

FINANCIAL RISKS ASSOCIATED WITH THE WATER–COAL NEXUS IN INDIA

Already one of the world's top coal consumers, India's dependence on coal-fired power generation is expected to grow. The country proposed nearly 520 GW of new coal-fired capacity nationwide as of July 2012 to meet high growth in electricity demand.

India is already highly water stressed, however, largely based on water use in the agricultural sector. Total water withdrawals in 2010 topped 760 billion m³. That is more than China and Russia's total withdrawals combined, while India's total renewable water resources account for only a quarter of China and Russia's combined total.

More than 70 percent of India's power plants are located in water stressed or water-scarce areas. Stressed water resources are already impacting power projects in India, causing delays and operational losses. For example, inadequate water supplies in the state of Chhattisgarh shut down the National Thermal Power Corporation's Sipat plant in 2008. Project execution delays and lost power output can also turn water-related risks into financial losses.

While shareholders are usually not financially exposed to water-related risks, as they are shielded by protective regulations enabled by India's state-owned power sector, water risks may become more material under certain circumstances.

Unregulated plants, for instance, might not be able to pass costs on to end-users, reduced power outputs could violate the terms of the purchase agreements, or the regulatory framework could change. Any changes would fall against the backdrop of the Government of India's National Water Mission. The national policy framework calls for a 20 percent improvement in water efficiency nationally through regulatory mechanisms. It also encourages conservation and water waste minimization. Every water user, industrial power generators included, will need to optimize their conservation, recycling, and reuse practices to meet this goal.

Several measures can help utilities in stressed regions better manage and mitigate water-related cost, output, and regulatory risks. Infrastructure investments, including backup supply reservoirs and desalination plants, will better secure long-term business growth, even though such capital spending requires up-front investment. The Energy and Resources Institute in India also recommends third-party, regular water audits, as well as standards for water consumption in the power sector. More consistent legislation overall will give companies a framework for long-term energy production and financial planning while protecting at-risk water supplies.

Managing Global Water Risks in the Coal Business

The case studies from China and India illustrate that unmanaged water risks have financial consequences for national and international companies. Recent guidelines from China's Ministry of Water Resources will limit coal expansion based on regional water capacity, and may slow down coal-project approvals. The guidelines will also push companies to pay for wastewater recycling and wastewater treatment systems. That large capital investment, combined with higher annual operating costs, means that companies must take a long-term view. They should pursue advanced water risk management at power plants while understanding the value in consistent, carefully crafted legislation. The combination will ensure that energy production can grow within natural resource limits.

Considering the potential for increased regulatory uncertainty and likelihood of supply constraints, water poses a variety of business risks for the global coal industry. The World Resources Institute recommends that the industry assess water risks more deliberately and broadly, hold itself accountable, and take actions to respond to the challenges. A range of actions is available, including innovative technology and public policy engagement to collectively reduce shared water risks, all on the path to advanced water stewardship.

Furthermore, governments around the world should protect water resources and encourage energy projects that face fewer risks from water stress and limits on greenhouse gas emissions. Those cautionary measures will better align policymaking with water and energy planning, and balance resource constraints with economic growth.

Source: <http://endcoal.org/resources/identifying-the-global-coal-industrys-water-risks/?ref=water>