

Only **hydro** can save the world: misinformation in analysis of alternatives



Doug Smith

E&S Specialist in Hydropower

U.K.

<https://www.linkedin.com/in/dssustainability/>

<https://www.hs-alliance.org/accredited-assessors-gallery/doug-smith>



Doug Smith

E&S specialist in hydropower

Experienced in the review and preparation of ESIA's and associated specialist studies for hydropower projects

Familiar with E&S standards of international financial institutions and their guidance for large dams and hydropower

Accredited Lead Assessor for the Hydropower Sustainability Standard, with extensive experience on hydropower projects ranging from 3 MW to 2,520 MW

Author of several HS Alliance How-to Guides, including on Environmental and Social Assessment and Management, and Communications and Consultation



Hypothesis

Analysis of Alternatives in EIA of proposed hydropower projects systematically misinforms stakeholders, or at least fails to inform them fully



IAIA FasTip 11 on AoA

EIA is a tool to support decision-making

Consideration of alternatives is central to sound decision-making

Consider projects of a similar technical character or functionality that will meet the specified objective

Alternatives generation and evaluation must involve the public, affected communities, and other stakeholders

Apply methodologies such as MCA transparently and participatively



Projects sampled

5 Africa, 2 Asia

Ranging from 170 MW to
358 MW, one outlier of '000s
MW

Storage, run-of-river, high-
head, pump storage



Criteria – AoA met/not?

- Project rationale identified
- Project objectives defined for comparison
- Feasible generation alternatives included
- Renewable alternatives included
- Other alternatives e.g. for flood management
- E&S criteria defined, methodology for comparison
- GHG emissions of alternatives assessed
- Stakeholders involved in identification of alternatives, and evaluation

Region	S Africa	S Africa	SE Asia	E Africa	N Africa	S Africa	C Asia
Capacity (MW)	170	180	187.5	206	300	358	3780
Type	Run-of-river	Run-of-river	High head	Run-of-river	Pump storage	Storage	Storage
Length in pages of AoA	3	6	9	6.5	1.5	5.5	5
Project rationale identified	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Project objectives defined for comparison	No	Yes	No	No	No	No	No
Feasible generation alternatives included	Yes	Yes	Yes	Yes	No	Yes	Yes
Renewable alternatives included	Yes	Yes	No	No	No	Yes	Yes
Other alternatives e.g. for flood management	N/A	N/A	N/A	N/A	N/A	N/A	No
E&S criteria defined, methodology for comparison	No	Yes	No	Yes	No	No	No
GHG emissions of alternatives assessed	Yes	Yes	No	Yes	No	Yes	No
Stakeholders involved in id of alternatives, and evaluation	No	No	No	No	No	No	No



Project objectives

Power generation

Firm power, seasonal generation

Low cost power

Peaking power

Enable greater renewable energy generation

Reinforcing transmission network

Improve grid stability and quality of service

Facilitate additional transmission line capacity

Conclusions

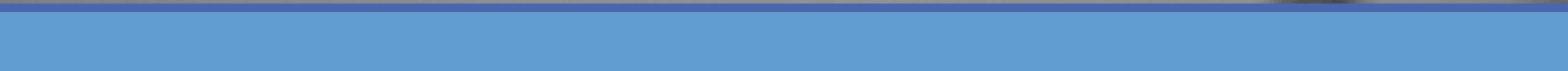
AoA is not fulfilling the function envisaged by IAIA

AoA in hydropower ESIA misinforms stakeholders

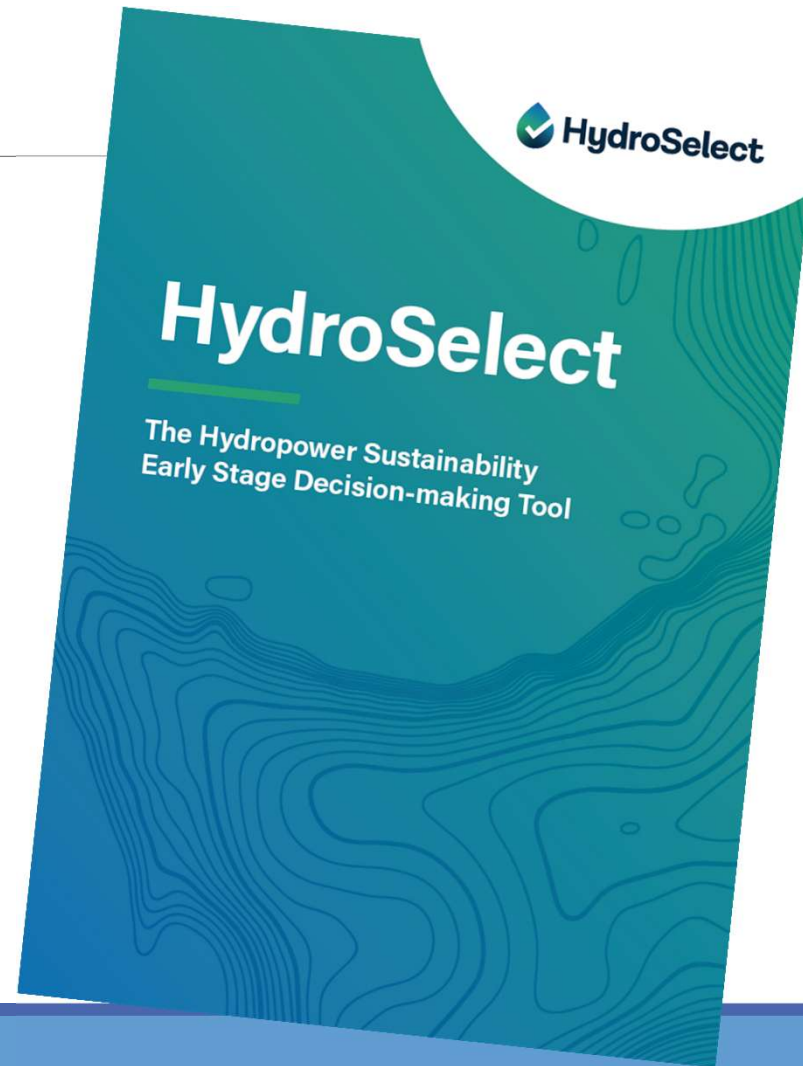
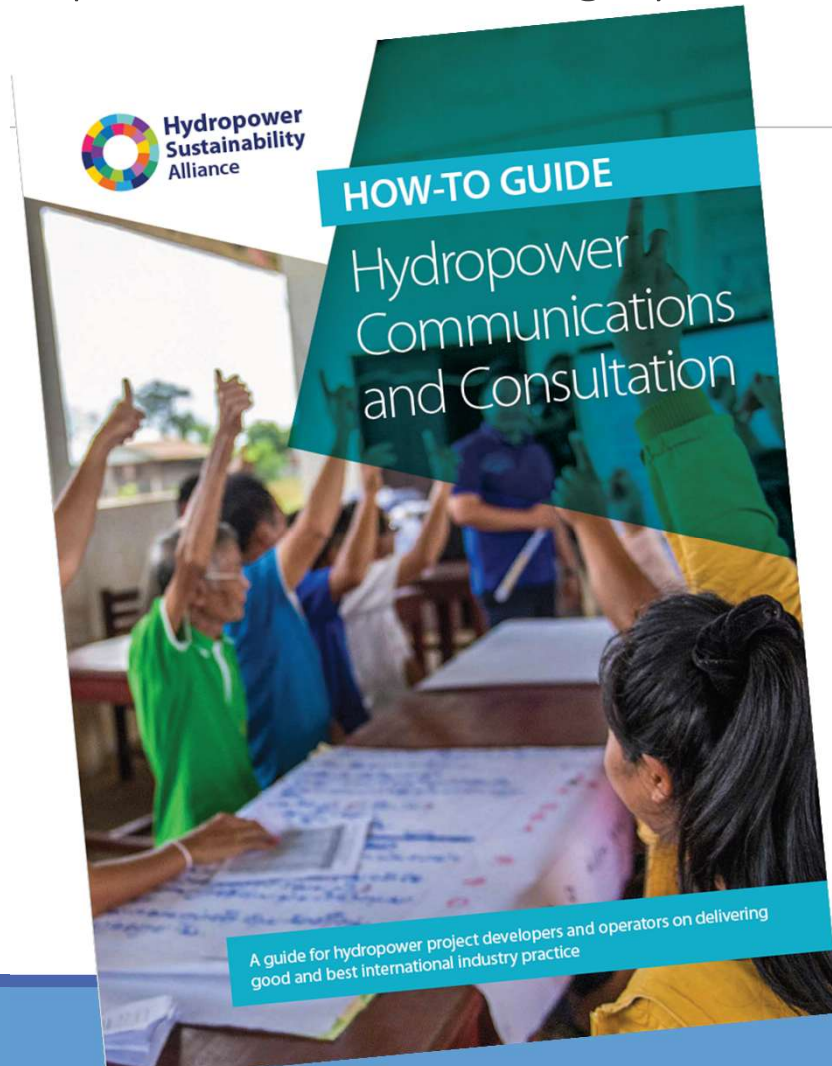
At best, it fails to make the case robustly for the sampled projects

In almost all projects sampled, the case for development was strong

ESIA stage is too late for full AoA involving stakeholder input



<https://www.hs-alliance.org/how-to-guides/communications-and-consultation>
<https://www.hs-alliance.org/hydroselect>





Let's continue the conversation!

Message me your questions or comments in the IAIA26 app.

Doug Smith

E&S Specialist in Hydropower

UK

<https://www.linkedin.com/in/dssustainability/>

#iaia26

<https://www.hs-alliance.org/accredited-assessors-gallery/doug-smith>

Abstract:

Impact Assessment of hydropower project development often presents misleading information that a project is imperative for power sector development and GHG mitigation, or that it is even the only option. Opponents of hydropower may strategically distort information on the feasibility of alternatives to meet these objectives. This paper will examine the analysis of alternatives in IA of hydropower, and how it may be used to misinform stakeholders on the need for, or alternatives to, hydropower projects. It will consider case studies of hydropower project development, from a range of global regions, to assess the scope and depth of the alternatives analysis conducted, and whether it informs or misinforms. The paper will ask whether and how consistency in alternatives analysis of hydropower could be improved, to improve transparency and decision-making.