



## Concerns Related to Scientific Publishing

**For Prelims:** Concerns Related to Scientific Publishing, [National Research Foundation](#), **One Nation, One Subscription**, [Global South](#).

**For Mains:** Concerns Related to Scientific Publishing.

[Source: TH](#)

### Why in News?

The recently approved [National Research Foundation](#) is seen as a leading voice for accessible, equitable, and fiscally responsible **Scientific-Publishing**.

- Communicating research is an integral part of scientific endeavor. It advances scientific understanding and bridges science and society.

### What is the Process of Scientific-Publishing?

- **Academic Publishing:**
  - Academic publishing starts with **scientists submitting their research** findings to journals.
  - These manuscripts undergo peer review, where **experts provide voluntary comments** to ensure rigorous and validated research.
  - After acceptance, the paper is published either online or in print, making the work **accessible to the wider community**.
- **Pay to Read Model:**
  - Traditional academic publishing **relies on a 'pay to read' model**, where libraries and institutes **pay fees to access published research**.
  - This system restricts access to scientific material, particularly in the [Global South](#), where institutions may struggle to afford subscription fees.
- **Pay to Publish Model:**
  - An alternative approach is the **gold open-access model**, where authors pay an **Article Processing Charge (APC)** to make their **work freely available online**.
    - While this promotes open access, it has raised concerns about **financial implications for researchers**.

### What are the Issues Related to Scientific Publishing in India?

- **Profits from Public Money:**
  - Academic publishing is a lucrative industry, with a **worldwide revenue of USD 19 billion** and wide profit margins of up to 40%.
  - The issue lies in the fact that **these profits are derived from public funds** but directed towards a select few companies, whereas academic scientific research is intended to be a non-profit endeavour.

- India's research funding has seen modest increases and stagnation, making the high APCs of **Gold Open-Access (OA) journals** a challenge for scientists.
  - Gold OA is a type of **open-access publishing model** that allows unrestricted and immediate access to scholarly articles online without any subscription or payment barriers.
- **Predatory Publishing:**
  - India faces challenges with **predatory publishing**. Predatory journals exploit the "**pay-to-publish**" model without providing adequate **peer review and editorial services**, resulting in low-quality publications that could undermine the credibility of Indian research.
- **Lack of Open Access:**
  - Access to scientific research **papers often remains restricted** due to **subscription-based models or** expensive paywalls.
  - This **hampers the dissemination of knowledge** and collaboration among researchers.
- **Plagiarism and Ethics:**
  - Some researchers, due to various reasons, **resort to plagiarism** or other unethical practices, which can **degrade the quality** and reliability of Indian research publications.
- **Funding Constraints:**
  - Limited funding and resources for research and publishing **can lead to challenges in meeting publication costs**, including article processing charges for open-access journals.
- **Research Evaluation:**
  - There has been an overemphasis on journal impact factor as a measure of research quality, which may encourage researchers to publish in high-impact journals without considering the relevance or contribution of their work.

### Is there any Workaround for the Cost?

- The government is exploring alternatives, such as '**One Nation, One Subscription**,' which provides access to scholarly publications at a fixed cost but may increase commercial publishers' monopoly.
- Another approach is to shift from **open access to open publishing**, establishing a freely accessible and high-quality online repository managed by professionals.
  - This repository allows **continuous evaluation and engagement with reviews** from experts and the public, moving away from numerical metrics for academic research evaluation.

### Conclusion

- India's efforts to rethink academic publishing can lead the **world by prioritizing equitable access to research**.
- By implementing innovative models and **leveraging the newly approved National Research Foundation**, India can make strides towards accessible and transformative research publishing, benefiting not only its scientific community but society at large.