



## RAISING THE BAR ON BIG DAMS

Making the case for dam policy reform at the European Investment Bank



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The cover photo shows the Katse Dam (Lesotho) under construction. Photo: IRN

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## **EXECUTIVE SUMMARY**

Large dam projects are among the most controversial and potentially destructive of all internationally financed projects. An estimated 40-80 million people have been displaced by large dams worldwide, and millions more have been displaced by the construction of associated infrastructure, or harmed by changes to downstream environments. Efforts to resettle and compensate people for their losses have been inadequate at best. The legacy of environmental harm caused by large dams is equally unacceptable, with 60% of the world's rivers and their associated ecosystems suffering from profound and often irreversible impacts. Meanwhile, the economic benefits of large dams have often been elusive. Large dams tend to underperform their targets for power generation, while lengthy construction delays and substantial cost overruns are routine.

The European Investment Bank has been involved in a number of large dam projects in recent years, many of them in Africa. All could have been improved – sometimes significantly so – by more careful planning and better implementation standards. Despite making vague references to the recommendations of the World Commission on Dams, the EIB currently has no sector policy for dams. Many of the EIB's large dam projects have also had World Bank involvement, and the World Bank's standards and due diligence drove the process, with the EIB bringing little or no "added value" regarding safeguard policies or improved planning processes.

There is now a higher standard than the World Bank's safeguard policies and processes for planning large dams. The most authoritative and broadly supported set of standards for dam and water projects is that of the World Commission on Dams (WCD). This standard came about precisely because of the poor record of past dam projects and the inability of international financial institutions (IFIs) to address the relevant problems.

This report describes the problems with past EIB dam projects, how the WCD might have been invoked to bring "added value" to the process, and ways forward to improve the EIB's role in water and energy projects in future.

# RELEVANT EIB POLICIES AND PRACTICES

Unlike other international financial institutions such as the World Bank and Asian Development Bank, the European Investment Bank has no clear internal safeguard policies, and no comprehensive sector policy on dams. The EIB environmental policy ("Environmental Statement 2004") states: "The EIB is guided by the findings and recommendations of recognised international good practice for particular sectors. The Bank follows closely relevant international debates, such as those on the findings and recommendations of the World Commission on Dams." This statement is so vague as to be meaningless, and there are no further statements to describe compliance with the best-practices of the WCD.

The EIB's intentions are also undermined in practice. For example, according to its environmental statement, "The Bank does not accept a project for financing that is likely to have a significant negative environmental impact and/or be of high risk for the environment." Clearly, the Bank has taken on numerous projects with high environmental risks; for example, it has supported mining in Africa, pulp mills in Brazil, and the large dams described in this report. The EIB's 2006 Corporate Responsibility Report makes the claim that one of the bank's top two objectives for defining its environmental responsibility is to "promote projects that protect and improve the natural and built environments and foster social well-being in the interests of sustainable development." The large dam projects described herein do not meet that definition: they have submerged productive farmland, forests and riverine habitat; left thousands of rural oustees more impoverished than before; sent some species to the brink of extinction, and dewatered hundreds of kilometres of river downstream from the dams. Sadly, in many of these case studies, a better option for meeting water or power needs was available that would have avoided such damages.

In September 2005, the EIB described, in a letter to International Rivers Network (IRN) the measures the bank intends to take to ensure that dams financed by their newly created Multilateral Carbon Credit Fund would respect the criteria of the World Commission on Dams. The letter said that EIB would "apply the requirements of the [EU] linking directive<sup>1</sup>, [...] aligning to the recommendations of the WCD as required by the directive." This appears to mean that they will respect EU law when dealing with hydro projects in the framework of the Carbon Fund, but does not imply anything about respecting the WCD in lending for dams not covered under the Carbon Fund.

More generally, the EIB has done little to ensure its lending meets the needs of the poor countries in which it funds some of its biggest infrastructure projects. Most of the large dams the EIB has been involved in are in Africa, where the EIB is

1 The Linking Directive is the name given to the EU directive that permits companies to use carbon credits for compliance with their targets under the EU Emissions Trading Scheme.

obliged to adhere to EU strategies for poverty alleviation and social development. Yet, so far there is little indication that EIB lending activities have contributed to this goal. Indeed, EIB lending for large dams in Africa amounted to 8% of total lending to African, Carribean and Pacific countries over the past decade.<sup>2</sup>

As for funding "clean" energy, the EIB committed at the 2002 Earth Summit to integrate European Union climate change objectives into its policies and practices. The EIB later set an objective that by 2010, 50% of its energy lending within the EU will be directed to renewable energy and energy efficiency. Although the EIB claims to have financed 24 renewable energy projects outside Europe in the past decade, most of these are large dams that are non-compliant with the World Commission on Dams recommendations (and in some cases, also non-compliant with World Bank guidelines).<sup>3</sup>

When problematic projects are put forth, compliance with best-practice is not likely to be well-monitored by the EIB, which has only three environmental specialists on staff next to its engineers, economists and lawyers. Another crucial problem is that the EIB will sometimes approve a project before impact assessments of the proposed project are complete, or before all outstanding issues have been addressed (as for example with the Bujagali Dam, which was approved with major outstanding concerns still under investigation by the World Bank Inspection Panel).

<sup>2 &</sup>quot;The European Investment Bank in the Global South: In Whose Interest?" by CEE Bankwatch Network et al., 2006.

<sup>3</sup> Ibid.

# ABOUT THE WORLD COMMISSION ON DAMS

The most authoritative and broadly supported set of standards to be applied to dam and water projects are the guidelines articulated by the World Commission on Dams (WCD). The WCD was established in 1998 by the World Bank and IUCN in response to growing opposition to large dams. Its mandate was to:

- review the development effectiveness of large dams and assess alternatives for water resources and energy development; and
- develop internationally acceptable criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams.

The Commission adopted a "rights and risks" approach to project decision-making, and its seven strategic priorities and supporting principles. Key recommendations in the WCD final report include the following:

- No dam should be built without the "demonstrable acceptance" of affected people, and without the free, prior and informed consent of affected indigenous and tribal peoples.
- Comprehensive and participatory assessments of people's water and energy needs, and different options for meeting these needs, should be developed before proceeding with any project.
- Priority should be given to maximising the efficiency of existing water and energy systems before building any new projects.
- Periodic participatory reviews should be done for existing dams to assess such issues as dam safety, and possible decommissioning.
- Mechanisms should be developed to provide reparations, or retroactive compensation, for those who are suffering from existing dams, and to restore damaged ecosystems.



## **CASE STUDIES:** THE EIB'S INVOLVEMENT IN RECENT DAM PROJECTS

#### Laos: Nam Theun 2 Dam

(Case study written by Shannon Lawrence, International Rivers Network)



reach 85% because of the Nam Theun 2

Project details: The USD 1.45 billion Nam Theun 2 Hydropower Project in central Laos will forcibly displace 6,200 indigenous peoples on the Nakai Plateau and decimate fisheries and exacerbate flooding for more than 120,000 downstream farmers and fishers along the Xe Bang Fai. The project is being developed by the Nam Theun 2 Power Company Limited (NTPC), which includes Electricité de France, the Electricity Generating Company of Thailand, Ital-Thai Development and the Lao government. More than 90% of the project's 1070 MW of electricity will be sold to Thailand. In 2005, the World Bank and Asian Development Bank (ADB) approved loans and guarantees for NT2. With the World Bank and the ADB's endorsement, other lenders – such as the EIB, the Nordic Investment Bank, the Swedish, Norwegian, French and Thai export credit agencies, Agence Française de Développement, and a number of private banks – committed to finance Nam Theun 2. The EIB loaned the Lao government EUR 45 million for Nam Theun 2 in 2005, relying largely on the World Bank's social and environmental assessments of the project. The project is currently under construction; power production is scheduled to begin in 2009.

The massive Nam Theun 2 Hydropower Project (NT2) in Laos has been marketed as a model dam project and a panacea to Laos' development woes. But instead of alleviating poverty, the project will have serious impacts on the lives and livelihoods of tens of thousands of Laotian farmers. Past experience with dam projects in Laos, such as Theun-Hinboun, Houay Ho, Nam Song and Nam Leuk, indicates that villagers will lose the farmlands, forests, fisheries and water sources on which they depend, and receive too little, too late in return. The unlucky ones will receive nothing at all.

NT2 is a trans-basin diversion which means it will dramatically alter not one, but two river basins. A 39-meter-high dam will block the Nam Theun river to form the reservoir. Once the reservoir has been filled, water will be directed down a 350-meter drop to the power station, before being transferred to the Xe Bang Fai River. Both the Nam Theun and the Xe Bang Fai are tributaries of the Mekong River.

The project is supposed to generate revenue for the cash-strapped Lao government by exporting power to neighboring Thailand. The EIB says it is "supporting the investment because of the project's high development impact and the enhancement of regional integration." The World Bank and the Asian Development Bank, which are also supporting Nam Theun 2, claim that revenues will be used to help the poor. In a country notorious for corruption, financial mismanagement and a lack of transparency, there is little evidence to support these assertions.

The EIB claims that: "Overall the [NT2] project will generate a net environmental benefit for the region, improve living standards and economic development for the local population." But halfway through its construction phase, Nam Theun 2 is proving to be another two-speed large infrastructure project where construction proceeds on schedule and social and environmental programs lag critically behind.

#### Awaiting downstream disaster?

The Xe Bang Fai River will receive large amounts of additional water from the Nakai Plateau reservoir after it passes through the power station and the downstream channel. According to independent research, more than 120,000 people<sup>8</sup> in the Xe Bang Fai area will be negatively impacted by the Nam Theun 2 project. NTPC says<sup>9</sup> it is planning for the worst-case scenario along the Xe Bang Fai, which means 85% fish losses, increased high frequency floods in the Xe Bang Fai and its tributaries, erosion of riverbanks and loss of riverbank gardens, major water quality problems, and transportation difficulties for downstream villages.

Villagers in the Xe Bang Fai area depend on fish and aquatic products for food and income. Villagers have also learned to anticipate the Xe Bang Fai flood cycles, moving their small livestock and other assets to higher ground when possible, but these flood cycles will be transformed by NT2. Their biggest concern is the wet-season rice crop, some or all of which may be submerged by Xe Bang Fai floodwaters every few years before it can be harvested. Once NT2 begins operating, these crop-destroying floods will become more frequent.

In an attempt to mitigate NT2's impacts and compensate Xe Bang Fai villagers, NTPC has developed a Downstream Livelihood and Asset Restoration Program. The Downstream Program focuses on micro-credit funds to support agriculture, aquaculture and livestock projects, water and sanitation improvements, and mini-polder flood protection, and is currently being tested in 21 pilot villages. In Mahaxai Tai and Boueng Xe, villagers expressed concerns about the rate of interest charged for village savings fund loans (between 1–3% per month). When projects failed, villagers complained that they

- 5 http://www.eib.europa.eu/news/news.asp?news=127
- 6 http://www.eib.europa.eu/news/news.asp?news=127
- 7 The information presented in the sections below was gathered during IRN's visit to the NT2 project area. More detailed information is available at: http://www.irn.org/programs/mekong/namtheun.html.
- 8 These numbers are based on a survey conducted by independent experts (Shoemaker, Baird and Baird, The People and their River, 2001). NTPC asserts that only 75,000 people in 221 downstream villages will be affected by NT2, which includes the Khamkeut district downstream of the Nam Theun. NTPC's downstream livelihood restoration program targets 75,000 villagers.
- 9 NTPC responses to issues raised here were obtained in a meeting with Olivier Salignat, Social and Environmental Deputy Director of NTPC, on March 8, 2007.

still had to pay the money back, and some said they were unable to do so. The reliance on a micro-credit scheme to deliver compensation creates a cycle of debt if projects fail or if repayment terms are too demanding.

In most of the pilot villages, livelihood projects supported by village savings fund loans are just getting underway and have yet to deliver results. But people in the Boeung Xe demonstration village, who have had the most experience with these schemes, expressed frustration with the agriculture and livestock projects. For example, families bought approximately two to three pigs each to raise, but most of the pigs died within a couple of months. Now the families have to pay back money for the pigs and find this very difficult to manage. One Boueng Xe watermelon farmer complained that the price had dropped this year now that so many people were growing watermelons. She also had trouble finding a market for watermelon, and getting her harvest there before it rotted. As a result, she was unable to repay the loan to the village savings fund.

NTPC's suggested aquaculture activities, which require inputs such as fish seed and fertilizer, are new to villagers. Mahaxai Tai villagers said that NTPC told that them they could have a fish pond, but they would have to borrow money from the village savings fund and pay the loan back. Villagers did not like that idea because now they have fish for free from the river.

The NTPC Downstream Program is being piloted in less than 10% of the affected villages with only two years left until NT2 operations begin. With all the fisheries' losses, flooding, erosion, and water quality problems that will accompany power production, the time remaining before NT2 begins operating seems to be extremely short to learn from the pilot projects, fix problems or introduce new approaches, and replicate initiatives in more than 200 villages. The Panel of Experts (the official project monitors) notes in its most recent report: "Where there are delays [in downstream program implementation], an undesirable gap will emerge between impacts and mitigation/compensation. Such delays seem likely at this point." 10

Considering the scale of Nam Theun 2's projected impacts on the Xe Bang Fai region and the number of affected villages, NTPC's USD16 million Downstream Program budget is inadequate to compensate more than 120,000 villagers for a lifetime's loss of the fisheries they depend on, let alone to provide livelihood alternatives and protection from flood and erosion. Using NTPC's figure of 75,000 affected people (versus the 120,000 affected people identified by independent experts<sup>11</sup>), that leaves only 200 dollars per person for compensation and mitigation.

#### Resettlement setbacks

Seventeen villages of more than 6,200 indigenous peoples on the Nakai Plateau are undergoing resettlement to make way for the Nam Theun 2 reservoir. In May 2008, the dam is supposed to close so that reservoir filling can begin, and all villagers must be established in their new resettlement sites by then. The resettlement program has been fraught with delays, missing its original deadline to have all villages resettled by the 2006–07 dry season. As a result of these delays, NTPC began moving people to temporary houses in their new villages in April 2006 under what has been called "transitional resettlement." Many of the 550 families that have been moved will spend their second wet season in temporary houses due to problems with timber supply and permanent housing construction.

For now, villagers in the resettlement sites are largely surviving on rice and protein supplied by the company. Villagers reported that the amount of rice provided by the company each month is often not enough for large families. They miss their fruit trees in the old village, and return there to get fish from the river and bamboo and vegetables from the forest. They are worried about finding food after the reservoir is filled. Some resettled villages also reported problems with water supply.

NTPC and the Lao government say that resettled villagers will participate in community forestry, agriculture, fisheries, livestock and handicraft projects to generate income and restore their livelihoods after resettlement. However, like the

- 10 McDowell, D., Scudder, T. and Talbot, L., Eleventh Report of the International Environmental and Social Panel of Experts, 23 February 2007, p. 21.
- 11 Shoemaker, Baird and Baird, The People and their River: A Survey of River-Based Livelihoods in the Xe Bang Fai River Basin in Central Lao PDR, November 2001, p. xi.
- 12 For more details regarding the transitional resettlement process, see the IRN NT2 Trip Report September 2006, available at: http://www.irn.org/programs/mekong/namtheun.html.

resettled villagers, these livelihood programs are also in transition. The project's Panel of Experts, convened by the World Bank, notes that: "lower priority continues to be given to livelihood development to the extent that it is unlikely that the Household Income Target will be reached by the beginning of year 5 of the Resettlement Period, as required by the Concession Agreement." The Panel of Experts also warns that "for a range of reasons, the forestry and agricultural livelihood programs are unlikely to meet their originally planned targets before impoundment."

Due to the poor quality of soil on the Plateau, NTPC has had to abandon the agriculture plans for resettlers that were outlined in the 2005 NT2 Social Development Plan and a new approach is still being defined. Buffaloes, a critical "living bank" for villagers, will need to be sold due to the shortage of grazing land and fodder. According to the Panel of Experts, the Nakai Plateau cattle and buffalo population will need to be reduced from approximately 5,000 to 2,000,15 but NTPC has not disclosed any strategies for buffalo reduction.

The Village Forestry Association (VFA), one of NTPC's primary livelihood options for resettled villagers, is also under threat. The VFA is now being run by a former Ministry of Agriculture and Forestry official and several VFA positions have reportedly been given to district representatives. This appears to have resulted in the government agencies taking responsibility for harvesting the timber. According to sources close to the project, revenues from timber harvesting on resettlement lands have reportedly not reached the VFA accounts. While the short-term success of the VFA is being undermined, its long-term potential has also been eroded. Illegal logging in the community forest area has reportedly removed all the big, valuable trees that were supposed to provide each resettled family with dividends. As one observer close to the project noted, "only stumps are left."

#### Flawed justification, poor compliance

Nam Theun 2's "development" justification hinges on the Lao government using revenues from the project to help the poor, and ensuring that affected people's livelihoods are improved or restored. Yet the political climate in Laos works against success for such a plan. Opposition within Laos is virtually nonexistent since there is no free press or forum in which to debate the merits of government development plans. According to World Bank indicators, Laos rates far below most low-income countries on control of corruption and on accountability. The World Bank's revenue management proposal for Nam Theun 2 provides no assurances that these constraints will be overcome. Revenue allocation, monitoring and reporting will be primarily left to the Lao Finance Ministry and the fledgling State Audit Organization. The revenue management arrangements specifically reject the use of an independent oversight body or external independent auditing of Nam Theun 2 revenues. <sup>16</sup>

Environmental compliance is also falling behind. According to the EIB, "[NT2's] environmental and social impacts and corresponding mitigation measures have been reviewed against the relevant policies of the EIB and the principles underlying related EU legislation... The EIA and design of mitigation measures are considered to have met EU standards." The EIB also claims that the "project complies with the EU's and the Bank's environmental policy, by tackling climate change and promoting sustainable use of renewable natural resources." 18

However, even before project operations begin, Nam Theun 2's claims of environmental "best practice" are proving hollow. Illegal logging and mining concessions are threatening the watershed area and the Nakai-Nam Theun National Protected Area. Poor environmental management practices, including the failure to control erosion, dust, sedimentation and excessive forest clearance along roads, have been criticized by one of NT2's official monitors, called the Lenders' Engineer. The Lenders' Engineer reports that "environmental performance... in some aspects still barely meets business as usual' levels."

- 13 McDowell et al, p. 11.
- 14 Ibid., p. 9.
- 15 Ibid., p. 11
- 16 Adrian Fozzard, World Bank, "Revenue and Expenditure Management, Nam Theun 2 Hydroelectrict Project," March 16, 2005.
- 17 http://www.eib.europa.eu/news/news.asp?news=127
- 18 http://www.eib.europa.eu/news/news.asp?news=127
- 19 The Nam Theun 2 Lenders' Engineer is an official project monitor which produces quarterly reports on commercial, engineering, and environmental and social components of NT2 for the project's donors and lenders.
- 20 Nam Theun 2 Lenders' Engineer Quarterly Site Visit Report #8, 13 April 2007, Part C, p. 9.

And contrary to the EIB's claims that NT2 will help deal with climate change, the large NT2 reservoir will actually contribute to greenhouse gas emissions. Neither the company nor the Lao government has committed to clear biomass from the reservoir area before it is flooded, despite promises made in the EIA.<sup>21</sup> The rotting vegetation will release greenhouse gases such as methane and carbon dioxide. Furthermore, leaving the biomass in place will lead to lower dissolved oxygen levels in the reservoir, causing fish kills in the reservoir and downstream and leaving the reservoir's water unsuitable for irrigation or for household use.

#### WCD non-compliance

The EIB also notes that "the project has gone a long way to meeting the WCD recommendations."<sup>22</sup> However, an analysis of Nam Theun 2's compliance with the WCD strategic priorities<sup>23</sup> shows that the project fails to comply with six of the seven strategic priorities outlined in the WCD report; these are gaining public acceptance, comprehensive options assessment, addressing existing dams, sustaining rivers and livelihoods, recognizing entitlements and sharing benefits, and ensuring compliance.

For example, WCD Strategic Priority 3, "Addressing Existing Dams," stipulates that outstanding issues with existing dams must be resolved before additional dams are built in the same river basin. But hydropower projects in Laos have left a legacy of destroyed livelihoods, decimated fisheries and environmental destruction. More than 25,000 people have suffered from increased flooding, declines in fish catches, flooded vegetable gardens and loss of drinking water sources due to the Theun-Hinboun Hydropower Project, located 50 kilometers downstream of Nam Theun 2. Some assistance was provided, but villagers still have not been compensated for fish losses of up to 90% of their pre-project catch. Severe flooding and erosion along the Hinboun River continues to impact villagers.

The EIB says, "Taking the WCD recommendations into account, the EIB loan is conditional on mitigation measures for directly affected people going beyond mere compensation but also providing a share in project benefits." The WCD requires that all adversely affected people negotiate formal and legally enforceable agreements guaranteeing their rights. This never occurred for Nam Theun 2, and the concept of a legally enforceable mitigation agreement between affected peoples and project developers is virtually unheard of within Laos.

Furthermore, there are no independent organisations in Laos that are able to monitor the project and the commitments made by the Government of Laos (GoL) and NTPC. The legal system is not sufficiently developed to provide possible remedies for affected people should the commitments made by NTPC and the GoL fail to materialize. The only avenues for independent monitoring are through international NGOs or other observers based outside the country, a poor and unacceptable substitute for local civil society groups and community-based monitors.

While the Concession Agreement outlines the GoL's and NTPC's obligations for social and environmental mitigation measures, there is no legal system in Laos through which these commitments to affected communities can be upheld. Two years before power production begins, there have already been numerous violations of NT2's legal framework, including the Concession Agreement and World Bank and ADB policies. The failure of NTPC, the GoL, the EIB, and other project backers to take action on these issues calls into question the accountability of all parties and the enforceability of these agreements.

#### Time for action

To address the problems described above, the EIB should work with the Lao government, NTPC and other project backers to implement the following recommendations:

- 21 EAMP
- 22 http://www.eib.europa.eu/news/news.asp?news=127
- 23 Imhof, A. and Lawrence, S., "An Analysis of Nam Theun 2 Compliance with World Commission on Dams Strategic Priorities," February 2005
- 24 http://www.eib.europa.eu/news/news.asp?news=127

- NTPC should commit to developing and implementing an interim compensation scheme to address the impacts of NT2 operations on downstream villagers until livelihood restoration programs yield sustainable results. Additional funding will be required, as the \$16 million budget is likely to be inadequate to deal with the scale of anticipated downstream impacts.
- The GoL and the IFIs should work with villagers and donor partners to develop an integrated rural development plan for the Xe Bang Fai region.
- NTPC and the GoL should commit to clear biomass from at least all permanently flooded areas of the NT2 reservoir.
- NTPC and the GoL should address resettled villagers' concerns by ensuring adequate food support until livelihood
  programs prove sustainable, fixing temporary houses, repairing or developing water supply systems, paying villagers
  for land clearance and spraying roads.
- NTPC and the GoL should ensure that the VFA has received all the revenue it is due from timber sales in the Resettlement Area, and that illegal logging in the community forest area is stopped immediately.

Urgent action on these issues is required if the GoL, NTPC, and the EIB are to meet their commitments to more than 100,000 affected Laotians, and to their shareholders.

## South Africa: Berg Water Project



**Project details:** The 70 m high Berg Water Project (previously known as Skuifraam Dam) will flood nearly 500 hectares near Cape Town when complete. Construction began in 2004 and is expected to be complete by the end of 2007. The EIB's contribution (in 2004) was EUR 100 million. The Trans-Caledon Tunnel Authority (TCTA), a State-owned specialised liability management body, was chosen by the government to implement and fund the project.

This large dam was built to increase the water supply of Cape Town, South Africa, for both urban and agricultural water supply. The EIB called its support for this project "a key part of an extensive water demand management programme for the conurbation." It further stated that the dam's development "took 14 years involving a comprehensive range of stakeholders in decisions on water demand management and efficient use of scare supplies. The evaluation of alternative options covered a wide range of criteria with a special emphasis on environmental considerations." 26

This description does not align with the experience of the local activists who worked diligently over a number of years to slow the need for a new dam by pressing for better water conservation measures, and regularly urged a project slow-down until the WCD had completed its work.

The project was approved by the South African water ministry in August 2000, just months before the WCD – head-quartered in Cape Town – finished its final report. In February 2001, local NGOs made a last appeal, calling for a "collaborative study of the dam using the WCD Report and re-visiting whether or not we need the dam in light of the WCD recommendations... If a joint study clearly and unambiguously illustrates that the dam is indeed... the best option, then we will support it. Alternatively, if this collaborative study highlights the feasibility and true economic viability of alternatives, then these should rather be pursued. This will really demonstrate to the world ... the commitment of the South African Government to implementing the WCD recommendations."<sup>27</sup>

But the head of South Africa's Department of Water Affairs and Forestry (DWAF) rejected calls for a full review of the project, saying an internal review of the project's planning process showed it "compared favorably" with the WCD (thus ignoring a key WCD pillar, that of increased public participation and transparency). DWAF also argued that the dam was necessary to meet increasing demand and avoid economic impacts from droughts.

Yet, at the time of this dam's approval, there was clearly room for great amounts of water to be recovered through better management of water supply and water conservation. The Skuifraam Action Group (SAG), a local network of environmental groups, made a strong bid for the implementation of water conservation and demand management (WC&DM) before supply side dam building decisions were made. At the time the dam was approved, according to SAG, some 23% of Cape Town's water was unaccounted for, and no water conservation and demand management regulations were in place. Growth in water demand exceeded growth in population by a factor of two from 1973–97. One culprit in the huge increase in water demand was watering of ornamental gardens, which account for more than a third of domestic water use in the dry season.<sup>28</sup>

"The approval of the Skuifraam Dam flies in the face of government policy and legislation over the past five years, and its approval comes despite the fact that the 1997 Water Act requires that alternatives to new dams be prioritized before new dams are constructed," said John Taylor of SAG. "If half of the costs of the dam were spent on WC&DM then we would not need Skuifraam for many years."

#### Water conservation option

In a 1996 speech, Kader Asmal, then South Africa's Minister for water, stated: "Skuifraam Dam on the Berg River would cost 44 cents per kilolitre of water over a 45 year period, at a discount rate of 8%. But the clearing of invading alien plants is projected to yield water at a cost of approximatley 6 cents/kl over the same period at the same discount rate. That is just 14%, or about one-seventh the cost of one of the most attractive dam options. On water yield alone, clearing invading alien plants wins."

The SAG network called on water officials to give WC&DM "the serious attention and funding needed to have a positive impact" and called for a plan that included:

- 26 http://www.eib.europa.eu/news/press/press.asp?press=2843
- 27 2 February 2001 letter to R. Kasrils, Minister of Water Affairs & Forestry, from Environmental Monitoring Group et al.
- 28 "Objection To Skuifraam Dam Proposal" by John Taylor, 20 June 1999; and "A Constantly Thirsty City," Cape Argus, 17/02/05, http://www.capeargus.co.za/index.php?fSectionId=1594&fArticleId=2414838

- Reducing pollution of existing water sources
- Implementing rainwater harvesting
- Implementing a municipal water recycling programmes as a priority focus
- Developing by-laws to promote water conservation through incentives
- Increasing clearing of alien vegetation in catchment areas
- Implementing water restrictions incorporating industry, agriculture and excessive household users together with incentive-based water reduction systems
- Holding an aggressive and comprehensive water awareness campaign
- Enforcing annual water audits on industry and agriculture;

A similar program in the South African town of Hermanus achieved a 30% reduction in water use in the mid-1990s.

At the time the dam was approved, Cape Town's Environmental Monitoring Group wrote: "A brief review of Cape Metropolitan Council policies shows that the City has no water recycling program, no by-laws on the use of grey water, no policy on the City's 400 million litres of treated sewage water (pumped out to sea), limited water education programmes, and no restrictions on water use at a time when supply is scarce. Furthermore, while in other urban centers of South Africa 'unaccounted uses' of water amount to as much as 50% of water usage, the figure for Cape Town is not known. The Council cannot even do a full analysis of how much water can be saved because they do not have sufficient water meters."<sup>29</sup>

Activists described the project's public participation process as one-sided and clearly not intended as an avenue to explore different options for meeting water needs. "Our experience has been that it is extremely difficult to get information without a proper platform for debate. Decisions should be based on facts, and whoever controls the facts makes the decisions... It is almost impossible for NGOs to prepare objections based upon 'hard facts' without going to extremes of expense and investigation. The proponents, on the other hand, are well funded and their consultants are paid for by the taxpayer. Surely, the best solution would be achieved if civil society were an integral part of the planning process and be allowed to inform the entire process and not merely given selected opportunities to comment upon reports that have already been prepared."

Environmental costs of the project were dismissed as "slight to moderate" in project documents. Yet, reductions in flow will affect the river's estuary. According to a Cape Province government agency: "The Lower Berg River has been proposed as a Ramsar wetland of global importance. This system is of exceptional importance as a fish nursery, being one of only two permanently open river mouths in the Namaqua Marione Bio-Geographical Province. The Berg River is, therefore, regarded as being most crucial to the fish life of the West Coast. It is also regarded as being the most important vlei area, in terms of water bird numbers, in South Africa. More than 240 bird species (which represents more than a quarter of all bird species found in Southern Africa) have been sited on the tidal flats of the Lower Berg River." 31

Professor Bryan Davies, then at the University of Cape Town's Department of Freshwater Ecology and one of Africa's top river experts, stated that the Berg River could not afford more water diversions as it was already under stress. The Cape Town-based Environmental Monitoring Group stated: "The Berg River estuary represents the most biologically

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<sup>29 &</sup>quot;Appeal To The Department Of Environmental Affairs And Tourism Regarding The Approval Of The Skuifraam Dam And Skuifraam Supplement Schemes On The Berg River In The Western Cape" by the Environmental Monitoring Group of the Western Cape

<sup>30 &</sup>quot;Water Augmentation Schemes Versus Water Conservation And Demand Management: The Skuifraam Scheme," Presented at the South Africa Syposium on the WCD, July 2001

<sup>31</sup> http://www.capewestcoast.org/RegionalInfo/EcologyMain.htm

diverse wetland on the West Coast of Southern Africa. Damming the river will significantly undermine these downstream wetlands and compromise the viability of downstream coastal fisheries. We believe that the economic information upon which the decision is based is flawed as neither the opportunity costs of not having the Skuifraam Dam or the environmental externalities have been factored into the cost-benefit analysis."<sup>32</sup>

The WCD also calls for ensuring that projects will meet critical needs. The Berg River project was not necessarily going to help bring safe water supply to the region's poorest, nor help its most water-profligate residents reduce their consumption. At the time of the dam's approval, half of the water currently used in Cape Town homes is used by 20% of the households. Said EMG: "Building a new dam to ensure supply is not going to change the iniquities of water use prevalent in the Western Cape. Instead, it will exacerbate the existing inequities by increasing the water tariff of everyone in Cape Town, as was experienced by the impact of the Lesotho Highlands Development Project on the communities of Alexandra and Soweto in Gauteng. This project will be operated along similar off-budget principles where users are accountable for the cost of every drop."<sup>33</sup>

As the project moved into implementation phase, South Africa's Department of Environmental Affairs required the builders to have an environmental monitoring committee composed of civil society representatives to help oversee environmental compliance. But there was little official support for the committee (which began as a voluntary position, but eventually included a small stipend). According to John Taylor, a member of the committee, the group "found it increasingly difficult to operate within the constraints imposed by TCTA [the dam's implementing agency]. This led to the disbanding of the committee and the loss of essential external checks and balances."

In conclusion, this project was premature, the process for choosing it ignored both civil society and the recommendations of the WCD, and implementation was flawed and dismissive of civil society input.

<sup>32 &</sup>quot;Appeal To The Department Of Environmental Affairs And Tourism Regarding The Approval Of The Skuifraam Dam And Skuifraam Supplement Schemes On The Berg River In The Western Cape" by the Environmental Monitoring Group of the Western Cape

<sup>33</sup> Ibid.

## Swaziland: Maguga Dam Project



Maguga Dam

**Project details:** The 115 metre high Maguga Dam (the fourth highest dam in Southern Africa) began in 1998 and was completed in 2002. The 870 metre long reservoir has a storage capacity of 332 million square metres of water. The EIB's contribution (in 2003) was EUR 7 million for construction of a 19 MW hydropower station to be added to the existing irrigation dam. (A related loan: In 2000–01, the EIB lent EUR 15 million in two loans to upgrade Swaziland's electricity grid.)

The Maguga Dam was intended to support commercial forestry and sugar plantations in South Africa and Swaziland, and provide irrigation for about 1,000 of Swaziland's small farmers as well. South Africa (which helped pay for the dam) is guaranteed 60% of the project's water, while Swaziland gets the rest.

From a number of standpoints, this project was better managed than many other dams in Africa. The project authorities in Swaziland and South Africa were determined not to repeat the mistakes of dam projects they had been involved in previously, including the Lesotho Highlands Water Project and an earlier dam in the Komati Basin. They have also worked over time to incorporate some of the lessons of the WCD. Affected communities benefited from this, and received water and energy, assistance with setting up farming cooperatives, health and sports facilities, and other benefits. A colony of workers' homes was sold to Swazis when they were vacated, to help alleviate a housing shortage in the area. An independent dispute resolution process was put in place that could order the Komati Basin Water Authority to pay significant amounts to affected people. The Maguga communities were able to build their own houses how they wanted them; they could also decide to use part of the money they received for housing to develop businesses. And the project took steps to mitigate environmental impacts as well. According to the UN's IRIN news service: "For two years, earthmoving equipment has excavated a deep gorge, to minimise the lake's surface area in relation to its volume of water. With a relatively small surface area, the lake will lose less of its stored volume to evaporation than that suffered by the larger dams. As a result, a shorter stretch of the Komati had to be flooded."<sup>34</sup>

That said, the project could have benefited from an analysis of how best to meet local needs for water. The majority of Swazi citizens are desperately poor, and lack essentials such as clean water, sanitation, and in many years, enough to eat. This project did not address those needs. Indeed, shortly after the dam was completed, drought hit, and for a number of years, Maguga proved ineffective in helping farmers grow enough food for the nation.

In May 2003, the UN's IRIN News reported: "Most disappointing is the new Maguga Dam, a joint Swaziland-South Africa venture that is the country's largest public works project. Opened last year...the dam was built to provide water for the nation's northwest Hhohho region, and pipe irrigation water for agricultural schemes in the parched eastern lowveld, where food shortages are most acute. 'Since it was built, the Maguga has never reached its capacity. The rains and the volume of the Komati river have not been there. Currently, the dam is only at 25 percent of capacity, and this is at the start of the dry season,' said hydrologist Sangweni."<sup>35</sup>

According to IRIN, the dam did not completely fill for four years, until 2006. Another drought in 2007 threatened the dam's usefulness once again. In March 2007, the Swazi Ministry of Natural Resources reported that the drought was causing the worst food shortage in 25 years. The dam's low water levels also hindered plans to produce hydroelectric power.

The project's emphasis on commercial sugar cane — one of the world's most water-intensive crops — is also a questionable use of scarce water resources in a drought-prone, food-insecure region such as Southern Africa. The US Department of Commerce has reported that the Swazi sugar industry is "composed primarily of large firms with predominantly foreign ownership. In the long run, substantial growth in Swaziland's agriculture sector is unlikely. The future of Swazi agriculture looks dim without an increase in available land and water resources."

Irrigation takes up 95% of Swazi's water demand, of which 90% is used by sugar cane cultivation, mostly on large commercial plantations. Communal farmers depend on rainfall to produce most of the country's staple food, maize, and the lack of irrigation has been a major contributor to food shortages during droughts. A program to improve rainfed farmers' ability to weather drought and store rains would have better addressed this ongoing problem, and done more to alleviate poverty, than a huge dam intended for commercial interests.

- 34 http://www.irinnews.org/report.aspx?reportid=30767
- 35 http://www.irinnews.org/report.aspx?reportid=43526
- 36 World Rivers Review, Volume 13, Number 4/August 1998, published by International Rivers Network (on-line version: http://www.irn.org/pubs/wrr/9808/newsbriefs.html).

Indeed, the IMF reported in 2004 that "Swaziland faces a serious socioeconomic situation. ... two-thirds of the population is estimated to live on less than USD 1 a day. Economic growth in Swaziland has weakened since the early 1990s." The IMF referred to economic benefits from Maguga's construction as "on-off effects." 37

The project had other impacts as well. About 1,000 people were displaced. As with so many other large construction projects in Africa, this one resulted in an increase in STIs/HIV/AIDS in communities around the construction camps, adding to affected peoples' woes. The reservoir inundated 77 000m³ of timber – habitat that supported hundreds of species of birds, mammals and plants.

The project's support of commercial sugarcane plantations has external environmental impacts as well, such as draining wetlands for farming and converting natural habitat into monoculture timber plantations. IRIN reports: "The draining of half the wetland areas of South Africa was partly responsible for flooding in southern Mozambique that cost hundreds of people their lives in 2000 and 2001, and rendered hundreds of thousands homeless. Over the years, the upper watershed of South Africa's Limpopo River was drained for agriculture, and adjacent grasslands were defoliated due to overgrazing by cattle. Without natural vegetation and wetlands to absorb rainfall, cyclones brought flooding that flowed downstream into neighbouring Mozambique, to devastating effect."

Perhaps Swazi NGO Yonge Nawe Environmental Action Group best summed up this project's shortcomings, in a paper on large dams:

About 60% of the Swazi population still lives below the poverty line, while about 47% lack access to safe and clean water. Dams should therefore be relevant to the immediate needs of the rural poor. It is a cause for concern that dams in Swaziland are far from addressing the problem of food security the country is facing. What we have been seeing is a deprivation of the poor of their water resources for the benefit of agribusiness, particularly sugarcane farming, our priorities are rather skewed if one may say.

Among all the disasters it seems the greatest is one of water mismanagement. Basic water needs are not given priority, as stated in the Water Act of 2003. A large proportion of our water resources have been dammed and channelled to sustain industries and commercial agriculture at the expense of communities.

In fact, it is not the dams we need, it is easy access to water. We need water to curb the spread of diseases such as cholera, dysentery, typhoid and others. We need water nearby to ease the physical burden mainly on women and girls who carry water over long distances, we need water to be provided by municipalities even in the urban slums where the economically disadvantaged reside. If dams can achieve these needs, well and good.<sup>38</sup>

The EIB's approach to poverty alleviation projects does not, however, prioritise basic needs above large-scale commercial projects. Its webpage states: "Sustained high levels of economic growth are essential for poverty reduction. Meeting basic social needs through grant funding is indispensable to help populations survive. However, economic growth is required to break the vicious circle of poverty. The EIB, being a bank, provides the financial resources required to promote the investments that will generate growth, thereby contributing to sustainable poverty reduction and social improvement."<sup>39</sup>

The WCD's best-practice standards are intended to improve the likelihood that local people will benefit from large-scale infrastructure projects in their midst. The WCD states that the needs assessment process should ensure that development plans "reflect local and national needs adequately." In a country where half the population lacks safe water supply, it is debatable whether the choice of building a dam to export large amounts of water to South Africa and sell most of the rest to commercial sugarcane farmers qualifies as the best option for meeting local needs. The Maguga project clearly would have been improved if the planning process had begun with comprehensive and participatory assessments of people's water needs and of the full range of development options for meeting these needs.

- 37 http://www.imf.org/external/np/sec/pn/2004/pn0461.htm
- 38 http://www.yongenawe.com/03resources/newsletters/vol3iss1/vol3iss1dams.html
- 39 http://www.eib.org/news/the-eib-a-development-partner-and-the-millennium-development-goals.htm

### Uganda: Bujagali Dam



These women were resettled for the Bujagali Dam in its first incarnation in 2001. Their resettlement community was basically abandoned after the project's first developer left Uganda in 2002. Today, new promises are being made to affected people, but at the end of the day, will they be better off than they were before the dam? Photo by IRN.

**Project details:** The USD 799 million Bujagali Dam will flood Bujagali Falls, a national landmark, with its 388 ha reservoir. Construction will begin mid-2007 and is expected to be complete by 2011. The EIB's contribution (in 2007) was USD 130 million. Other donors include the World Bank Group (USD 360 million in loans and guarantees) and the African Development Bank (USD 110 million). The project is being developed by Bujagali Energy, a joint venture between Kenya-based Industrial Promotion Services (IPS) and US-based Sithe Global Power, with construction by Italy's Salini.

The Bujagali project, which was contested for years by activists in Uganda and internationally, was approved by the World Bank, EIB and African Development Bank in April-May 2007. The high-profile project has been criticised on economic grounds, as well as for its lack of protections for endangered fisheries, its potential to harm Lake Victoria, and its inability to bring affordable power to Uganda's majority.

Bujagali's cost had doubled from the time it was first proposed until it was approved. Frank Muramuzi of Uganda's National Association of Professional Environmentalists (NAPE) says: "The project's high cost will further limit funds available for rural electrification, and will likely lead to reductions in tariff subsidies for grid-connected users. Uganda already has the most expensive power in the region, and recent tariff hikes have pushed more people out of the already limited market for electricity." An independent economist states, "The project is expected to have little or no positive impact on the majority of Ugandans now without electricity." And the World Bank's own ESMAP has stated: "No more than 7% of the total population [in Uganda] can afford unsubsidized electricity... It is unrealistic to think that more than a fraction of the rural population could be reached by a conventional, extend-the-grid approach. A more promising course is to rely instead on 'alternative,' 'non-conventional' approaches to electrification."<sup>41</sup>

#### Hydrological risk

The EIB says the project will "use water that has already been used for hydroelectric generation at the upstream Nalubaale-Kiira dams on the Nile... It will contribute to improving the framework for private sector activities in the country and reducing severe disruptions of economic activities in periods of drought."

In reality, the project will make Uganda more vulnerable to drought, as the dam will increase Uganda's dependence on one short stretch of the Nile for all of its electricity for some time to come. Expert hydrologists and climatologists who reviewed project reports were taken aback by the lengths taken by the various parties to downplay the project's hydrological risks. The World Bank's least-cost analysis<sup>43</sup> ignored extensive evidence that global warming will reduce outflows in the Nile; it also proposes a new hydrological flow pattern for operating the dam complex that could slow the recovery of Lake Victoria. The Governmeny of Uganda (GoU)'s energy ministry has consistently denied operating the existing dams in a way that could harm the lake or violate the existing water agreement known as the "Agreed Curve", despite evidence to the contrary.

Independent hydrologist Daniel Kull, whose 2006 study<sup>44</sup> documented how the two existing dams were responsible for more than half the recent drops in Lake Victoria, says the project's hydrology analysis "starts by ignoring the true damage done to Lake Victoria by the existing dams and follows with a selective and optimistic view of current lake levels and possible climate change impacts. It is disturbing that the banks would approve a major infrastructure project based on biased hydrologic analyses." Kull believes the new hydrological regime proposed for operating all three dams could slow the rate of recovery for Lake Victoria.<sup>45</sup> The result could be a repeat performance of the Kiira Dam debacle, in which the World Bank used over-optimistic hydrological projections to justify that dam's projected capacity – projections which led to over-releases of water from the dam and the dropping levels of Lake Victoria. Re-using water from dams that have helped drain the Lake is small comfort; Bujagali's developers admit they will have no control over the government to ensure the Lake is protected from over-releases from the existing dams.

It is particularly amazing that the IFIs involved in this project would accept the argument that climate change will not significantly affect the Nile River flows. This is contrary to the findings of many studies that predict climate change will

- 40 An Analysis of "Bujagali II Economic and Financial Evaluation Study Final Reports" by Power Planning Associates, by Pete Tsournos, March 2007. http://www.irn.org/pdf/bujagali/BujagaliEconAnalysis.pdf
- 41 Uganda Energy Assessment, ESMAP, 1996. The situation has hardly changed in that time.
- 42 http://www.eib.org/news/eib-board-of-directors-approves-financing-of-bujagali-hydroelectric-project.htm
- 43 "Bujagali II Economic and Financial Evaluation Study Final Reports" by Power Planning Associates, commissioned by World Bank.
- 44 "Connections Between Recent Water Level Drops in Lake Victoria, Dam Operations and Drought," D. Kull, 2006, available at http://www.irn.org/programs/nile/index.php?id=060208vic\_pr.html
- 45 Lake Victoria and The Proposed Hydrological Curve Change: New Release Regime for Bujagali Dam Would Slow Recovery of Lake (April 2007). http://www.irn.org/pdf/bujagali/BujHydrologyAnnex.pdf

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worsen droughts in East Africa<sup>46</sup>, and are at odds with the World Bank's recent commitments to factor climate risk and adaptation measures into project decisions, and the EIB's statement about wanting "to support actions that will help to abate, mitigate and adapt to climate change" and to take into account "the uncertainties related to the physical effects of global warming." It is hard to imagine any northern country accepting a project that would make it almost 100% dependent upon one form of electricity that is uniquely vulnerable to climate change.

The project EIA was also flawed in analysing the dam's impacts on fisheries. Les Kaufman, a US fisheries expert with longtime experience studying the Nile, has concluded that the existing studies are "inadequate to rule out a likelihood of negative impacts to the survival of endangered species caused by dam construction... The potential impacts to species diversity and ecosystem services from the proposed dam are extremely high." He recommends additional comprehensive baseline studies, a sustainability plan for the Victoria Nile, and improved mitigation measures. It appears his concerns were ignored by the IFIs.

On dam-affected people, the EIB states: "Inhabitants in the project area will benefit from the project through improved housing and water supply, better school and health facilities. The project will also create job opportunities during construction and for the power plant's operations." Yet dam officials' dealings with project-affected communities were very poor in the project's previous rendition, and it is unclear how the communities' interests will be protected in the current situation. People who were moved in 2002 were not given legal title to their new lands, and problems that arose with the resettled communities were left unresolved for years after the original project sponsor, AES, left Uganda. It took strenuous lobbying on their behalf by local NGOs to get the government to respond to the problems.

Today, the promises made to these communities have brought buy-in from many of the resettlers, but it remains to be seen if they will be better off after the project is built. As for employment, the project construction manager estimates that between 500 and 600 local people may get jobs on the project<sup>49</sup>. These may be offset by those who will lose their source of livelihoods in the tourism industry, and resettlers who experience a reduction in their ability to support themselves due to the changes in their situation, as so many dam-resettlers have experienced in the past.

#### Alternatives downplayed

The EIB states: "The project's economic study and comparison with alternative solutions included all possible alternative options for the Ugandan power sector." The study in fact unnecessarily minimised the potential for various alternatives, (especially geothermal; its potential in Uganda was described as being one-tenth what the Ugandan energy ministry and geothermal experts believe is the true national potential) while also unfairly expecting smaller sources of power to stack up individually against a large project like Bujagali. 50

Yet, Uganda has taken minimal efforts to develop any of the hundreds of megawatts of cleaner energy sources available to it. <sup>51</sup> Plugging the leaks in the transmission and distribution system would have been the natural first place to start: the national grid is estimated to leak a third of the electricity that flows into it. Uganda's large potential for microhydro has hardly been tapped. A recent article by a former *Wall Street Journal* reporter states: "Small dams capable of generating up to 15 MW are relatively inexpensive and require the hands-on involvement of villages and communities, thus potentially serving as a tool for local empowerment. Perhaps because small dams spread political and economic power, rather than concentrate it, African governments and the foreign donors who fund so much of Africa's infrastructure have generally ignored them." <sup>52</sup>

- $46 \quad \text{See, for example, http://www.nileteap.org/html/start.asp?pc=95\&fn=1 and http://www.nileteap.org/html/start.asp?pc=91\&fn=1 and http://www.nileteap.org/html/start.asp?pc=91\&fn=1 and http://www.nileteap.org/html/start.asp?pc=91\&fn=1 and http://www.nileteap.org/html/start.asp?pc=91\&fn=1 and http://www.nileteap.org/html/start.asp?pc=91&fn=1 and http://www.nileteap.o$
- 47 "EIB and Climate Change," July 2002.
- Concerns About the Impacts of the Bujagali Dam Project On Endangered Fishes and Fisheries in the Victoria Nile, by Les Kaufman, April 2007. http://www.irn.org/pdf/bujagali/Bujagali/Bujagali/Fisheries.pdf
- 49 "Bujagali Dam Works Begin," New Vision (Kampala), 4 June 2007
- 50 "Bujagali II Economic and Financial Evaluation Study" by Power Planning Associates, Feb. 2007.
- Analyzing Bujagali Hydroelectric Project's Compliance with the Strategic Priorities of the World Commission on Dams by Lori Pottinger, Feb. 2007.

  Available at http://www.irn.org/programs/bujagali/index.php?id=070212report.html

In March 2007, Achim Steiner, Executive Director of UNEP's Environment Programme, said the rush to build more large dams and fossil fuel plants in Africa would "lock in" the rural majority to decades without power, and called for more renewables to meet local needs. "We should not live with the dream of a trickle-down of energy supply (to villages) in 20 to 30 years time ... Africa should not follow the technological path the rest of the world is willing to give it access to," Steiner said.<sup>53</sup>

A national energy plan that gathered a wide range of energy alternatives could have been just as effective at meeting national energy needs, might have come online faster, cheaper and with more likelihood of meeting the needs of the unserved who are unlikely to benefit from large hydro projects, and would have helped diversify Uganda's energy economy.

#### Not up to best-practice standards

On March 5, 2007, NAPE and others in Uganda filed a complaint with the World Bank Inspection Panel, citing concerns about potential violations of Bank policies on Bujagali<sup>54</sup>. The Panel had just completed an eligibility visit when the World Bank and EIB made their decisions to support the project. The EIB says it intends to disburse funds "in line with … the World Bank Group, in order to ensure a coherent approach to any recommendations the World Bank's Inspection Panel may express in the future and their full consideration in the project." In May, the Panel was given permission to undertake a full investigation, but since the government has announced it is starting construction immediately, it is likely that the Panel's findings will be too late to greatly influence the project in key areas.

Groups have also documented the project's non-compliance with the best-practice standards described by the World Commission on Dams<sup>55</sup>. The Bujagali project fails to meet the WCD's standards in many key areas, including comprehensive options assessments, addressing existing dams, analyzing cumulative impacts, and others.

The EIB states that its appraisal of the project "is guided by international good practices, including the recommendations of the World Commission on Dams." EIB approval came with the stipulation that "the EIB's first disbursement will be subject to the closing of the financing plan and to the final environmental and social analysis satisfactory to the Bank."

Yet too many areas of non-compliance with the WCD and World Bank policy should have been addressed before project approval. Examples include fully analyzing all options for meeting energy needs, undertaking a cumulative-impacts study for large dams proposed and built on the Nile, ensuring affected people are beneficiaries of the project, and addressing problems from existing dams.

#### Bringing the project into WCD compliance

The following summarises recommendations for bringing the project into compliance with the WCD; these were sent to the EIB and World Bank in March 2007. The very brief response to this document from the EIB did not address these concerns.

- A comprehensive, independently facilitated and participatory options assessment process should have taken place before the project got this far. More transparency is needed on how various options were evaluated.
- The ongoing debate over the existing dams' role in the draining of Lake Victoria should be settled in a transparent, participatory way. There is also need for an analysis of these dams' legacy of environmental damage and disruption to the livelihoods of lakeside dwellers and businesses, and a multi-stakeholder process to come up with long-term workable solutions.
- 52 http://www.spectrum.ieee.org/may07/5054
- 53 "Africa must set alternative energy agenda U.N.," Reuters, 22 March 2007. http://www.alertnet.org/thenews/newsdesk/L22283521.htm
- 54 This was the second time the Panel has been asked to intervene; its 2002 report's recommendations were never explicitly addressed by Bank Management
- 55 See Analyzing Bujagali Dam Against the WCD, by IRN and NAPE, http://tinyurl.com/2vjzza

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- An analysis by climate-change experts of the risks of climate change on Uganda's energy sector and its economy should be undertaken and released. The project economic analysis, which mentions looking at several climate analyses, appears to have "cherry-picked" favored analysis on climate change that supports the project going forward.
- Binding agreements are the only way to ensure that directly affected people are primary beneficiaries of the project.
   As recommended by the WCD, a plan for addressing affected peoples' needs should include benchmarks for success, an evaluation of project authorities' capacity to carry out the plan, and the use of financial guarantees, performance bonds or trust funds to ensure sufficient funds to undertake commitments to affected people. Compliance with promises on resettlement and rehabilitation would be strengthened if a truly independent monitoring body, which includes members of civil society, is created. The choice of such a body should have the participation of the affected communities.
- The final hydrological flow agreement for the dams should be subject to an independent and transparent review. Hydrological data should be released in real-time to ensure compliance with the water-release agreement. Any future agreement on water releases should include an arbitration mechanism under which violations of the agreement can be dealt with.

This project clearly had political momentum that overrode concerns about its impacts on Uganda's economy, on Lake Victoria and the Nile, and on the nation's ability to adapt to climate change. It is not too late to take more aggressive steps to address these concerns. The EIB and other major donors to this project owe it to Uganda to ensure this project does not become a white elephant, and, importantly, to promote better energy planning in future.

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### Southern Africa: Lesotho Highlands Water Project



A Lesotho Highlands village meeting to discuss problems with the project. Photo: IRN

**Project details:** This huge interbasin water-transfer scheme comprises five dams, 200 kilometres of tunnels blasted through the Maluti Mountains, and a 72 MW hydropower plant. It is one of Africa's largest infrastructure projects. The project's primary purpose is to transfer water to South Africa's industrial heartland. Two dams and the hydropower component are complete (at a cost of approximately USD 3.5 billion). The project was spearheaded by the World Bank; the EIB lent USD 20 million for Katse Dam/Phase 1A (1993) and USD 99 million for Mohale Dam/Phase 1B (1998).

56 http://www.eib.org/news/lesotho-highlands-water-project.htm

Although this project has "delivered the goods" (water to South Africa), it has left trouble in its wake. The EIB's optimistic pronouncement that it "considers that the Highland people's quality of life will be enhanced – even if they have to resettle – as a result of much improved infrastructure created by the project, re-training and other social welfare and employment creation measures, as well as compensation, on all of which they have been consulted and to which they are party" <sup>56</sup> reads like a cruel joke at this stage.

More than 27,500 people upstream and an estimated 152,000 Lesotho villagers living along the Senqu River below the Katse and Mohale Dams have been adversely affected to varying degrees by the LHWP, according to Thayer Scudder, a sociologist and member of the project's Panel of Experts from 1989–2002.<sup>57</sup> Sadly, affected people have not been made true beneficiaries of the project for which they gave up so much, and poverty has actually increased in Lesotho since ground was broken for the first dam.<sup>58</sup>

At the time of writing, Lesotho was in the grips of a terrible drought-induced food shortage affecting one-fifth of the population. "The last thing Lesotho needed was another poor harvest since so many vulnerable people are already living on the edge, struggling to cope with the combined impact of successive crop failures, extreme poverty and HIV/AIDS," said Amir Abdulla, World Food Program's Regional Director for Southern Africa. <sup>59</sup> The situation, which is expected to last through 2008, was not mitigated by having so much water impounded within its borders. The LHWP can make emergency releases to maintain urban water supply, but not for growing crops.

While many affected people have benefited from improved roads and sanitation, too many other programs designed to help them restore their lives have failed. The World Bank states: "The impact of royalty revenues on poverty is difficult to determine." The project treaty required dam-affected people to be left no worse off than when the project began, but the World Bank noted in its "project completion report" that:

- "Large components of the implementation of environmental and social programmes lag by years";
- "The Government of Lesotho (GoL) exhibited limited commitment to addressing the project's broader social and environmental objectives and failed to capitalise on a number of significant opportunities"; and
- monitoring and evaluation on environmental, social and poverty reduction was not carried out in a satisfactory manner. "These problems have complicated determination of project impacts on Highlands communities and the extent to which the Treaty provisions have been met."

The key element to restoring livelihoods was the Rural Development Plan, which was widely criticized for years. A June 1996 World Bank report stated, "After about eight years of implementation of RDP progress, a recent evaluation shows that, although there is some potential for this program in the Highlands, it cannot be trusted to restore incomes and sources of livelihoods as required by the treaty and Bank resettlement policy." The program was eventually scrapped.

Health problems have been a particular trauma. A workforce numbering 20,000 people moved into the Highlands, bringing AIDS to the isolated communities<sup>62</sup>. Today, Lesotho has one of the highest AIDS rates in Africa. More minor but still troubling health problems have arisen due to the greatly reduced flow of water to communities downstream of the dams.

- 56 http://www.eib.org/news/lesotho-highlands-water-project.htm
- 57 On the Wrong Side of Development: Lessons Learned from the LHWP published by Transformation Resource Centre, Maseru, 2006.
- 58 Implementation Completion for Phase 1B by the World Bank (May 2007), p. 19
- 59 "Drought Leaves Lesotho with Food Shortage" by Tiisetso Motsoeneng, Mail and Guardian, 13 June 07
- 60 Implementation Completion for Phase 1B by the World Bank (May 2007)
- 61 Ibid
- 62 According to the Archives of Internal Medicine (7 August 1995), "In the early years of the worldwide pandemic, there were no reported cases of AIDS in Lesotho. Since construction began in 1986, the HIV virus ... has been introduced by dam workers and is quickly making inroads into local populations. In 1992, doctors randomly tested the blood of 486 dam construction workers, and found 5.3% infected with HIV. This is more than six times the rate found in the same age group in the villages surrounding the construction project."

#### **Environmental impacts**

The feasibility study for the project concluded that there were no major "environmental obstacles", so the LHWP began without an environmental impact assessment. The second dam had an incomplete EIA (key issues that could affect project viability, such as erosion and sedimentation, were not covered). The World Bank completion for Phase 1B states the situation today: "Although it was originally restricted in scope, the EIA identified 140 impacts, including 29 downstream and 48 other impacts. Of these, 31 were of high significance and two of very high significance: the loss of life through HIV/AIDS and extinction of the Maluti Minnow. Failure to implement all of the measures which would have 'better protected the Maluti Minnow demonstrates a lack of commitment from the GoL and raises broader questions as to the long-term sustainability of many environmental measures."

An instream flow requirements study (IFR), which analyzes how much water is needed in areas downstream of a dam to support life and livelihoods, was not completed before the second dam was begun, thus greatly reducing its effectiveness. The downstream impacts of diverting most of the river's flow below the dams were found to be substantial. Adherence to the treaty requirements results in 96% reductions in river flow below Katse Dam and 57% reductions where the Senqu River flows out of Lesotho. This translates into "critically severe" biophysical and social impacts that will cost between USD 2.8-4.2 million annually to address. If the entire project were built and Lesotho delivers as much water to South Africa as the original treaty requires, the IFR reports, the rivers affected by the project could deteriorate to "something akin to wastewater drains."

The World Bank's completion report found that the dam operators have only complied with the IFR's policies and procedures 60% of the time. The report states: "[An audit] has identified issues likely to affect the sustainability of the IFR... The contribution of the project to the determination of environmental flows is of global significance, although long-term commitment and sustainability remain to be proven." But the devil is in the details: no matter how globally significant the IFR report is, it cannot substitute for a commitment to protect downstream ecosystems and communities' health and well-being.

#### Corruption

Widespread corruption was discovered on the LHWP in 1999, when more than 12 multinational firms and consortia were found to have bribed the CEO of the project. After the CEO himself was found guilty, three major European firms have been found guilty and charged, and two (Acres International and Lahmeyer) have been debarred at the World Bank (in both cases, it was a number of years after being found guilty in a Lesotho court). According to the Lesotho Attorney General, Fine Maema, the court cases have cost the government USD 4.3 million as of 2004 - 2% of the country's annual budget for public services.

EIB's reaction to the corruption was even less than the World Bank's laggardly response. It conducted an internal audit and found that no misuse of EIB funds had taken place, and so it took no further action. <sup>64</sup> In fact, one of the companies found guilty of corruption – Lahmeyer of Germany – continued to benefit from EIB contracts since they were found guilty in Lesotho courts.

#### Improper assessment of need

The LHWP has failed to meet local needs for water; water supply for affected villagers has been a particular failure of the project, and drought-induced hunger has been an ongoing problem in the project area despite the presence of huge reservoirs in the Highlands.

The project was also poorly designed to meet the needs of South Africa's citizens. Many residents of Gauteng are still without a safe, adequate water supply, and the LHWP's water has proved too costly to meet their needs. In part because the water was too costly for South Africa's poor, and in part because the impact of AIDS deaths meant that demand did not grow as quickly as project proponents contended it would, the project also proved to be less profitable than

- 63 Metsi Consultants, "Final Draft of Instream Flow Requirements Study," Report commissioned by the LHDA, Report No. 648-F-02, Maseru, 1999 n 28
- 64 www.ipocafrica.org/cases/highlands/funding/darroch.pdf

anticipated. The World Bank's Completion report states: "Phase 1B had a lower than expected ERR due mainly to much lower water demand growth than projected at appraisal: from 15.9% in 1998 to 11.5% in 2006. An increased allocation to environmental flows also reduced the project yield and hence the ERR. ... It was clearly not anticipated that water demand growth would decline so drastically shortly after implementation." In part due to the lower demand, some of the project's water was used to re-start mothballed dirty coal plants, according to a South African engineer.

The lower-than-expected ERR was a direct consequence of moving forward before learning the lessons of Phase 1A. At the time the second dam was approved, a high official at South Africa's Department of Water Affairs stated at a meeting (attended by IRN) that "Phase 1B could 'easily' be delayed seven years under the current state of demand management without threatening South Africa's water supply, and could be delayed up to 11 years or more with the successful implementation of new demand management strategies." 65

A delay of as much as 18-20 years was estimated to be feasible by Rand Water conservation experts. At that time, demand projections were incomplete and the ability of demand-side management efforts to effectively put off the need for the project had not been thoroughly studied.

But World Bank staff argued against attempting demand management in order to promote Phase 1B. A 1998 paper by then task manager John Roome, titled "Economics of Delaying Phase 1B," stated: "It is not clear what the scope is for further demand management ... Demand management capabilities and their impact in South Africa are theoretical and have not yet been tried and tested." Roome stated in a March 28, 1998 email to IRN that delaying Phase 1B "must be weighed against the costs of demand management that will be needed to get these delays and/or the increased risks of water restrictions" in South Africa.

#### LESSONS LEARNED: HOW THE LHWP COMPARES TO THE WCD

#### Gaining public acceptance

Many of the project's flawed social programs could have been avoided with greater participation by affected people. The WCD recommends: "adversely affected people should participate in the identification, selection, distribution and delivery of benefits. As a general principle, the level of benefits should be sufficient to induce demonstrable improvements in the standard of living of the affected people." This project aimed only at keeping people's living standards at existing levels, and failed to do that in too many cases. The WCD's recommendation that all stakeholders participate "in the negotiation of outcomes that affect them" could have led to better results.

#### Comprehensive options assessment

Both phases of the project were flawed in this regard. The WCD states: "Comprehensive options assessment must precede selection of any specific development plan, whether it includes a dam or an alternative. Options considered should include institutional changes that could influence consumption patterns, reduce demand and affect the viability of supply options; [and] subsidies that can distort comparison of alternatives." It further states that "a priority should be to improve existing systems before building new supply, [and] that demand—side options should be given the same significance as supply options." The WCD also calls for a needs assessment to ensure that a project will actually meet local needs: "In countries where a large proportion of the population does not have access to basic services, a key parameter should be the extent to which basic human needs will be met."

Large, "lumpy" projects such as the LHWP's big dams take so long to plan and build that reality can diverge from forecast expectations, thus increasing the risk of overbuilding. A better understanding of actual needs and the variety of ways to meet those needs was overridden in this case by the desire of the project developers to continue construction rather than allow demand-management programs to take effect.

#### Addressing existing dams

The WCD states: "Outstanding social problems associated with existing large dams are identified and assessed; processes and mechanisms are developed with affected communities to redress them. The report also highlights the need

65 Personal communication.

for reparations on past projects." In this case, specific conditions – including evidence for the establishment of income generating opportunities – should have been met on the first dam before advancing with Phase 1B. Structures and institutions should have been in place to prevent a repeat of the problems in Phase 1A.

#### **Ensuring compliance**

Although institutional capacity building was a project priority and an indispensable pre-condition to successful development programs, efforts on this project – starting at initial project planning in the 1980s until today – have not created the institutional framework necessary to ensure that the environmental and social impacts of Phase 1A and 1B were satisfactorily addressed, or that the project would make a contribution to positive development for the Basotho people more broadly.

As Thayer Scudder wrote in 2006: "The range of problems raises the legitimate question as to whether the implementation issues associated with large dams in small countries like Lesotho are just too complex for realizing outcomes for affected people that are equitable and sustainable environmentally, economically, institutionally and culturally." The development banks bear responsibility for this situation, not the GoL.

More specifically: a full and cumulative environmental impact assessment – including plans to address public health and social impacts – should have been carried out in a timely and participatory manner and taken into account during project design and implementation.

#### Recognising entitlements and sharing benefits

The Development Fund was set up by the World Bank to ensure that the LHWP was a poverty-reduction project, thereby justifying the Bank's financing. An analysis of Lesotho politics and government capacity to handle such a project might have indicated early on that simply setting up such a Fund would be insufficient to the task. Specific rules on ensuring transparency in the management of the Fund, and public information on its activities and programs should have been put in place. An independent oversight committee with the participation of civil society representatives could have helped ensure that the funds would have been allocated to benefit the population of Lesotho and in particular the affected communities in the Highlands.

The WCD states that all recognised adversely affected people should be able to negotiate mutually agreed, formal and legally enforceable mitigation, resettlement and development entitlements. Such a plan would likely include some kind of dispute resolution, as was performed by an ombudsman in this case, but there would be the added weight of having clear penalties for not addressing the grievances found to be legitimate. Having a local, independent advocate for communities affected by large development projects helps reveal the scope of the problem, and can minimise the chance that problems will be swept under the carpet, a situation that is more likely to occur when the monitors are also part of the team responsible for resolving the problems.

The WCD report states: "Special attention is necessary to ensure that compensation and development measures are in place well in advance of resettlement. It also notes that a clear agreement with the affected people on the sequence and stages of resettlement will be required before construction on any project preparatory work begins." Resettlement, traumatic even under the best of circumstances, was unnecessarily stressful for LHWP–affected people. They received no compensation prior to displacement (a violation of World Bank policy). They were resettled to places without safe drinking water and, in some cases, have faced overt hostility from host communities. Many have yet to receive promised skills training intended to restore their livelihoods.<sup>67</sup>

LHWP-affected people have suffered for not having the opportunity to negotiate binding performance contracts, as recommended by the WCD. Had they been in place, resettlement sites would have been ready for habitation before people were moved. Compensation would have been paid promptly and fully. And the project authorities' promises of development would either have been fulfilled or not committed to in the first place.

- 66 On the Wrong Side of Development, TRC
- 67 Pipe Dreams: The World Bank's Failed Efforts to Restore Lives and Livelihoods of Dam-Affected People in Lesotho by Ryan Hoover, IRN, 2001.

#### Sharing rivers for peace

The LHW $\bar{P}$ 's conception gave rise to the first major conflict between South Africa and Lesotho. As described by the Swiss research body EAWAG: "In 1986, the South African government provided decisive support to the Lesotho military in its successful coup attempt. It justified the intervention by arguing that the previous government had harboured and supported anti-apartheid fighters. Within six months of the coup, Lesotho and South Africa had negotiated and signed a treaty that set in motion the LHWP. Given the significance of the treaty and the complexity of the project, it is difficult to imagine that the two governments – one brand new – could have finalized negotiations in such a short period of time without a level of discussion and agreement prior to the coup. It can be argued that one ulterior motive for supporting the coup was to secure access to Lesotho's water."

Then, in 1998, after unrest related to Lesotho's recent elections, South African troops moved in to "restore order" in the mountain kingdom. Katse Dam was the site of a military action that left dead and wounded in a village near the reservoir, after South African troops flew in to prevent a takeover of the dam. Eyewitnesses reported that some Lesotho citizens had been shot in the back as they ran from the troops.<sup>69</sup>

<sup>68</sup> Evaluation of Success and Failure in the International Water Management: Orange River Basin, South Africa, www.eawag.ch/research\_e/apec/seminars/Case%20studies/2004/Orange\_Report.pdf

<sup>69</sup> Personal correspondence. For more on the military action see: http://www.iss.co.za/Pubs/Monographs/No44/AnalysisSADC.html

### Tanzania: Lower Kihansi Dam



**Project details:** This USD 260mn 180 MW dam project was financed by the World Bank, EIB, and Norwegian, Swedish and German bilaterals. The EIB contribution was EUR 23 million (1994). It destroyed a spectacular 800-metre-high waterfall in Kihansi Gorge, and affected over 20,000 villagers.

Putting a 25-metre-high dam in the middle of one of IUCN's 25 designated "Global Biodiversity Hotspots" would seem to indicate the need for a thorough environmental impact assessment. That was not the case with this project. A rare, endangered frog and other species were only discovered in the project area after construction had started. Once dam operators began diverting water for the project in 1999, the original flow of the Kihansi River was reduced by 75%, greatly harming the habitat of the endemic Kihansi Spray Toad and at least two endangered plant species, including a type of wild coffee that grew only in the waterfall spray zone. The spray zone of the falls turned out to be the only habitat in the world for the toad, which now is perilously close to extinct in the wild.<sup>70</sup>

The discovery of the rare toad during construction led the Norwegian Agency for Development Cooperation (NORAD), one of the financers, to undertake its own environmental review, which "found the original World Bank environmental assessment to be of such poor quality that it financed its own Environmental Impact Assessment." According to NORAD, in addition to missing critical species and leaving out other critical data, the original EIA failed to include adequate water-discharge and dam management plans.

A short-term emergency project tried to recreate the spray zone conditions with artificial sprinklers. A breeding program was also undertaken. Neither has succeeded in restoring the toad to a healthy population.

In addition to beginning work without a complete EIA, the proponents did not modify the project's design, implementation and operation after its serious impacts became apparent.

#### **HOW KIHANSI COMPARES TO WCD**

The WCD calls for policies to "maintain selected rivers with high ecosystem functions and values in their natural state." It further recommends that consideration of options places priority on "avoiding or minimizing negative impacts on endangered species" and "respecting the provisions and guidance of relevant international treaties." The WCD states that dam developers must provide "sufficient evidence to demonstrate that proposed mitigation and development measures will be effective in meeting their objectives." The growing likelihood that the LKHP will lead to the extinction of these species puts the project in violation with commitments made by Tanzania and the donor countries under the International Convention on Biological Diversity.

The WCD calls for the definition of "an environmental flow requirement to maintain downstream species, ecosystems and livelihoods" before the dam is constructed. It also states: "Releasing tailor-made environmental flows can help maintain downstream ecosystems and the communities that depend on them." No such environmental flow requirement was determined prior to construction. Since then project authorities have resisted efforts to increase downstream flows, because they claim additional releases will not allow them to produce enough power. The project feasibility study only analysed impacts on habitat flooded by the reservoir. The report failed to mention any impacts on the Kihansi Gorge ecosystem.

<sup>70</sup> http://news.mongabay.com/2005/0606-Kihansi\_Spray\_Toad.html

<sup>71</sup> http://www.power-technology.com/projects/kihansi/

# RECOMMENDATIONS FOR THE EIB

The EIB should urgently address its involvement in controversial large dams with improved policy, greater transparency, and more careful evaluation of the development impacts of its investments. The risk of these kinds of projects makes it imperative that the EIB have its own policy on dams, and one that improves upon its partners' policies rather than hides behind them. Existing projects, such as Bujagali, should be rigorously analysed for compliance with the recommendations of the WCD, and suggested improvements implemented. Potential new projects, such as the Gilgel Gibe dam in Ethiopia, should not move forward at the EIB until these basic tenets can be addressed.

Therefore, the EIB should adopt a binding dam policy to operationalise the WCD's strategic priorities. This policy should apply to all dams greater than 10MW. This would be in keeping with the European Parliament's decision to apply WCD to all carbon-credit projects, and would therefore make the EIB consistent as an instrument of the EU.

The EIB should conduct the policy formulation in an open public consultation process allowing all interested stakeholders to contribute and seeking specifically input from affected communities.

The following offers some ideas on how to incorporate the WCD's strategic priorities into policy.

#### Comprehensive options assessments

The EİB should be proactive in requiring improved options assessments. This process should be undertaken *before* discussions on specific dam projects have gained momentum from extensive feasibility studies, Memoranda Of Understanding and official backing — a situation that makes it nearly impossible to give other, less intensively–studied options a fair hearing. A transparent and participatory needs and options assessment process that considers equally all options for meeting water and/or energy needs (including making existing water, irrigation and energy systems more effective and sustainable) will go a long way toward building public trust that a particular development path has been fairly and intelligently chosen.

Such processes should consider as well the overdependence on hydropower, which especially plagues many African nations, and prioritise alternatives to reduce risk to local economies. The Gilgel Gibe and Bujagali dams are two examples of EIB-supported projects that are increasing hydrological risk to excessively hydro-dependent economies in Africa, while doing very little to meet the overwhelming basic need for modern energy services in those countries. One European example, in which WWF-Poland commissioned an options assessment in light of a proposed dam on the Vistula, might be studied as a case study worthy of repeating<sup>72</sup>.

72 Options assessment related to the Wloclawek Dam, Poland, described: http://www.panda.org/about\_wwf/what\_we\_do/freshwater/news/index.cfm?uNewsID=2442 and referenced here: http://www.iucn.org/themes/wani/flow/p34.html

#### Gaining public acceptance

EIB policy should ensure that no dam should be built without the "demonstrable acceptance" of the affected people, and without the *free, prior and informed consent* of affected indigenous and tribal peoples. This should be achieved through negotiated agreements that are legally binding.

#### Addressing existing dams

The EIB should always prioritise the rehabilitation and upgrading of existing dams to maximise benefits before building new projects. While it is admirable to have energy components to water projects such as Maguga and LHWP, in these cases the hydropower element was not additional, but part of the original project's selling points. Also, in both of these cases, the dams' electricity output is small enough that demand-management programs in South Africa — which suffer from a lack of capital and momentum — could have been prioritised instead, which would have been cheaper, faster and cleaner than new hydro, and would have created more jobs than hydro.

Addressing existing dams also involves making right past wrongs from existing large dams, by working with governments and other funders to find ways to make retroactive compensation to communities impacted by harmful existing dam projects. Dam operations should also be modified to mitigate environmental impacts.

#### Sustaining rivers and livelihoods

The EIB should seek development investments that first try to avoid impacts, and mitigate unavoidable impacts. Before making a decision to build a dam, baseline scientific information about ecosystems, social and health issues should be gathered and analysed, taking into account the cumulative impacts of dams and other development projects ecosystems. Dams should release "environmental flows" to help maintain ecosystems and livelihoods, and agreements on such flows should be binding.

#### Recognising entitlements and sharing benefits

The EIB should ensure/insist that adversely affected peoples be the first to benefit from a project. This includes those displaced, living upstream and downstream of the dam, those living around the reservoir, and those whose lands are impacted by resettlement sites. These people should participate in the identification, selection, distribution and delivery of benefits. Negotiations with affected people should result in mutually agreed and legally enforceable mitigation and development provisions. The Maguga Dam in Swaziland has lessons to share on this subject.

#### **Ensuring compliance**

The EIB should establish an independent complaints and appeals mechanism to ensure compliance with its standards, and allow for dispute resolution on projects it funds. EIB should reconsider involving itself in projects proposed for countries where compliance will be seriously hampered by low internal capacity.

The EIB should also undertake a process to adopt innovative and flexible approaches to fighting corruption in its lending. The WCD report included a recommended program for reducing corruption on large dams, written by Transparency International, that should be incorporated into EIB policy a first step.

#### Sharing rivers for peace

The Gilgel Gibe, Lesotho and Bujagali projects are all increasing tensions between neighbors. Because water projects will be increasingly controversial in a warming world, the EIB should greatly improve its ability to ensure that its projects do not worsen local or regional tensions over the use of rivers.

Finally, to ensure this policy's effectiveness, the EIB should prioritise increasing internal expertise and human resources devoted to monitoring implementation, including a large increase in the number of environmental and social experts as well as those specialising in indigenous people and gender issues. It should also improve its ex post evaluations of projects and their development effectiveness. Evaluations on a project level should be made public and open to input from stakeholders.

#### Conclusion

At the launch of the WCD's report in November 2000, Mary Robinson, UN High Commission for Human Rights, congratulated the Commissioners for "their invaluable contribution to one of the key issues we face today: how to harmonize economic, social and environmental objectives for the benefit of all people." She further stated: "In an age of globalisation, greater efforts can and must be made to reconcile the need for economic growth with the need to protect the dignity of individuals, the cultural heritage of communities and the health of the environment we all share."

The kinds of problems described with the projects in this report cast serious doubt on the development effectiveness of EIB lending. Most if not all of them could have been anticipated, resolved or avoided by using a more careful, thoughtful planning approach as described by the WCD. It is time for the EIB to bring its development lending into line with the higher standards set forth by the WCD.

"The European Investment
Bank has in recent years
funded large dams in poor
countries that have led to
forcible resettlement for
tens of thousands of poor
rural farmers and fishers,
pushed rare species into
extinction, and irrevocably
changed rivers around
the world. There are better
ways to help poor nations get
water and electricity. It's time
for the EIB to adopt better
practices on large dams."

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