

SUMMARY FOR DAM OWNERS

Towards a more sustainable hydropower sector

Hydropower is expected to remain a dominant worldwide player in the energy sector, given the rapidly growing energy demand of low- and middle-income countries. The need for a transition towards climate neutral energy production, and the necessity for pumped storage and grid stability when highly fluctuating wind and solar power generation become prominent, further influence the role of hydropower.

Despite the positive aspects of new hydropower projects (hereafter referred to as 'project'), dam owners are increasingly confronted with opposition during preparation and implementation of projects. Two tools can subsequently be applied to get support for a project and reduce delays and reputational risk, namely Strategic Environmental Assessment (SEA) and Environmental and Social Impact Assessment (ESIA).

SEA: a relatively new and promising tool

Environmental and Social Impact Assessments (ESIAs) are known by dam owners as a legal requirement to obtain an environmental license. Application of ESIA by dam owners has become common practice. However, an ESIA does not always adequately answer questions raised by stakeholders. The main reason is that strategic decisions on the necessity of the project, on the type and size of the project and on the project location have already been taken before the final project definition and the start of the ESIA.

Strategic Environmental Assessment (SEA) is a relatively new tool that supports the above-mentioned strategic decisions that are not addressed by ESIA. SEA is led by the government and aims to integrate environmental and social considerations into government policies, plans and programmes. Up to 2019, SEA has been legally adopted by 106 countries and this number is expected to grow. Since 1995, globally, 37 SEAs have been conducted to support strategic planning and decision-making in the hydropower sector, mainly in low and-middle income countries, predominantly in Asia.

Influence of SEAs evaluated

This report is a first attempt to determine the influence of SEA on hydropower development. Information on the influence of these 37 cases has been gathered through desk review and by approaching members of the International Association for Impact Assessment (IAIA) involved in many of these SEAs. This resulted in a list of 15 SEAs with a moderate to high influence. Of this list, five cases in Pakistan, India, Myanmar, Viet Nam and Rwanda, have been selected and further analysed. The evaluation shows that the five SEA cases have proven to be influential in the following areas:

- The SEAs contributed to more awareness of the environmental and social impacts of hydropower plans for all stakeholders: the general public as well as investors and planners of hydropower projects.
- The SEAs contributed to cooperation and exchange between different ministries, in particular those concerned with environment and energy.
- The SEAs provided clarity to project developers concerning go and no-go areas and the environmental and social issues associated with certain sites.
- The SEAs influenced decision-making profoundly and also had other important spin-off impacts such as new legislation or easing of social tensions. Examples are the exclusion of sensitive areas from hydropower development and avoidance of investments in hydropower projects at sites with high social and environmental risks.

Advantages of SEA for dam owners:

- Better understanding of the cumulative impact of a series of individual hydropower projects (cascades), and preventing costly and unnecessary mistakes;
- Better insight in the trade-offs between environmental, economic and social issues, enhancing the chance of finding win-win options;
- Easier ESIA's because strategic decisions, for instance on locations and power generation capacity needs, have already been decided upon;

- Better alignment of decisions and information requirements lead to more efficient assessments;
- Enhanced credibility in the eyes of affected stakeholders, leading to swifter implementation;
- Easier access to funding from international development banks.

In conclusion, SEA is an effective and efficient tool to support the development of more sustainable hydropower projects. When SEA is applied by government agencies, which implies they are well prepared and know the issues at stake, it is an advantage to hydropower companies. Necessary regulatory instruments have been updated with relevant information. Clarity on roles and responsibilities for private companies and government agencies, contributes to effective investment and maximisation of benefits, for companies as well as society. The process takes place within transparent boundaries of sustainability and is established in collaboration with society stakeholders. If for whatever reason government does not implement an SEA, a company with large interests in a region can take the initiative for a regional SEA.

Role of dam owners in supporting SEA

Dam owners can support the application of SEA in the following manner:

- Request government or bank to adhere to an SEA and/or request an SEA to be conducted.
- Request government to do SEA for its energy policy to define the optimal energy mix.
- Request government to do SEA for its river basin management planning to provide clarity on water allocation and cumulative social and environmental issues.
- Request and support the International Hydropower Association and the International Commission on Large Dams to develop SEA guidelines for strategic planning of the hydropower sector.

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