

Review of: "The Political Ecologies of the Tonle Sap: Global, Regional and National Framework for Conservation and Development"

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Potential competing interests: No potential competing interests to declare.

Author disclaimer: I do not agree with Qeios' requirement to provide a rating of stars for manuscripts, work on an ongoing scientific manuscript should not be reduced to a simple 5 star rating system. That being said, in order to post my review I have selected an arbitrary rating of three stars but this does not reflect my subjective opinion on an ongoing manuscript.

Dec 23 Review for QEIOS

The manuscript presents a deep dive into the social, political, and ecological characteristics of the Tonle Sap Lake. An extensive fieldwork process spanning over a decade was conducted, demonstrating both practitioner and academic experiences for a strong understanding of the case. Given the current context of increased energy demands coupled with significant social and ecological crises, the manuscript touches upon critical issues that need to be discussed within a sustainability transformation. The strengths of this manuscript lies in its widespread and deep engagement with the case. While the manuscript provides a comprehensive background, it would benefit from engaging with theory and restructuring to emphasize its key findings. Below are some comments and literature suggestions to help draw out the paper's key findings.

- Introduction: The introduction provides helpful statistics on the ecological characteristics of the TSL and its environmental values. However, it would be beneficial for the reader with more context on the 1995 MRC agreement. Who are its signatories? How did the agreement come about, what is the historical context that led up to it? A brief paragraph on the social dynamics around the TSL and transboundary governance implications would be helpful. Some elements from Section 4.6 could be moved here. Also please spell out the acronym TSL upon first mentions in the abstract and introduction.
- The research questions would also benefit from context on the existing literature, what have other scholars written about the 'acceptability' of dry and wet season flows, what is the research gap and how are these questions 'novel'? How does this manuscript contribute to the existing literature? Why is a political ecology approach useful to answer these research questions? Who are the actors deciding what is an 'acceptable' level of flow? I would imagine a project developer and a local community member having different interpretations of an 'acceptable' flow level.
- *"How can we ensure the 'acceptable' dry and wet season flow under the scenarios of hydropower dam*

development?” After reading the manuscript I would suggest to rework the research question, as stakeholder acceptability is not explored in the theory section nor are alternative scenarios to hydropower discussed. The work of these authors may be helpful to provide a political ecology context in the Mekong and serve as inspiration for your analytical lens:

- Middleton, C., & Kähkönen, M. (2017). “ Sustainable Hydropower ” Discourse in the Politics of Climate Change in Southeast Asia. 16–18.
 - Olson, K. A., & Gareau, B. J. (2018). Hydro/Power? Politics, Discourse and Neoliberalization in Laos’s Hydroelectric Development. *Sociology of Development*, 4(1), 94–118. <https://doi.org/10.1525/sod.2018.4.1.94>
 - Geheb, K., & Suhardiman, D. (2019). The political ecology of hydropower in the Mekong River Basin. *Current Opinion in Environmental Sustainability*, 37, 8–13. <https://doi.org/10.1016/j.cosust.2019.02.001>
 - Suhardiman, D., & Geheb, | Kim. (2021). Participation and politics in transboundary hydropower development: The case of the Pak Beng dam in Laos. *Environmental Policy and Governance*. <https://doi.org/10.1002/EET.1974>
 - Lebel, L., Lebel, P., Manorum, K., & Yishu, Z. (2019). Gender in Development Discourses of Civil Society Organisations and Mekong Hydropower Dams. 12(1).
 - Suhardiman, D., & Giordano, M. (2014). Legal Plurality: An Analysis of Power Interplay in Mekong Hydropower. *Annals of the Association of American Geographers*, 104(5), 973–988. <https://doi.org/10.1080/00045608.2014.925306>
 - Middleton, C. (2014). *THE POLITICS OF UNCERTAINTY: Knowledge Production, Power and Politics on the Mekong*. www.earthsystemgovernance.org
 - Middleton, C. (n.d.). The Political Ecology of Large Hydropower Dams in the Mekong Basin: A Comprehensive Review. *Water Alternatives*, 15(2), 251–289.
- Figure 1 and 3, Please include a source.
 - The author’s academic and practitioner experience, stakeholder engagement and long experience of fieldwork is evident and impressive. A comprehensive ecological and social background, it is clear that the author has deep knowledge on the case. However, the reader may get lost in the amount of details provided. I would suggest restructuring the paper to:
 - Section 2: Lay out a specific theoretical framework you intend to use, see suggested articles above on political ecology in the Mekong. A table would help to clarify and justify which criteria you examine in your political ecology analysis. From there, use these criteria to analyse your case in Section 4 Results. From your reading of the political ecology literature, which criteria are relevant to address your research question? For instance, I could imagine:

Criteria	Description of criteria	References to literature
Ecology		
Institutions (actors from local to international)		
Power / politics		

See Table 1 in this paper for a suggested structure:

Herrfahrdt-Pähle, E., Schlüter, M., Olsson, P., Folke, C., Gelcich, S., & Pahl-Wostl, C. (2020). Sustainability transformations: Socio-political shocks as opportunities for governance transitions. *Global Environmental Change*, 63. <https://doi.org/10.1016/j.gloenvcha.2020.102097>

Section 2 would also benefit from concepts on transformations theory, if the author chooses to discuss the implications for sustainability transformations. If so, the Herrfahrdt-Pähle et al 2020 and these papers could be of interest:

- Scoones, I., Stirling, A., Abrol, D., Atela, J., Charli-Joseph, L., Eakin, H., Ely, A., Olsson, P., Pereira, L., Priya, R., van Zwanenberg, P., & Yang, L. (2020). Transformations to sustainability: Combining structural, systemic and enabling approaches. *Current Opinion in Environmental Sustainability*, 42, 65–75. <https://doi.org/10.1016/j.cosust.2019.12.004>
- Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. *Annual Review of Environment and Resources* 42, 599–626. <https://doi.org/10.1146/annurev-environ>
- Barney, K. D. (2015). *Locating 'Green Neoliberalism,' and Other Forms of Environmental Governance in Southeast Asia Southeast Asian Perspectives on Agrarian-Environmental Transformations View project New Directions in Environmental Governance View project*. <https://www.researchgate.net/publication/277714197>
- Di Gregorio, M., Brockhaus, M., Cronin, T., Muharrom, E., Mardiah, S., & Santoso, L. (2015). Deadlock or transformational change? Exploring public discourse on REDD+ across seven countries. *Global Environmental Politics*, 15(4), 63–84. https://doi.org/10.1162/GLEP_a_00322

Essentially, laying out the criteria in Section 2 could then help to justify your choice of headings in Section 4. Currently Section 4 is a bit crowded with information and the structure is challenging to follow.

- Section 3. It would be helpful to zoom out and note, how many interviews were conducted that were specifically relevant for this study, is there an interview guide, what themes were discussed? How many focus group meetings were aimed to answer your particular research questions? The methods section of this paper (McDermott and Ituarte-Lima, 2016) could help with structure.
- McDermott, C. L., & Ituarte-Lima, C. (2016). Safeguarding what and for whom? The role of institutional fit in shaping REDD+ in Mexico. *Ecology and Society*, 21(1). <https://doi.org/10.5751/ES-08088-210109>
- Section 3 could also include a subsection with a description of the case study, where you could move some information from Section 4, such as 4.2, the statistics around biodiversity hotspots (4.2.1) and human dimension. I would

summarise section 4.2 and move this into a case description instead, as this in my opinion, reads as facts about a case rather than your results specifically. See Blake and Barney (2018) for inspiration.

Blake, D. J. H., & Barney, K. (2018). Structural Injustice, Slow Violence? The Political Ecology of a “Best Practice” Hydropower Dam in Lao PDR. *Journal of Contemporary Asia*, 48(5), 808–834.

<https://doi.org/10.1080/00472336.2018.1482560>

- Section 3: “*Second, between 2013 and 2013, the researcher conducted research work...*” Perhaps there is a typo in the years here?
- Section 4, the headings could follow the criteria laid out from Section 2.
- Section 5 could then be focused only on a Discussion section, where you discuss your results more broadly in relation to answering your overarching research question.
- Section 6 Conclusion could be structured as 1. Restate your findings. 2. Put these findings in a broader context of what does this mean for hydropower development and conservation in the TSL? What are the long-term sustainability implications of these current activities in the context of a needed transition to a lower-carbon economy? 3. End with future research ideas.