



Environmental assessments and sustainable finance taxonomies – a riposte

Alan Bond & Jiří Dusík

To cite this article: Alan Bond & Jiří Dusík (2022) Environmental assessments and sustainable finance taxonomies – a riposte, *Impact Assessment and Project Appraisal*, 40:2, 123-128, DOI: [10.1080/14615517.2022.2041161](https://doi.org/10.1080/14615517.2022.2041161)

To link to this article: <https://doi.org/10.1080/14615517.2022.2041161>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 07 Mar 2022.



Submit your article to this journal [↗](#)



Article views: 85



View related articles [↗](#)



View Crossmark data [↗](#)

Environmental assessments and sustainable finance taxonomies – a riposte

Alan Bond ^a and Jiří Dusík^b

^aSchool of Environmental Sciences, University of East Anglia; Research Unit for Environmental Sciences and Management, North-West University, South Africa; co-Chair IAIA Section on Emerging Technologies, Norwich, UK; ^bIntegra Consulting Ltd, Czechia; co-Chair IAIA Section on Emerging Technologies

ABSTRACT

Seven authors have responded to our paper asking whether the European Union (EU) Taxonomy will change the mindset over the contribution of Impact Assessment (IA) to sustainable development, delivering a range of opinions, based on a number of themes including: the politics of decision-making; the need to achieve positive impacts and strengthen carrying capacities; the transition to a green economy; the lack of clarity over the role of Strategic Environmental Assessment; and past historical experience. To each of these points, we provide a response highlighting why we think the potential for a change of mindset still exists. Ultimately, however, we recognise that a mindset change will not happen passively; it does need the IA community to become more political and engage with the financial community to make it clear what financial benefits their environmental knowledge can deliver.

ARTICLE HISTORY

Received 6 February 2022
Accepted 6 February 2022

KEYWORDS

Impact assessment;
sustainable finance;
greenwashing; taxonomies;
positive impacts; carrying
capacity

1. Introduction

We have read the responses to our initial article (Dusík and Bond 2022) with interest, and welcome all the points that have been made, and thank the respondents for taking the time to engage in this debate. The responses are extremely insightful and set out several issues and opportunities that deserve to be addressed. To deliver a considered reply, we have drawn themes from across the responses in order to provide a suitable structure as follows:

- **Politics of decision-making** – the wider governance system, and economic development imperative, is the issue rather than inadequate EIA.
- **Need to achieve positive impacts and strengthen carrying capacities** – the taxonomy promotes benefits before ‘do no significant harm’ (DNSH), but through adherence to a baseline approach that fails to make amends for damage already caused beyond carrying capacities.
- **Transitions** – it might be expected that arguments for accepting significant harm will be made based on the need to allow a transition period for implementing alternatives that would avoid it.
- **Unclear role of Strategic Environmental Assessment (SEA)** – taxonomies appear only to apply to projects.

- **Historical precedents** – cycles of hope whereby a succession of innovations lead to marginal improvements, i.e. evolution rather than revolution.

The following paragraphs work through the various themes we have drawn from the responses, citing as appropriate. We then conclude, in the light of our reflections on the responses to our initial question, on whether the European Union (EU) Taxonomy will change the mindset over the contribution of EIA to sustainable development and note that links between Environmental Impact Assessment (EIA) and SEA and the implementation of sustainable finance taxonomies would benefit from further professional enquiries and experimentation.

2. Is a mindset change possible? A look at the issues raised

2.1 Politics of decision-making

Several respondents (Fischer 2022; Howard 2022; Partidário 2022; Slootweg 2022) have argued that Impact Assessment (IA) is not the cause of trade-offs in decision-making, rather it is the governance system and the way that IA is used. We would agree that IA has been a powerful support tool facilitating environmental considerations in decision-making, and preventing considerable further impacts, and apologise for any

misleading text that suggested a different view. There is a clear consensus with the arguments made by Bond et al. (2020) that it is a neoliberal system that causes trade-offs to be made. The fact that IA does not prevent this is argued to be a reason why it has been tolerated (or even actively supported) for so long as a decision support tool. This is an important point because, if sustainable finance taxonomies are really to lead to more sustainable outcomes, they need to change the mindsets of those whom they seek to influence.

First, let us clarify one common and unfortunately quite frequent misunderstanding about the EU Taxonomy. The Taxonomy does not offer a new blueprint for all economic activities. It only spells out a new paradigm outlining what sustainable economic activities mean in the future language of the key corporate actors and financial market participants in the European economic landscape. By doing so, the EU Taxonomy aims to inspire and guide sustainable development – but if someone wishes to pursue other economic activities that are outside this framework, they can do so – as they were, until recently, with the help of EIA, SEA and other impact assessment instruments. The EU Taxonomy only aspires to make it much harder to greenwash and justify trade-offs that were previously made in the absence of comprehensive information on all potential direct and indirect impacts of proposed economic activities over their life cycle. And as we know, past and present generations of EIA and SEA processes may have an overly constrained assessment focus when it comes to life-cycle effects, cumulative effects, etc.

This is a very ambitious aspiration and as Monbiot (2022) argues, *'there is nothing that cannot be corrupted, nothing good that cannot be transformed into something bad'*. As an illustration, in between writing our initial article, and the responses being received, the European Commission chose to include nuclear energy and natural gas within the scope of projects that could be deemed sustainable for finance purposes (Fischer 2022; Partidário 2022). To avoid any potential misunderstandings here, it is important to note that inclusion of such projects into the EU Taxonomy does not mean that such projects are automatically destined for implementation. It only means that they can be, for the time being, labelled as sustainable under the EU Taxonomy, provided they meet all conditions that will be stipulated for them and get normally approved – i.e. after having gone through EIAs and other applicable permits. This is important for our understanding of the EU Taxonomy in the impact assessment community. It is a new tool which in many ways appears similar to EIA, but it also has sufficiently different aims and substantive focus from the current EIA and SEA systems.

That said, we fully share a view that the sustainable finance taxonomies will still significantly influence the mindset change of investors and decision-makers because, as Fischer (2022) points out – money talks – and taxonomies will influence discussions on what should be funded and reported to those investors who are seriously interested in sustainability. Two specific reasons why mindsets can change relate to the influence that ethical investors can bring to bear on the way money is spent, and the global reach of the EU Taxonomy. Firstly, corporate bodies investing in projects are underwritten by financial institutions that are increasingly driven toward ethical funding. In the world of finance, the relative performance of different institutions based on a range of measures of environmental, social and governance (ESG) indicators matter when identifying risks and growth potential. The taxonomies will deliver a minimum standard for environmental performance which determine the extent to which corporate bodies can attract the funding they need to finance projects. Pension funds, for example, are significant investors in corporate bodies, and are known for being socially responsible, and taking a longer term view (necessitated by the greater time frames associated with the duration of a working life paying into a pension, followed by the duration of the retirement). Alda (2019, p.1060) calculates that socially responsible pension funds impact on over 40% of ESG indicators, and that *'larger pension-fund shareholding positively influences on ESG firm performance and encourages proactive behaviour towards environmental practices'*. Secondly, the changes in the mindset brought about by the EU Taxonomy may also affect the developing countries as highlighted by Vu (2022) and Sloomweg (2022) – not only European economic space. Vu (2022) indicates that 50% of the funding for projects in those countries comes from developed countries and their institutions, which are likely to be bound by the emerging taxonomies. Therefore, the mindset change is not restricted to the richer part of the globe.

Obviously, the EU taxonomy is shaped in political debates and as such is bound to reflect the prevailing policy dilemmas – it is not an environmental *deus ex machina* that some may have hoped for. How it will be implemented and how it will evolve will depend on the political opinions and societal mindsets. And here, we feel that increasing knowledge of the dependence of economies on the health of the environment (e.g. Giddings et al. 2002) means that businesses are starting to recognise that we may have reached a global tipping point which presents a considerable future financial risk. For example, related to the climate emergency (Haas and Unmüßig 2020) and, in relation to the Covid-19 pandemic, Mocatta and Hawley (2020, p.119) argue that *'mediatised discourse on the environment during the pandemic has offered new insights, and an opportunity for*

a reset in environmental understandings, including a new consciousness of global connectedness in environmental responsibility'. The understanding of financial institutions about this future risk of unsustainable investments is likely to act as a counterweight to the voices seeking to continue the current focus on weak sustainability in EIA systems (Dusík and Bond 2022), and the EU Taxonomy – along with other wake-up calls during the Covid-19 pandemic – provides us with another window of opportunity for changing the current mindset in EIA systems.

2.2 Need to achieve positive impacts and strengthen carrying capacities

Palerm (2022), Slootweg (2022) and Howard (2022) acknowledge that the Taxonomy's requirement for a positive contribution (in at least one of six sustainability components) represents a paradigmatic shift in mindsets. Arguments that IA processes focus on avoiding negative impacts rather than delivering positive impacts have long existed. Indeed, arguments that the use of the word 'impact' has negative connotations was made by the UK Government, which dropped the use of the term in referring to 'Environmental Assessment' (see Department of the Environment and Welsh Office 1989) in the initial years of implementation. Arguments in favour of increasing the emphasis on delivering positive outcomes through different forms of impact assessment are common, and it is revealing that research has indicated that barriers to this emphasis include political and institutional barriers, with potential solutions including culture change, legislative change, prioritising enhancements, and changes in government policy and regulatory approval processes (João et al. 2011). The taxonomies are beginning the process of delivering these solutions.

Jenkins (2022), however, argues that even such a framing of the EU taxonomy is too narrow. Specifically, like IA, there is a focus on the existing baseline environment, with impacts evaluated relative to this as a starting point. The conceptual problem is that the carrying capacity of the environment has already been exceeded for some components, and the approach of DNSH does not address the need to make environmental improvements. On this point, the expectation that there will be positive improvements in one of the six sustainability areas covered by the taxonomy is seen by Jenkins (2022) as being positive, but still not sufficiently addressing the carrying capacity issue. These views are shared by Slootweg (2022), and both of these respondents point to the need for a more resilience-based approach if taxonomies are to deliver truly sustainable outcomes.

These are important points, with which we agree. They continue a trend recognised by protagonists of the resilience assessment of a lack of adoption of adaptive

management principles and resilience thinking when conducting environmental assessments, dating back to efforts made to incorporate this thinking through International Association for Impact Assessment (IAIA) conferences (e.g. Slootweg and Jones 2011). Nevertheless, we would still argue that taxonomies can lead to a change in mindset, which is a starting point on a pathway for more sustainable decision-making. There will remain a continuing need to consider carrying capacities and adapt taxonomies accordingly as practice develops and evidence of outcomes is gathered. A change in mindsets is the beginning of a process of change for the better, not the culmination of that process. Jenkins (2022) and Slootweg (2022) are right to raise these points, and we should not lose sight of them.

2.3 Transitions

Palerm (2022) raises a concern that arguments will be made that unsustainable projects (as defined by the taxonomies) are necessary as transitional arrangements before alternative technologies or means are developed. This is allowed by the taxonomies and therefore does constitute a threat to their achieving the objectives of delivering sustainable financing. We would anticipate that arguments will be made that transitional arrangements are required, but here we would point to the frequent requirements in the EU Taxonomy to require best performance in sector (and use transitional arrangements only in cases where there is no technologically and economically feasible alternative (e.g. European Union 2019)). Nevertheless, the financial risk of locking into unsustainable technologies given the current rate of investment and innovation is a significant one and will not be taken lightly by businesses.

There will be debates over this point, and almost certainly some projects will be financed which are not environmentally sustainable in the long-term. But genuine concerns about greenwashing and weak sustainability were raised by a number of the EU financial market participants during the Stakeholder Consultation on the Renewed Sustainable Finance Strategy (European Commission 2020), therefore, we may see this route rapidly diminish. Also, our anecdotal example presented in Box 1 suggests that there may be like-minded practitioners in the banking sector.

2.4 Unclear role of SEA

Fischer (2022) emphasises the limited role EIA can play in protecting the environment in relation to SEA, where the more strategic decisions are assessed, and Slootweg (2022) and Palerm (2022) also question how the taxonomies tie in to SEA. More specifically, Fischer (2022) questions whether the operation of taxonomies will be undermined by a lack of similar rigour in the strategic assessment of the plans which have provided

Box 1: Can Taxonomy aspirations and questions trigger transitions?

In a recent workshop for the banking sector held under the Chatham House rule, one senior analyst from a leading Czech bank wondered how to deal with the Taxonomy objective 'Transition to a circular economy'. Specifically, he pointed out that the technical screening criteria for this objective require photovoltaic plants, battery production systems, electric vehicles, and a host of other economic activities to properly consider – and where feasible use – equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. He was concerned that the current recycling systems are insufficient to meet this objective and raised a question on what – if anything – the banking sector could do to encourage upgrades of the current management of such waste streams and systems of reverse logistics. The ensuing debate suggested that the bank could ask its clients to use the best available circular economy approaches and continually adjust the approaches to state-of-the-art systems. The bank could also promote the necessary innovations through strategic dialogue with the relevant industrial sectors and regulatory authorities.

These questions – and some other exchanges at this event – made me leave with the feeling that the Taxonomy may – if used well – indeed trigger interesting thought processes that may eventually materialize in real life projects. I do not know how many bank analysts are asking such questions and how long they will retain their courage to do so. But if such concerns get duly raised as part of the lending operations, the Taxonomy could really deliver some interesting shifts in mindsets. But it first needs to be used systematically and rigorously. And this is where the EIA and possibly also SEA processes can play a major role.

Source: Jiří Dusík, personal observation

the opportunity for the project. We entirely concur with this view. We know from experience of the global spread of IA that governments are often happier to first impose obligations on private developers (through EIA), before later applying the same procedures to their own decision-making (through SEA).

Here, again, we are hopeful. First of all, as the EIA and SEA officials start learning about the Taxonomies, they may gradually start requiring initial analyses that cover at least the Taxonomy's do-no-significant harm principles in some SEAs. Plus, there is nothing that prevents the consulting companies from deploying Taxonomy-related criteria in their SEA assignments. As [Box 2](#) illustrates, the IA professionals have ample ways to stimulate the uptake of Taxonomy-related thinking in SEA processes. Second, if the taxonomies will no longer be able to allow the trade-offs that are demanded by the restricted alternatives remaining at the project level, there will be push back from powerful development lobbies against the public bodies that develop the plans. This might lead to better SEA practice, where alternatives are not so restricted as is the frequent criticism regarding current practice (Noble 2009; Bidstrup and Hansen 2014). Indeed, Palerm (2022) points to the potential for SEA to avoid trade-offs continuing to occur at the project level through application of taxonomies where no sustainable alternatives remain. We would agree that this is a critical issue, and one which reveals how poor SEA (or lack of SEA which is still the case in most countries) undermines the extent to which taxonomies can deliver sustainable outcomes.

The role of SEA in relation to the taxonomies is currently unclear, but it does not constrain experimentation by the SEA practitioners in this area. Like with other systems, over time, there can be a critical mass of practice to make it happen as a standard arrangement.

Box 2. Simple initial experiments with the EU Taxonomy in Czech SEA processes

A formal closing of an SEA for an operational programme 'Technologies and Applications for Competitiveness 2021–2027' required us (Integra Consulting) to produce internal sign-off recommendations on its environmentally sound implementation. Moving beyond the usual formalities, we have used this task to elaborate a briefing paper that explored options for the integration of the Taxonomy's technical screening criteria into the selection of future projects (in energy production, circular economy initiatives, innovation processes, etc.) that will be supported through this major funding programme. As such a proposal was totally new for our client, they had to scrutinize it through inter-departmental review. The relevant officials concluded that the proposed systemic alignment between the operational programme and the EU Taxonomy is indeed useful and should be followed through during implementation.

A Czech operation programme 'Just Transition 2021–2027' facilitates economic development in three coal regions that will be adversely affected by the transition towards a climate-neutral economy through a mixture of 35 specific strategic projects and multiple funding calls for economic diversification initiatives. The scoping Terms of Reference for the SEA included a new requirement to consider the 'do no significant harm' principle without giving any further guidance on how to do so. To this end, we have assessed all proposals contained in the programmes based on the requirements of the Taxonomy and pro-actively pointed out Taxonomy-related criteria that the specific projects or funding calls should consider during their design and EIA studies.

Source: Integra Consulting practice

2.5 Historical precedents

Partidário (2022) draws on historical precedents, in referring to 'cycles of hope' whereby a succession of innovations has not led to the radical changes in IA practice that might have been hoped. Instead, she points to incremental improvements in practice and/or outcomes and therefore, not unreasonably, expects a similar outcome from the adoption of sustainable finance taxonomies. Yes, EIA has been around for more than 50 years, and despite some limited evidence of its ability to facilitate wider learning in the name of sustainability (Cashmore et al. 2008), innovations have not in all that time led to a paradigmatic change in the way environmental impacts are considered by decision-makers. This is a different argument to that posed by Fischer (2022) who cites continuing use of cost benefit analysis (CBA), as such tools place a monetary value on the environment, rather than allowing access to money based on sustainability performance (which is the role of taxonomies).

Yes, greed and economic short-sightedness have had an upper hand in the development process and will continue to do so until our societies value the environment sufficiently to protect it. However, our

purpose in writing the article was to suggest that taxonomies can help us begin the mindset change that is so desperately needed in the financial world that was previously preoccupied only with money-making and short-term economic benefits. And above we explain why we think we are at a tipping point that may lead to a different outcome.

The adoption of taxonomies heralds the start of a hegemonic struggle (to adopt the phraseology of Howard 2022) between those institutions that economically benefit from the use of earth's non-renewable resources, and those elements of society that recognise the long-term implications of current decision-making paradigms. The next economic cycle needs to better protect the environment, or it will be short lived.

A new evidence exists in abundance (Rockström et al. 2009), that we are now operating in a highly degraded environment where the core ecosystem functions and life-support services get damaged by the cumulative effects of our economic development patterns. The environmental context that led to the first EIA legislation in the United States through the National Environmental Policy Act is very much more degraded 50 years on. We expect that this understanding of the increasingly perilous nature of the world's environment, allied to opportunities afforded through the adoption of taxonomies, and knowledge of the economic implications of climate change and potential system breakdowns caused by environmental change, means that we are entering a new era in which historical precedents will not hold.

3. Conclusions

Partidário (2022) warned against our optimistic take on the implications of the adoption of sustainable finance taxonomies, perhaps in the face of experience to the contrary. We fully agree with the need to avoid overoptimism, but at the same feel that a window of opportunity has opened for real change, because of a combination of events which have been woven into our responses above. The reality is that they would all have to align to lead to the sort of mindset change we are arguing might occur. And this won't happen if we passively sit by and watch – the IA community must be more pro-active. This means mobilising the expertise that exists, the knowledge and skills that can be brought to bear, and the improved societal and environmental outcomes that will result from our engagement in implementing the sustainable finance taxonomies. It means becoming more political, recognising that decision making is not rational and that decision makers need some help in deciding what the key evidence really is.

The responses offer a mixture of endorsements and doubts about our hypotheses. The thread through all of them, however, has been a clear recognition that there is a possibility for a mindset change. We are entirely on the same page. To make change happen, it is important to recognise the potential of taxonomies but be mindful of the realities and potential obstacles to any well-meant aspirations to achieve strong sustainability.

Slootweg (2022) suggested that the IA community will have to reach out to the financial world to ensure the necessary environmental expertise can be brought to bear, to deliver the evidence that benefits are delivered, or significant harm is avoided. In doing so, IA practitioners and institutions will likely be competing with large auditing firms that already have good working relationships with financial institutions. The global IA community is dwarfed by the existing auditing community and most IA professionals probably do not know how they can effectively operate in the booming sector of sustainable finance. Yet we would argue that building these necessary relationships and, more importantly, persuading financial institutions that the Taxonomy-related assessment should be conducted by persons and institutions possessing sufficient skills and integrity, is necessary. The IA community can learn from NGOs as Keck and Sikkink (1999) explain that '*international and domestic nongovernmental organizations (NGOs) play a central role in most advocacy networks, usually initiating actions and pressuring more powerful actors to take positions*'. In that regard, it could help if the IAIA, in particular, could get its voice heard in this arena.

In addition, we think it is appropriate to encourage the global IA community to start thinking about – and ideally start experimenting with – the conceptual framework laid down in the EU Taxonomy or in similar taxonomies that evolve in other territories. They aim to facilitate more strategic integration of sustainability concerns into development processes, and it would be good to lend our helping hand in this regard. Learning about them may also help identify any potential loopholes one needs to be aware about when operating in the new era of sustainable finance frameworks. These new tools that suddenly started mushrooming around the world are already here, and we would be ignoring them at our peril. We should use them as best we can.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Alan Bond  <http://orcid.org/0000-0002-3809-5805>

References

- Alda M. 2019. Corporate sustainability and institutional shareholders: the pressure of social responsible pension funds on environmental firm practices. *Business Strategy and the Environ.* 28(6):1060–1071. doi:10.1002/bse.2301.
- Bidstrup M, Hansen AM. 2014. The paradox of strategic environmental assessment. *Environ Impact Assess Rev.* 47:29–35. doi:10.1016/j.eiar.2014.03.005.
- Bond A, Pope J, Fundingsland M, Morrison-Saunders A, Retief F, Hauptfleisch M. 2020. Explaining the political nature of environmental impact assessment (EIA): a neo-Gramscian perspective. *J Clean Prod.* 244:118694. doi:10.1016/j.jclepro.2019.118694.
- Cashmore M, Bond A, Cobb D. 2008. The role and functioning of environmental assessment: theoretical reflections upon an empirical investigation of causation. *J Environ Manage.* 88(4):1233–1248. doi:10.1016/j.jenvman.2007.06.005.
- Department of the Environment, and Welsh Office. 1989. *Environmental assessment: a guide to the procedures.* London:HMSO.
- Dusík J, and Bond A. 2022. Environmental assessments and sustainable finance frameworks: will the EU Taxonomy change the mindset over the contribution of EIA to sustainable development? *Impact assessment and project appraisal.* <https://doi.org/10.1080/14615517.2022.2027609>.
- European Commission. 2020. 'Summary report of the stakeholder consultation on the renewed sustainable finance strategy, 8 April 2020-15 July 2020.' Accessed 2022 Feb 3. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/2020-sustainable-finance-strategy-summary-of-responses_en.pdf.
- European Union. 2019. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. *Off J of the Eur Communities.* L317:1–16.
- Fischer T. 2022. Taxonomies of sustainable investment and the application of EIA and SEA – a silver bullet for sustainable development? A response to Dusík and Bond. *Impact Assess and Project Appraisal.* 1–5. doi:10.1080/14615517.2022.2033926.
- Giddings B, Hopwood B, O'Brien G. 2002. Environment, economy and society: fitting them together into sustainable development. *Sustainable Dev.* 10(4):187–196. doi:10.1002/sd.199.
- Haas J, and Unmüßig B. 2020. 'Climate change and global finance: is the financial sector reaching a tipping point?', Accessed 2022 Feb 01. <https://www.boell.de/en/2020/12/17/climate-change-and-global-finance-financial-sector-reaching-tipping-point>.
- Howard R. 2022. Response to: environmental assessments and sustainable finance frameworks: will the EU Taxonomy change the mindset over the contribution of EIA to sustainable development? *Impact Assess and Project Appraisal.* <https://doi.org/10.1080/14615517.2022.2035650>
- Jenkins B. 2022. Response to environmental assessments and sustainable finance frameworks. *Impact Assess and Project Appraisal.* 1–5. doi:10.1080/14615517.2022.2035649.
- João E, Vanclay F, den Broeder L. 2011. Emphasising enhancement in all forms of impact assessment: introduction to a special issue. *Impact Assess and Project Appraisal.* 29(3):170–180. doi:10.3152/14615511X12959673796326.
- Keck ME, Sikkink K. 1999. Transnational advocacy networks in international and regional politics. *Int Soc Sci J.* 51 (159):89–101. doi:10.1111/1468-2451.00179.
- Mocatta G, Hawley E. 2020. The coronavirus crisis as tipping point: communicating the environment in a time of pandemic. *Media Int Australia.* 177(1):119–124. doi:10.1177/1329878X20950030.
- Monbiot G. 2022. Carbon offsetting is not warding off environmental collapse – it's accelerating it. *The Guardian.* Accessed 15 February 2022. <https://www.theguardian.com/commentisfree/2022/jan/26/carbon-offsetting-environmental-collapse-carbon-land-grab>
- Noble BF. 2009. Promise and dismay: the state of strategic environmental assessment systems and practices in Canada. *Environ Impact Assess Rev.* 29:66–75. doi:10.1016/j.eiar.2008.05.004.
- Palerm J. 2022. Sustainable finance strategies are raising the sustainability bar; impact assessment needs to evolve to create a fruitful symbiosis. *Impact assessment and project appraisal.* <https://doi.org/10.1080/14615517.2022.2035637>
- Partidário MDR. 2022. Cycles of hope. *Impact assessment and project appraisal.* <https://doi.org/10.1080/14615517.2022.2038533>
- Rockström J, Steffen W, Noone K, Persson Å, Chapin FS, Lambin EF, Lenton TM, Scheffer M, Folke C, Schellnhuber HJ, et al. 2009. A safe operating space for humanity. *Nature.* 461(7263):472–475. doi:10.1038/461472a.
- Slotweg R. 2022. Response to Dusík and Bond. *Impact assessment and project appraisal.* doi:10.1080/14615517.2022.2038534
- Slotweg R, Jones M. 2011. Resilience thinking improves SEA: a discussion paper. *Impact Assess and Project Appraisal.* 29:263–276.
- Vu CC. 2022. Sustainable finance taxonomies: filling the gaps of EIA systems for developing countries. *Impact assessment and project appraisal.* <https://doi.org/10.1080/14615517.2022.2038961>