

A review of open access policy options for development research funders

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Glossary

Open Access: research publications are accessible to everyone with no charge; discoverable and permanently available online; and subject to licensing allowing for the widest possible reuse, including copying, translating, and adaptation.

Reuse: the ability of a published research article to be reused by others (both researchers and research users); a core component of Open Access, this covers the licensing requirements applied to research articles.

Article Processing Charge (APC): the fee paid to a publisher to make a research article Open Access.

Preprint: publication of a pre-peer review version of a research article.

Gold: an open access publishing model which charges authors or their institutions an APC to make research outputs immediately accessible on the publisher's website.

Diamond: an open access publishing model in which journals do not charge fees for readers or authors. Diamond Open Access journals are non-profit and usually community-led, built upon institutional or scholarly-led infrastructure.

Hybrid: a publishing model where a subscription journal charges authors or their institutions an APC to make their individual article available Open Access; the rest of the journal's content is only available on subscription.

Bronze: refers to when research is freely available to read on a publisher's website, but without an open licence preventing reuse and redistribution. This only fulfils the definition of Open Access on access but not reuse.

Green: a model of achieving Open Access also known as self-archiving. The author deposits a copy of the accepted research article into a recognised institutional or disciplinary repository. This stands alongside a paywalled version of the article on the publisher's website. There can be a publisherimposed embargo on when the final version of the article can be deposited.



Executive Summary

Openly accessible research is critical to advancing global development and open access policies are the main tool available to research funders to ensure access. This policy paper reviews open access policy options for development research funders, providing evidence in the areas of Access, Reuse, and Costs. The analysis considers policy implementation, value for money, and impacts on Global South researchers and institutions.

To contextualise future policy development, we assessed the landscape of open access publishing over the last decade. Looking at research articles from a sample of 21 research funders with an Official Development Assistance (ODA) or development component to their portfolio, and the same funders' current open access policies, we found:

- A decline in open access in recent years within our sample of research funders. This is aligned with trends across all research (Herb, 2025). This suggests there is more research funders can do to support Open Access, both within their research grants and across the research system.
- Sampled funders spent between US\$74 million and US\$81 million in 2023 on Article
 Processing Charges (APCs) to support open access publishing. This is a considerable sum
 which, alongside a decline in Open Access, brings into question the value for money of the current
 pay-to-publish open access model.
- Eleven of the 21 funders mandate both immediate access to published articles and open licensing. This shows that current open access policies could be stronger on both Access and Reuse.
- Over half of the sampled funders (11) cover APCs for all journal types. Five funders only cover APCs for fully open access journals, with the Gates Foundation being unique (within the sample) in no longer covering APCs. This shows stark differences in the extent to which funders are willing to support open access publication costs.

To support research funders with strengthening their open access policies, we reviewed the policy options available in the areas of Access, Reuse, and Costs, against a review framework that looked at: impact on timely access, ability to reuse research, and support for international collaboration (research); research system inclusion and researcher choice (equity); and funder budgets, and funder and researcher administrative burdens (resourcing). Recognising that policies are shaped by funders' values and strategic objectives, we then mapped the policy options against three archetypal value positions:

- **1. System Changer** supports an ambitious vision for a more equitable global knowledge system and is willing to cause some disruption to realise this goal
- 2. **Rights Enabler** balances societal benefits with academic rights, including the freedom to publish where they choose
- **3.** Advantage Seeker prioritises research excellence and situates Open Research and Open Access as routes to pursuing this within the research they support

Key insights from the review of open access policy options

Access

Immediate access to published articles is the strongest position for advancing Open
Access and research equity, and is aligned with System Changer and Rights Enabler funder
archetypes. Although requiring immediate access may increase the administrative burden for
researchers in some instances, policies allowing longer embargo periods (e.g. six or twelve
months) perpetuate inequity in access to research, especially for researchers without institutional
subscriptions.



Mandating the sharing of preprints significantly increases timely access and reuse,
aligning with broader Open Science principles and the System Changer funder archetype.
However, this option introduces a greater administrative burden for funders and researchers, and
may pose challenges for Global South researchers – especially Early Career Researchers (ECRs)
working in contexts where preprints are not recognised for career progression. The Rights Enabler
archetype concerned with researcher choice is more aligned with a recommendation for sharing
preprints.

Reuse

- Mandating Creative Commons (CC) licensing, particularly CC BY which allows for the
 most extensive reuse, positively impacts research reuse by enabling rapid translation and
 integration into other knowledge products. All funder archetypes are aligned with supporting
 reuse through CC licensing, although System Changer and Rights Enabler archetypes are more
 likely to mandate the most open CC licence (CC BY).
- Funders need to be aware of Artificial Intelligence (AI) and the implications for CC licensing. They need to stay up to date with developments in this area including a new CC framework to help users express how they want their work used in AI training (Creative Commons, n.d.).

Costs

- By no longer paying APCs, funders are withdrawing support from the pay-to-publish open access model, which is exclusionary to researchers without sufficient resources, and risks undermining research integrity as journals seek to maximise output volume. This can incentivise researchers to use alternative, cost-effective venues like Diamond Open Access journals, which levy no fees on authors or readers. There are also immediate cost savings for funders, allowing greater research investment. However, in the short term, this is likely to negatively impact grantees by constraining an author's ability to publish in prestige journals. This option is most aligned with the System Changer funder archetype, but may conflict with funders seeking to maximise grantee success or uphold grantees' freedom to choose where to publish.
- Only covering APCs for fully open access journals is a logical step for funders wishing
 to advance access to research and aligns with major international research funders. This
 policy option is aligned with both the Rights Enabler and more moderate System Changer funder
 archetypes.

Global development research funders have historically been champions of Open Access. Yet given that progress on Open Access is stalling, some funder policies now need a refresh. Research funder open access policies are a key tool for ensuring published research is permanently publicly available and findable, and are a potential means to reform the research publishing system.

Overall, development research funders need to balance the advancement of Open Access, support for research equity (especially for the Global South), value for money, and the administrative burden on researchers and institutions when designing their open access policies. They should also explicitly consider their goals and values when designing open access policies. This paper provides a set of tools to do just that.

Only with equitable access to both read and publish research can the full range of evidence be available to address the world's most pressing challenges.



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Introduction

Access to evidence is vital for solving complex global challenges. Research evidence underpins every form of social and economic development. However, research is too often locked behind paywalls, and researchers without funds to publish in open access journals are prevented from doing so. Research builds cumulatively upon previous findings, but this only works to its full potential if everyone has access to all research results. An open, transparent and faster system for publishing research is possible, as was shown during COVID-19 when access restrictions were relaxed (Vervoort et al., 2021).

In the 1990s digital technologies offered new opportunities for research dissemination, as publication moved increasingly online. The Open Access movement emerged to address the problem of research access. In 2001, the Budapest Open Access Initiative provided the first definition of Open Access: where research publications are accessible to everyone with no charge; discoverable and permanently available online; and subject to licensing allowing for the widest possible reuse, including copying, translating, and adaptation (Open Access Network, n.d.). In the last thirty years Open Access principles have become research funder policy positions and publishers have adapted their business models from pay-to-read to pay-to-publish Open Access. After a decade of steady advancement, progress towards Open Access is now stalling, with initiatives such as Plan S having failed to achieve a full transition to Open Access for publicly funded research.¹ Recent estimates suggest that, at the current rate of change, it will take 70 years to see the big five commercial publishers transition all their journals to fully open access models (Brayman et al., 2024). The pay-to-publish open access model has created new barriers to publication for researchers unable to pay high APCs (Butler et al., 2024), and is particularly impacting researchers based in the Global South (Bonaccorso et al., 2014; Nabyonga-Orem et al., 2020).

The current research publishing system represents a significant barrier to evidence use in development. Evidence-informed development programmes, and policy and innovation to drive economic growth, are only effective if research findings are accessible to everyone. The stall in progress towards Open Access means that both researchers and research users cannot access the evidence they need to support their work. For policymakers and practitioners this limits the extent to which research can inform development processes; whereas, for researchers, the access barrier is compounded by a publication barrier. Prohibitively expensive APCs restrict who can publish Open Access and therefore reduces the evidence which is made visible and accessible to all. However, alternatives do exist, including open access repositories and Diamond Open Access journals, which do not charge to read or publish, and are typically built on not-for-profit and scholarly-run infrastructure.

Development research funders should prioritise Open Access to ensure that the research they fund is accessible to the widest possible audience to inform development progress. Given the centrality of collaboration to effective research, funders should also work together to support a fairer and more effective research publishing system. Funder open access policies are one lever for driving progress on Open Access. The Gates Foundation (Gates) now requires all articles to be posted as preprints and no longer covers APCs, whilst Wellcome, alongside other funders, now only pays APCs for fully open access journals or platforms. These shifts challenge research funders to think about how their open access policies shape the broader research publishing ecosystem (Torok, 2024). Critical reflection is also needed to understand the impact that funder open access positions have on different parts of the global research community, especially for development-focused funders seeking to support Global South researchers and research systems.

In this policy paper we provide evidence to support development research funders with assessing the open access policy options available to them in the areas of Access, Reuse, and Costs. Our analysis also considers policy implementation, value for money of paying APCs, and the potential risks and benefits – especially for researchers and institutions in the Global South.

¹ Plan S was launched by cOAlition S, a consortium of research funding organisation in 2018. It aimed to achieve full Open Access to research funded by public grants by 2021.



Landscape of open access publishing for development research funders (2014 – 2024)

To contextualise the current opportunities for changing research funders' open access policies, we assessed the extent of open access publishing over the last decade for a dataset of research articles from a sample of 21 research funders with an ODA or development component to their portfolio.² We also assessed the same funders' current open access policies (for information on the sample and dataset, see Appendix).

Definitions of access types				
Gold/Diamond	Article is published in a fully open access journal with an open licence. This includes both journals that charge APCs (Gold) and journals that have no charge (Diamond)			
Hybrid	Article freely available under an open licence in a paid-access journal			
Bronze	Article freely available on publisher's website, but without an open licence			
Green	Article freely available in an open access repository			
Closed	No freely available version of the article available			

Key insights from our analysis

- There has been a decline in Open Access for the sampled funders in recent years: this is driven by reductions in Green and Bronze,³ and a levelling off of Gold/Diamond Open Access.⁴ This trend is aligned with the open access status of all Sustainable Development Goal (SDG)-related research over this time (see Figure 1).
- Open Access is primarily Hybrid and Gold/Diamond with higher rates of Gold/Diamond Open Access for ODA and multilateral funders: 63% of articles in 2023 for ODA and multilateral funders were Gold/Diamond Open Access compared to 48% for national and philanthropic funders in our sample, and 43% for all SDG-focused research articles. Figure 2 shows the distribution of open access types for each research funder in our sample in 2023.
- Research funders with a development focus have lower rates of closed access: in 2023, 10% of articles for our sample of funders were closed. Looking specifically at ODA and multilateral funders, 15% of articles were closed; this is lower than the 31% of closed articles across all SDG-related research articles (see Figure 3).
- Funders spend considerable sums on APCs to achieve Open Access: the estimated maximum total cost all funders in our sample could have paid in 2023 was US\$81.80 million.
 This could have been reduced to a net figure of US\$74.26 million if every single author eligible for an APC waiver received one, which is highly unlikely. Looking just at ODA and multilateral funders in 2023, an estimated US\$5.63 million was spent on APCs (without waiver adjustment).

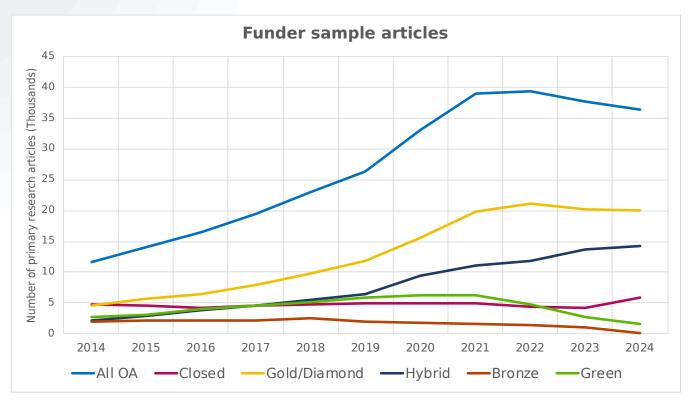
² The sample was divided into two for comparison purposes: 1) ODA/multilateral funders; and 2) national and philanthropic funders. This highlights any differences from research funded through ODA as compared to funders with a broader remit.

³ There is likely to be a lag in both Green and Bronze Open Access availability in recent data. Green Open Access availability increases gradually as articles are released from publisher embargoes.

⁴ Unfortunately, we were unable to disaggregate Diamond Open Access (free to read and publish) from Gold (fully Open Access with an APC) in this analysis.



Figure 1: Trend in Open Access (OA) for SDG related research articles for the period 2014–2024 in panels showing funder sample (top) and all SDG-related articles (bottom)



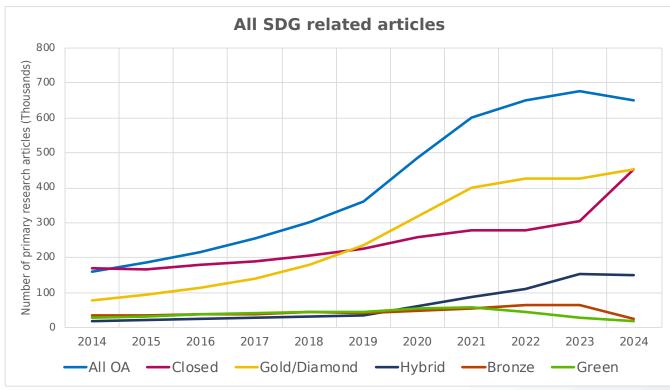




Figure 2: Volume of SDG-related research articles from 2023 for sample of funders – segmented by Open Access type, with breakout panel showing lower-output research funders

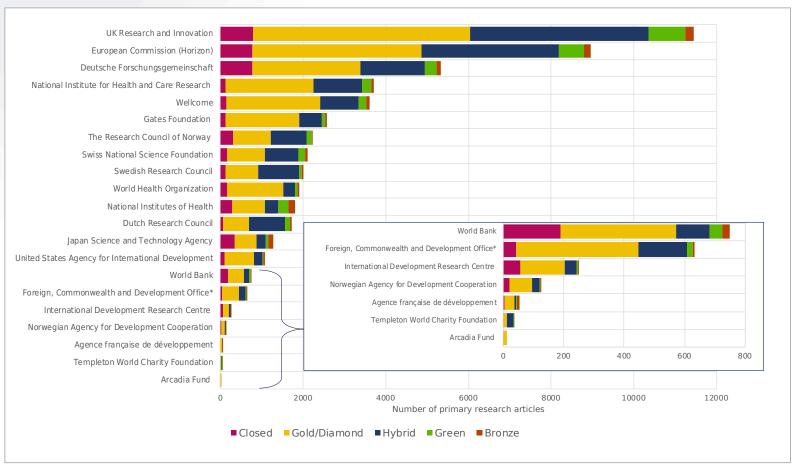
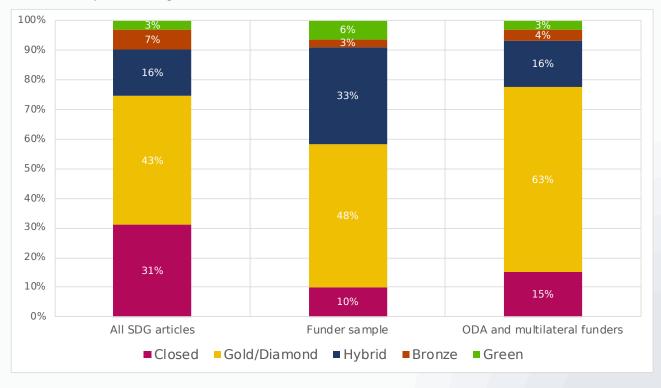


Figure 3: Percentage of SDG-related research articles from 2023, segmented by Open Access type, for: all SDG-related articles; SDG-related articles for all funders in sample; and SDG-related articles for ODA and multilateral funders in sample (excluding co-funded articles)



^{*} Foreign Commonwealth and Development Office includes the former Department for International Development



Current open access policy positions of development research funders

There was an increase in funder open access policies in the early years of the 2010s (Breugelmans et al., 2018), as research funders sought to increase access to funded research outputs and incentivise changes to the research publishing system. Research funders' open access policies seek to balance researcher choice with progress towards Open Access. Policies which recommend rather than mandate open access publication have been found to have less impact on Open Access adoption (Huang et al., 2020). This has led to more research funders mandating open access publication, whilst maintaining researcher choice by providing multiple avenues for compliance, including fully open access journals (Gold if APCs apply and Diamond if no cost), Hybrid journals, and self-archiving of articles upon publication (Green Open Access). To support open access publication within the pay-to-publish model, research funders may provide support with publication costs. In recent years, funders have started to stipulate which types of journals they will cover APCs for, as a means of shaping researcher journal choice and providing greater support for fully open access journals.

To understand the range of current open access policy positions of development-focused research funders, we assessed the open access policies for the same sample of research funders within the areas of Access, Reuse and Costs relating to journal articles.⁵

Access

- Sixteen funders already require immediate access to published research articles, whilst International Development Research Centre (IDRC) allows a twelve-month embargo period.
- Only four funders encourage or mandate preprints in their policies; Gates is unique in mandating the posting of preprints, whilst Templeton World Charity Foundation (TWCF), UK Research and Innovation (UKRI), and Wellcome encourage it.

Reuse

• Fourteen funders mandate CC licensing with flexibility for non-commercial licensing. The UK's Foreign Commonwealth and Development Office⁶ (FCDO) is notable amongst ODA and multilateral funders in recommending rather than mandating CC licensing.

Costs

- Five funders only cover APCs for fully open access journals (TWCF, the Dutch Research Council (NWO), Swiss National Science Foundation (SNSF), Wellcome, and the European Commission). Gates is unique in not covering APCs other than for publication on Gates Open Research.
- Only four funders had policies which made it clear that open access costs were eligible beyond the grant-funding period (IDRC, National Institute for Health and Care Research (NIHR), UKRI and Wellcome).
- Additional measures for controlling APC costs include: a cap per article and per project, per year (Deutsche Forschungsgemeinschaft (DFG)); not paying 'unreasonable' APCs (SNSF); and requiring grantees to plan for APC expenditure (IDRC).

⁵ USAID was included in the analysis of the last decade of open access publishing but due to its shutdown in January 2025 the current open access policy was no longer available online, so it is not included in the analysis of current policies.

⁶ FCDO intends to revise their Open Access policy in the near future.



Table 1 below summarises the policy positions of the sampled funders on Access, Reuse and Costs in relation to journal articles; blank cells indicate that the policy did not specify a position in that area.

Table 1: Current open access policy positions of sampled funders

		Access		Reuse	Costs	
Funder	Year*	Access timeframes	Position on preprints	Licensing requirements	Eligibility for cost recovery	Timeframe
Agence française de développement	2021			CC BY mandated		
Arcadia Fund	2022	Immediate		CC BY encouraged	APCs – Gold and Hybrid	
Austrian Science Fund	2020	Immediate		CC BY mandated	APCs – Gold and Hybrid	
Deutsche Forschungsgemeinschaft	2019	Immediate recommended		CC BY encouraged	APCs – Gold and Hybrid	
European Commission (Horizon)	2021	Immediate		CC BY encouraged	APCs - Gold	
Foreign, Commonwealth and Development Office	2013	Six-month embargo	Not in policy scope	CC BY encouraged	APCs – Gold and Hybrid	
Gates Foundation	2025	Immediate	Preprints mandated	CC BY mandated	No APCs covered	
International Development Research Centre	2015	Twelve-month embargo		CC BY mandated	APCs – Gold and Hybrid	Two years
Japan Science and Technology Agency	2025	Immediate			APCs – Gold and Hybrid	
National Institute for Health and Care Research	2021	Immediate	Not in policy scope	CC BY mandated	APCs – Gold and Hybrid	Two years
National Institutes of Health ⁷	2025	Immediate	Not in policy scope			
Research Council of Norway	2021	Immediate		CC BY mandated	APCs – Gold and Hybrid	
Swedish Research Council	2022	Immediate		CC BY mandated	APCs – Gold and Hybrid	
Swiss National Science Foundation	2023	Immediate		CC BY encouraged	APCs - Gold	
Templeton World Charity Foundation	2021	Immediate	Preprints encouraged	CC BY mandated	APCs - Gold	
The Dutch Research Council	2021	Immediate		CC BY mandated	APCs - Gold	
The Norwegian Agency for Development Cooperation	2025	Immediate		CC BY mandated		
UK Research and Innovation	2023	Immediate	Preprints encouraged	CC BY mandated	APCs – Gold and Hybrid	Length not stated
Wellcome Trust	2025	Immediate	Preprints encouraged	CC BY mandated	APCs - Gold	Length not stated
World Bank	2024	Immediate recommended		CC BY mandated		
World Health Organization	2021	Immediate		CC BY mandated	APCs – Gold and Hybrid	

⁷ NIH updated their position in July 2025 to require immediate access where previously they had allowed for a twelve-month embargo.

^{*} Policy year is the year the policy was implemented or the most recent year the policy was updated or revised.



Open access policy options for development research funders

When developing open access policies, research funders need to balance the needs of different parts of the research community, alongside value for money and progress towards open access to research outputs. Open Access is especially important for development-focused funders, who are concerned with the real-world impact research has on development policies and programmes. We have assessed the range of policy options available to funders in relation to journal articles. We looked at journal articles as they are the most important unit of research output across disciplines and tend to precede other outputs such as monographs. We have assessed three **policy elements**: Access, Reuse, and Costs, as informed by Fosci et al.'s (2019) review.

Access: refers to the ability of everybody (both researchers and research users) to read published articles. It also includes positions on preprints, which enable the sharing of research findings at the earliest opportunity.

Reuse: refers to the ability of a published research article to be reused by others (both researchers and research users); a core component of Open Access, this covers the licensing requirements applied to research articles.

Costs: refers to how open access publication costs are supported by the funder and the timeframe in which they are covered.

Within each **policy element** we have defined a range of **policy options**, representing different positions research funders could adopt within that element. We understand that in creating these discrete options we have simplified the full range of choices available to funders, but we believe a degree of simplification will support research funders to analyse and compare the impact of different policy positions. To assess the impact of different **policy options**, we adapted the framework used by Yang et al. (2023) in their analysis of academic publishing opportunities for Gates, which assessed impact and equity, economic implications, and logistical implications. Our review framework assesses eight criteria, divided into three domains of impact:

Research - the extent to which the policy option impacts:	Equity - the extent to which the policy option impacts:	Resourcing - the extent to which the policy option impacts:
Timely access to research for both researchers and research users - Ability to reuse research by both researchers and research users - Support for international collaboration	Research system inclusion, especially of Global South researchers - Researcher choice	Funder budgets - Logistical and administrative burden for funders - Logistical and administrative burden for researchers and the institutions in which they are based

These domains cover the competing demands of development research funders to: advance Open Access; drive research uptake; support research equity and inclusion, especially of stakeholders from the Global South; ensure value for money from funder resources; and avoid extensive logistical and administrative burdens on researchers and institutions. Figure 4 provides an overview of the review framework. We reviewed each policy option against the impact domains and their criteria, providing a qualitative assessment of the impact, which was then translated into an impact score using a scale of 1–5 negative to positive impact:

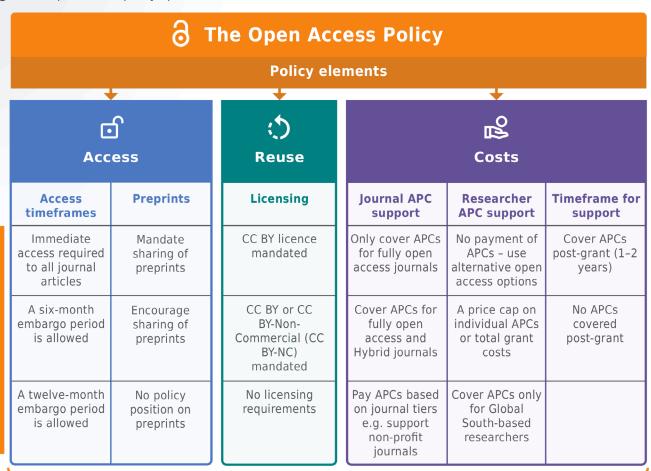
1: strong negative impact	2: somewhat negative impact	3: neutral impact	4: somewhat positive impact	5: strong positive impact

These impact scores were then validated by an expert panel to ensure our assessment had not missed any unintended impacts.

⁸ Access to research data was out of the scope of this review.



Figure 4: Open access policy options review framework



Review framework Impact of each policy option on:					
ব্ Research	Equity	다. C Resourcing			
Timely access to research - Ability to reuse research - Support for international collaboration	Research system inclusion - Researcher choice	Funder budgets - Logistical burden for funders - Logistical burden for researchers and institutions			

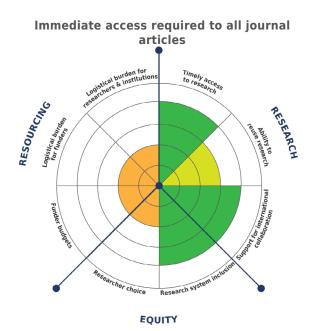


Review of open access policy options

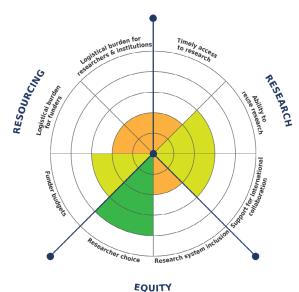
Access

Access timeframes

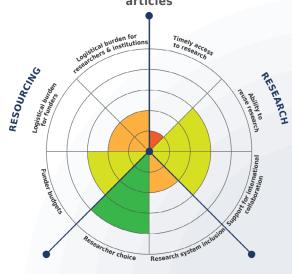
For access timeframes the options are either immediate or some allowance for publisher embargo periods (six or twelve months). The longer the permissible embargo period, the greater the impact on timely access to published research. This would especially impact researchers and readers with limited access to paywalled publications via institutional subscriptions, potentially perpetuating inequity in who is able to read, reuse and respond to published research. An immediate access policy may require researchers to exercise 'rights retention' to enable them to self-archive the Author Accepted Manuscript (AAM) when not publishing in a fully open access journal.9 This is an additional administrative burden for researchers. For funders, there will be administrative impacts relating to ensuring compliance and policy education in relation to access timeframes. Immediate access will usually steer researchers towards fully open access or Hybrid journals, so may have some negative impacts on funder budget, depending upon the funder policy relating to publication costs.



A six-month embargo is allowed for articles



A twelve-month embargo is allowed for articles



EQUITY

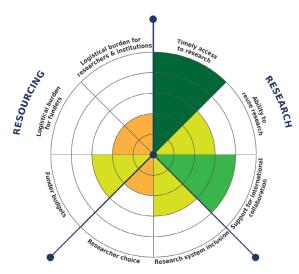
⁹ This blog post has more information on the connection between rights retention and Open Access: https://www.knowledgerights21.org/news-story/explaining-retaining-how-rights-retention-contributes-to-open-access-and-empowers-authors-and-how-we-can-go-further/



Preprints

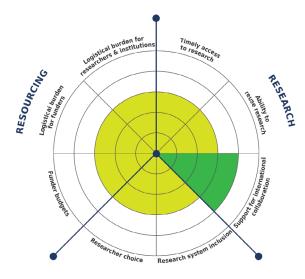
Preprints are a route to increasing timely access and the ability to reuse research through enabling the earliest possible access to research findings. Preprint publication is increasingly promoted within Open Science principles to support transparency, collaboration and impact (Mwangi et al., 2021). If funders mandate the publishing of preprints, it will increase timely access to, and ability to reuse, research. However, the impact on research system inclusion is more complex: although it enhances access and transparency, the lack of recognition for preprints in career progression or assessment could be a barrier to preprint posting in some research contexts, especially for ECRs who may be reluctant to share work that has not undergone the rigour of peer review, and which is not recognised for promotion. Additionally, a mandate reduces researcher choice and increases the administrative burden for funders, researchers, and institutions. However, a recommendation for posting preprints is unlikely to have the same impact on timely access and reuse as it is unlikely to significantly change researcher behaviour.

Mandate sharing preprints



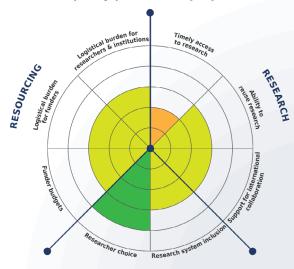
EQUITY

Encourage sharing preprints



EQUITY

No policy position on preprints



EQUITY

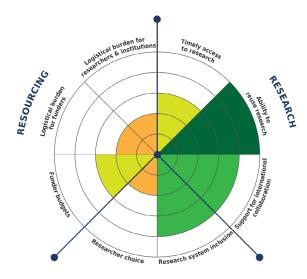


Reuse

Requiring CC licensing will have positive effects on the ability to reuse research, by enabling rapid language translation and reuse of research findings in other knowledge products. However, it is important to be aware of resistance to CC licences within some Global South researcher communities, with concerns that they do not give as much protection (Harle and Warne, 2020). Allowing for the use of a non-commercial CC licence could enhance researcher choice. especially if there is a mechanism for handling licensing exceptions. All licensing requirements are likely to need resourcing, and administration for monitoring and ensuring compliance, as well as researcher time to understand licensing requirements and negotiate with publishers. However, having no licensing requirements will ultimately limit Open Access in terms of the ability to reuse research.

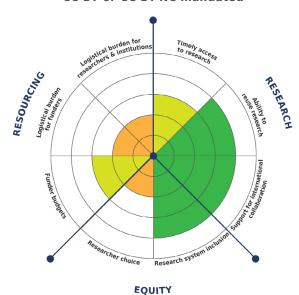
Funders need to be aware of AI and the implications for CC licensing. Current licensing presumes human reuse and may need to consider commercial machine reuse for the training of Large Language Models (LLMs) to remain relevant (Decker, 2025). Research funders should stay up to date with developments in this area including a new CC framework to help users express how they want their work used in AI training (Creative Commons, n.d.). The goal is not necessarily preventing commercial LLM use; research funders may see the widespread uptake by LLMs as a potentially powerful mechanism for research dissemination.

CC BY licensing mandated

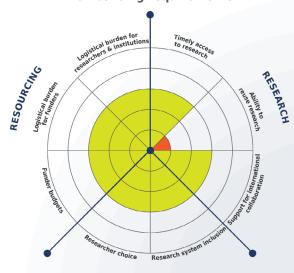


EQUITY

CC BY or CC BY-NC mandated



No licensing requirements





Costs

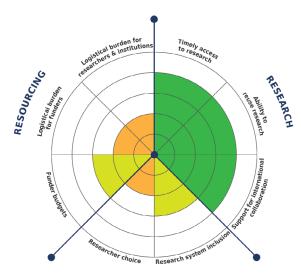
Journal APC support

Only covering APCs for fully open access journals is a clear policy statement which incentivises researchers to not publish in Hybrid journals. This will likely lead to more fully open access publications, thus enhancing discoverability of research. This position is aligned with the policy direction of major international funders (including Wellcome and the European Commission), to support funder and researcher collaboration. As APCs for fully open access journals tend to be lower than for Hybrid journals, it could reduce the APC burden for funders if it is a shift from a more expansive reimbursement policy.

Although continuing to support publication costs in Hybrid journals enhances the researcher's choice of publication venues, it is likely to maintain a high APC burden for funders, and also continues to support journals and publishers that are stalling in the movement towards Open Access.

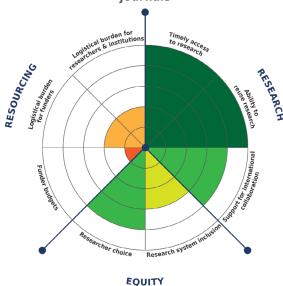
The option of reimbursing at different rates depending on journal tiers could reduce funders' APC burden whilst continuing to support smaller, non-commercial and Global South-based publishers (Yang et al., 2023). However, it is likely to be difficult to administer, with extensive time and resources required to manage and maintain a tiered system. This option will also make it difficult for researchers to know whether APCs for their chosen journal can be covered by the funder.

Only cover APCs for fully open access journals

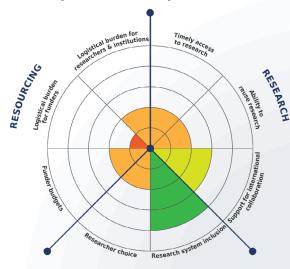


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Cover APCs for fully open access and Hybrid journals



Pay APCs based on journal tiers¹⁰



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^{10 (}Yang et al., 2023) This could involve the funder only covering full APCs for fully open access, non-profit journals but only partially covering the costs for for-profit publishers.



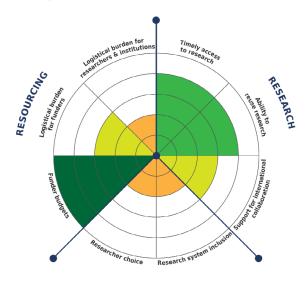
Researcher APC support

No longer covering APCs sends a strong message that a funder no longer supports the pay-to-publish open access model. This option incentivises researchers to be price sensitive in their selection of publication venues e.g. Diamond Open Access, and marks a shift away from support for the prestige economy of academic journals, where specific titles are highly valued and can charge fees according to this perceived value. There are also immediate cost savings involved allowing greater investment in research or Open Research infrastructure. However, it could have a negative impact on researchers in less wellresourced institutions, making it harder for them to publish Open Access. For co-funded research, other funders with a more expansive policy will likely pick up some of the publication costs.

A price cap, either per paper or at the grant level, could reduce the APC burden for funders. However, if at the grant level, it could limit availability of the totality of research if researchers then publish behind paywalls once the cap is reached. It could also negatively impact researchers without alternative resources, as they will be unable to publish in a journal of choice – and it is likely to increase the administrative burden of managing the price cap for both funders and researchers.

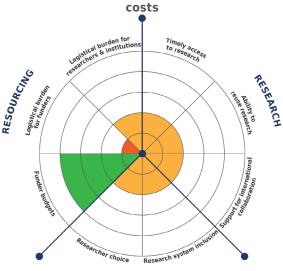
A system paying APCs for certain researchers or at different rates for different researchers, for example, depending upon their location (Global South-based) or institution type, could focus support on researchers who face more barriers to open access publishing. It is likely to lead to some funder budget savings by reducing researcher eligibility. However, any countrybased designation will be simplistic in terms of assessing access to resources, which could limit support for researchers in some higher-income countries in the Global South who are based in less well-resourced institutions. Managing such a system will also require significant resources from the funder, which could limit any cost saving from a reduced APC burden.

No payment of APCs - use alternative options



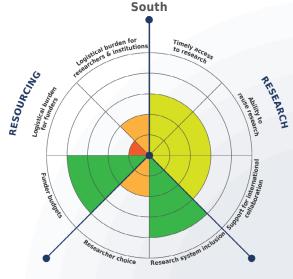
Price cap on article APCs and/or total grant

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Pay APCs only for researchers from Global

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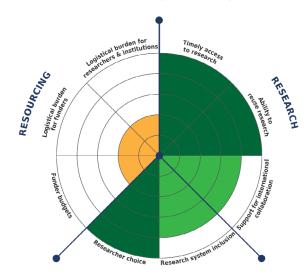


Timeframe for cost support

Recognising that it can take time for research to be published, funders can reimburse open access publication costs one or two years beyond the grant period. This is likely to increase the number of open access outputs from a funder's investment, increasing access to research and the ability to reuse it. This also provides additional support for researchers in low-resource settings or institutions, and promotes more inclusive academic career pathways, factoring in caring responsibilities and part-time work. However, it will increase the APC and administrative burden for funders by bringing more publications in scope depending upon the timeframe in the policy.

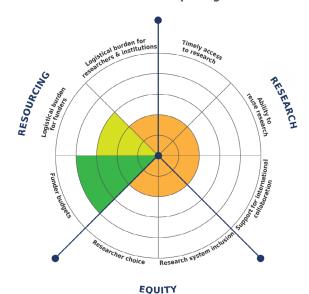
Not providing support with publication costs post-grant could limit access to the totality of published research arising from a funder's investment if there are no alternative sources of funding for researchers – especially for researchers in lower-resource settings – and if researchers are willing to ignore other open access policy requirements to secure their preferred closed or Hybrid journal publication. However, it does provide some control over APC spend for the funder. Any policy position in this area needs to be looked at alongside journal and researcher APC support.

Cover APCs post-grant (1-2 years)



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No APCs covered post-grant





Interpreting the review of policy options

We recognise that as well as weighing up the impact of open access policies on different areas of the research system and their own operations, research funders will bring their own values and strategic objectives to bear when assessing the relative benefits and drawbacks of different policy options.

Funders will have different appetites for supporting system reform versus working within the current system, depending on their position (i.e. public or philanthropic) and their broader ambitions. We consider three archetypes of funder perspectives:

- 1. System Changer supports a more ambitious vision for a more equitable global knowledge system and is willing to cause some disruption to realise this goal. Will use open access policy positions to drive reform of research publishing rather than accept the pay-to-publish open access model that now dominates. This is especially expedient for development or social impact-based funders given that the pay-to-publish model perpetuates inequities in access to publishing, and excludes Global South researchers and researchers with more limited access to resources.
- 2. Rights Enabler balances societal benefits with academic rights, including the freedom to publish where they choose. These freedoms may be seen in terms of their instrumental value to a flourishing academic sector. Rights extend to the broader public and the right to access research funded using public money.
- **3. Advantage Seeker** prioritises research excellence and situates Open Research and Open Access as routes to pursuing this within the research they support. These funders may also place greater weight on the economic contributions of publishers to the domestic economy rather than the wider impacts on the global research system.

These archetypes represent different funder perspectives, which likely exist to differing degrees within all funders. Below, the policy options in the areas of Access, Reuse, and Costs outlined above are mapped against funder-archetype alignment:

 Table 2: Mapping of policy options against funder-archetype alignment

Policy element	Policy options	System changer	Rights enabler	Advantage seeker
Access	Immediate access required to all journal articles.			
	A six-month embargo is allowed for articles.			
	A twelve-month embargo is allowed for articles.			
	Mandate sharing preprints.			
	Encourage sharing preprints.			
	No policy position on preprints.			
Reuse	CC BY licensing mandated.			
	CC BY or CC BY-NC mandated.			
	No licensing requirements.			
Costs	Only cover APCs for fully open access journals.			
	Cover APCS for fully open access and Hybrid journals.			
	Pay APCs based on journal tiers.			
	No payment of APCs.			
	Price cap on article APCs and/or total grant costs.			
	Pay APCs only for researchers from Global South.			
	Cover APCs post-grant (1-2 years).			
	No APCs covered post-grant.			



Access

- Requiring immediate access to published articles provides the greatest support for advancing Open Access and research equity, and is aligned with the System Changer and Rights Enabler funder archetypes.
- A position on preprints will ensure an open access policy supports broader Open
 Research principles and could incentivise system change. Mandating the sharing of
 preprints is more aligned with System Changer funders. The Rights Enabler archetype, concerned
 with researcher choice, is more aligned with a recommendation for sharing preprints.

Reuse

- All funder archetypes are aligned with supporting reuse through CC licensing, although
 System Changer and Rights Enabler funders are more likely to mandate the most open CC licence
 (CC BY).
- Funders need to be aware of AI when licensing and stay up to date with developments in this area, including a new CC framework to help users express how they want their work used in AI training (Creative Commons, n.d.)

Costs

- No longer paying APCs withdraws support from the pay-to-publish open access model, which is exclusionary to researchers without sufficient resources and risks undermining research integrity, as journals seek to maximise output volume. This can incentivise researchers to use alternative, no-cost venues like Diamond Open Access journals, although, in the short term, this is likely to negatively impact grantees by constraining their ability to publish in prestige journals. However, there are immediate cost savings for funders allowing for greater investment in open infrastructure. This option is most aligned with the System Changer funder archetype but in tension with funders seeking to maximise grantees' success within the current system or simply support their freedom to choose where to publish.
- Only covering APCs for fully open access journals is a logical step for funders wishing to advance access to research and aligns with major international research funders (see Current open access policy positions of development research funders). This policy option is aligned with both Rights Enabler and the more moderate System Changer funder archetypes.
- Covering open access costs beyond grant-end can support research system inclusion and access to research outputs. This is most aligned with Rights Enabler funders and needs to be considered alongside positions on cost support to ensure a consistent approach.

Implementing the open access policy

Compliance

For a funder's open access policy to have its intended impact on ensuring funded research is Open Access, there need to be mechanisms to monitor and ensure policy compliance. Funders are likely to use a combination of approaches for supporting compliance and will need to balance the available resources for monitoring against the likely benefit on ensuring Open Access. Approaches to consider include:

- Monitoring compliance of funded research articles via global research databases. This will likely require cross-referencing across multiple datasets to account for gaps and incomplete metadata.
- Rewarding compliance, either via a financial incentive or elevated profile. This could change
 researcher behaviour, but it depends on the attractiveness of the reward, which, if financial, will
 have budget implications for the funder. A rewards system is also likely to recognise those for
 whom compliance with the open access policy is already easy, meaning resources could be better
 focused on supporting grantees who face challenges with compliance.



- A grantee reporting requirement could support compliance through the contractual agreement.
 However, the frequency and depth of reporting needs to be considered, especially for its impact on researchers without access to research support services. Grantee reporting will also require funder time and resources to process reports and assess compliance.
- Requiring evidence of policy compliance can be a condition of continued funding or successful
 future grant applications, with non-compliance leading to either funding suspension or preventing
 access to future funding opportunities. However, sanctions may be more likely to penalise
 researchers with less institutional support and less awareness of open access publication
 processes.

Funders will need a balance of different mechanisms for both incentivising compliance and ensuring it via contractual arrangements with grantees.

Additional equity considerations

Support for open infrastructure:

- As part of their broader approach to Open Access, funders should consider how they can support existing open publishing infrastructure based in the Global South, including journals and repositories – especially if there is any cost saving from a policy position that reduces the financial burden of APCs.
- Funders also need to consider support to ensure access to research leads to findability and usability through the interoperability of research databases and metadata, and the indexing of Global South publishers in global databases.

Supporting researchers:

- Changes to open access policies need to be accompanied by communication and support targeted
 at researchers and institutions from across a funder's community of grant holders, to ensure
 current and future grantees understand them and how to comply. Information should be available
 in non-specialised language to support researchers who are not familiar with open access
 publishing and terminology.
- Open access policies can include signposting to resources that can help researchers with identifying Diamond and Gold Open Access routes e.g. <u>Open policy finder</u> or <u>Directory of Open Access Journals</u> (DOAJ).

Conclusion

With the estimated total APC burden for 21 funders within our sample **being over US\$80 million in 2023**, alongside a decline in progress towards Open Access, there is a crucial opportunity to reassess the value for money of the current pay-to-publish open access model. The amounts invested by research funders in open access publication are not translating into all their funded research outputs being immediately available to everyone. There is potential for this money to be reinvested in open, sustainable, and equitable publishing models for the future.

Global development research funders have historically been champions of Open Access. Yet given that progress on Open Access is stalling, some funder policies now need a refresh. Research funder open access policies are a key tool for helping to ensure published research is permanently publicly available and findable, and are a potential means to reform the research publishing sector.

Research funders, especially those with a development or social impact mandate, can go further in supporting Open Access through strengthening their open access policies. They can use the evidence presented in this paper to understand the impact of different policy options on increasing access to research, achieving value for money for funders, and supporting research system inclusion. Only with equitable access to both read and publish research can the full range of evidence be available to address the world's most pressing challenges.



Appendix

Sample of research funders

Sampling criteria:

- Funder focus: active portfolio of ODA or development (Global South)-focused research
- Data availability: publicly available open access policy or position statement

Table 3: Details of sample of research funders

Funder	Code	Funder type	ODA/ multilateral
Agence Française de Développement	AFD	National development agency	Yes
Arcadia Fund	AF	Philanthropic funder	No
Deutsche Forschungsgemeinschaft	DFG	National research funder	No
European Commission (Horizon)	EU	International research funder	No
Foreign, Commonwealth and Development Office ¹¹	FCDO	Government department	Yes
Gates Foundation	Gates	Philanthropic funder	No
International Development Research Centre	IDRC	National development agency	Yes
Japan Science and Technology Agency	JST	National research funder	No
National Institute for Health and Care Research	NIHR	National health agency	No
National Institutes of Health	NIH	National health agency	No
Research Council of Norway	RCN	National research funder	No
Swedish Research Council	SRC	National research funder	No
Swiss National Science Foundation	SNSF	National research funder	No
Templeton World Charity Foundation	TMPT	Philanthropic funder	No
The Dutch Research Council	NWO	National research funder	No
Norwegian Agency for Development Cooperation	NORAD	National development agency	Yes
UK Research and Innovation	UKRI	National research funder	No
United States Agency for International Development ¹²	USAID	National development agency	Yes
Wellcome Trust	WT	Philanthropic funder	No
World Bank	WB	Multilateral agency	Yes
World Health Organization	WHO	Multilateral agency	Yes

Funder Key

National health agency	Multilateral agency	Philanthropic funder	National research
Government department	International research funder	National development agency	funder

¹¹ For FCDO, we incorporated the research and policy positions of the former Department for International Development (DFID).

¹² USAID was only included in the landscape analysis of research articles over the last decade. The USAID open access policy was no longer publicly available in March 2025 due to the decision to shut down the agency.



Dataset Construction

We identified a dataset of journal articles connected to funding from the sampled funders using <u>Dimensions</u>, an interlinked research information system provided by Digital Science. We used the following inclusion criteria:

- Peer-reviewed journal articles
- Alignment with the SDGs as a proxy for development-focused research

Funder information was based on the Funder filter in Dimensions with Advanced Search within the Acknowledgements field as a fallback. Our analysis excluded co-funded articles.

Cost of APCs calculation

To estimate the APC burden, we used the same article sample from Dimensions. We chose 2023 as the most recent year for which there is likely to be a complete set of publication data.

Average APCs¹³ for Gold and Hybrid journals came from an open dataset of annual APCs (Butler et al., 2024). This was chosen in preference to other datasets as it features international data on pricing, reflecting the international coverage of development-focused research.¹⁴

We used the Research4Life current country list and recommended waiver level (Research4Life, n.d.) to estimate the scale of waiver that researchers from Low- and Middle-Income Countries (LMICs) might be eligible to access. We assessed the **maximum possible impact** of authors from LMICs accessing waivers, which is **highly likely** to exceed the actual value of waivers accessed. For the sampled dataset of journal articles, we did three calculations:

- 1. TOTAL Gold Open Access APC $cost^{15} = number of Gold Open Access articles x average APC$
- 2. TOTAL APC waivers = number of Gold Open Access articles eligible for waivers through R4L categorisation x 50% of Average APC
- 3. TOTAL Hybrid Open Access APC cost = number of Hybrid Open Access articles x average APC Table 4 below summarises these calculations.

Table 4: Calculations of estimated APC costs based on 2023 data for SDG-related research articles

Calculation	All in-scope funders	ODA and multilateral funders (no co-funding)	National and not-for- profit funders (no co-funding)
Total cost of Gold Open Access articles in US\$ (number of publications x potential average APC cost of US\$1,977)	38.84 million	4.03 million	33.60 million
Maximum Gold Open Access waiver adjustment in US\$ (if all authors with affiliations in Research4Life (R4L) category A or B eligible countries access partial or total waivers)	-7.54 million	-2.89 million	-4.27 million
Total cost of Hybrid Open Access articles in US\$ (number of publications x potential average APC cost of US\$3,137)	42.96 million	1.60 million	40.56 million
Total potential Open Access cost in US\$ without waiver adjustment	81.80 million	5.63 million	74.16 million
Total potential Open Access cost in US\$ with maximum waiver adjustment	74.26 million	2.74 million	69.89 million

¹³ The average APC used is a mean average, and APC figures are underpinned by skewed data (i.e. a few APCs for prestigious journals are significantly higher than others) – this means the true average APC value will differ.

¹⁴ This data does not reflect the impact of transformative agreements.

¹⁵ We were unable to disaggregate Diamond (where no APC is charged) from Gold in this analysis, so our estimate is likely to be on the generous side depending on the number of Diamond publications within this category.



Limitations

- **Dimensions database**: although more inclusive of publications outside of the Global North than databases such as Scopus and Web of Science, Dimensions does have limitations including gaps in funder affiliations and a greater proportion of Bronze Open Access articles than other databases (Basson et al., 2022). Our analysis excluded co-funded articles, which will have limited the complete picture of funded research for the sample of funders, especially for those whose portfolio includes significant co-funded programmes.
- **Funder sample is Global North-focused**: our sample is limited and geographically focused on the Global North. Therefore, the analysis of the landscape of open access publishing over the last decade cannot be considered a comprehensive analysis of global trends on Open Access although we did compare articles funded by the funder sample with all articles in Dimensions relating to SDGs, to provide a sense of how the sample of funders compares to global averages.
- **Difficulty disaggregating ODA research**: our sample includes both primarily ODA funders, such as IDRC, and broader national funders with a comparatively small ODA portfolio, such as UKRI. To narrow the scope to development-focused research, the SDG alignment filter in Dimensions was used as a proxy. This will have excluded some research with a development focus.

• Estimating APC burden:

- The average APC was a mean average APC figures are underpinned by skewed data (i.e. a few APCs for prestigious journals are significantly higher than others), so this means the true average APC value may differ
- ° The average APCs in Butler et al.'s (2024) open dataset do not reflect the impact of transformative agreements
- Inability to disaggregate Diamond Open Access from Gold this means we have been unable to account for journals which have no APC
- We assessed the maximum possible impact of authors from LMICs accessing waivers this is highly likely to exceed the actual value of waivers accessed, as not everyone who is eligible accesses a waiver
- Scope of analysis of funder open access policies: when analysing current funder open access policies, we only looked at text and linked text in the main policy webpage or document. This will not have captured all funder policy positions relating to open access. Additionally, to aid comparison, some funder positions were simplified, which will have removed some wording around exceptions or nuances to the policy position.
- Analyst positionality for policy options review: one analyst conducted the assessment of the
 impact of policy options. Although this was reviewed by a panel of five experts, with knowledge of
 Open Access and Global South research systems, the analyst's positionality will have shaped the
 interpretation of the impact on research, equity, and resourcing. The project is planning a followon study looking specifically at Global South-based researchers and research leaders' perspectives
 and experiences of open access publishing and open access policies.



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