

MEGA-DAMS MUST SHARE BENEFITS

The number, size and impact of large-scale dams around the world have increased with the rising global demand for power and food. Agriculture fed by dams produces 12 to 16 per cent of world food production (AQUASTAT, 2007), while hydropower contributes about 85 per cent of global renewable electricity and 16 per cent of total electricity.¹ Dams also play a significant role in flood control and water supply systems.

There has been long-standing debate over how to balance these benefits against the risks of damage to the environment and communities. The report of the World Commission on Dams (WCD) notes: 'At the heart of the dams debate are issues of equity, governance, justice and power' (WCD, 2000).

WINNERS AND LOSERS

Many hydropower projects are located in countries with weak mechanisms to protect the environment and human rights (International Rivers, 2015). Power asymmetries stem from the influence of powerful politicians and big energy companies. Mechanisms for public participation are poor, and institutional frameworks are overridden by the drive for completion. Promises of relocation and compensation are frequently broken and funds for relocation embezzled. Once dam construction has started, communities have little leverage to enforce their rights.

In Pakistan, the Chotiari wetlands reservoir project was completed in 2003 with World Bank funding to store water for irrigation (Husnain, 2013). It is estimated that 80 per cent of compensation went to bogus owners (Naumen, 2003; *The News Pakistan*, 2009).

In Brazil, the indigenous population has been unable to prevent the construction of one of the world's largest hydroelectric complexes on the river Xingu. After 30 years of protest the Norte Energía consortium was granted a licence in 2011 to build the Belo Monte Dam. About 20,000 people have been relocated but many complain of inadequate compensation (*The Guardian*, 2015a). When the Inter-American Commission on Human Rights granted indigenous tribes an injunction, the Brazilian Government withdrew funding from the body. Norte Energía has invested US\$ 68 million that it says will benefit 3,000 people (IPS Tierramérica, 2015). However, in June 2015 federal prosecutors said that it had violated agreements (*The Guardian*, 2015b). Ibama, Brazil's environmental protection agency, has withheld an operating licence for the operators because they failed to compensate the local communities (*The Guardian*, 2016).

DISTORTED DECISIONS

WWF International's report *Seven Sins of Dam Building* (Kraljevic et al., 2013) lists distortions such as failing to acquire a social licence, neglecting downstream flows and a 'bias to build'. A study from Oxford University finds 'overwhelming evidence that budgets are systematically biased below actual costs of large hydropower dams' (Ansar et al., 2014). The researchers put this down to over-optimism by experts 'often exacerbated by deception, i.e. strategic misrepresentation by project promoters'. Cost overruns and schedule slippage means that many large dams never recover their costs. However, the International Hydropower Association (IHA) says that the 20 per cent of dams associated with hydropower deliver electricity cheaply for many decades (IHA, 2014): 'The question should not be "does the project overrun?", but rather "is the project a good investment?"'

BUILDING INTEGRITY INTO DAMS

The WCD report (WCD, 2000) sets seven priorities as a framework for dialogue to assess costs and benefits and undertake consultations with

¹ IEA: www.iea.org/topics/renewables/subtopics/hydropower.

stakeholders and communities:

- + gaining public acceptance;
- + a comprehensive options assessment;
- + making best use of existing dams;
- + sustaining rivers and livelihoods;
- + recognizing entitlements and sharing benefits;
- + ensuring compliance; and
- + sharing rivers for peace, development and security.

However, a report from the International Institute for Environment and Development says that widespread criticism of dams has actually resulted in controls being weakened as previous donors have withdrawn (Skinner and Haas, 2014). China has expanded its finance for dams in Africa, Asia and Latin America without accepting the WCD recommendations for mitigating social and environmental impacts. The European Union's Emissions Trading Scheme has become a major source of funding, but the report describes EU rules for screening as weak. Few of the private banks backing dam projects have signed up to the Equator Principles for assessing and managing environmental and social risk.

The authors say that it is indeed possible to build dams to mitigate climate change and to deliver environmental and social outcomes, using the Hydropower Sustainability Assessment Protocol (HSAP), launched in 2011 and devised by a forum of experts and institutions representing industry, governments and NGOs (Skinner and Haas, 2014).

The protocol assesses 23 criteria for good practice and is undertaken by an external certified assessor. Unlike the WCD criteria, the HSAP can be applied to individual dam projects at the early stages of project design, during detailed planning or during operation (Liden and Lyon, 2014).

The HSAP is supported by governments, including those of Germany, Norway, China and Zambia; by banks that subscribe to the Equator standards; by the World Bank; and by civil society organizations, including the Nature Conservancy, the WWF and TI.

Apart from the HSAP, there are a number of other tools to promote good practice.

In 2015 International Rivers benchmarked international hydropower companies from China that operate globally. Key performance indicators cover environmental policies, social responsibilities, ethics and integrity, bribery and corruption. A website² is open for communities and others to assess the performance of these dam builders (International Rivers, 2015).

The Upper Kotmale Hydropower Project (UKHP) in Sri Lanka organized public consultations following protests from NGOs and local communities over social and environmental impacts. The Ceylon Electricity Board liaised with local people and agreed a resettlement action plan with community leaders (Pangare et al., 2012).

Table: Tools for promoting good practice in the water sector

Aids to good decision-making	
Rights-based approach (Hurwitz, 2014)	Assesses hydropower dams and institutions involved in basin competition.
The Economics of Ecosystems and Biodiversity ³	Results in structured approach to decision-making.
Rapid basin-wide sustainability assessment tool ⁴	Allows for assessment of impact of developments, including hydropower, on sub-basin or basin.

² International rivers: <http://www.hydroscorecard.org>.

³ TEEB: www.teebweb.org.

⁴ Mekong River Commission: www.mrcmekong.org.