

## ***Interactive comment on “Framing hydropower as green energy: assessing drivers, risks and tensions in the Eastern Himalayas” by R. Ahlers et al.***

### **Anonymous Referee #3**

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The authors have written an ambitious article that aims to cover the material and discursive aspects of the resurgence of large hydropower construction in the Eastern Himalayas. Unfortunately, because this broad scope and the many different issues addressed, the article fails to connect all dots and is therefore quite shallow on some points. In addition, some of the arguments and language need to be improved to make a more compelling argument. Finally, the authors could do better in spelling out the possible ways forward, for example by contextualising hydropower development vis-a-vis development of other forms of development in the region. While addressing these points (elaborated in more detail below) would require some substantial changes, I believe they can be done and would improve the article significantly.

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The key argument of the article is that hydropower is ‘framed as green energy’ by ‘policy discourses at the national and international level’. Throughout the article, the authors use framing and discourse virtually interchangeably, which makes it somewhat messy for the reader. Arguments about mitigation, development, and irrigation all seem to favour the framing/discourse of hydropower. While I agree with many of the points the authors make, I think the article would actually be strengthened by (1) defining framing and discourse and making clear what is included and what is excluded, (2) providing more concrete evidence of this framing (or discourse) and applying it consistently, rather than just repeatedly saying it, and (3) focusing on the key issue, the framing of hydropower as green energy in the Eastern Himalayas, rather than trying to include too many aspects (such as global financialisation, too much discussion on CDM, etc)

In line with the above comment, the authors would do well to revise some of the unclear and imprecise arguments and language. First, there are a lot of figures in the article, but they are often not contextualised. For example, how do the large investments on hydropower (p. 1526) compare to overall investments in electricity generation? How do the emissions from hydropower dams (p. 1527) compare to that of fossil fuel plants? Such figures would help to contextualise and thereby strengthen the argument. Second, while the article is in general very well referenced (even over-referenced, such as on page 1528, line 6), references/evidence is curiously lacking in some other places, such as on page 1524, lines 10-16, or page 1531, line 3. Third, some of the language is opaque, obscuring the important points the authors try to make. Good examples are the first sentence on page 1525, as well as this one: “Changes produced are simultaneously material and semiotic, with discourses of hydropower as clean energy, immanent climate risks and economic development justifying and enacting far-reaching modifications that reconfigure territory by redirecting flows and sediments, and that reorder its organisation institutionally, politically, economically (Ahlers et al., 2014) as well as discursively” (line 5-10).

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Finally, the article (seemingly) presents a somewhat one-sided argument against any development of hydropower in the Eastern Himalayas. There is very little discussion on the implications of this arguments (what can be ways forward? Can the framing/discourse be changed/challenged?), nor on the implications this has for the 'power hungry nations' (if not hydropower, then what? Back to coal or nuclear? Possibilities for renewables? What about small-scale hydro?). Not including any discussion on these points is a missed opportunity in my opinion.

Minor comments (not comprehensive):

- Reference to figure 1 on page 13 seems in the wrong place.
- Error sentence p. 1525, line 12. "We use of this..."
- p. 1526, line 12 states figures from 2014, while the reference is from 2010.

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Interactive comment on Earth Syst. Dynam. Discuss., 5, 1521, 2014.