

BRIDGING THE SCIENCE-KNOWLEDGE-POLICY GAP TO ADDRESS CUMULATIVE IMPACTS OF SMALL HYDROPOWER PLANTS IN THE BRAZILIAN AMAZON

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In Brazil, incentives and policy regulations have contributed to a five-fold increase in the number of small hydropower plants (SHPs) in the last 20 years, with 87 currently operating and 256 inventoried in Amazonian rivers. The combined impacts of multiple SHPs have been largely neglected in Brazilian planning practices, despite policy requirements. Our understanding of existing and potential impacts of these expansions on biodiversity, indigenous and traditional communities, and the capacity to mitigate them, is limited by lack of effective integrated planning tools and rigorous cumulative impact assessment (CIA), flexible environmental licensing policies, data and research gaps, lack of inter-sectorial dialogue, and lack of involving critical stakeholders in the decision-making process. In this presentation, we share results of research under development by the Small Dams Working Group (SDWG) of the Amazon Dams International Network (ADN), an international network of actors collectively studying the social-ecological transformations of hydropower implementation across Amazonian watersheds.

The SDWG has developed interdisciplinary analyses of planned SHPs in the Tapajós watershed, focusing on environmental impact assessment, CIA and the social-ecological implications of deficient SHPs planning and management in the region. This includes implications for water quantity, quality and flow, fisheries sustainability, land degradation and negative impacts on indigenous and local communities' livelihoods. The group is working with civil society institutions and policy-makers to envision and develop improved planning and management strategies for both SHPs and large dams, including: adopting good practices in cross-scale environmental assessment; including: the adoption of Strategic Environmental Assessment taking into consideration other plans, programs and policies in regional and Amazon-wide scales; developing integrated environmental assessments considering inventoried SHPs and LHPs; using scientific evidence and technological tools in planning and siting of SHPs; complying with policies related to the defense of human and environmental rights; and strengthening intersectoral dialogue and multi-stakeholder forums and committees.

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