

World Rivers Review

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Waste Not, Want Not

Energy Efficiency is Cheaper, Cleaner, Smarter than Other Options, Say Experts

by Lori Pottinger

“I believe the world needs only half as many new power plants as it thinks it does,” exclaims Art Rosenfeld, a founder of the American Council for an Energy Efficient Economy (ACEEE) and a founding father of the energy efficiency movement. A lively 80-year old with decades of experience in the energy field, Rosenfeld was addressing a recent ACEEE conference in Berkeley, California, where he was joined by dozens of speakers armed with statistics-rich case studies detailing how much energy can be saved with efficiency measures.

The need to do more with less is particularly acute in the US, where a “perfect storm” of factors – including the recent hurricanes, skyrocketing energy costs, global warming, dwindling oil supplies, the Iraq war, the Enron collapse, and China’s growing energy consumption – is affecting energy use. “This year will go down in history as the year the United States finally woke up” on energy issues, predicted Martin Kushler, director of the utilities program at ACEEE.

The good news is that so many communities are already waking up around the nation. Some utility managers described serving up to two people for every one they used to serve with the same amount of energy, thanks to aggressive energy efficiency programs.

Kathleen Hogan from the US Environmental Protection Agency’s climate program, stated: “We can lower our growth in electricity use by half with efficiency measures, and the savings persist over time. It’s time to make all of our utilities be the agents for change on energy efficiency. Every community should have a clean energy action plan, with public input. It’s time to make it happen.”

California Sets the Pace

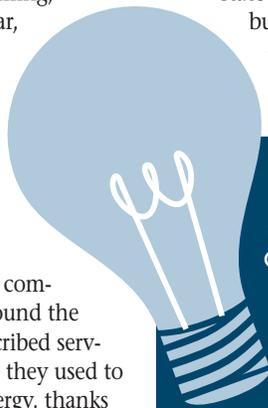
The conference was held just days after the state of California announced a huge energy

efficiency program, which is being touted as the largest of its kind in the US and perhaps the world. Susan Kennedy, the lead commissioner for energy efficiency with the California Public Utilities Commission, said that California – the most populous state in the nation (and the world’s sixth largest economy) – plans to spend \$2 billion on energy efficiency over three years, which will ultimately save \$5 billion in energy costs. The program, which is part of a statewide initiative to reduce global warming, is expected to save as much electricity as three large power plants in the next three years, and reduce the state’s carbon output by an estimated 3.4 million tons (equivalent to taking about 650,000 cars off the road). The state energy efficiency program’s new budget is about 50% larger than the entire federal government’s budget for energy conservation.

The new program will likely cover new ground in finding efficiencies, as California is already one of the world’s most energy-efficient economies, and has already “picked the low-hanging fruit” (including, most recently, during the 2000-01 energy crisis). Previous efforts have saved an estimated 5,000 megawatts, or about 10 large power plants, according to Kennedy. The result is, while the average American uses 50% more energy now than in 1975, the average Californian uses roughly the same as before, according to the *San Francisco Chronicle*.

“Our population and our economy will continue to grow, and we’ll still need more power plants – especially to replace ageing, dirty plants,” said Kennedy. “What this plan does is help us meet those growing needs with the cleanest, most cost-effective energy of all – greater efficiency.”

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California Dreamin’ in China’s Energy Sector

California’s energy efficiency experts are sharing their expertise with China, the world’s fastest-growing economy and fastest-growing energy-user.

In September, officials from the state Public Utilities Commission, the Energy Commission and the utility PG&E signed a pact with Jiangsu province and informal agreements with Shanghai province and China’s central government to provide expertise and training to Chinese regulators and utility companies, according to the *San Francisco Chronicle*.

The Natural Resources Defense Council, which helped organize the trip, has done research showing major potential for efficiency measures in China. “It is practical and feasible to ... save 50% of energy for public and residential buildings in China,” according to an NRDC report. The US Department of Energy reports that in 2003, China used almost 3.5 times the amount of energy as the US for every dollar of gross domestic product.

One program that could be exported to China is California’s “public goods charge,” a 1% fee on electric bills that pays for about \$500 million annually in conservation programs. Song Hongkun, an official with the nation’s main utility, told the *Chronicle* that China could raise as much as \$1 billion per year with such a charge, which would pay for energy-metering technology, new home-appliance standards and other programs.

For more on NRDC’s China work: http://www.beconchina.org/energy_saving.htm

The Difficulty of the Plains

Five years ago, former South African water minister Kader Asmal banged a lectern in a London conference center and declared the World Commission on Dams “decommissioned.” The winding up of the commission after 30 months of work was a moment of tremendous satisfaction for IRN and our colleagues around the world.

We had worked for years to push the World Bank and other dam backers to set up such an independent review body, and then worked even harder to convince the commissioners of the reality of what dams have done to rivers and society, and to disprove the propaganda of the big dam lobby. Now, in the presence of Nelson Mandela and other global dignitaries, the commission’s final report had been released to the world’s media and its conclusions largely backed up what dam critics had been saying for years.

In the self-congratulatory buzz of the launch it was easy to believe that the dam industry would have little choice but to get

on board with the commission’s report. In the following weeks and months, numerous engineering firms, banks, governments and UN agencies did indeed come out with messages of support for the commission’s recommendations.

But we would have done well to heed the message in the quote from Bertholt Brecht that Professor Asmal presciently used in his keynote address at the launch. The first signs of the “difficulty in the plains” to come was evident at the launch itself in World Bank President James Wolfensohn’s lukewarm welcome for the report. The World Bank’s main commitment was only to “consult” with borrower governments on what their response should be. These World Bank consultations – with bureaucrats in the water and power ministries of the world’s most active dam building countries – came up with the responses that the Bank had obviously hoped for. Basically, the Bank informed the world, their borrowers wanted as many big dams as possible, and who was the World Bank to say no to them.

Since that initial round of consultations, the Bank – and in particular its former Senior Water Advisor, John Briscoe – has worked steadily to confuse policy makers about the

contents of the WCD report and to encourage them to reject its findings and recommendations (while doing nothing to encourage them to actually read and understand the report). The Bank’s main water staff now rarely even refer to the WCD in their media interviews and presentations at water and energy industry conferences. Their blind faith that big dams by definition equal progress negates not only the comprehensive work of the WCD but 70 years of experience with corrupt, pork-barrel decision-making, ruined rivers, unpayable debts, and impoverished and sickened people.

Yet while it has not been easy going on the post-WCD Brechtian plains, the World Bank

has also not succeeded in burying the WCD report, and has not yet succeeded in revitalizing the stagnant dam industry. Five years after its launch the WCD’s findings are essential reading for anyone interested in the costs and benefits of dams, and its recommendations are the “gold standard” for dam planning and con-

struction. As this issue of *World Rivers Review* shows, numerous initiatives are underway across the world to turn the WCD into national and institutional policies. Activists for water and energy justice around the world continue to learn from the WCD’s findings and push for the implementation of its recommendations. Decision-makers and opinion-formers without a vested interest in dam-building continue to be open to working with the report. Recent successes have included support for the WCD by one of the world’s largest private banks (HSBC) and two of its largest public banks (the European Bank for Reconstruction and Development and the European Investment Bank).

Proponents of energy and water solutions have succeeded in keeping the WCD report alive for the past five years and in making progress to get its recommendations into policy and legislation. Key challenges for the next five years will be to keep the report at the forefront of dam-related policy debates, to keep using it to improve policies, and, to start working to ensure that WCD-related policy reform results in better practices on the ground (and in the water).

Patrick McCully

**When the difficulty
Of the mountains
is once behind
That’s when you’ll see
The difficulty of the
plains will start.**

— Bertholt Brecht

Monti Aguirre, Karolo Aparicio, Peter Bosshard, Elizabeth Brink, Riam Firouz, Terri Hathaway, Inanna Hazel, Aviva Imhof, River Lune, Lori Pottinger, Elizabeth Sabel, Jonathan Stein, Glenn Switkes, Susanne Wong

Dan Beard, Patricia Chang, Peter Coyote, Chris Desser, Huey D. Johnson, Lauren Klein, Juliette Majot, Nion McEvoy, Sylvia McLaughlin, Mutombo Mpanya, Mayumi Oda, Drummond Pike, Gary Snyder

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Hurricanes Expose Problems with “Flood Control”

The shocking destruction caused by the recent hurricanes in the US were greatly worsened by efforts to control nature. The Mississippi's hundreds of large dams and thousands of miles of levees have almost eliminated flows of sediment needed to replenish coastal wetlands, making Louisiana – which has lost 1.2 million acres of coastal lands since the 1930s – much more vulnerable to storm surges. Damage from floods in the US has gone up dramatically over the past six decades despite huge investments in flood-control infrastructure. Global warming is likely to worsen the situation by raising sea levels and increasing the frequency and intensity of severe storms.

Trying to control long stretches of rivers with levees (embankments), as is the case with the Mississippi, is usually counterproductive. Even where levees work, they only speed up the flow of water and make flooding worse elsewhere. They also deprive floodplains of sediment and raise riverbeds, the ultimate impact of which is rivers that have beds higher than the surrounding land, leading to disastrous flooding when levees break.

The reality is that levees can never be made flood-proof. As a state flood control official told *WRR* after major damage from storm-induced levee breaks in California's Central Valley in 1997, “There are two kinds of levees: those that have broken, and those that are going to break.” Where levees are required, they need to be constantly maintained and emergency evacuation plans put in place with the knowledge that no matter how much is spent on the levees, they are still at risk of failure.

Unfortunately, the US's failed flood control methods are still being exported around the world, through agencies such as the World Bank. Delta communities in many parts of the world, most notably Bangladesh, Pakistan and India, are increasingly vulnerable to catastrophic storm damage due to ill-conceived and poorly maintained river-control schemes, the destruction of coastal ecosystems (especially mangrove forests), and the steadily intensifying menace of global warming.

Way Forward

The US group American Rivers has articulated a plan of action to avoid future disasters like Katrina, excerpted below. IRN believes such principles are also relevant to flood management in the rest of the world.

Maintain natural flood protection:

Wetlands soak up floodwaters and release them gradually. A single wetland acre, saturated to a depth of one foot, retains 330,000 gallons of water – enough to flood 13 average-sized homes thigh deep. In addition, coastal wetlands provide an important buffer against hurricanes making landfall. Wetlands that are drained, filled, or isolated behind levees provide little or no flood protection for the surrounding community. Abundant and healthy wetlands should be the first line of defense against storms and floods.

Restore what's lost: Halting the destruction of wetlands will help prevent tomorrow's floods from causing even more severe damage, but we must do more by restoring some of the natural flood protection that has been degraded or destroyed. It will be a huge, costly effort: rebuilding the Mississippi River delta wetlands through sediment and fresh water diversions in coastal ecosystems, and setting back levees in the floodplain away from urban areas could take 10 to 50 years to complete, depending on the financial commitment at all levels of government and society.

Stay out of harm's way: No amount of habitat protection, restoration, or engineering will protect every neighborhood from flooding. In some cases, the safest and most cost-effective approach to sparing life and property is to relocate to higher ground. After the Mississippi River floods of 1993, a number of communities successfully did just that. In contrast, some communities have been flooded time after time and have been rebuilt at great public and private expense. Our land use policies should establish a preference for staying out of harm's way.

Improve levees judiciously: Levees are appropriate to protect large, well-established communities from floods. In these situations, levees designed and constructed with the most advanced engineering, designed for an extreme flood, will be needed. Up and downriver from these communities, however, removing levees or rebuilding them further away from the river channel can relieve the pressure on levees surrounding cities.

Invest smarter: The US government has spent more money on water projects in Louisiana than in any other state in recent years, yet the levees ringing New Orleans weren't up to the task of protecting the city from a foreseeable storm event. This is because pork barrel politics (or the politics of crony capitalism) rather than true need drives much of US flood control activities. Worse still, Washington often spends tax dollars to destroy wetlands and other natural features that could alleviate floods in the first place. Government should be spending precious taxpayer dollars on those projects that offer the greatest benefits to society. Rather than passing the cost to future generations by increasing the likelihood and intensity of future disasters, we owe it to them to spend today's money smarter. In the short run, we need to be thoughtful about rebuilding the Gulf region. Efforts to waive environmental laws are unjustified and shortsighted. We must not victimize the people of the Gulf a second time by compromising their health or future safety by exposing them to further toxins or further destroying wetlands. ■

For more information:

<http://www.americanrivers.org>

<http://www.irn.org/index.php?id=sub/katrina.html>

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Join our dedicated group of members who have signed up to give automatic monthly donations. Giving monthly makes it easy for you and will help give us the financial stability we need to continue to protect rivers and the communities who depend on them, and promote water and energy justice for all the world's people.

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Thank you for increasing your commitment to protect healthy rivers and human rights.

Why the WCD Still Matters

by Deborah Moore

Five years ago, the World Commission on Dams – on which I served as one of 12 commissioners – culminated with the release of our report, *Dams and Development*. I find it a useful exercise to pause and reflect on one's work, to understand its impacts, to examine your hopes or disappointments, and to simply sift through memories once the daily frenzy of actually doing the work is past. The WCD's fifth anniversary has been the occasion for me to reflect.

The mandate given to the WCD was an enormous challenge: evaluate the "development effectiveness" – the economic, social and environmental impacts – of large dams worldwide, and develop criteria and guidelines for managing the entire lifecycle of dams and finding alternatives to dams. Another difficult task was to create an open and participatory process that was global in scope. Many people inside and outside the WCD didn't believe that 12 people representing different perspectives on the dams debate could come to agreement. Indeed, at our very first meeting, I noted that since my usual adversaries were all assembled around the table, the only group I could still struggle against were the naysayers, those saying, "it can't be done." In that light, we succeeded: as a Commission we did come to agreement on a remarkable and precedent-setting report that five years later is still actively being tested, considered, and adopted.

For me, the WCD was an extraordinary personal and professional journey. There was the mundane: the odd hours you keep when working on a global scale, the mountains of papers read and analyzed. There were the weeks away from my young daughter. There was the rigor: the perseverance, eye for detail, and quest for data from all involved. And ultimately, there were the stories: the commitment from thousands of people around the world to have their stories told. I still feel honored that so many people spent their time and resources to tell us their stories – their truths. It was exciting to have been part of such an incredible group of people and the camaraderie was genuine. The relationships and trust built between us have outlasted the Commission, and many of us remain in contact as colleagues and friends. Truly, I felt humbled to take part in this historic process.

I came into the WCD with a commitment to creating an innovative and partici-

patory process, a commitment to ensuring that the quantitative analysis was objective and unbiased, and that the qualitative analysis would accurately report the ranges of perspectives. Finally, I brought my own experience in working to protect rivers and river-dependent communities, to find sensible "win-win" alternatives to large dams, and to avoid poorly planned, expensive infrastructure projects.

There were some definite surprises, and some disappointments, in our process and in our findings. I was surprised that we found that a few hydropower dams in our sample were over-performers in electricity production. The majority of dams we examined were under-performers in almost all aspects (financial, economic, productivity); however, there were some that over-performed and that can serve as models. Yet, the under-performance also gave rise to my continuing hope and belief that a vigorous and concerted effort to improve the performance of existing dams could greatly improve the development benefits from the world's gargantuan historic investments.

Unfortunately, I was also surprised by how few positive examples of resettlement there were. I expected that the truly global scope of our efforts would uncover previously unnoticed examples where resettlement worked. Sadly, our field visits, public hearings, cross-check analysis, and case studies showed that over and over and over again, the people who were displaced received the least. We saw such a sad pattern repeated: visiting dam sites and then visiting displaced villages within sight of the dam that had not received services decades after the reservoir was filled. In Brazil, we did learn of communities that had successfully negotiated resettlement, and the key there was involving the communities as partners.

I was also shocked several times. Hearing from survivors about the massacres of people displaced by the Chixoy Dam in Guatemala was horrific and served as a touchstone for



Deborah Moore, on break from the WCD's 1999 meeting in Cairo, Egypt.

Commissioners to resolve that such atrocities would not be repeated.

False Impressions

I have also been disillusioned that since the report was released some people and institutions have consistently worked to misrepresent the report's findings and recommendations. One glaring example is the misunderstanding created around the principle of "free, prior and informed consent" for indigenous and tribal peoples. Many now believe that the WCD promoted a policy giving "veto power" to indigenous peoples when the report clearly states that "when a negotiated consensus cannot be achieved through good faith negotiations within the agreed-upon timeframe, the established independent dispute resolutions mechanisms are initiated. ... Where a settlement does not emerge, the State will act as the final arbitrator, subject to judicial review" (p. 281), which is existing law in most countries. There are other instances where different interests have manipulated the report's findings about the performance of dams, when it is clear that there are so many patterns of under-performance.

Since the report's release, I am most disappointed by the lack of on-the-ground implementation of new approaches recommended by the WCD and by how quickly the open-minded spirit during the WCD process returned to polarization. My hope had been that the WCD's analysis – showing how large dams had not performed as promised and how enormous the potential was for meeting needs by improving the per-

continued opposite

formance of existing dams and implementing non-dam alternatives – would lead to major global support from NGOs, the private sector, development agencies, and governments for massive increases in investments for small-scale, community-based water, electricity, and agriculture projects and rehabilitation of existing dam projects. Why, for example, has the broader global water community not adopted specific goals and timetables – such as the goal of getting 15 million hectares of small farms under low-cost drip irrigation in 15 years, as called for by International Development Enterprises, who specialize in such projects?

And I am frustrated by the rekindled support of the World Bank for what are now superficially dubbed “high risk, high reward” dams, when the WCD report shows that time and time again these projects are “high risk, low reward.” This support is particularly irksome when “low risk, high reward” projects are now more broadly accepted as producing tangible, faster, lower-cost results for poor communities, yet still suffer from completely inadequate investment. Even former US Treasury Secretary Paul O’Neill was persuaded that such community-based water projects were feasible; sadly, he resigned before he could influence US foreign aid in that direction.

Making Headway

Five years later, I am most gratified that the WCD strategic priorities, policy principles and, to some degree, the guidelines have become the de-facto international standard, whether or not they have been formally adopted by all dam-building institutions. In fact, many organizations have adopted the report, are using its recommendations, and are creating national-level processes to consider the report, with more joining them all the time. I have been pleased that communities and grassroots organizations around the world see that the WCD’s report, which could be seen as a dry policy document, is relevant to their lives and are using it as a tool to create change in their own situations. And I am excited by several processes that are creating opportunities for the WCD’s recommendations to be tested and implemented, including the European Union’s law and “Linking Directive” establishing methods for how hydropower dams will be considered to receive “carbon credits,” and the process in South Africa to adapt and integrate the WCD into national policies.

Actually, the WCD report has quite a lot of very practical recommendations, and is not anywhere near as “pie in the sky” as it is portrayed by some. The Strategic Priorities and the corresponding Policy Principles were

developed in direct response to the results of our rigorous analysis that showed continuing under-performance of large dams and ongoing, widespread social and environmental problems that undermined the development effectiveness of dams. Most of the recommendations are drawn from actual, on-the-ground experience, such as adapting the use of performance bonds to improve accountability with social and environmental agreements. Ultimately, most of the recommendations and guidelines are aimed at generating better information for decision-makers throughout the dam-planning and operation process and at elevating dam-affected communities from “involuntary risk bearers” to respected partners with recognized power in the development decision-making process.

My challenge to the naysayers who still remain skeptical of the WCD is: what is there to lose?

So, is the WCD report still relevant? I give a resounding “yes,” because the real problems and issues have not gone away in the past five years, and the solutions are still needed, now more than ever. There is ongoing pressure to find solutions to expand access to water and energy services, reduce poverty, and protect aquatic ecosystems, all of which will be exacerbated by the effects of global warming. The WCD’s proposals were based on a deep understanding of what had gone wrong, why existing policies and safeguards had failed, and how the management of dams and other development projects could be better managed to truly produce effective and sustainable economic development.

My challenge to the naysayers who still remain skeptical of the WCD is: what is there to lose? What is the worst-case scenario for implementing the WCD’s recommendations – that it fails to fully solve the problems with large dams? My answer is that this is exactly where we are today – the status quo fails to solve the ongoing problems associated with the planning, management and construction of large dams. Truly, the real failure is the failure of imagination and courage to try something new on the part of those in control of the investment in, planning for, and management of large dams and water projects.

Why not harness the open-mindedness, that hopeful spirit and goodwill that existed



during the lifetime of the WCD? Why not join together the resources and creativity of all sides and make a go of truly addressing the problems of poverty, lack of access to water services, social justice, and environmental protection? What if we take a real risk – a political leap of faith – and work together to quadruple public and private investment for water and energy conservation, small-scale, community-based development, and environmental restoration programs; to scale up the successful “pilot programs” we all see around the world; to recognize communities’ rights and build partnerships with them to address their needs? What if the dam-building industry re-tools and diversifies, as so many other industries have done in the past several decades?

To be honest, the continued fighting seems a waste of precious resources, time, spirit, and personal energy – much less a waste of rivers and people’s lives – at a time when we could be collaborating on bringing to fruition some fantastic, innovative solutions. The WCD process showed me that collaboration can work, that agreement on complex issues can be reached – but it takes hard work, trust, a suspension of cynicism, shared goals, and respect for the different skills people bring to the effort. Those that hold the purse strings could openly invite and welcome joint proposals for investments to scale-up non-dam development projects from governments, the private sector, and NGOs. Communities, NGOs, the private sector, academic experts, and people’s movements could join together to develop a clear blueprint for the process and mechanisms for implementing community-based development projects on a massive scale. Such initiatives are happening, but they seem to remain small and marginalized.

Despite the frustrations or disappointments, I remain excited and optimistic that the WCD report and the follow-on processes it has spawned can provide a means to the ends of peace, justice, and sustainable human development. This can happen only if together we can recapture the spirit of compassion, collaboration, and cooperation that the WCD helped create for a certain moment in time. I encourage all of us to recognize that “we all live downstream” – that our collective health and livelihoods are inextricably intertwined – and I invite all of us to redouble our efforts to work together on mutually beneficial solutions. ■

WCD Guidelines: Burden or Opportunity?

A View from Uganda

by F.C Oweyegha-Afunaduula & Isaac Afunaduula

Consensus building is not easy. When the World Commission on Dams (WCD) was charged to conduct a rigorous, independent review of the development effectiveness of large dams, assess alternatives and propose practical guidelines for future decision-making, it was wishful thinking to suggest that it would be easy. The issues associated with large dams were (and are) highly controversial. There was to be dialogue, first between the 12 Commissioners – but they came from diverse backgrounds and interests and, therefore, deep-seated differences were inevitable.

Surprisingly, however, the WCD emerged as a coherent whole, which was able to initiate international discussions on the development benefits and costs of large dams. Dialogue was protracted but consensus emerged and culminated in the publication of the WCD Report “Dams and Development: A New Framework for Decision-Making.”

The challenge from then on was what to do next, just as a vigorous debate was emerging on whether or not the guidelines in the WCD report were pro- or anti- development. It was, however, clear that there should be a global effort to build dialogue on what to do to make the WCD guidelines a reality.

The WCD was a path-breaking effort that took decision-making on water and energy resources development in to a new level. The report is based on widely accepted core values of equity, efficiency, participatory decision-making, sustainability and accountability, and offers a new way out of difficult conflicts. If implemented in differing country contexts, it has the potential to ensure that society's needs for water and energy are met while advancing social equity and sustainable use of environmental resources. To a very great extent, the report is a blueprint for an ethical and moral program for humankind in the arenas of dams, development and environment.

Therefore, the results of the WCD cannot be ignored. However, objections were im-

mediately expressed from “orthodox circles” in the dams and development arena. The following objections stood out prominently:

- The assessment of development effectiveness did not adequately consider the benefits of building dams and the need for new dams;
- The recommended “Guidelines” for good practice go beyond suggestions to indicate specific policies;
- Involving stakeholders from the beginning to the end of the dam planning and decision-making processes are not the best use of resources and threaten the sovereignty of elected decision-makers, and
- Fully assessing alternative options to dams is unrealistic.

This divergence laid the groundwork for a vicious “pro- and anti-development” debate on the WCD report as soon as it was launched. The debate rages on and consensus building on the guidelines remains in the primordial stage.

It is evident that the WCD report was a watershed in global environmental, water and energy development, and that it should act as the basis for dialogue on the complex issues thereof. It is already contributing enormously to the debates on water and energy development and the role of large dams in meeting urgent development needs, and social and environmental crusaders are using it for their struggles. The guidelines offer an opportunity to rethink development, innovate an environmental vision of development and build greater dialogue to these ends, and, therefore, should be at the center of every debate on water and energy use and management. Indeed, with the emergence of the pro- and anti-development perceptions of the WCD, there is great value in ensuring that its guidelines influence future discourse of the debates on energy and water governance in relation to large dams.

The Development Debate

Many among civil society received the WCD report as a watershed in global governance. In Uganda, the National Association of Professional Environmentalists (NAPE) and Save Bujagali Crusade (SBC) were the principal civil society entities at the time to take an active role in the issues it raised. To those of

us working on the dams issue in Uganda, the advent of the WCD guidelines provided an opportunity to tell the whole world why development was failing in Uganda and why it was bound to continue failing; the creeping politico-corporate effort to hinge all development on the construction of large dams on the Nile. The WCD gave this movement added evidence that future economic prosperity and sustainable water management for Uganda do not lie in huge dams; that the country will do best preserving and protecting its particular sites of aesthetic, cultural, ecological, spiritual and environmental value such as Bujagali Falls; and that the way forward is the wise use of river-based environmental goods and services, not their extinction by huge dams construction.

Unfortunately up to now the political establishment in Uganda does not regard this as wise counsel. In fact, they too often dismiss environmentalists who float this counsel as “opportunists,” “pseudo-environmentalists” and “confused” and non-patriotic people, denying Uganda development.

The time has indeed come to seriously think about or reflect on whether WCD is a burden or opportunity in crisis as far as bringing about true development and progress for humanity is concerned.

The WCD report was launched in a world accustomed to believing in large dams as the icons of development. The reasoning was simple: no large dams = then no development = no eradication of poverty. The New Partnership for African Development (NEPAD), the Nile Basin Initiative (NBI) and the Forum for Energy Ministers of Africa (FEMA) are not only hinged on this reasoning but also are its main purveyors in development dynamics.

African governments in general and in the Nile Basin in particular have put their whole weight behind the institutionalization of energy development via large dams. Virtually all of the governments, by extension, are fiercely anti-WCD guidelines, which they perceive as a burden rather than an opportunity to rethink the energy sector. They are not bothered that the dam industry's story is more of development failures, not success.

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WORLD COMMISSION ON DAMS
WCD+5 YEARS
A FRAMEWORK FOR DECISION MAKING

It is a basic principal of social justice that development projects should not come at the expense of the poor and that the people directly affected by a project should benefit from it. Unfortunately, no single large dam project has caused affected people to be better off after construction. Instead, in virtually every large dam case, affected people have lost their livelihoods, their cultural identity, their natural spirituality, their sustainable ecology and their human dignity, let alone their hope for the future. Therefore, for the affected people, large dams have been a burden, not an opportunity. The WCD report confirms that the affected communities have repeatedly been traumatized, abused and dehumanized through involuntary evictions, and often ended in misery and marginalization from the development process.

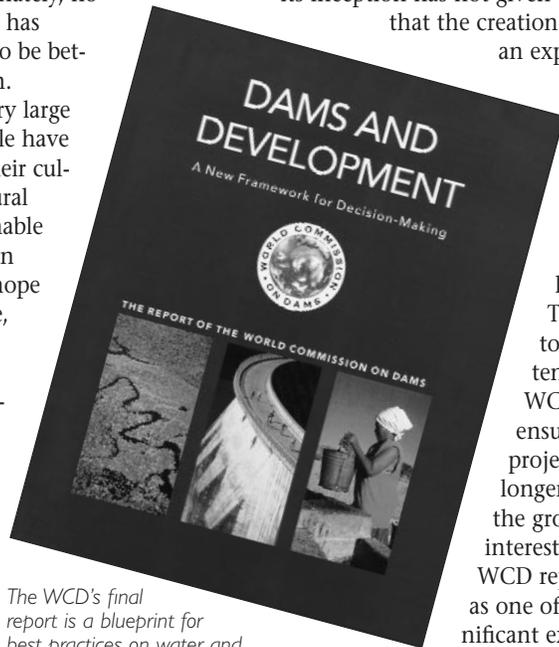
The WCD estimates that large dams have displaced 40-80 million people and impoverished millions more in downstream areas, who are often not even officially recognized as being project-affected. Enforced sacrifice of livelihoods for large dams that benefit limited interests is violent development against humanity. An opportunity now exists for governments and humanity to rethink development via dams in order to re-humanize the victims of development and prevent ethnocide and biocide, but alas more and more conspiracies are being hatched to ensure that the status quo remains.

New Opportunities

The truth is that the WCD should have spurred us to go beyond outmoded, often simplistic notions of what development really is. However, it continues to be sidelined. In the end development is appropriate if it serves individuals, communities and societies in a healthy, safe, clean environment on a sustainable basis. That is why the WCD recommended that development must rest on the three legs of economic efficiency, social equity and environmental sustainability. An opportunity now exists for us to ensure that there is convergence between the three. In other words we can no longer postpone governance based on openness,

true participation, and accountability if we want true, lasting development.

Fortunately most organized society which participated in the WCD process right from its inception has not given up the belief that the creation of WCD was an expression of the



The WCD's final report is a blueprint for best practices on water and energy projects.

unresolved social, environmental and economic problems of large dams.

They continue to use the existence of the WCD report to ensure that such projects are no longer justified on the grounds of self-interest. Besides, the WCD report emerged as one of the most significant expressions of global compromise, the first independent and

comprehensive review of the impacts of large dams and the richest knowledge base on large dams.

Some governments welcomed the WCD, and some development banks expressed support for it. Even some dam-building companies and some prominent members of ICOLD support it. This diverse perception of the WCD report is already turning its guidelines into soft international law. This is an opportunity, which will not exclude the interpretation of the guideline within the different national contexts. But then, the attitude of the World Bank is an antithesis, which will push many to violate such soft law or ignore the WCD report altogether.

The World Bank helped initiate the WCD process and applauded it as a model of multistakeholder dialogues. However, when the WCD report was published, the World Bank decided to side with the dam building agencies of its borrowing countries. This was in contrast with the immediate reaction of World Bank President James Wolfensohn to the report: "Dams offer huge benefits but sometimes at a large cost. This report will help guide our work in the future." In fact since the launch of the WCD report the World Bank has made many vague and noncommittal declarations in public, but has used every opportunity to

discredit the report and block its implementation behind the scenes.

The behavior of the World Bank has given many NGOs, governments and international organizations, which see WCD guidelines as "an opportunity in crisis to achieve multi-stakeholder resolution of the conflict over large dams," the opportunity to clearly perceive the Bank as the main roadblock to such possibility. The Bank is the main agent in the continuing recourse to large dams and continuing suppression of a strong commitment to alternative energy resources such as solar, geothermal and small hydro.

Despite the negative attitude of some governments and the World Bank toward the WCD report, progress has been made toward dialogue on large dams. The successor of the WCD, called the Dams and Development Project, has done well to sustain discussion about the WCD guidelines, particularly with a view to forging viable dialogue on these guidelines so that, ultimately, they may get a proper place in environment and development practice.

To this end, NAPE helped launch the WCD report in Uganda with a public meeting, which also initiated a process of dialogue on dams and development. The October 2004 launch of this dialogue drew government, World Bank, IUCN, dam industry representatives, dam-affected communities, academics and media. We look forward to taking the process to the next step.

The WCD guidelines are an opportunity to rethink development as generally pursued, drop simplistic notions of development, and forge an environmental vision of development that values humanity and the power of alternatives in the energy sector. There is no alternative to dialogue – especially now when it has become more evident that large dams provide neither energy security nor environmental security. Dialogue on the WCD guidelines should be integrated in all actions in the dams and development arena in general and at every local, national, regional and global action in water and energy development. Without this strategy, we should expect development in the reverse (or "de-development") to continue predominating wherever the official and corporate choice is large dams. ■

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Making Smart Choices for Going Beyond the ADB's Hydro-Heavy Plan

Energy forecasting is a bit like crystal-ball gazing. It involves making educated guesses on a variety of often hard-to-forecast trends, including how much electricity will be needed for domestic and industrial uses in the future, how fast the economy will grow, and how efficiently it will use electricity, among other factors.

As John Perkins reveals in his runaway best-seller *Confessions of an Economic Hit Man*, energy forecasters working in the global South often rely on guesswork and a bit of fudging. Perkins talks about how, when he was working for a large US consulting company on a power development plan for Indonesia in the 1960s, he was "encouraged" by his boss to come up with highly optimistic economic growth figures for Indonesia. These high economic growth figures would justify high growth in power demand, which would in turn justify billions of dollars in loans and investments for US and other western corporations. And that's exactly what happened, contributing to Indonesia's current indebtedness.

The same thing appears to have been going on in the Mekong region. Since the early 1990s, the Asian Development Bank (ADB) has set its sights on encouraging an interconnected power grid in the Mekong region, fueled by hydropower. The ADB's first Subregional Energy Sector Study for the Greater Mekong Subregion was carried out by the engineering firm Norconsult International in 1994. Norconsult is one of Norway's largest hydropower consulting companies, and has been involved in dam projects in Vietnam, Burma and Laos. The terms of reference for the study required Norconsult to forecast energy requirements to the year 2020, assess the feasibility of a grid system for "integrating the supply and demand for hydroelectricity in the subregion," and review conditions needed to encourage private-sector investment in hydropower. The consultants were tasked with developing "criteria for selecting among hydropower, gas and oil thermal power generation investments," but no mention was made of investigating the potential for renewable energy and energy efficiency measures.

The conclusions of the study reflected the ADB's biased terms of references and Norconsult's hydropower bias. The study recommended a series of hydropower and transmission interconnection projects to form a

The Asian Development Bank has spent millions of dollars over the past 12 years on studies investigating energy options in the Greater Mekong Subregion (which includes Cambodia, China's Yunnan Province, Laos, Burma, Thailand and Vietnam). All of these studies were heavily biased toward promoting a regional grid fueled by hydropower, and none have included a comprehensive options assessment in line with World Commission on Dams recommendations. IRN's Aviva Imhof looks at the mountains of paper from past ADB studies and examines what a true options assessment might look like.

regional power grid. Although Norconsult admitted that "environmental information is lacking" for most of the 54 hydropower projects considered (many of which were large dams on the mainstream of the Mekong), it concluded that "Hydropower projects demonstrate enhanced sustainability as they use a renewable resource to generate energy. Inter-generational equity considerations with regard to resource allocation are clearly met by [hydropower]. There are no regional or global pollution effects."

The study failed to assess the feasibility for decentralized renewable energy systems in the region, and, though a significant part of the demand for energy in the region comes from Thailand, did not consider expanding energy efficiency and conservation in Thailand as an alternative to new capacity additions. (Thailand's use of energy is very inefficient: in 2003, the nation used almost three times more energy per dollar of gross domestic product than Japan, and about 40% more than the US, according to the US Department of Energy.)

Fast forward to 2002. In the eight years since the ADB study was completed, the 1997 Asian financial crisis had changed the picture dramatically. After the crash of 1997, Thailand suffered a huge glut of power for several years (thanks to over-optimistic demand projections and a slowed economy) and hydropower development in the region, with the exception of China's mainstream Mekong dams, practically stalled. The regional power grid was still a distant dream. The World Commission on Dams had come out with its landmark study recommending a new way of planning for future energy needs, and the ADB had committed to "re-examin[ing] its own procedures, including our environment and social development policies, and determine the extent to which the [WCD's] recommendations may necessitate changes in these procedures."

But instead of conducting a thorough options assessment process for the region in line with WCD recommendations, the ADB proceeded with its plans for a regional power grid, and commissioned Norconsult to work on a Master Plan for power interconnection in the region.

The second Norconsult study was along the lines of its first report. It recommended a US\$43 billion generation and transmission system in the Mekong region fueled exclusively by hydropower. Twelve dams in Burma, China and Laos (including the controversial Nam Theun 2 Dam) were proposed to generate power for consumers in Thailand and Vietnam).

This was followed up by yet another study by yet another consulting company, again funded by the ADB. This time the contract went to a team of two Spanish consulting companies. This study, released in November 2004, took Norconsult's recommendations on the regional power grid and came up with an operational and regulatory framework for expanding power trade in the region.

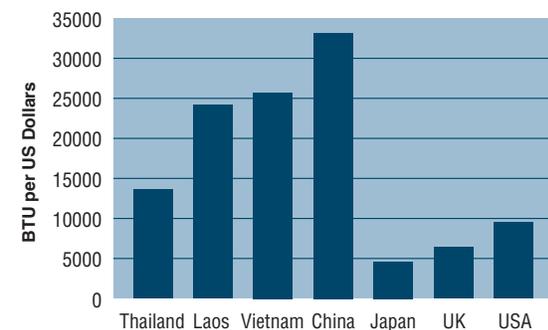
Both of these studies failed to analyze the potential for decentralized, renewable energy sources, and demand-side

THE MONEY GOES ROUND AND ROUND...

Just how much does an ADB consultant earn for working on energy issues for some of the world's poorest countries? IRN looked at the cost estimates for consultants for a GMS Power Interconnection Technical Assistance project. Total remuneration, including per diem, for international consultants works out to be a whopping \$22,500 per month. That comes to around \$1,000 per day. Unfortunately, domestic consultants didn't fare as well. They get only \$4900 per month, or \$222 per day. How's that for a pay gap between rich and poor!

the Mekong

ans by Aviva Imhoff



Energy use in the Mekong region is very inefficient. This chart shows how many units of energy were required for every dollar of gross domestic product in 2003.

(Data: US Energy Information Administration)

management and energy efficiency measures to meet the region's energy needs. They were conducted in secret with no form of public input, and the reports were publicly released only after several months of lobbying from NGOs. The studies did not offer a comprehensive assessment of all options, and failed the tests of independence, openness and transparency. It was as though the WCD did not exist.

The proposed grid may also be a risky and expensive way to meet local needs. According to Dr. Brett Garrett, a Canadian power grid expert who reviewed the two studies, "the most serious concern ... is the wisdom of committing to an expensive, long-term electricity trade arrangement without certainty about the economic benefits."

It will be local consumers – through electricity tariffs, and public-money loans from the ADB and other financial institutions – who will pay for the costs of constructing the massive transmission grid. Yet due to the way in which the market will function during the power grid's development, any savings will likely accrue to the largely private sector consortiums that will build the hydropower plants. And like many ill-conceived plans before it, investment in the massive electricity grid will justify the construction of numerous hydropower plants in the region, likely without benefit of a comprehensive options assessment to determine what the best energy path might be.

Another problem is the uncertainty of the real construction costs of the hydropower projects proposed to fuel the grid. The second report confesses that "there is not enough base information to estimate costs

for developing hydro plants, gas fields or coal mines." According to Dr. Garrett, "without completed hydrological, geological/geotechnical and environmental studies, little confidence can be placed in the assumed production costs from these future plants," calling into question the economic viability of the entire plan.

Despite all these concerns, the plan for proceeding with the Mekong Power Grid contains no provisions for public hearings or transparent oversight until the final stages of the grid's development.

A Better Way

The Mekong Power Grid is slowly moving forward, but it's not too late to radically change the way that energy planning is conducted in the Mekong region. The ADB has recently announced that it will be financing a new study, a "Comprehensive Energy Sector Strategy Study" for the region. If this were to be conducted in line with WCD recommendations, what would it look like?

The first step would be to take a critical look at demand projections for Thailand and Vietnam, the two major energy consumers in the region. The demand projections would be discussed in an open forum with opportunity for public comment and input.

Overestimation of power demand growth is a common problem with energy planning all over the world. Last year, Thailand's National Economic and Social Advisory Council, a government advisory body, examined demand projections by Thailand's electricity utility, EGAT, over the past 10 years. They found that in the utility's past 11 forecasts, 10 have overestimated demand, sometimes by as much as 40%. The Council prepared an Alternative Power Development Plan for Thailand in 2004. In it they show how several erroneous assumptions made by EGAT in its 2004 Power Development Plan have resulted in an overestimation of power demand growth by 6,000 MW for the coming 13 years. Yet successive ADB studies have taken EGAT's figures at face value and failed to undertake any separate analysis of demand projections.

After coming up with a realistic demand growth scenario for the region, the next step would be to look at all available options for meeting the region's energy needs. This would include analysis of where decentralized renewable energy options would be more practical and economic for meeting local needs than a major investment in expanding the grid. Since the power grid has not been fully developed in Vietnam, Laos, Burma and Cambodia, there is huge unexploited potential for decentralized energy in these countries, and Thailand has huge potential for demand side management and efficiency measures in addition to renew-

able energy. As is increasingly the norm in other parts of the world, increasing efficiency should be investigated before looking at new supply options.

Again, Thailand's Alternative Power Development Plan is instructive here. This plan shows that much of Thailand's new supply can be met with lower cost, lower impact and lower-risk resources, avoiding the need for imported hydropower or investment in an expensive regional power grid. These include demand-side management and efficiency measures, renewable energy (biomass, solar, wind, small hydropower under 10 MW), cogeneration (combined production of heat and electricity) and optimizing the efficiency of existing plants (repowering). Existing studies show the potential for these options in Thailand to be 25,500 MW. A similar analysis should be carried out for Vietnam.

A final stage in the options assessment process would be to weigh up the different options, taking into account social, environmental and economic factors. Strategic impact assessments would be conducted for the different options. Potential options would be screened and ranked on the basis of a multi-criteria analysis taking into consideration social, economic and environmental impacts. Those alternatives that have unacceptable social and environmental impacts would be screened out at this stage. The WCD recommends that such a multi-criteria analysis should be discussed in a stakeholder forum comprised of representatives from different interest groups.

The result of the multi-criteria analysis would be made available in local languages in the region, and another stakeholder forum or forums convened to decide which options should proceed to the full investigation stage. Public hearings would be organized to provide input into the multi-stakeholder forum/s.

The ADB has an opportunity now to make a real difference in planning for the Mekong region's energy needs: choices made today will influence future energy prices (thereby affecting overall development in the region) plus the health of the Mekong river ecosystem and its 65 million inhabitants. Whether it has the courage and foresight to do so remains to be seen. ■

What is IRN Doing?

IRN is working to push the Asian Development Bank to undertake a comprehensive energy options assessment for the Mekong region in line with World Commission on Dams recommendations.

Taking the WCD Forward in Sweden

by Johanna Wernqvist

Since 1987, Sweden has had a moratorium against building more large dams. However, Swedish engineering companies and consultants are frequently awarded contracts for dam building in the developing world, and the national aid agency – the Swedish International Development Cooperation Agency, or SIDA – and the national export credit agency still provide financing for dam projects abroad. Therefore, the WCD report is no less important in Sweden than in any other country.

To ensure that Sweden does not engage in poorly planned or destructive large-dam projects, the Swedish Committee for Water and Dam Issues was launched in 2004 to create a national level follow-up to discuss the recommendations of the World Commission on Dams. It is a dialogue between Swedish representatives from industry, government, NGOs, financiers, research bodies and indigenous people (from an organization working with indigenous people around the world and from Sweden's own indigenous people), with the main purpose of developing a common policy on large-scale water infrastructure development. The dialogue centers around the guidelines and strategic priorities described in the WCD report, and aims to put them into a Swedish context and make them concrete enough to be of practical use to Swedish actors.

Sweden played a significant role in the success of the World Commission on Dams initiative, providing important financial support (it was the WCD's third largest donor) and various Swedish stakeholders monitored and participated in the proceedings. After the launch of the WCD report, however, only four of the Swedish stakeholders declared their support for the WCD recommendations – SIDA, construction company Skanska and two NGOs, the Swedish Society for Nature Conservation and WWF-Sweden. The remaining interested parties – the rest of the dam-building industry, the national export credit agency (EKN), national ministries, etc. – either took a “non-position” or held contradictory views to the four stakeholders that welcomed the report.

The lack of a common approach and clear standpoints from all interests complicates coherence between individual actors and between different political areas. The dialogue aspires toward a policy of collaboration and coherence that the Swedish Government can advocate in its collected global development.

The initiative to have a national process on the WCD came from the Swedish Society for Nature Conservation and WWF, which held a national seminar on the WCD report in March 2004. Many participants expressed interest in a continued dialogue, and the environment minister appointed the Swedish Water House (SWH) – a national research, information-sharing and networking organization on water issues – to provide a neutral platform for that dialogue.

I was asked to facilitate the dialogue on behalf of SWH. Since the same kind of process had already been going on for three years in South Africa, I took the opportunity to participate in the final meeting of the first phase of that initiative, in October 2004 (see *WRR*, Dec. 2004, for an article on this initiative). I got excellent counsel from Liane Greeff, who works in the water justice program of the Cape Town based Environmental Monitoring Group, and has been a prominent participant in the South African initiative. She emphasized that a good result is dependant on committed participants and a fair process. My first effort back in Sweden, then, was to meet all invited participants to get a clear picture of their common and different expectations on the dialogue.

The process has brought together important Swedish stakeholders with different angles on water resources, and is resulting in a free and open discussion on outlooks and approaches to the WCD report. We agreed that the main purpose is to help ensure that Swedish actors only participate in ecologically, economically and socially sustainable dams and other water infrastructure projects. For this to happen we needed to develop a common attitude to the WCD's recommendations and strategic priorities, and then create clear, concrete recommendations.

Building Consensus

The Swedish Water House identified 15 different stakeholders representing industry, government, academia and NGOs. It was agreed that discussions must be conducted in an open and friendly atmosphere and that differing opinions could eventually lead to consensus, the over-arching goal of the dialogue. Should we end up with different opinions on the validity of the WCD recommendations and how to incorporate them into Swedish policy, nothing would be gained from this process and we would be back at “square one.”

The collaboration in the group has worked very well. Consensus has often been easier to reach than we first expected. The people who have participated have done so with their organization's consent, but above all everybody takes responsibility as individuals for those values, attitudes and opinions that are mirrored by the recommendations.

The outcome of the dialogue is a set of 25 recommendations clustered around the seven strategic priorities in the WCD report. The aim of these recommendations is to avoid the controversy and opposing opinions on whether a project follows the WCD guidelines or not. It is our hope that the recommendations will form an important work of reference for industry and financial institutions in upgrading their sustainability policies as well as provide ideas on how to improve the legal systems guiding Sweden's development aid in this crucial sector.

The WCD has already done very solid studies of individual cases, the general issues with dams, country strategies, and different stakeholder opinions. The Swedish effort did not intend to repeat the WCD's enormous effort; rather, its goal is making the already existing recommendations more clear and useable for Swedish actors.

A few of the Committee's main goals include ensuring that national and regional strategic impact assessments have been carried out and have approved the project in question as an appropriate solution to an experienced need, and that follow-up processes on projects' environmental and social impacts are in place before construction begins. The group's recommendations are not in and of themselves a means of bringing pressure to bear for democratic development, but we acknowledged that large projects bring large changes and therefore demand democratic participation from all affected partners in the decision process.

After processing the document by an editorial committee elected by the stakeholders, the group's final report was formerly accepted by all participants of the dialogue in September 2005 and signed by all. We are now in the parallel processes of translating the documents to English and publishing it. The finalized document will be presented to the environment minister in December 2005. ■

*The author is with the Swedish Water House. For more information:
<http://www.swedishwaterhouse.se/>*

The WCD in Nigeria

“A Peace Table Over Boiling Waters”

Hope Ogbeide is the director of Society for Water and Public Health Protection (SWAPHEP), an NGO that works with communities in Nigeria on water issues. Working for “water for people and nature,” the group aims to improve access to basic sanitation and safe water, and reduce poverty. SWAPHEP is also working to raise awareness of the impacts of dams in Nigeria, and to launch a national dialogue on the WCD.

WRR: What are some of the problems with large dams in Nigeria?

Hope: Nigeria has about 200 large dams, and they have caused a number of problems. One is the frequent failure of dams in Nigeria. Large dams that have failed include Bagauda Dam in Kano State, which failed in 1988; Bagoma Dam in Kaduna State, which failed in 1994; and Cham Dam in Gombe State, which failed in 1991. These dam failures have killed hundreds of people, and destroyed property and livelihoods. We don't have enough data to quantify the damages. In August 2001, the Tiga and Chalawa dams burst in Kano state, killing more than 400 people, and flooded more than 250 communities. As with nearly all Nigerian dams, there was no emergency action plan, no way to warn downstream villages of the impending flood. And 25 years after the Ojirami Dam burst, some of those who lost homes to it are still homeless.

The other problem with dams in Nigeria is that the process of choosing how to provide water and power is completely in the hands of the government, and is not subject to interaction with the people. The government makes these choices with no consultation, and often no assessment to see if a dam is what people want to meet their needs. In fact, they may prefer a smaller scale solution with fewer impacts, such as rainwater harvesting programs. It will take government research to find lower-tech methods on how to provide clean water to Nigerians.

The involuntary risks being borne by communities in proposed dam areas are not being considered – basically, the only risks being analyzed in these decisions is the financial risk to the government and the financiers of the dams, and little else. And in too many cases, there is no environmental assessment of dam projects, and even when there is one, it is not available to the public.

We are very concerned that the lessons learned from our past experience with dams are not being learned. Currently, at least 15

dams are under construction, and there are many more in the pipeline – some sources say hundreds more could be built in coming years.

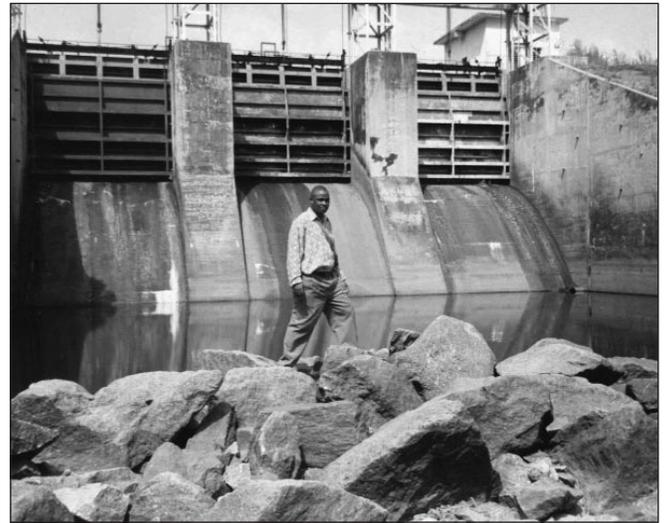
WRR: Talk about SWAPHEP's involvement with the WCD.

Hope: When we first read the WCD report, we found that all of the major issues we are trying to do were covered by the core values: addressing existing dams, promoting peace, assessing needs and best options for meeting them, etc. It is a very important document that can be used as the basis for dialogue and resolving conflicts and policy problems in Nigeria. It can help us choose the best options for water and energy supply.

To take it forward, SWAPHEP organized a civil society dialogue on the WCD report. We brought together civil society groups, labor unions, dam-affected people, government, youth, women's groups and persons with disabilities. We considered the report's core values and strategic frameworks, and participants adopted them, and called for a national dialogue on the report's recommendations. We are however having trouble getting government to agree to participate.

WRR: What are next steps for your organization's WCD work?

Hope: We have noticed a huge lack of knowledge about the WCD in Nigeria, so we're trying to identify dam-affected communities in Nigeria and spread the word about the report. There will be a research component to this work, since there is so little information on the upstream and downstream impacts of dams on communities. We also want to train civil society groups on how they can use the WCD principles to engage dam financiers, the government and other stakeholders. They need to know what questions to ask, what steps to take to protect their rights and interests.



Ojirami Dam in Nigeria.

WRR: Why is public participation so important in planning water projects?

Hope: People in Nigeria and many other parts of Africa are attached to rivers in cultural ways, in spiritual ways, and building dams on them disrupts that connection. Of course, we also get livelihoods from our healthy rivers. Just saying “we need a dam here” ignores local wisdom, local customs, and local needs. Participation is integral to any development project, especially regarding the choice of what type of project is best suited to meet the need. Before any project is carried out, there should be a needs assessment to find out what people want and why. One community might particularly want toilets as their first priority, while another might want improved water supply. What is the best method or technology for meeting that need? Also, people need to have input to ensure that local wisdom is brought to the table. Just because people are not educated in Western ways does not mean they're ignorant – there are huge reserves of knowledge to tap into. Having local input helps ensure a project is a success.

WRR: Why focus on water?

Hope: Water is life – besides air, it is the most important element in the world. There is so little water available for drinking and other basic needs that everything has to be done to protect it. The way we manage water will determine how peaceful the Earth is, and how sustainable our development will be. The future health of the world depends on water; we cannot overlook it.

For more information on SWAPHEP, see <http://swaphep.virtualactivism.net> or contact them at swaphep@yahoo.com



UPDATES

BRAZIL: A Franciscan brother in Brazil's northeastern state of Bahia went on an 11-day hunger strike in late September to force President Luis Inácio Lula da Silva's government to abandon plans for the controversial \$2 billion São Francisco River diversion project. Bishop Luis Flávio Cappio, 59, who in 1992 traveled 1,800 miles by boat from the São Francisco's source to the Atlantic, says a more urgent priority should be the environmental restoration of the river system and the dissemination of small-scale systems that permit co-existence with the semi-arid conditions of the region, including rainwater harvesting, water conservation and wells. The friar's hunger strike has galvanized opposition to the project from various sectors, including the powerful Catholic Church.

The Brazilian government plan, which was expected to be given a final go-ahead in October, would divert water through a series of canals and aqueducts to drought-plagued states. Opponents of the project say it will principally benefit agribusiness rather than poor farmers. The São Francisco has already been badly harmed by the combination of severe deforestation and large dams, which have caused the river to dry up, and pollution from raw sewage from 200 towns and cities.

After meeting with a high government official on October 6, Cappio suspended his hunger strike, saying that the government had agreed to open a broad discussion regarding the project and to postpone the beginning of construction. The Lula government later denied having agreed to postpone the project. News reports also stated that the Vatican had urged the bishop to end the hunger strike. The government said it would discuss modifications to help poor rural families. Cappio says he hopes the public discussion will be the death-knell for the project. "My gesture alone would be incomplete. What gives it weight is the movement of society and the discussion that comes now," Cappio told the Associated Press.

CHINA: Unsafe dams in the world's most-dammed nation threaten 146 million people living downstream of them, the Central News Agency of Taiwan reports. According

to official reports, approximately 30,000 dams (out of 84,000 in China) have safety concerns, threatening more than 400 cities. A June 27 *Beijing China News Weekly* report quoted Water Resource Department data, saying that 3,484 dams collapsed between 1954 and 2003, with an average of 71 dam collapses per year. A lack of funding for repair and maintenance of China's dams is the main problem. Jiangxi province, for example, has 9,268 dams, of which, 3,488 are in "critical" condition.

A few months after the dam-safety report hit the news, the Chinese government finally declassified the official death tolls from China's worst dam disaster, the 1975 collapse of Banqiao Dam. The government figures show more than 26,000 people killed in the disaster, and more than 10 million people affected. Unofficial numbers put the death toll as high as 230,000, with 85,000 killed in the flood wave and the rest from resulting epidemics and famine.

MEXICO: Tomás Cruz Zamora, a leader of the opposition to the La Parota Dam project near Acapulco, was murdered in September as he returned from an organizing meeting. This was the first time that violence has affected communities opposing the dam. An August 14 public hearing on the dam erupted in violence when 400 police attempted to block the entry of community organizations that oppose the \$1 billion dam project. Ten people were hospitalized. La Parota would have an installed capacity of 765 MW, and would displace 25,000 subsistence farmers. Its reservoir would be 170 million cubic meters – 11 times the size of the Bay of Acapulco. Critics predict that surplus energy generated by the dam will be sold to utilities in the southwestern US.

DAMS AND DISEASE

CHINA: Polluted mud could become a seasonal danger for communities near the Three Gorges Dam reservoir, a Chinese newspaper has revealed. *The Hong Kong Standard* reported in September that unless effective measures are taken, the flood-recession zone of the reservoir may become an environmental danger for five months every year when high water levels recede,

leaving behind a toxic mud polluted with industrial chemicals, sewage, rotting vegetation and other contaminants. Many of those affected are being resettled from lands flooded by the dam to areas in the toxic "recession zone."

As the project approaches completion in mid-2009, the reservoir will begin having annual fluctuations from its summer height of 145 meters above sea level to its winter height of 175 meters. Every year in May, the reservoir's water will be lowered by 30 meters to avoid rainy season flooding. As the reservoir is lowered, land will re-emerge covered with the muck accumulated from seven months under water. In tributaries upstream of the reservoir, areas of sludge and stagnant pools will be left behind by the receding tide. These water sources will become breeding grounds for flies, mosquitoes, bacteria and parasites. Vegetation will grow each summer, then die and rot as it is submerged. The toxic waters will feed into the reservoir.

At Chongqing University's Department of Sustainable Development, Professor Lei Hengshun predicts this yearly swing will alternately flood and expose more than 300 square kilometers of land around the periphery of the 660 kilometer-long reservoir and its tributaries.

The Hong Kong Standard reports, "Central China's huge, crowded population makes not only for a heavily polluted river system, but also a potential crucible for pandemics. Many of the 1.5 million people relocating for the reservoir are now building homes beside the high water line. In the case of Kai county, a pestilent swamp could soon appear right next to a city of 200,000 people. Birds and other animals will move in and out of the swamp, and disease-causing agents with them." With so many people, says Lei, it will be impossible to stop humans entering the area. "Once an emergency breaks out," Lei warns, "the consequences will be unthinkable." Lei's warnings on the problem have been unheeded for a decade, but in 2002 a panel of experts was appointed to look into ways of dealing with the recession zone.

DECOMMISSIONING

OHIO: For the first time in more than 160 years, part of Ohio's Cuyahoga River (whose polluted waters famously caught fire in 1969) will become a free-flowing stream, opening 10 miles of the river to kayakers and canoeists who have had to portage around the dams. Returning the river to its natural, free-flowing state will heighten oxy-

gen levels and improve habitat for fish and other species, allowing fish to move in a wider area.

"This is a huge change," said paddler Ron Mlynar, 57, of Munroe Falls. "It's turned the Cuyahoga into a river, when before it was a long lake." The Ohio Environmental Protection Agency proposed five years ago that the dams in Kent and Munroe Falls be removed or altered to meet federal Clean Water Act requirements. If the dams were not modified, local governments would have faced million-dollar upgrades to their sewage treatment plants that empty into the Cuyahoga River. Other dams on the river are now under consideration for removal.

PENNSYLVANIA: Wilson College received state approval to breach Wolf Lake Dam on its campus in the southern part of the state. The dam removal will return Conococheague Creek to its natural state – with cool, fast-flowing water that trout love. The 8-foot-tall dam, built for recreation in 1899, poses liability and flooding risks. The lake upstream had few visitors and all but disappeared after the college opened a gate at the dam in 2004. "Today Wilson's dam is weak and dangerous, and rather than presenting recreational opportunities, poses a serious hazard," said Lorna Edmundson, Wilson College president. "The new wetlands and stream banks will be an added recreational attraction."

The area will be included in the college's environmental science program, according to Edmundson. Students can study and assist with the return of natural vegetation. Scott Carney, chief of fish passage with the Pennsylvania Fish and Boat Commission, said a variety of grants are available for the removal of the dam and restoration of land along the stream.

The breach will be the second on the Conococheague this year. Siloam Dam, two miles upstream, was taken down in June. Since 1994, the state has assisted with the removal of 80 dams. There are 65 more on the current list of candidates for removal, out of 5,000 dams in the state. ■

IN PRINT

Foiling the Aluminum Industry: A Toolkit for Communities, Activists, Consumers and Workers (IRN, 2005, 53 pages, free in PDF form at www.irn.org). This new report details the impacts of the world's most energy-intensive industry. The report is a response to new industry proposals to build dams and aluminum smelter complexes in some of the planet's most fragile ecosystems, including the Patagonia region in Latin America, the fiords of Iceland, and rainforests in Cameroon and the Amazon. The report describes the processes behind the production of aluminum, and the heavy toll that it has on the environment and communities worldwide.

In addition to being an energy hog, the aluminum industry is also one of the most polluting on the planet. This toolkit provides information on the impacts of the global aluminum industry, as well as a broad set of references to put readers in touch with organizations working on the impacts of the aluminum industry. Issues such as environmental and social impacts, impacts of the industry's energy demand, economic issues, consumer responsibility and strategies for confronting the aluminum industry are discussed, and case studies look at both existing "aluminum dams" and efforts to stop new ones around the world.

The Water Atlas, by Robin Clarke and Jannet King (The New Press, New York, 2004, 126 pages, \$24.95 from www.thenewpress.org).

This visually rich and illuminating book relies primarily on graphs, maps, bar charts and other visuals to tell the story of global water use and abuse. The refreshing approach is supplemented by useful charts that

compile water statistics by country, and well-written essays to introduce key themes. Chapters on the growing demands on water, "uses and abuses" (with graphics depicting statistics on water pollution, industrial and agricultural use and

domestic water use by country), water and health, "reshaping the natural world" (diversions, dams, groundwater mining and flood control), and water conflict tell the story of a resource in trouble.

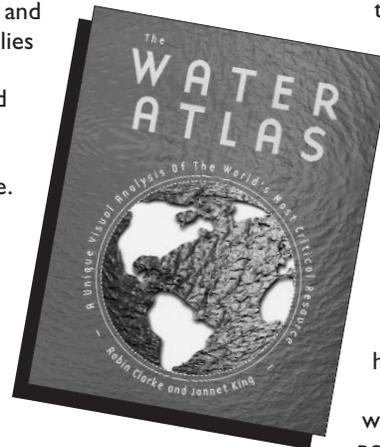
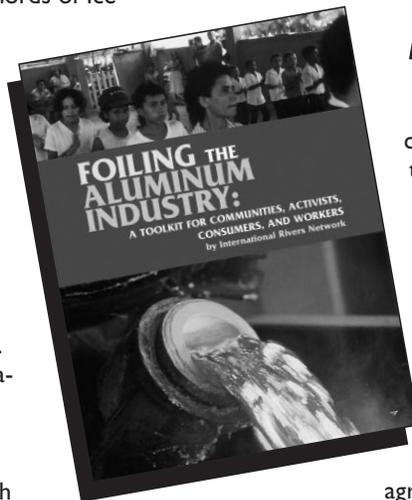
"The conventional literature will tell you that water has become a global issue because of two things: more and more people need it, and each needs more of it as living standards rise," the authors write.

"At best these are half-truths, but half-truths hide multitudes of sins and the world of water has become a mucky business on this planet, in more ways than one." This book succeeds in making the big issues in water less murky, and even a bit hopeful in a chapter devoted to "ways forward."

Thirsty for Justice: A People's Blueprint for California Water

(The Environmental Justice Coalition for Water, June 2005, 134 pages, free in PDF form from <http://www.ejcw.org/blueprint.htm>)

A community activists' guide to water and power issues in the most populous state in the nation. Over 60 community groups and advocacy organizations participated in developing this report, which provides an overview of environmental discrimination in the world of water in California. It describes who controls water in the state, disparities in access to clean water and healthy watersheds in California today, and a plan for changing policies to improve the situation. Despite California's great wealth (in both dollars and available water), inequities exist, and up to four million Californians may be relying on contaminated water at any one time – nearly all of them in rural, economically disadvantaged communities. The report calls for "all water and land-use projects be planned, implemented and managed with participation from impacted community members" and that "the state should require that water be considered an essential component in all land-use decisions and projects," among other policy recommendations. ■



No Lessons Learned? Turkey's Ilisu Dam Rises from the Ashes

by Daniela Setton & Heike Drillich

In 2002, the plan to build the US\$1.5 billion Ilisu dam near the Syrian and Iraq borders was abandoned after numerous financiers pulled out due to international protest. But like many other bad dam projects the world over, the dam didn't really die, and last year the Ilisu project arose from the ashes. It has not improved with age.

Ecologists, human rights' activists and archeologists had urgently warned of the consequences that such a project, built in Kurdish territory, was bound to have. It would aggravate the ongoing tension over water in the region; destroy cultural values and archeological wonders; evict large numbers of people, and destroy healthy ecological systems. As a result of a well-organized international campaign, most banks and companies withdrew from the project.

One company hung on, however: VA-Tech, a supplier of electro-mechanical equipment and a global player in the dam business, never gave up its interest in Ilisu. So last year, with the Turkish economy regaining momentum, a new attempt to build the dam began. This time, VA-Tech Hydro (which has since been taken over by Siemens, and will be sold to another as yet unknown investor in 2006) is the lead contractor. Other companies in the consortium will be Alstom (Switzerland), Zueblin (Germany) and Lider Nuro, Cengiz and Celikler (all from Turkey).

The new consortium remains secretive about the state of project planning as well as the negotiations with the Turkish authorities. However, clearly as a result of the massive protests between 1998 and 2002, it was announced that the project would have new "considerably improved" environmental studies that will follow OECD and World Bank guidelines and standards. Focal points will be the water quality in the reservoir, downstream water flows and the conservation of cultural artifacts. A new resettlement plan is also under preparation.

The situation on site, however, strongly suggests that no lessons have been learned since the project failed last time.

In its 2004 project report, the Turkish government promised improvements regarding the salvage of the ancient town of Hasankeyf. More than 2,500 years old, Hasankeyf was not only one of the oldest Christian congregations in the eastern world, but is home to the remains of 20 different cultures. Situated at the bottom and on top of a steep cliff towering over the

Tigris River, and riddled with secret corridors and caves, Hasankeyf is a "living museum." The Turkish officials' intention to move individual monuments and flood not only the rest of Hasankeyf, but also hundreds of archaeological sites in the area was severely criticized as being totally inadequate for a place so intrinsically interwoven with its surroundings. Nonetheless, the government's new approach simply consists of allocating additional money for the removal of some monuments. The site as a whole, which is not only of outstanding importance for the local population but also as cultural heritage of humankind, would thus be flooded for the sake of a project with a life span of approximately 50 years. In addition, experts say that poor-quality excavations in 2002-04 damaged some of the cultural artifacts. According to latest reports, the new excavations have already been stopped again – due to the lack of money.

The improvements of the environmental studies do not appear very promising either. It has not been possible to get any information on who would conduct the study or what data would be collected. There is sufficient doubt regarding the independence of the consultants. The old environmental impact assessment from 2001 had been in breach of several World Bank and OECD guidelines – e.g., on the publication of information and the assessment of overall impacts and of alternatives to the project. There are indications that this time foreign consultants simply updated parts of the previous insufficient report.

As international experience shows, the consultation with the affected people and their influence on the project design are indispensable for the protection of their rights. Ilisu will affect up to 78,000 people, mostly of Kurdish origin. In the area however, there is no sign of transparency and participation. Not even the mayor of Hasankeyf was invited to a meeting in Ankara dealing with the resettlement of the town. Instead of open-ended consultations, dubious polls were carried out with leading questions such as, "Don't you want to move into a larger house?" During a field trip



This bridge across the Tigris River in the ancient town of Hasankeyf is from 1116 AD. The town and bridge are threatened by the Ilisu Dam project.

Photo: Heike Drillich

carried out by the European NGOs WEED and FERN, villagers stated: "We were ordered to the local police station and were told that we will have to leave our village within seven years. That was all."

And while the human rights situation in Southeast Turkey has improved since the Kurdish Workers' Party (PKK) has ceased its armed fight, it is far from satisfactory. Repression on a more subtle level and arbitrary detentions prevail. So many of the affected people do not dare to voice opinions freely. Nonetheless, the protest in the region is growing, and local people are coming together against the project.

Both the environmental studies and the resettlement plan were supposed to be published in October. Also planned for the end of October, the construction site, which is guarded by the military, will be handed over to the consortium. The haste and secrecy with which the Turkish authorities and the consortium are proceeding suggests that they intend to push the project through by all means and with no regard for environmental concerns, human rights violations and the opinion of the affected communities.

Financing for the Ilisu Dam will be provided by private banks and export credit agencies (ECAs). As far as we have been informed, the consortium intends to apply for export credit guarantees right after the publication of the EIA and the resettlement plan. Although very little concrete information has been publicly available since negotiations reopened, it seems that current documents and plans remain essentially the same as before. The underlying flaws and inadequacies, which led to the project's original

continued opposite

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A Broad Menu

The conference included detailed presentations on a broad menu of efficiency measures, including a mix of technological fixes, incentive programs (such as rebates for more-efficient appliances), programs to encourage behavioral changes, and policy reforms. An important first step for utilities is to ensure that profits are decoupled from sales. Said Ralph Cavanaugh of the US environmental group Natural Resources Defense Council: "Utilities should not have their financial health tied to power sales. You need to create earnings opportunities for demand-side management programs." Grid owners must also be brought in as willing partners, and to ensure they are winners in programs that will send fewer kilowatts through the grid system.

Changing behavior makes use of everything from tariffs to discourage excessive use ("we need to get rid of 'all you can eat rates' and have electricity bills that go up with the size of the house," said Cavanaugh) to time-of-use incentives to educational campaigns. Behavioral change is one of the only ways to get energy savings in a hurry, such as during a crisis or when unusual weather or other factors result in looming blackouts.

"It's critical to teach people how they are using energy," said Peter Smith of New York State's efficiency program. "We're not a freeze-in-the-dark program, but we are showing people how they can save money by using less electricity. Conservation is cheaper than coal, cleaner than renewables. You can get a 10-20% return on your investment with efficiency measures – it's a better investment than Wall Street."

In addition to educating consumers, some programs may require broader educational efforts. For example, efficiency standards for appliances "enforce themselves," but building codes intended to improve energy efficiency require training of building inspectors and contractors, noted Art Rosenfeld.

A number of policy approaches were described that encourage utility-based energy efficiency. The most effective policy change is to make efficiency the resource of "first-

Conservation is cheaper than coal, cleaner than renewables.

choice" (in California and Austin, Texas, for example, utilities must first undertake cost-effective efficiency measures before new supply-side energy investments can be considered). The next-best approach is to include set targets for efficiency savings, either as part of a renewables portfolio standard or under a separate energy efficiency performance standard.

Giving extra credit for peak-load savings is another way to get the most value from these programs, and setting targets for such reductions is recommended. A speaker from Austin, Texas, noted: "Our top 160 megawatts are only used 40 hours each year, so focusing efficiencies in the peak hours saves the most expensive energy." To shave these "peak loads," it can be cost-effective to take steps such as giving lower rates to customers who install remote-controlled thermostats so that their air conditioning can be cycled off during excessively high-use times such as a heat wave, to avoid black-outs throughout the system.

Many speakers from utilities around the nation emphasized the use of independent studies to ensure that conservation programs were cost-effective.

"We're looking for least-cost, least-risk alternatives, and energy efficiency meets both of those goals," said Tom Eckman of the Northwest Power Planning Council. "Efficiency programs are high-value even when market prices are low – about 2.4 cents a kilowatt hour, on average. Utilities need to integrate efficiency into their portfolios, and should undertake efficiency and demand-management measures before energy prices are

high. It's like buying insurance – you don't buy insurance after the house burns down."

Concerns about climate change (and the lack of leadership on it at the federal level) has resulted in some innovative programs that encourage efficiency, a zero-emissions source of energy. One of the biggest such programs in the US is a joint effort of nine states in the northeast (including populous New York), which are developing a regional cap on carbon dioxide emissions from power plants. This Regional Greenhouse Gas Initiative will offer carbon credits, through a public entity, for energy efficiency programs and renewable energy projects. Many western states are also banding together to reduce emissions. Since electricity accounts for 34% of US CO₂ emissions, and two of the nation's four most populous states (along with many smaller states) are involved in carbon-reduction efforts, these programs will have global impacts.

Reminding the participants of the global impacts of an energy-intensive lifestyle was Michael Dworkin, who previously was chairman of the Vermont utility regulatory commission and is now heading up the Institute for Energy and the Environment at the Vermont Law School. "Some 1.5 billion people in the world have no access to electricity, and another 1.5 billion have inadequate access. We have to come up with a better plan for them, and to do that, we need serious funding for research and development," he stated. "The world cannot afford all the power plants it would take to meet that need, so we have to redouble our efforts on energy efficiency. The world hasn't yet had its breakthrough moment on efficiency, so we need to help move it along with carrots, not just sticks." ■

For More Information

ACEEE: www.aceee.org

(Presentations from the conference are posted at: <http://www.aceee.org/conf/05ee/05eeagenda.htm> then click on the underscored presenter names.)

More on the California program: www.energy.ca.gov

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failure, have in no way been addressed. It remains to be seen if this time the ECAs will again demand the adherence to international standards, or if they will be all too willing to accept cosmetic changes to the original project design. The latest initiative of ECAs to grant preferred lending conditions to large dams – claiming they are renewable

energy projects – does not give much reason for hope. The Ilisu campaign in Europe and Turkey will work to ensure that decision makers in the ECAs, governments and the private sector are well informed about the flaws in the EIA and resettlement plan and about the impacts their decisions will have on the ground. ■

The authors are with the German group WEED (World Economy, Ecology and Development), based in Berlin (see <http://www.weed-online.org/>). For more on Ilisu in English: www.ecawatch.org/problems/dams/ecaw_ilisu_pressrel15june05.html www.irn.org/wcd/index.php?id=ilisu.shtml www.ilisu.org.uk