

# The World Commission on Dams and Epupa Dam

by Lori Pottinger

## Summary:

Two years ago, a groundbreaking report laid out guidelines for a new, democratic planning approach for large water and power projects. This report, by the World Commission on Dams (WCD), was intended to reduce the conflicts of the past and produce the best solution for supplying water and energy while minimizing the impacts of such development. The WCD process had many opportunities for public input, and Namibia's Himba people made use of these opportunities to speak out against the Epupa Dam, proposed for the Kunene River on the border with Angola. They believe they have been left out of the official planning process on Epupa, to their detriment, and that this project will harm their culture irreparably. Now, Epupa Dam – on hold for many years – could arise again as Angola comes out of years of war. How should Namibia handle the Epupa process in light of the WCD's new, innovative approach to the planning of large dams?

## Background on the WCD

The South Africa-based WCD, established in 1998 by the World Bank and World Conservation Union/IUCN in consultation with outside stakeholders, was an independent body to review the development effectiveness of large dams and make recommendations for planning water and energy projects. It was formed because of pressure from NGOs to analyze the global record of large dams, and acknowledgement from the dam industry that dams were becoming increasingly difficult to build in face of public opposition. As WCD chair (and former South African water minister) Kader Asmal said at the launch, "Over the last century we collectively bought, on average, one large dam per day, and there have been few, if any, comprehensive, independent analyses as to why dams came about, how dams perform over time, whether we are getting a fair return from our \$2 trillion investment."

The commission's mandate included developing a framework for assessing options, and developing internationally acceptable criteria and guidelines for the planning, designing, construction, operation, monitoring, and decommissioning of dams. Through research, field visits and public outreach, it studied 1,000 dams in varying degrees of detail. The WCD's 12 commissioners came from a wide spectrum of backgrounds – ranging from Göran Lindahl, CEO of engineering giant ABB, to Medha Patkar, leading activist with India's Save the Narmada Movement.

Despite this built-in difference in perspective, the WCD ended up with consensus on its final report. As the Financial Times (Nov. 16, 2000) noted, "For such a controversial subject, it is remarkable that the World Commission on Dams came to any conclusions at all. That it managed to agree on the costs and benefits of dam projects should serve as a model for rational debate on other highly contentious development issues."

## WCD's Findings and Recommendations

The 404-page final report, "Dams and Development", provides ample evidence that the world's 45,000 large dams have failed to produce as much electricity, provide as much water, or prevent as much flood damage as their backers claim. In addition, it confirmed

that these massive projects regularly suffer huge cost-overruns and time delays. The report's findings include the following:

- large dams have forced 40-80 million people from their homes and lands, with impacts including extreme economic hardship, community disintegration, and an increase in mental and physical health problems. Indigenous, tribal, and peasant communities have been particularly hard hit. People living downstream of dams have also suffered from increased disease and the loss of natural resources upon which their livelihoods depended;
- dams' impacts on ecosystems are "mostly negative". Large dams have led to the extinction of many fish and other aquatic species, the disappearance of birds in floodplains, huge losses of forest, wetlands and farmland, erosion of coastal deltas, and many other impacts that cannot be mitigated. And contrary to the industry's summation that dams offer "green" energy, the report concludes that most reservoirs emit greenhouse gases, some in fairly high quantities;
- the benefits of large dams have largely gone to the already well-off while poorer sectors of society have borne the costs.

The WCD recommends a new approach to decision-making based on principles of equity, efficiency, participatory decision-making, sustainability and accountability. The WCD's recommendations go beyond decision-making on dams, and describe ways to best plan for water and energy needs more generally. It recommends that:

- no dam should be built without the prior informed consent of the affected indigenous people; and all stakeholders should have equal opportunities to influence the decision-making process on large dam projects;
- comprehensive and participatory assessments of the needs to be met, and alternatives for meeting these needs should be developed before proceeding with any new project;
- priority should be given to maximizing the efficiency of existing water and energy systems before building any new projects;
- environmental assessment should not be merely a formality;
- periodic participatory reviews should be done for existing dams to assess such issues as dam safety; and
- decommissioning mechanisms should be developed to provide social reparations for those who are suffering the impacts of dams, and to restore damaged ecosystems.

Among the dozens of ongoing and planned dam projects globally which clearly are not in adherence with the WCD guidelines is the proposed Epupa Dam on Namibia's Kunene River. The planning process for the dam began before the WCD guidelines were in place, but the project has been on hold for many years, and there is now an opportunity for Namibia to adopt the guidelines and apply them to dam projects such as Epupa.

## Background on Epupa

The Kunene River is one of just five perennial rivers in Namibia, and is a precious resource for those who live near it. The government of Namibia has, with agreement from the government of Angola, been planning a 200-megawatt dam on the Kunene that would devastate the Himba and the river's ecosystem.

For more than 500 years the Kunene river valley has been the ancestral home of 12,000 semi-nomadic Himba people. The river figures large in their ability to live in the harsh deserts of northern Namibia and southern Angola.

The reservoir will flood 380 square kilometres of land and resources currently used by the Himba to access water for homes, small-scale agriculture and seasonal grazing. It would inundate many of the ancestral gravesites that form the nexus of their cultural, social and economic structure. The self-sufficient Himba fear losing critical resources such as their most productive grazing lands, dry-season food sources, and access to one of the few habitable areas in that harsh landscape. In addition, they object to the destruction that the dam will wreak on the fragile riverine environment that exists in the centre of an arid region.

The Himba have made clear their reasons for rejecting the project – to the Namibian government, to possible donors on the project, and through public hearings held by the WCD. Speaking through an interpreter at WCD hearings in South Africa in 1999, Motjinduiko Kapika, a Himba from Namibia who lives near the proposed dam, said: "The Epupa area makes a living for people in Angola and Namibia. Life will be destroyed for both of our peoples if this dam is built. Our ancestors' graves are buried there. The government's answer is to have a reburial. We went over the whole Epupa area to discuss this dam and the people did not agree with it. We say no to this dam."

The dam would not just have serious social implications, but also major environmental impacts. Its reservoir would lose as much as 900 million cubic metres of water through evaporation a year. This is as much water as is required to meet the needs of Windhoek for 42 years. It would take four good rainy seasons for the dam to be 70 percent full. The inundation will also submerge the impressive Epupa Falls and the unique ecological zone that surrounds it. This waterfall is a growing tourist destination. Its submergence would thus lose tourist dollars for Namibia, as well as a natural wonder the loss of which cannot be mitigated.

Epupa is a very expensive project which raises important questions about spending priorities and the project's impacts on taxpayers and ratepayers. Recent estimates put the cost of the project at more than N\$3,3 billion. Yet this figure does not factor in the hidden costs of the project, or cost overruns (which afflict many large dam projects). A major concern is drought, or "hydrological risk". Recent evidence suggests that flows in the Kunene river basin are decreasing (and are likely to continue to do so under the threat of global warming). This, coupled with the river's propensity to have several successive years of low flows could delay the start-up date, result in cost-overruns, and thus make the project unviable by the Namibian Government's own definition. Without enough water to produce energy, the whole purpose for building the dam is undermined.

If the growth in electricity demand in Namibia is any less than that projected by the supporters of the Epupa project, its economic viability becomes questionable. The large

capital outlay required to build the dam cannot likely be met by revenues from power generation. The government of Namibia may be left with excess capacity that it cannot use while its debts to external funders mount.

### **The WCD and Epupa**

Epupa has been under consideration by the government since the early 1990s. The government has hired consultants to prepare feasibility studies on the dam, and has held some public hearings on the project. But the process thus far has been flawed, and does not measure up to the WCD's recommendations. Following are some ways in which the planning process for Epupa thus far falls short:

*Rights and Risks:* The WCD guidelines are based on a "rights and risks" approach to development. This means that all stakeholders whose rights might be affected, and all stakeholders who have risks imposed upon them involuntarily, should be included in decision-making on development. The report states, "[Risks] must be identified, articulated and addressed explicitly. Most important, involuntary risk bearers must be provided with the legal right to engage with risk takers in a transparent process to ensure that risks and benefits are negotiated on a more equitable basis." It goes on, "Determining what is an acceptable level of risk should be undertaken through a collective political process."

But Epupa has been top-down from the start. Communities were misled as to the scale of the project and the risks to their livelihoods, and were even subject to official intimidation after they began to question the project. Human rights lawyer Andrew Corbett spoke at a 1999 hearing for communities affected by dams as part of the WCD information-gathering process, at the request of the Himba. Corbett said, "One of the problems has been that the community has not been properly informed from the start about what the impact would be on their livelihood. [The Himba] community was visited by the government in the initial stages, and told that a dam would be built that there'd be all these benefits. They didn't actually say it would inundate 180 square km of the Himba's land ... I think the process was flawed from the start in terms of creating the type of mistrust that still exists between the affected community and government."

Other risks, such as the hydrological and economic risks – risk which would affect all Namibian ratepayers should the dam produce less power or cost more to build than predicted – have also not been publicly addressed in a meaningful way.

*Gaining Public Acceptance:* No dam should be built without "the demonstrable acceptance" of the affected people, the WCD notes. Projects should also be contingent on the "free, prior informed consent" of affected indigenous and tribal peoples, through negotiated agreements that are legally binding. These safeguards were included because tribal and indigenous people have borne a "disproportionate share of the social and environmental costs of large dam projects without gaining a commensurate share of the economic benefits."

The Epupa process has not been based on "gaining public acceptance". Andrew Corbett's 1999 testimony again: "The consultations that have taken place have taken place mostly in the capital city, which is 900km away from where the people live. There haven't been adequate resources given by government for the community to be involved in the national debate. It has also been in a very repressive political climate. Our meetings have been broken up by armed police, and people threatened who are opposing what is going on. So in a sense, the marginalisation that already exists for the Himba, within the Namibian society, has been reinforced by the process."

The transparency and fairness of the process were also compromised by officials' aggressive promotion of the project. A declaration by the Himba community states that "the Deputy Minister of Mines and Energy at a public hearing on 8 March 1997 in Qpuwo gave a strong impression that the decision to build the dam had already been taken. As a result, members of the Himba communities most directly affected by the dam felt that their input was irrelevant." The result of this unfortunate incident was that the Himba stopped cooperating with the social impacts study.

*Options Assessment:* The WCD describes a widespread bias toward large dams, and a lack of clear-headed analysis of alternatives to them. "Political economy or intellectual barriers often pre-determined what options were considered in a given context," the report notes – a bias which can result in other options being dismissed or poorly examined. To counter this bias and "level the playing field" for all options, the WCD established criteria and guidelines that ensure that available alternatives, their relevant consequences and uncertainties are given full consideration. The report urges that "a multi-criteria assessment was used to screen and select preferred options from the full range of identified alternatives." As recommended by the WCD, the options assessment would give social and environmental concerns equal weight to technical and economic concerns.

The Epupa planning process suffers from both of these problems. The project clearly enjoyed government favoritism, and its feasibility study vastly downplayed other energy options such as solar, wind, gas and energy efficiency. Costs for these options were overstated by a wide margin, thus making them look untenable. (For a review of the Epupa alternatives analysis, see <http://irn.org/programs/safrica/epupareview/toc.html>) Since that time, costs for many of these options have gone down even further, and wind power – the world's fastest growing energy technology – is now highly competitive under good wind conditions.

### **Next Steps**

The WCD guidelines are not binding. It is up to Namibians to press for a national process to discuss the report in the context of Namibia. Thus far, there have been national discussions in South Africa and Mozambique (both still in process), to name just two. In South Africa, a "multi-stakeholder process" has been going on over the course of many months to determine to what extent the nation will adopt the report, and how the WCD guidelines can be adapted to South African law and policy. The process involves government agencies, NGOs, dam-affected people, energy companies, academics and others. Such a process in Namibia could begin to lay out a course for energy and water planning that would be more equitable, cost-effective and more environmentally and socially benign.

More urgently, civil society groups could call for an open and participatory review of dams in the pipeline, such as Epupa and the more recent Popa Falls project. Using the WCD guidelines as a basis for such reviews would begin to open up the debate in new ways that might lead to more creative, less destructive methods of supplying electricity.

### **Resources**

The WCD report is available for downloading from [www.dams.org](http://www.dams.org)  
A Citizen's Guide to the WCD is available for downloading from <http://www.irn.org/wcd/index.shtml>

A "Dams and Development Unit" was set up to facilitate the dissemination of the WCD report and to assist in follow up efforts being undertaken around the world. For more information contact:

**Phone:** +27 (0)21 426 4000

**Fax:** +27 (0) 21 426 0036

**Email:** [info@unep-dams.org](mailto:info@unep-dams.org)

**Website:** <http://www.unep-dams.org/>

## **BOXED SIDEBAR:**

### **How to Organise a Multi-Stakeholder Follow-up Process to the WCD**

Liane Greeff from the South African NGO Environmental Monitoring Group, offers the following suggestions for how to organise a multi-stakeholder process in your country on the WCD 's findings and recommendations.

1. Gain the support of your allies for organising a multi-stakeholder process. Then meet with key players in the local dams debate. When talking with the different players, be clear about the WCD process and the nature of the Commission, which included representatives from all sides of the debate. This may help to draw different stakeholders into the process.
2. Send a letter to the government (approach the highest-ranking officials and send copies to the lower levels) requesting a multi-stakeholder meeting. Make suggestions about who should host the meeting or process. Ensure that the host organisations represent the different sides of the debate (for example, government, NGOs, affected people, academics, funding agencies, unions, etc.).
3. Contact the Dams and Development Project to get their support and help in lobbying the government and other players in your country.
4. Keep pressure on the government to respond and move the process along.
5. Hold a preliminary meeting to agree on how the process will operate and who should be on the Steering Committee. Try to ensure a balance of stakeholders and perspectives. If possible, include representatives from groups working on alternatives such as water conservation or energy efficiency. If you have access to a WCD "expert" such as a Commissioner, Secretariat staff or forum member, it would be good to include them in this initial meeting.
6. Form the Steering Committee. In South Africa, the Steering Committee consisted of the South African National Committee on Large Dams (the South African arm of ICOLD), the Department of Water Affairs and Forestry, the Environmental Monitoring Group and IUCN. The Steering Committee met over a four-month period.
7. Obtain copies of WCD resource material for the Steering Committee – WCD full report, summary reports, CD-ROMs of the knowledge base, power point presentations.

8. Explore different funding options – from governments, donor agencies, research institutions etc. Ask the DDP for advice on funding. Ensure that civil society organisations have the necessary funds and resources to participate in the process.

9. The Steering Committee should discuss the following:

- What kind of process is most appropriate?
- What is the desired outcome? For example, is it to encourage institutions to adopt WCD recommendations, is it to raise awareness, conduct research or other purposes?
- If organising a workshop or conference, the Steering Committee needs to agree on speakers, agenda, scale (local, provincial, national, regional) and focus (whether the discussion will focus on a specific dam or be open-ended).

10. Select representatives from industry, government, academia, NGOs, indigenous people, river basin authorities, affected people, labour, alternatives, local water authorities, financing organisations. Ensure there is a balanced representation.

11. Most importantly, agree at the outset to respect different opinions and to work cooperatively.

#### AUTHOR INFORMATION

The author heads up the Africa campaigns program for International Rivers Network. Since 1985, International Rivers Network has supported local communities working to protect their rivers and watersheds. IRN works to halt destructive river development projects, and to encourage equitable and sustainable methods of meeting needs for water, energy, and flood management. The organization is actively involved in many international networks and campaigns. For more information see [www.irn.org](http://www.irn.org).