Indigenous communities turned out in Lima to protest the proposed Inambari Dam in October 2010.

ENERGY POLICY

Worth a dam?

Voluntary agreement enables rating of hydroelectric impacts.

BY JEFF TOLLEFSON

Hydropower is booming in the developing world, but one megaproject faltered last week. On 13 June, after years of community protests, Peru announced that it was revoking an agreement with a Brazilian consortium to build the 2,000-megawatt Inambari Dam, which would have flooded 400 square kilometres of Amazonian forest.

Now, to foster a less confrontational way of advancing projects, the hydropower industry, environmental and human-rights organizations, and representatives from banks and governments have negotiated a mechanism for evaluating, and perhaps mitigating, the impact of dams before they are built.

Released on 16 June in Iguaçu Falls, Brazil, the Hydropower Sustainability Assessment Protocol provides a method for assessing dams in all phases, from development to operation. Projects would be ranked on a scale of one to five according to their likely effects on biodiversity, ecology, hydrology and erosion as well as on broader issues regarding regional planning, cultural heritage and effect on local inhabitants.

The protocol is voluntary, and a poor rating may not prevent a project from going ahead. Yet quantifying anticipated effects could generate pressure for managers to rethink plans to improve the outcome. "If we have some good results in a few test cases around the world, I think it will take off," says Pedro Bara, who

works for WWF, one of the environmental groups that helped to develop the protocol. "It's very useful to have an international standard, especially for countries that don't have much experience in hydropower development."

The document has its roots in the World Commission on Dams, which produced comprehensive international guidelines in 2000. The International Hydropower Association (IHA), a trade group based in London, followed up with its own sustainability protocol in 2006, but continued criticism that the protocol was weak led the IHA to establish a formal dialogue with environmentalists and human-rights groups in 2008. Since then, the process has brought groups such as the WWF, Oxfam and Transparency International together with industry officials to hammer out a compromise.

Advocacy groups, governments and companies can use the protocol informally, but a

governance council representing the stakeholder groups will oversee a more formal assessment carried out by trained auditors. Companies would pay for this assessment and would be required to publicly release the results.

How the protocol will be applied remains to be seen. Companies that sign it are not required to use it, or to alter their projects if the assessment identifies problems. This has split environmental groups, many of which called the protocol a dangerous public-relations tool that will allow companies to 'greenwash' their projects and will weaken existing standards.

The protocol is designed to be applied one dam at a time, missing cumulative impacts of development as well as opportunities to identify the best sites and coordinate energy production across an entire river system, such as the Amazon. "Where you have a cascade of dams, you really need a broader assessment," says Mathias Kondolf, a fluvial geomorphologist at the University of California, Berkeley.

Nonetheless, advocates hope that governments will require formal evaluations under the protocol and apply minimum standards to the projects that they support. "The aspirational end point would be some kind of independent certification system," says David Harrison, a senior adviser at the Nature Conservancy based in Salem, Oregon, who worked on the protocol.

Within industry, many see the protocol as a way to head off the kind of public opposition that can stall or quash a project after years of investment, says Cameron Ironside, a programme director at the IHA. "Everybody would be very happy if industry were able to apply the protocol early on," he says, "because that would solve a lot of the issues that people are running into downstream."

At least 140 major companies have signed on, including representatives of utility companies such as the China Three Gorges Dam Corporation in Yichang, Paris-based EDF and Eletrobras in Rio de Janeiro, Brazil. WWF officials have noted that many Chinese companies that are building dams around the world are not yet parties to the protocol. Yet companies on the sidelines may ultimately have to act in accordance with the protocol, says Bara, if it becomes standard practice. "If the banks get involved, it will be difficult not to jump in." ■

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