

## Crossfire

In this issue, Peter Stern and Kathleen Shordt argue in support of the following statement and John Briscoe against:

**‘The World Bank’s renewed emphasis on high risk/high reward projects, including those for water infrastructure, will be detrimental to the poor.’**

*Dear John,*

While there is clearly a need for some further investment in large-scale water development projects, the World Bank’s new policy in this field may not be in the best interests of many communities in the poorer parts of the developing world. To provide some background, it is our understanding that the World Bank approved \$2 billion for 13 hydropower projects from 1990-1995 which was reduced to less than \$600 million for six projects for the period 1999-2002. In an about-face in 2002, the World Bank’s Board of Executive Directors approved a number of strategies to expand the World Bank infrastructure business in the next two to three years. The Water Resources Sector Strategy, about which we are talking, is one of these.

Throughout much of the twentieth century, there was great confidence in the contribution that dams could make to development, particularly in the poorer developing countries. Dams are very costly to construct, and therefore often need funding internationally through agencies such as the World Bank. To grant funding, the Bank needs very thorough cost/benefit analysis. What has been surprising is the lack of enthusiasm to look too closely into the costs and benefits of these massive projects after implementation.

Frequently, the final costs far exceeded the estimates on which the projects had been launched, and often many of the expected benefits failed to appear. By the 1980s there was growing concern with human rights and resettlement, and with international relations involving the use of water. This led to the creation of the World Commission on Dams (WCD), whose terms of reference were to carry out an

in-depth review of dam development. Their report, published in November 2000, while recognizing that dams have contributed considerable benefits, pointed out that there have been too many cases in which the price of a dam project in terms of social and environmental terms had been high, that there had been a lack of equity in the distribution of benefits, and that where there have been conflicts of interest, all those concerned were not involved.

Here is a list of large dam projects in which the World Bank has been involved. Each has been heavily criticized for at least two or more of these reasons: the involuntary displacement of people (total estimates range from 40 to 80 million mainly poor people from all large dam projects, not just the ones in this list), corruption and cost overruns ranging from about 20–50 per cent, bad appraisals, projects abandoned by the World Bank, projects not profitable and no longer operating:

- Sardar Sarovar Dam, Narmada Valley, India
- Arun III Dam, Nepal
- Bjugali Dam, Uganda
- Yacyreta, Argentina/Paraguay
- Nathpa Jhakri, India
- Three Gorges Dam, Yangtze, China
- Katse Dam, Lesotho

What has the World Bank really learned from these experiences about benefiting the poor, and the poorest of the poor who are the hardest to reach in development programming? In the new Water Resources Sector Strategy papers (at <http://lnweb18.worldbank.org/ESSD/ardext.nsf/18ByDocName/WaterResourcesManagement>) we see a few aggregated figures, but no proof, no clear standards, no lessons learned and a rejection of risk analysis to help predict beforehand the real impact on people, particularly the poor. Can you perhaps enlighten *Waterlines* readers by providing the justification for the World Bank’s recent change of direction?

*Yours,  
Peter and Kathleen*

*Dear Peter and Kathleen,*

Many thanks for your interesting piece done in response to the World Bank’s recent commitment to re-engaging with major water infrastructure. I regret that there is not the space here to respond to all of your points in detail, but thought it most appropriate to explain why this change has taken place, in terms of both substance and process.

Let me start with substance. Every single currently rich country on earth has made massive investments in water infrastructure in the early stages of development. In all cases, economic history tells us, this ‘platform’ has proved to be fundamental and catalytic for subsequent economic growth (and poverty reduction). The numbers must be familiar to all readers of *Waterlines* – 5000 cubic meters of reservoir capacity per capita in arid rich countries (such as Australia and the United States), 85 per cent of economically viable hydropower developed in rich countries, etc. The costs of not having such infrastructure (50–200 cubic meters of water storage per capita in the arid countries of Africa and South Asia, for example, and less than 20 per cent of hydro potential developed) is patent in terms of huge vulnerability to variable climates, and the absence of electricity and reliable water supplies on which to build decent lives. This is something that is obvious to ordinary people in these countries and is why elected politicians in every poor country – as was the case in the past in now-rich countries – give high priority to erecting this ‘platform’.

In this context, a word on evaluation and learning. The WCD followed the methodology laid down by the US Office on Management and Budget (OMB) around 1960 in which the OMB said that for a full-employment economy (like the USA) regional multipliers from water projects should not correctly be taken into account in evaluating large water projects. On which a couple of comments.

First, the ‘full-employment’ condition obviously is not met in developing countries, where multipliers should be taken into account in estimating

## crossfire

benefits. Second, this methodology was articulated only after the USA had constructed virtually the entire 'infrastructural platform' for its growth. At the time the OMB refused to answer the questions of incredulous congressmen 'how much of our infrastructure would we ever have built had we followed this methodology?' because the answer was obviously and absurdly 'very little'. Moreover, many studies have shown that indirect economic impacts are about as large as direct impacts and that these 'multipliers' are particularly large for major water infrastructure. Recent progress in evaluation methodology enables analysts to trace through the effects of these direct and indirect benefits on different groups in society. These analyses show that it is the poor who are the greatest beneficiaries (basically because of the growth in demand for labour).

Next, a word on process. As you correctly point out, the World Bank's lending for major water infrastructure declined precipitously over the last decade. In the process of consultations on the Bank's new Water Strategy, country after developing country expressed outrage at this, perceiving that the World Bank was paying more attention to its own reputation in western capitals and western newspapers than it was to the people whose mission it was to serve. Many pointed out the imbalance between intense focus on the 'sins of commission' and the lack of attention to the 'sins of omission'. Who, they asked, was held accountable for the suffering and often chaos that resulted when the vital infrastructural platform was not built in very poor countries?

Here there was a remarkable demonstration of 'developing country solidarity' on the Board of the World Bank (constituted by the representatives of the 180 countries that own the Bank). Because the 'countries with choices' (like China, India and Brazil, who can and do finance this infrastructural platform without World Bank support) took up the issue with and on behalf of the 'countries without choices' (on the list you mention, this includes Laos, Uganda and Nepal), who cannot develop without external assistance.

The result – a commitment by the Bank to re-engage, paying attention

primarily to the development consequences for poor countries and poor people, and only secondarily to 'reputational risks' – paves the way for re-engagement by the World Bank in this vital task, and bodes well for the future of people who currently live without the basic services which well-designed water infrastructure can provide.

*Yours,  
John*

*Dear John,*

Thank you for explaining the reasons for the World Bank's recent commitment to re-engaging with major water infrastructure. While understanding this, we are disappointed that you have not really responded to the issue in this debate, which is that the re-engagement will be detrimental to the poor in the developing world. Although the World Bank was jointly responsible with the World Conservation Union for setting up the World Commission on Dams, little notice has been taken by the Bank of the Commission's findings.

The Commission, commenting that the Bank does not appear to have learned anything from past experience of large dam projects, has pointed out that the poor, other vulnerable groups and future generations are likely to bear a 'disproportionate share of the social and environmental costs of large dam projects' leading 'to the impoverishment and suffering of millions'.

One set of recommendations of the WCD dealt, for example, with the needs and procedures for risk assessment. The new World Bank policy reports actually come out against risk assessments related to the environment and the affected populations. The new strategy does *not* endorse risk assessment or environmental risk assessment, and risks to people affected from dams are not mentioned. The current policy papers appear to relax environmental safeguards in favour of considerations regarding the 'the cost of doing business'.

Just as with the PRSPs (poverty reduction strategy papers), the validity of the consultations with governments and the 'developing country solidarity' that you mention may be somewhat illusory. Few governments are unenthusiastic, in the abstract, about the

possibility of low-interest loans for infrastructure projects. It might also be noted that the PRSPs seldom prioritize water and do not appear to mention large dams.

The choice in terms of development is not one of 'no reservoir capacity *or* big dams'. The issue is big dams versus small infrastructure and alternatives that have been developed and recognized in the past few decades. The size, cost, and timescale can be reduced while providing benefits greater than those from a few big, costly, corrupt, badly functioning dams.

John, we all know the limitations of extrapolating from industrialized to developing country experience. In other words, because the Hoover dam was built in the US, does not imply it is needed in India. We need to look at the performance resulting from dams that have been built over the past two decades in developing countries.

We would also question the World Bank's capacity for internal evaluation. The Operations Evaluation Department of the World Bank carried out an evaluation of Bank dam projects in 1996, concluding that 37 out of 50 were acceptable or potentially acceptable, but the review did not measure: actual benefits (in terms of electricity, flood control, irrigation), actual costs for O&M, costs of habitat losses or performance assessments.

We suggest that the World Bank should give more support to conservation, rainwater harvesting, and the use of wastewater. These lower cost approaches are barely investigated in the current programmes. For example, the Narmada dam cost \$2000 per person to build, while the much-acclaimed Rajasthan water conservation programmes (including small dams) cost \$2 per person.

*Yours,  
Peter and Kathleen*

*Dear Kathleen and Peter,*

You asked for facts on water infrastructure and poverty and stressed that they needed to be local and specific. Let me give some of these from India, where I now have the privilege to live and work.

First, a new generation of evaluations is assessing the long-term impact of major water infrastructure in

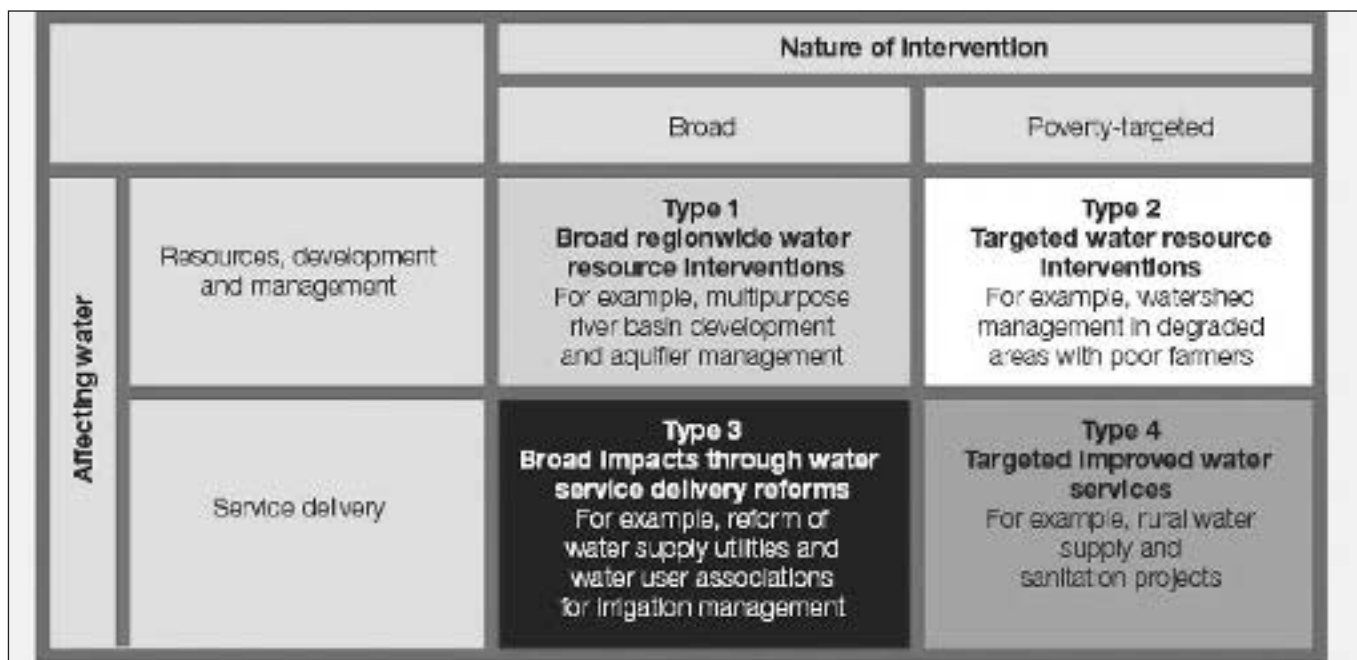


Figure 1 How the World Bank's water interventions affect poverty

India on both growth and poverty reduction. A major assessment of the impacts of the Bhakhra Dam complex (which generates 3000 MW of power and irrigates 7 million hectares) shows (a) that the direct benefits of the dam are about as predicted when designed (which is similar to the overall findings for dams from the WCD, which looked only at direct benefits); and (b) that the indirect benefits are about as large as the direct impacts.

Second, this new generation of evaluations is able to assess the effects on different groups in society. Here, too, the results are consistent – it is the poor who proportionately benefit most, because of the large increases in the demand for labour and the consequent increases in both jobs and wage rates.

Third, another line of recent work has shown that such infrastructure provides the underpinnings for progress in the social sectors. In India, the returns to primary education are 0 per cent in unirrigated areas, and over 35 per cent in irrigated areas.

Fourth and finally, when one looks at the overall impacts, poverty levels in areas that have benefited from major water infrastructure are less than one-third of the poverty levels in areas that do not have such infrastructure.

Let me also emphasize, again, that non-engagement by international agencies has major impacts on the poor. Here a classic case from the sub-continent is

that small hydro-rich countries who have relied on fickle international financing agencies have developed very little of their vast hydro potential (and, in the case of Nepal, have descended into poverty-induced chaos). By contrast, neighbouring Bhutan, which has relied on India for financial and technical assistance, has quietly developed a substantial stock of water infrastructure, which is fuelling poverty-reducing economic growth, both directly and through export earnings.

To every government in the developing world these truths are abundantly clear. Thus not a single government in the developing world has accepted the *Guidelines of the World Commission on Dams* because, in the words of prominent anti-dam activists, adoption of the guidelines 'would virtually preclude future dam projects'. And developing countries have led the process of re-engagement by the World Bank in financing major water infrastructure.

In your piece, Kathleen and Peter, you say the choice is between 'big dams versus small infrastructure'. I disagree. As articulated in the World Bank's Water Strategy and as is illustrated in Figure 1, it is not a question of 'or' but 'and'. Governments of the developing world should invest in a diverse and integrated set of activities, big and small, 'hard' and 'soft', which will provide a platform for all their

people, and most particularly their poor people, to live more productive and more fulfilling lives.

You suggest that the World Bank should increase its lending for watershed management. As documented in the Bank's Water Strategy, over the past decade World Bank lending for watershed management increased four-fold (which is good). But simultaneously lending for hydropower decreased by 90 per cent (which is now acknowledged as wrong). The change is that while the Bank will continue to invest in vital areas like watershed management, it will now also re-engage with the financing of major water infrastructure. When asked to do so by a borrowing country, the Bank will now support such growth-inducing and poverty-reducing packages of water investments (hard and soft, big and small).

This is good news for the poor, especially those in small countries that have no ability to go it alone, and whose hope for a better future requires principled assistance from external financing agencies.

Yours,  
John

John Briscoe is the World Bank's Senior Water Adviser. Peter Stern is a civil engineer with many years of experience in water projects in the Middle East and elsewhere and Kathleen Shordt is Senior Programme Officer with IRC International Water and Sanitation Centre, The Netherlands.