

Advancing cumulative impact assessment in the Global South



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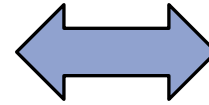
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The need for Cumulative Impact Assessment

Planetary
boundaries
exceeded

Limits of
project EIA



More ambitious
approaches for IA



- ◆ contribution to sustainability (Sinclair *et al.* 2021)
- ◆ enhancement (Nisbet and João 2022)
- ◆ nature positive outcomes (Morrison-Saunders and Sánchez 2024)

need to expand and advance CIA worldwide

The need for CIA

Looking ahead

Predatory development over the last remnants of wilderness in tropical forests, the Arctic, and the deep sea

Growth in energy demand [transitioning away from fossil fuels and increasing consumption for data processing] → construction of electricity generation and transmission facilities, demand for minerals, new transportation infrastructure, often in remote areas or traditional territories of indigenous and land-connected peoples

Increased production of biofuels and agricultural commodities drives land use change and infrastructure development



News | Environment 24 Oct 2025

Trump administration to open up Alaska wildlife refuge to drilling

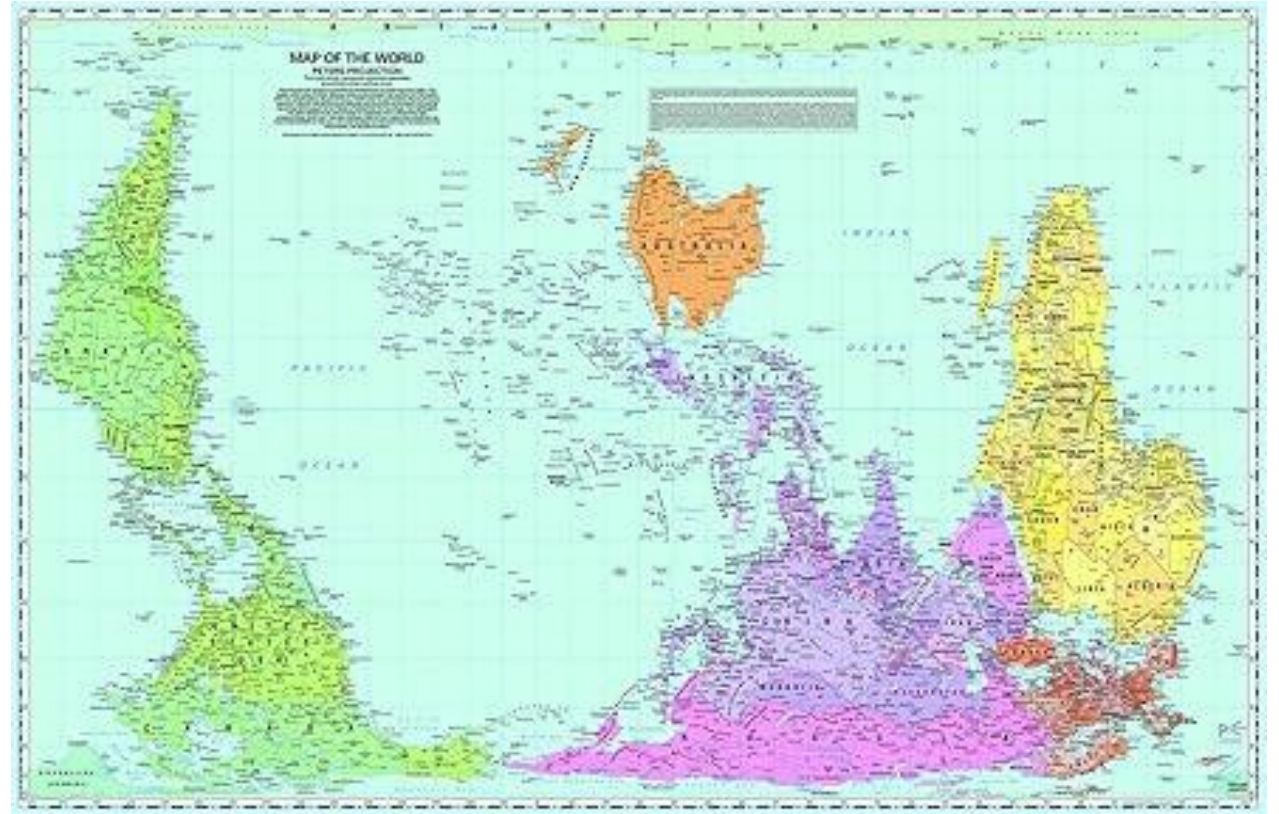
It said the 'sweeping package' would 'boost energy development, modernise land and resource management' in Alaska.



Where?

The future

A significant portion of **infrastructure development**, including that for power generation and transmission, is underway and will continue to expand in the **Global South**, resulting in cumulative impacts with other existing and planned activities



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Problems facing the widespread adoption of CIA

1 Lack of specific enforceable legal requirements

- ◆ Despite general provisions in the legislation of many countries (Nelson and Shirley 2022), **specific** CIA requirements are **absent even in countries with well-established EIA systems**
- ◆ If regulations or project-specific terms of reference do not **explicitly require** cumulative impacts to be assessed, it is unlikely that proponents will voluntarily proceed

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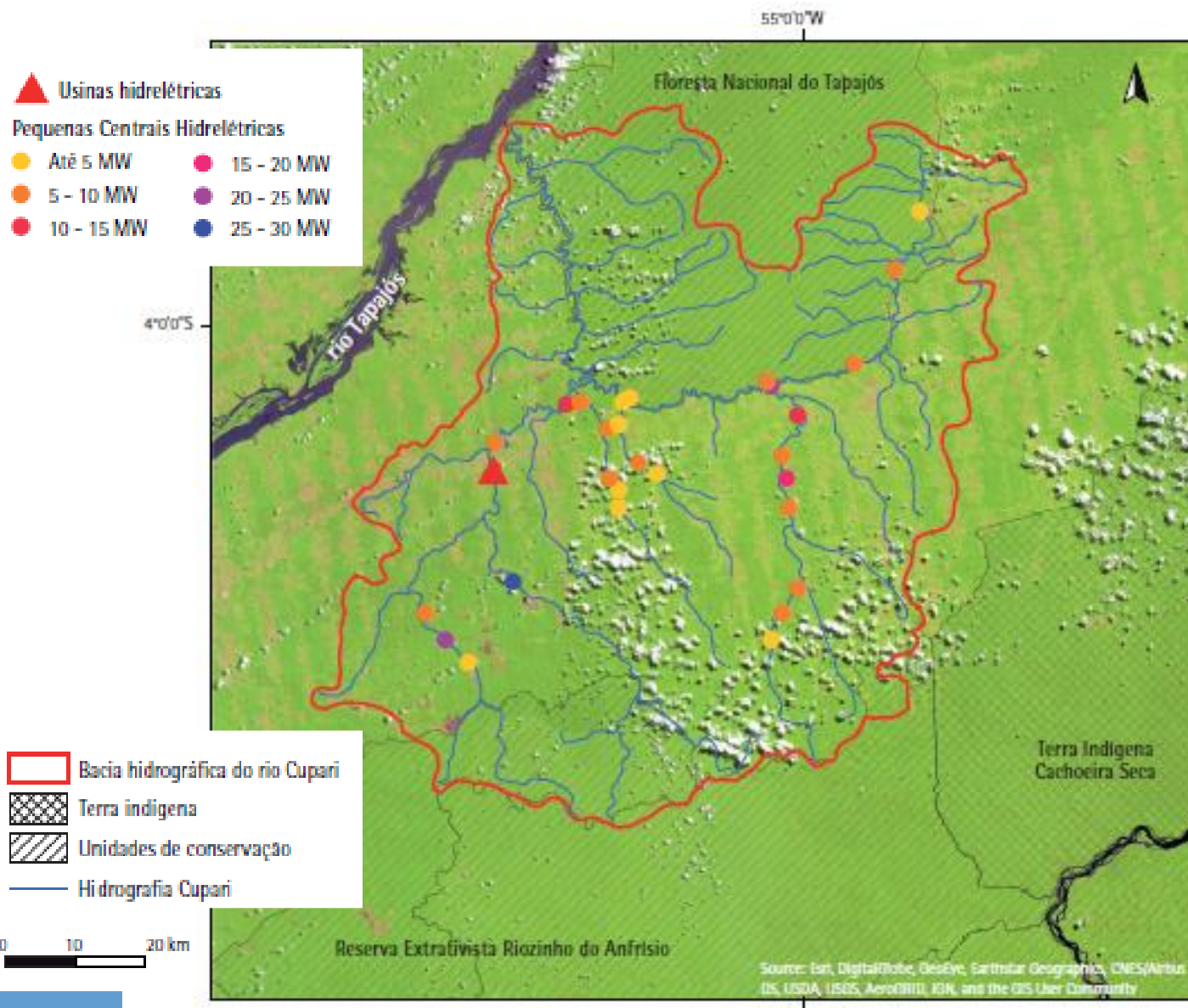
*The Latent Potential of Cumulative Effects
Concepts in National and International
Environmental Impact Assessment Regimes*

Rebecca Nelson*  and L.M. Shirley**

First published online 2 November 2022

<https://doi.org/10.1017/S2047102522000243>

As an example



Cupari watershed, PA 7200 km²

28 small hydro + 1 HPP

Not considered in the Tapajós watershed integrated assessment

Projects assessed separately



Improving policies and instruments to address cumulative impacts of small hydropower in the Amazon

Simone Athayde^{a,*}, Carla G. Duarte^b, Amarilis L.C.F. Gallardo^c, Evandro M. Moretto^d, Luisa A. Sangoi^e, Ana Paula A. Dibo^f, Juliana Siqueira-Gay^f, Luis E. Sánchez^f

Source: Athayde, S. et al. Improving policies and instruments to address cumulative impacts of small hydropower in the Amazon. *Energy Policy* 132: 265-271, 2019. <https://doi.org/10.1016/j.enpol.2019.05.003>

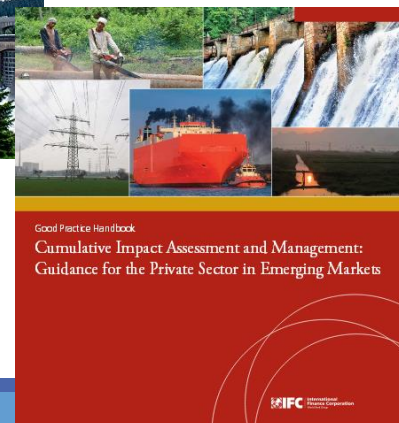
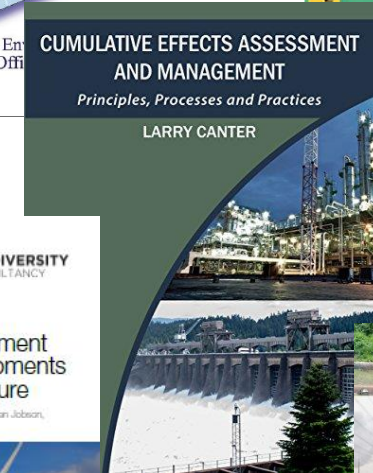
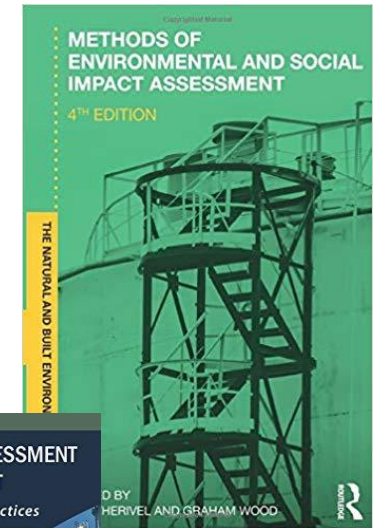
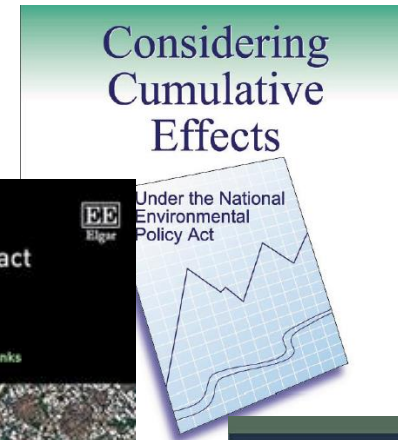
Problems facing the widespread adoption of CIA

2 Guidance shortage and insufficient expert capacity

a growing body of literature that is essential to consolidate practice

- ◆ General country-specific guidance
- ◆ Chapters in EIA compendiums
- ◆ Textbooks, a handbook
- ◆ Performance standards guidance
- ◆ Sector-specific guidance (e.g. solar and wind energy)

However ...



Problems facing the widespread adoption of CIA

2 Guidance shortage and *insufficient expert capacity*

- ◆ The existence of a body of knowledge does not mean it will be satisfactorily applied
- ◆ Knowledge uptake by practitioners depends not only on the individual stance but also on the context – legislation, organizational climate, ...

Conceptual innovation
X
Instrumental innovation

In
impact
assessment



Innovation in impact assessment theory and practice: How is it captured in the literature?

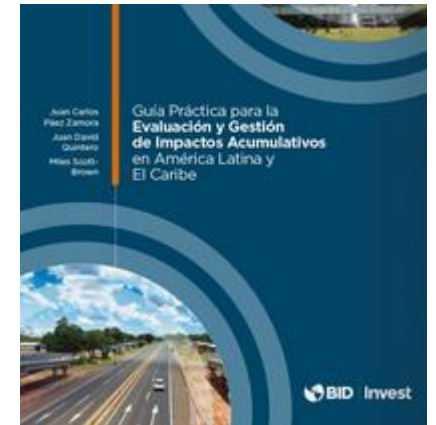
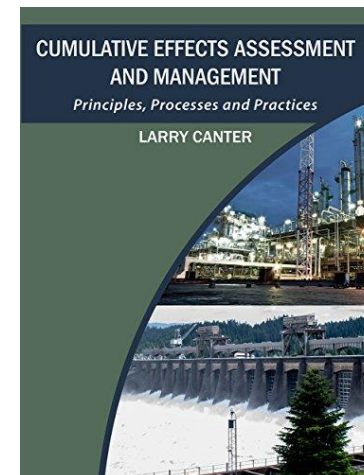
Bruno Pontes Costanzo^{a,*}, Luis Enrique Sánchez^b



Problems facing the widespread adoption of CIA

3 Low institutional capacity and weak governance

- ◆ By definition, if cumulative impacts are caused by multiple human actions, their mitigation can hardly be achieved by a single player
- ◆ Experience in Latin America suggests that weak governance to deliver mitigation is a major deficiency (Zamora *et al.* 2022)
- ◆ Yet, there is no absolute barrier to putting in place effective **cooperative and collaborative action**, such as data sharing, joint prioritization, commitment of staff time, and rules for collective decisions (Margerum 2021)
- ◆ Cumulative impacts need **“cumulative solutions”** (Canter 2015)



Climate action can provide an opportunity to advance CIA

- ◆ A huge volume of investment is being channelled to energy transition and energy security [in addition to meeting growing energy demand]

Don't we need to assess their cumulative impacts?



IA generated, Leandro Coelho

- ◆ Adaptation measures are needed: grey or green

Don't we need to assess their cumulative impacts?

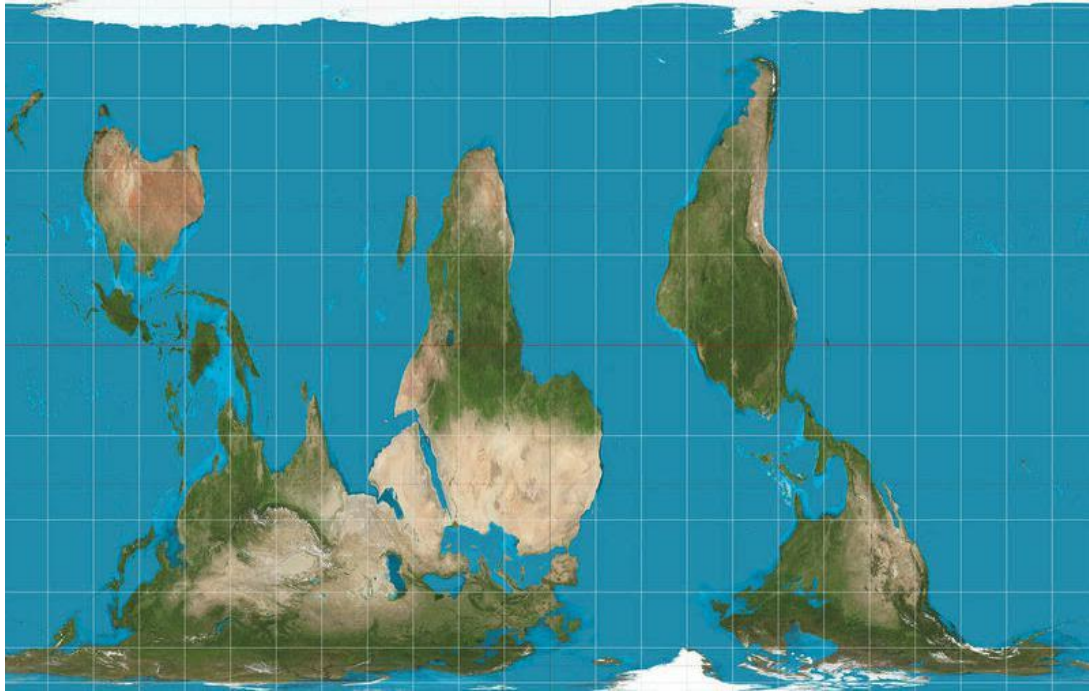


<https://www.climatechangenews.com/2022/03/03/scientists-warn-seawalls-can-make-rising-waters-worse-in-the-long-run/>



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Conclusions



Approaches developed for the Global North are very important to advance CIA in the South, but practice has to be adapted to the legal and sociopolitical context of each jurisdiction

- ◆ **National and subnational governments**
- ◆ **Inter-governmental organizations**
- ◆ **Financial institutions**
- ◆ **Businesses**
- ◆ **Civil society organizations**
- ◆ **Indigenous peoples**

can contribute to advancing CIA internationally

How?

The way ahead: Action by key actors



- *Financial institutions*: expand and extend requirements to include cumulative impacts in a **more systematic and comprehensive way**, beyond project finance, as well as strengthen capacity building



- *Governments*: Legislative updating and professional training to support the improvement of institutional capacity and to **enlarge the focus of IA** from single-framed projects' impacts to cumulative impacts



- *Scholars and professionals* involved in the preparation of CIA guidance: foster assessments that take full consideration of **the role that indigenous and land-connected peoples can play**, including through Indigenous-led impact assessment

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Environmental Management (2026)76:166
<https://doi.org/10.1007/s00267-026-02468-3>

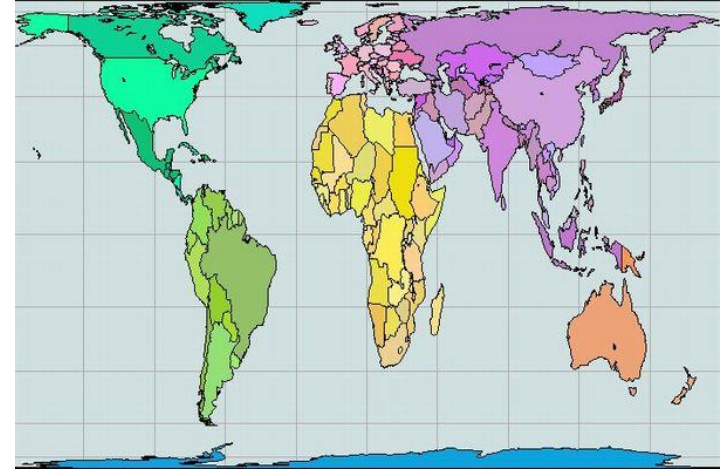
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Let's continue the conversation!

Message me your questions or comments in the IAIA26 app.

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Thank you

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