

# Big Dams:

## Bringing poverty not power

**TERRI HATHAWAY AND LORI POTTINGER** FROM THE INTERNATIONAL RIVERS NETWORK EXPLAIN WHY BIG HYDRO IS WIDENING THE GAP BETWEEN AFRICA'S RICH AND POOR.

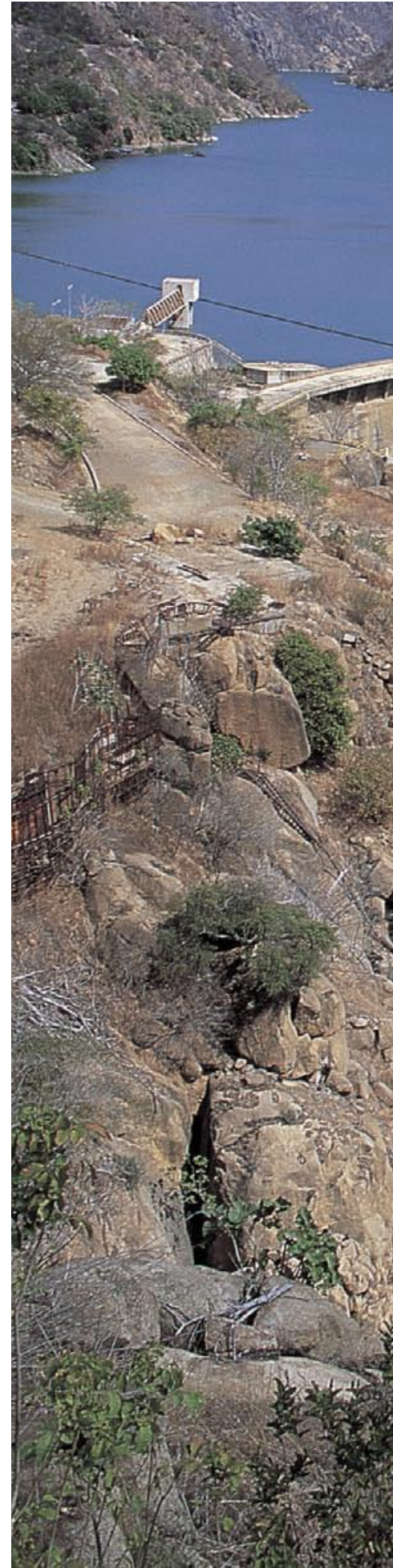
**A**frica's large dams (more than 1 270 at last count) have consistently been built at the expense of rural communities, who have been forced to sacrifice their lands and livelihoods to them yet have reaped few benefits. Large hydroelectric dams across Africa have brought considerable social, environmental and economic damage, and have left a trail of 'development-induced poverty' in their wake.

Between 1998 and 2000, an unprecedented global process to review large dams and their development effectiveness took place. In its final report, the independent World Commission on Dams (WCD), headed by former South African water minister Kader Asmal, found that while 'dams have made an important and significant contribution to human development, and benefits derived from them have been considerable... in too many cases an unacceptable and often unnecessary price has been paid to secure those benefits. Especially in social and environmental terms, by people displaced, by communities downstream, by taxpayers and by the natural environment.' The report also found that a 'lack of equity in the distribution of benefits has called into question the value of many dams in meeting water and energy development needs when compared with the alternatives'.

While the WCD fulfilled its mandate to develop internationally acceptable guidelines and standards for planning dams, the World Bank, the dam industry, and most governments have refused to abide by them.

African governments continue to seek funding for billions of dollars worth of large hydropower proposals and the expansion of transmission lines serving primarily urban areas and industrial development. These dam projects generally do not consider the energy needs of the rural majority. A strategic planning process is needed to develop rural energy needs and balance urban and industrial energy development with rural energy development.

Donors like the G8 and World Bank have said they intend to give renewed priority to the development of energy projects in Africa in coming years, and large hydro is expected to be high on their lists. After committing \$50-billion to Africa by 2010, the G8 charged the World Bank with directing its work in Africa. The World Bank's new president, Paul Wolfowitz, told the *London Times* in June that he will not be shy of taking the Bank back into the kind of infrastructure projects – dams, power plants and roads – which brought it past criticism. 'The Bank tended to get out of infrastructure in the 1990s,' Wolfowitz







Cahora Bassa in Mozambique is the second major scheme on the Zambezi River. Yet despite its capacity not being fully utilised, another dam is due to be built 70km downstream.

Picture by David Rogers





Picture by Jacques Marais

Bujagali Falls will disappear, drowning the current low-impact tourism around rafting and access to the falls by local communities. Despite viable geo-thermal potential the Ugandan government is pressing ahead with the dam.

said. 'The development community endorsed a lot of white elephants in the 1970s which were a magnet for corruption but that doesn't mean that you don't need infrastructure.' The Bank is heavily involved in the hydropower-heavy Nile Basin Initiative.

It's not just the World Bank and G8 who are pushing more dams for Africa; the home-grown New Partnership for Africa's Development (NEPAD) is seeking funding for at least 13 dam projects. Dams prioritised under NEPAD include Mozambique's Mphanda Nkuwa; the massive Grand Inga project on the Congo River in the DRC; Adjarala Dam in Benin; and the Souapiti and Kaleta Dams in Guinea.

Resource-hungry China is also ramping up its connections across the African continent, offering to build and finance infrastructure in exchange for oil, minerals, and other raw materials. Chinese companies are moving heavily into African dam construction, and are currently involved in the Merowe Dam in Sudan, whose 174km reservoir will displace 50 000 farmers from the fertile Nile to harsh desert lands; the 185-metre high Tekeze Dam in Ethiopia, which is expected to increase water-borne illnesses; and a number of others. China's own poor human rights record, and its

policy of 'non-interference' on human-rights violations in the states it does business with, does not bode well in upholding human rights in Africa. Indeed, on Sudan's Merowe project, people speaking out about injustices in the resettlement process have met with government repression.

Dam activists in Uganda have for years worked to stop the Bujagali Dam and pressed for more appropriate and affordable energy options. The Kampala-based National Association of Professional Environmentalists has made a convincing case for developing low-impact geothermal projects, which have the benefit of being more 'modular' and decentralised than large hydro, as well as a sustainable fuel-wood programme and other rural-electrification works. The government, however, is pressing ahead, with construction set to start in 2006.

In Mozambique, the group Justiça Ambiental has been actively raising awareness with local communities about the potential impacts on their lives from a new large dam proposed for the mighty Zambezi River, Mphanda Nkuwa Dam. This hydro dam would be built downstream of Cahora Bassa and Kariba dams, whose cumulative impacts have devastated communities and ecosystems downstream.

Like Cahora Bassa's power, most of this new dam's electricity would likely flow to South Africa, despite Mozambique's widespread energy poverty. Justiça Ambiental has been pressing to have the WCD's guidelines abided and to bring civil society into river-basin planning. Thus far, government has been unwilling to join in such a dialogue.

#### ALLEVIATING ENERGY POVERTY

Since large hydropower will not reach the majority of Africans, who live far from the power grid, the electricity needed to uplift healthcare, education and general livelihoods will remain inaccessible to the majority of Africa's population. Large hydropower also increases electricity supply in big increments, and is an inefficient way to address the gradual increases in market demands typical of developing economies. Large hydro is also costly and economically risky, and will perpetuate the debt cycle of many countries with viable alternative options.

Energy development that invests in a local energy sector and creates skilled jobs for Africans should be prioritised. Decentralised, renewable technologies such as wind, micro-hydro and solar power specifically allow for higher rates of job creation and technology transfer. For



example, a 2003 report commissioned by South Africa's Sustainable Energy and Climate Change Project conservatively estimated that if South Africa set a target of generating 15% of its energy from renewable sources by 2020, it would create 36 373 new jobs in the country's energy sector – greater than the total employment of the national energy utility, Eskom.

#### REDUCING VULNERABILITY TO CLIMATE CHANGE

Africa is already considered the most vulnerable continent to the impacts of climate change. With little institutional structure in place to support African communities adapting to climate change impacts, it is imperative that new energy developments facilitate adaptation, not hinder it.

A recent report, 'Africa: Up in Smoke?' states that efforts to alleviate poverty in

Africa will ultimately fail without urgent attention to climate change. Climate change is already altering hydrological cycles, meaning that historical data is no longer a reliable predictor of future hydrological patterns. Many sub-Saharan countries are already over-dependent on hydropower for their electricity, and many areas have experienced increasingly crippling droughts that have diminished hydropower production. For example, the Intergovernmental Panel on Climate Change reports that in the Nile Basin, there has been 'a reduction in runoff of 20% between 1972 and 1987, corresponding to a general decrease in precipitation in the tributary basins as a result of severe droughts.'

Building more large hydropower projects will only intensify African nations' vulnerability to climate change. Renewable, decentralised energy will give Africans greater independence to energy access

and will help diversify the energy portfolio of African countries.

#### WAY FORWARD

Unlike what an engineer might choose, a public participative process as recommended by the WCD not only looks at technical feasibility, but also considers social impacts, such as addressing specific rural needs, using local resources, and stimulating the local economy by creating skilled jobs. Too many poorly planned large dams have already failed to fulfil their goals, and Africa cannot afford any more development setbacks. ♻️

IRN supports local communities working to protect their rivers and watersheds and encourages equitable and sustainable methods of meeting needs for water, energy and flood management. IRN has been working on African dam issues for 20 years. For more information, visit [www.irn.org](http://www.irn.org)

