indian government, other publicly funded research.

2/2 India joining cOAltion S, will optimise it to to our benefit. Access of published research to all. Authors to be liberated from finding publishing charges. See coalition-s.org/10-principles/ for FAQ and please give views. #Plan_S

V. When Open Access publication fees are applied, their funding is standardised and capped (across Europe); India will negotiate for fees normalised to India.
INDIA AND PLAN S – CONCERNS

**Costs**
Transferred from researchers to government (tax payers) to cover profits of private vendors.
Estimated costs for are >50% of public investment in DBT and ICMR.
Who would pay bills?
Would research be driven by “national priorities” and profit motives?

**Profit margins and power equations**
Does not address the high profit margins of publishers.
Power lies with publishers – not with people whose taxes pay for research, or researchers who do the work and write the papers.

**Journal prestige**
Journal “prestige” linked to hiring, promotion, etc.
Comes with high APCs, e.g. Nature Communications INR 3.4 lakhs/paper, when average size of a life science grant is ~ 50 lakhs/year.
Price caps matter little if journal “prestige” is involved.

**Smaller journals suffer**
Indian researchers publish mainly in society journals. These are small enterprises unable to change business models to align with Plan S by 2020.

**INR 160 million / yr**
**EURO 2 million / yr**
Estimated payments to OA journals from India, 2010-14

**INR 6165 million / yr**
**EURO 78.7 million / yr**
Plan S costs for India
NEED EQUITABLE AND FAIR PUBLISHING MODELS

**COLONIALISM**

<table>
<thead>
<tr>
<th>Ideas + Work</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds</td>
<td>Government (Taxes)</td>
</tr>
<tr>
<td>Review</td>
<td>Experts (no fee)</td>
</tr>
<tr>
<td>Copyrights</td>
<td>Publishers</td>
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</tbody>
</table>

“ROBBING HOOD” MODEL

- Some publishers have sister journals with variable rigor/quality and “prestige”.
- Manuscripts perceived by editors to be “weaker” are transferred to sister journals that require APCs or OA charges.
- Publishing in higher ranked journals is subsidized by lower ranked journals.