Financing Indian Hydropower

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The start of a new debate?In ancient Greece, a nine-headed snake called Hydra lived in the marshes of Lerna. She was the daughter of a giant and a nymph, and the sister of Sphynx, Cerberos, and Chimaera. Again and again, Hydra ravaged the fields, destroyed the crops and devoured the cattle of the local farmers. At last, King Eurystheus asked the Greek hero Herakles to bring Hydra's reign of terror to an end. A horrible battle unfolded in the marshes of Lerna. Every time Herakles cut off one of the serpent's heads, two new ones grew from the ghastly body. In the end, of course, the courage of the hero prevailed over the serpent’s evil blood.

Hydra power?

The farmers of the fertile Nimad region in India’s Narmada valley are not concerned about mythical snakes and other beasts. Their economic and social livelihood is threatened by a string of hydropower projects on the Narmada river. The Maheshwar dam, on which construction has already started, would (if completed) displace and negatively impact 50,000 people from 61 villages. Other dams would have social and environmental impacts on an even more devastating scale.

The communities of the Nimad region have opposed the Maheshwar dam and other projects for many years. Supported by movements and non-governmental organizations, they have taken on banks, export credit agencies, and large corporations. Yet like in the battle of Lerna, every time a funder or contractor withdrew from the project, new investors and equipment suppliers appeared on the scene.

So far, contractors Bechtel, PacGen, Siemens and Ogden, power utilities Bayernwerk and VEW, and financial institutions Hermes, COSEC and Hypovereinsbank have withdrawn from the Maheshwar project, or have refused to get involved in it. In their stead, a series of Indian development finance institutions, banks and companies stepped in to fill the gap and fund the project. "Lending by Indian banks and institutions is at the heart of all mega independent power and greenfield projects", an Indian journalist comments on the Maheshwar experience.

Intermediary lending

Several international financial institutions have withdrawn from lending for the dams on the Narmada river directly. As the NGOs and movements involved in the Maheshwar struggle found out, the same institutions may still support the projects indirectly. To mention a few examples:

* The World Bank was forced to withdraw from the Sardar Sarovar project in the Narmada valley in March 1993, and has stopped funding individual power projects in India altogether. Yet the Bank still approved support for India's Power Finance Corporation (PFC), which is the most important funder of the Maheshwar dam.

- The Asian Development Bank has never directly funded any hydropower projects in India. "MDBs, including ourselves, are almost 'gun-shy' of dams now", says one ADB official: "The risks are great, the visibility is high, and the vulnerability is a constant concern." (2) In spite of such concerns, ADB funds the state power utility which facilitates the Maheshwar project. It also finances hydropower projects through its loans to other financial institutions.

- Through some strange karma, Herakles' brother Hermes in the 20th century was reincarnated in Germany's official export credit agency. After serious consideration, Hermes decided not to get involved in the Maheshwar project. Still, German government agencies support financial institutions in India which in turn fund several hydropower projects, including Maheshwar.
- Hypovereinsbank, a commercial German bank, also planned to extend a loan to the sponsors of the Maheshwar project. After a strong NGO campaign, it decided not to do so. The bank does however participate in three general purpose loans for Indian institutions which in turn fund Maheshwar.

A global trend

The Maheshwar experience illustrates an international trend. Many countries, including India, have liberalized their economic policies since the 1980s or 1990s. Governments are successively withdrawing from funding infrastructure, including power projects. They instead look towards private investors and financial institutions to mobilize resources for these sectors.

Globally, multilateral and bilateral financial institutions have steadily reduced their direct funding for new hydropower projects. Commercial banks are becoming wary of the risks of such projects too. Even export credit agencies have begun to take their responsibilities – and possibly, the risks to their reputation – more seriously when considering controversial infrastructure projects. At the same time, official funders increasingly lend support to intermediary financial institutions, or extend program loans to public utilities which promote hydropower projects.

As a consequence, the financial flows for infrastructure, and for hydropower and other energy projects more particularly, have turned into a maze. An attempt to illustrate all financial flows in India's power sector resulted in a chart with 17 groups of funders and power operators, and almost 90 types of financial flows between them. Many international and domestic financial institutions interact, using a variety of different financial instruments, and in many cases lending through intermediaries rather than directly. It has becomes unclear to what extent such resources are public or private, and who is responsible for how they are invested. (A simplified chart illustrating the financial flows into India's power sector is now found in Annex 2.)

In some cases, this fuzziness is clearly intentional, for example when commercial banks funded the giant Three Gorges dam on China's Yangtze river through a state development bank rather than directly. In other cases, the blurring of responsibilities is probably a welcome by-product of a trend which exists for other reasons.

The questions on the table

This report tries to shed some light on the fuzziness of intermediary lending. It addresses the following questions:

- Which domestic institutions fund power, and particularly hydropower projects in India, either directly or indirectly? Where do they mobilize resources? What are the emerging trends, and what are the problems? Which policies do such financial institutions apply, and how can NGOs and social movements influence them?
- What is the role of international financial institutions within this picture? How do they work with domestic financial institutions and power utilities? Which policies do they apply when they fund projects through financial intermediaries? To what extent are they still accountable for the impacts on the ground when they invest funds through other institutions? And again, how can NGO networks influence the policies and decisions of international financial institutions when it comes to intermediary lending? These questions are relevant not only for India's power sector, but for international infrastructure funding more generally.

In a first part, this report provides some background on India's power and financial sectors, and illustrates the issues at stake with two prominent examples of power projects in India. The second part presents the main institutions which are involved in funding and promoting infrastructure, and particularly hydropower projects in India. A third part examines the role of international financial institutions in working with these agencies. The concluding chapter summarizes the main evidence and arguments of the report, and presents some thoughts for further action.

Invitation to a debate

The publishers and the author of this book have been involved in many international campaigns on financial institutions and power projects. It is not the purpose of this report however to look at the economic, environmental, social and political impacts of hydropower projects in depth. The report does not take a position on specific projects either, except in the case of a few illustrative examples.

In the same vein, the report does not attempt to put forward a comprehensive list of recommendations for policy change. It rather tries to present facts and opinions as a starting point for a wider debate, in India and internationally. Hopefully, an agenda for specific policy changes will emerge from such a debate. In this sense, the report is an invitation to social movements and NGOs, financial institutions and banks, government officials and politicians, planners and academics, the media and other interested citizens to participate in this debate.

India’s power sector in crisisIndia’s power generation capacity has expanded rapidly since independence. Even so, the growth of generation could not keep up with demand. The country has a power shortage of 8% on average, and of 11% at peak times. Power supply is unreliable and of poor quality, and many rural communities have no access to electricity.

India’s per capita electricity consumption of 350 kWh per year is very low by international standards. Even at this level, the lack of generating capacity is not the main problem. Power in India is produced, transmitted, distributed and consumed inefficiently. A large part of what is produced is simply stolen, predominantly by middle class and industrial consumers. So far, India’s power sector strategies have barely touched upon these inefficiencies and gaps. They have not been based on a balanced assessment of all options and comprehensive least-cost plans, but have aimed – and failed – at creating a maximum amount of new generating capacity.

For a variety of reasons, India’s power sector is under great financial stress. The combined losses of the state power utilities are estimated at Rs. 260 billion a year (or twice the amount which the states spend on health care). The state governments do not have the means to cover the deficits of their utilities. Many state utilities can therefore not invest in new generating capacity, or enter into long-term power purchase agreements with independent power producers. This is the main reason why private investment in power projects, and particularly in risky hydropower schemes, is not coming forward, and why many state sector projects have been stalled. Social and environmental problems have further contributed to the logjam. But the slump in investment is not a matter of policy choice. Neither is it caused by a lack of funds for lending. If the clients of prospective power plants were in better financial shape, equity capital would be invested, and loans would be extended.

Even now, new power plants, both thermal and hydropower, are being built, based primarily on the limited public capital which is available for investment. Government expenditure in the power sector is increasing, and all indicators suggest that it will continue to do so over the next few years. The financial crisis of the state power utilities needs to be resolved. Once it is, there is a risk that resources will again flow into a rapid expansion of generating capacity, rather than into a rational power development strategy based on a balanced options assessment. The risk exists that in such a situation, Indian society will be faced with even more economically unviable, socially and environmentally destructive power projects than it is today.

Indian and international financial institutions already play an important role in supporting and influencing the country’s power sector strategy. If investment in power projects picks up again, they will become critical arbiters of the future course of India’s power sector development.

The role of Indian financial institutions

A large amount of investment capital is created in India. Traditionally, it has been the role of the country’s development finance institutions to make such capital available to industry and infrastructure utilities in the form of long-term loans. During the 1990s, the government to some extent withdrew from funding infrastructure projects. Economic liberalization pushed some of the traditional industrial clients of DFIs into financial distress, while the most credit-worthy clients started to raise debt on the capital market directly, and no longer needed to go through lending institutions. It is no surprise that in this situation, the development finance institutions turned towards infrastructure, and particularly the power sector, where so much demand for funding seemed to exist. Since the mid-1990s, power has been one of the most important, if not the single most important, sector for loan approvals of all Indian DFIs.

Liberalization has blurred the distinctions between different groups of financial institutions. Particularly since the late 1990s, India's commercial banks (such as SBI and other public sector banks) and investment institutions (such as LIC or UTI) have taken up long-term lending for infrastructure, and have also become involved in the power sector. The State Bank of India in particular has strong links with the non-resident Indian community, and through its NRI bonds is an important potential source of foreign currency lending for power projects.

As mentioned above, India's power sector is beset by fundamental problems. Even if projects are approved, they often do not move forward because power purchase agreements cannot be concluded, or because investment capital is committed but does not materialize. In the case of hydropower projects, geological and hydrological difficulties and the opposition of affected people add to the problems. In many cases, the appraisal and decision-making systems of the financial institutions are not up to this challenge. DFIs have committed large amounts of long-term resources for power schemes, but have been unable to release their costly loans because the projects did not move forward. Or they released loans prematurely, and saw them turning into non-performing assets because the developers did not service the debt. It is an open question to what extent inappropriate lending decisions were caused by bad luck, by incompetence, or by "other forces at work", as one experienced observer of the financial sector put it.

Due to such problems, financial institutions seem to go through a certain cycle of hope and disillusionment regarding power, and particularly hydropower, projects in India. The World Bank approved ten hydropower projects in the country between 1983 and 1990. It cancelled several of the loans in 1992 because the projects did not move forward, and since then has not approved any new generating projects. DFIs moved into the sector in the 1990s, and started to limit their exposure and to cancel loans in late 2000. Commercial banks and investment institutions are the latest entrants into the sector, even if on a lower level of commitments. In cases such as the Maheshwar or Baghliar projects, these newcomers have already run into serious problems.

In response to these problems, lenders and other actors are turning to the institutions of the central government. In the case of hydropower, NHPC and other central agencies are expected to expand their portfolio, and to take over ailing private or state sector projects. The Power Finance Corporation and other financing schemes under the Power Ministry are expected to play an even more prominent role in funding such projects. Only since late 2001, NHPC has been called upon to take over the Nathpa Jhakri and the private Maheshwar projects. LIC and ICICI have extended large loans or lines of credit to both NHPC and PFC, and such institutional loans may well turn out to be an alternative to direct lending for power projects.

Unlike most financial institutions, NHPC and PFC have for a long time specialized in appraising power projects. Since they are the pivotal agencies of the central government within their sectors, they are in a strong position as developers or creditors of power projects. Financial institutions may hope that loans for NHPC and PFC are safer assets than direct project financing. However, being close to the government, both agencies are particularly exposed to political influence, and can be bullied into taking up politically well-connected, but uneconomic projects. And if PFC to some extent substitutes other lenders in the power sector, it will be in a less privileged creditor position than it is today because some borrowers will have no choice but to default on their debt to PFC. Either way, the Power Finance Corporation and NHPC are certainly institutions to watch in the next few years.

The role of international financial institutionsThe multilateral development banks have completely withdrawn from directly funding hydropower projects in India. With the prominent exception of Japan's JBIC, the bilateral funders have also done so. But the international development banks still fund such projects through Indian financial institutions acting as their intermediaries. ADB for example is funding the Malana and the Vishnuprayag or Baspa projects through a loan to IFCI and ICICI. Both ADB and IFC are investors in IDFC, which in turn has funded hydropower projects. The International Finance Corporation does not inform the public about which subprojects it supports through financial intermediaries. This demonstrates that at least in the case of IFC, accountability suffers when funds are lent indirectly.

Most official export credit agencies still seem to be interested in supporting any kind of power project regardless of viability or social and environmental impacts. Under strong public pressure, Germany's Hermes and Portugal's COSEC declined to get involved in the Maheshwar project at the cost of export contracts for their national industries. In future, export credit agencies will have to live with constant public scrutiny if they take up controversial projects. Yet the recent decision by Germany to back the Tehri project, the active interest of the Canadian, Norwegian and other agencies in the sector, and the lack of a critical assessment of their own record by such institutions suggest that official export credits and guarantees may still come forward even for clearly unviable and destructive projects.

Even when export credit agencies extend official guarantees, international commercial banks often have to shoulder part of the credit risk when they fund power projects. Internationally, banks seem to have become more sceptical about the economic and financial viability of hydropower projects in recent years. Institutions like NHPC, PFC and most development finance institutions are perceived to enjoy quasi-sovereign guarantees in that they would be bailed out by the government in times of crisis. So while many commercial banks have become reluctant to extend project finance for hydropower projects, they are still an important source of institutional foreign currency funds for the DFIs and the central power sector agencies, or for projects which are almost fully covered by official guarantees.

The problem of fungibility

Multilateral development banks have withdrawn from directly funding power projects in India. Globally, World Bank lending to infrastructure has declined by 30% from FY 1995 to FY 2001. The energy sector has seen a decline by 65% during the same period. A Bank task force concluded that "an important part" of this decline "is attributable to client perceptions of the Bank's application of safeguard policies" regarding procurement and the environment. According to the task force, borrowers expressed the following "explicit hierarchy of preference" for infrastructure borrowing from official sources: domestic resources, bilateral donors, regional development banks and lastly, the World Bank.

Even if they have stricter safeguard policies than other funders, and have stopped funding power projects directly, multilateral development banks still have a strong presence in India's power sector. For the reasons described below, they share a responsibility for the type of power projects which are being developed.

ADB and IFC have in the past funded hydropower projects through intermediary institutions like ICICI, IFCI and IDFC. Experience demonstrates that when doing so, they cannot simply rely on the lending policies and appraisal capacities of their partner institutions. When IFC opposed a loan to the Dabhol project within IDFC, when ADB raised the unresolved resettlement problems of Maheshwar vis-à-vis IFCI, the institutions accepted their responsibility as lenders through intermediaries. In other cases, they have not. ADB for example approved a subproject of Jai Prakash Ltd. – a hydropower developer which, as one official of a financial institution puts it, is known for his „long hands" into politics. The subproject has since run into problems.

Since the early 1990s, the World Bank and ADB have shifted their focus from power generation to transmission and distribution, for example through loans to the Power Grid Corporation and to PFC. In principle, this is positive, because an efficient transmission and distribution network facilitates an improved management of the country's power system. Even lending for transmission projects can be tricky however. Both the World Bank and the Asian Development Bank have funded the evacuation of power from thermal and hydro power plants under such schemes, and ADB has done so as late as 1999. Such schemes should really be considered and appraised as part of the respective generation projects, rather than as general improvements of the country's transmission system.

Extending large loans to the Power Finance Corporation for transmission and distribution also frees up other resources for power generation. The more PFC can cover its T&D portfolio from official funds, the more it can invest the foreign currency funds it raises from other sources in generation projects. In this sense, multilateral development banks need to assess the full investment portfolio of an institution like PFC before they approve large-scale lending for them.

Finally, multilateral development banks have become a major source of foreign currency borrowing for the power utilities of Indian states like Andhra Pradesh, Gujarat, Madhya Pradesh, and Orissa. The banks have linked the respective restructuring programs to strict, detailed and painful policy conditionalities. Carrying out effective demand-side management programs or comprehensive options assessments has never been a priority of these policy loans.

The investment portions of sector restructuring loans are usually targeted at improvements in the distribution system as a precondition for privatisation. Yet as in the case of transmission projects, since money is fungible, covering the cost of distribution frees up resources for other purposes, including generation projects. This criterion of fungibility should not be applied too rigidly, since it would otherwise preclude any financial transfers. Yet when financial institutions are major lenders to certain utilities, and the borrowers invest large amounts of resources in highly questionable projects, the lenders share responsibility and need to be concerned about such questionable investments.

For these reasons, ADB should be concerned about the investment of the MP electricity board in the Maheshwar, Sardar Sarovar and Indira Sagar projects, and Gujarat's investment in Sardar Sarovar. The Bank seems to recognize its responsibility for the overall investment portfolio of major lenders, in that it expresses concerns about their governance and policy frameworks. Yet, looking at ADB's strong support for Madhya Pradesh's power sector development, one wonders how this concern is translated into actual practice. The impression arises that ADB – and possibly other official funders – do not judge borrowers by the rationality and sustainability of their investment portfolios, but simply by their willingness to accept the policy conditionalities of power sector restructuring.

Challenges for India's civil society

Public institutions like the Power Ministry, the Planning Commission and the state governments still shape the course of the country's power sector development. Civil society movements need to monitor and to remain involved in this political process. Analysing options and potential alternatives, exposing vested interests, doing research on particular investments, and opposing projects which only add to the country's debt burden, or which destroy the livelihoods of affected communities and the environment continue to be important tasks. Internationally, Indian social movements and NGOs have gained a reputation for using such approaches well and vigorously.

With the liberalisation of the financial and the power sectors, financial institutions have gained a more influential role in India's power sector development. As the role of government shrinks, financial institutions need to accept that they have a social and environmental responsibility and an accountability to the public of their own. In accordance with international standards, Indian financial institutions should codify their social, environmental and information policies. Within the water and power development sectors, the World Commission on Dams has prepared a useful set of principles and guidelines, including recommendations for follow-up action by private financiers and financial institutions. (4)

In this perspective, it is important for Indian NGOs and movements to strengthen their know-how about how such institutions work, and about how civil society can monitor and engage them. Movements and NGOs should think about creating networks and building professional knowledge on the role of financial institutions. They should start to exchange information and cooperate with interested parties within these institutions, with financial journalists, analysts, and rating agencies. They should explore possibilities of cooperation with the supervisory divisions of RBI, with consumer unions, with socially responsible investors, provident funds and other investors who share a long-term horizon. Internationally, NGOs have started to gain experience in how to campaign within the financial sector, and Indian civil society can profit from this. (5)

The community of non-resident Indians is an important source of foreign currency for India, particularly for the infrastructure sector. The Power Ministry and PFC might soon look to NRI investors again to contribute to the new India Power Fund. In principle, the solidarity of the NRI community needs to be maintained. At the same time, investors in NRI bonds should be sensitised about the impacts of certain investments, and should be encouraged to invest selectively rather than for indiscriminate instruments.

Challenges for international civil society

Internationally, NGO networks should continue to monitor export credit agencies, commercial banks, and bilateral institutions, and should press for these institutions to abide by internationally accepted standards when they fund particular projects, including power plants. One particular institution merits more scrutiny. JBIC has funded more hydropower projects in India than any other foreign institution (including the World Bank). It is a silent giant, and deserves more attention.

For a long time, NGO networks have worked to strengthen the operational policies of international financial institutions, and to oppose or influence specific projects. India's experience demonstrates that as far as direct lending is concerned, their campaigns have had some success. NGO networks have so far neglected the indirect funding of projects through financial intermediaries, and the issues which arise when official funders (both multilateral and bilateral) support financial intermediaries, and power plant developers and operators such as the SEBs.

As a first step, NGOs should strengthen their knowledge about the extent of intermediary lending for infrastructure development by different public financial institutions, and about the policies which they apply. Already, some issues are emerging. Financial institutions must be accountable for the funds which they invest through intermediaries, and the lack of transparency which IFC displays in this context is not acceptable. If a subproject funded through intermediaries violates the operational policies of respective funders, affected communities and NGOs could consider filing a complaint with an Inspection Panel, or with the Compliance Advisor/Ombudsman of IFC. Doing so again requires access to basic information about the respective subprojects.

Apart from financial intermediary lending, NGO networks should also become more aware of the issues at stake when official funders support infrastructure utilities such as India's state electricity boards. NGOs already deal with the policy conditionality of the respective sector restructuring loans. They also need to look at the question of fungibility. NGOs should start to assess large adjustment and investment loans based on the overall policies and investment programs of the respective utilities, and should hold financial institutions accountable for the investment programs of their major borrowers. In financial intermediary projects and sector restructuring programs within the water and power sectors, international financial institutions should, just as in straightforward investment projects, follow the internationally recognized principles and guidelines of the World Commission on Dams.

NGOs and social movements have come a long way, and the new challenges are an opportunity for them to learn and to develop further skills. IJ