

Neutral? Against What?

Bystanders and Human Rights Abuses:

The case of Merowe Dam

by

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"All the perpetrator asks is that the bystander do nothing. He appeals to the universal desire to see, hear, and speak no evil. The victim, on the contrary, asks the bystander to share the burden of pain. The victim demands action, engagement, and remembering."

Judith Herman

Trauma and Recovery: The Aftermath of Violence
– from *Domestic Abuse to Political Terror*¹

It is now widely accepted that companies have a responsibility to ensure that their activities do not harm the environment or cause human rights and other abuses. The recognition of such responsibilities is not only enshrined in the national environmental and social regulations which bind companies operating in specific jurisdictions, but also in the in-house codes of conduct that many companies have adopted to promote socially-responsible corporate behaviour.

But are there limits to such responsibilities? And if so, what or where are they? If a company supplies turbines for a hydroelectric dam, does it have a responsibility, legal or moral, to ensure that the dam's environmental and social impacts are minimized? Or do its ethical policies and legal obligations extend only to ensuring that the manufacture of the turbine is environmentally sound and without human rights impacts? What of other actors involved in the dam or any other project? Banks and other financial institutions, such as export credit agencies² and multilateral development banks, for example? Do they have a duty to ensure that the money they provide for projects does not facilitate adverse environmental impacts and human rights abuses? What about institutions that have no direct contractual relationship with an environmentally or socially egregious project, but whose association, albeit on the periphery, nonetheless gives the project or its promoters a credibility they would not otherwise enjoy? Do they have a responsibility to voice their concerns when human rights abuses occur? Do they have a duty to respond to requests from those affected to use their good offices to bring pressure to prevent further abuses or to help resolve conflicts that may arise?

These questions are far from academic. Companies and other institutions face them every day, particularly where those companies and institutions have chosen to operate in countries, such as Sudan, with poor human rights and environmental records. Some have stepped “up to the plate”, withdrawing from projects that do not meet international best practice or refusing to become involved in the first place, fearful of the reputational damage that involvement might inflict on their business. One example is the withdrawal in 2000-01 of three multinational construction companies from Sweden,³ Italy and the UK⁴ from the planned Ilisu Dam⁵ in the Kurdish region of south-east Turkey on the grounds that the project failed to meet minimal environmental standards. Two commercial banks – UBS⁶ and Zuericher Kantonalbank⁷, both from Switzerland – have also declined to finance the project on similar grounds. Other companies and banks, however, have shown no such qualms both on Ilisu and more generally, brazenly adopting a minimalist view of their corporate responsibilities to pick up business left behind when more progressive companies withdraw from egregious projects. Still others have attempted to avoid the issue altogether by insisting that they cannot “take sides”.

The Merowe Dam in Sudan is a case in point. Despite the project being illegal under Sudanese law at the time that construction commenced (its environmental impact assessment had not been certified by, or even shared with, the relevant authorities) and despite widespread human rights abuses – from the arbitrary detention and torture of critics to the killing of protestors – all but one of the German, French, Swiss, Chinese and British companies and institutions involved have refused to respond to requests from the affected communities to use their influence to press the Sudanese Government to honour its obligations to the affected communities. Even when faced with a direct appeal from the United Nations’ Special Rapporteur for the Right to Adequate Housing that they suspend their involvement in the dam, the companies have declined to act, insisting on their “neutrality”. As a result, the risk of a violent conflict in the region is growing. This prompts a question of the companies and institutions: who or what are you neutral against?

The Project

The Merowe/Hamadab Dam, currently being built on the River Nile in Sudan, is the largest hydro project under construction in Africa. The dam will be used to generate electricity, with a planned output of 1,250 megawatts, and will irrigate some 120,000 hectares on both banks of the Nile.⁸ Once completed, it will create a 174-kilometre long reservoir, displacing an estimated 50,000-78,000 people⁹, mainly from the Manasir ethnic group. Many have already been moved to poorly planned and inadequately resourced “resettlement” sites in the Nubian desert, where they have been unable to sustain a livelihood. Poverty in the resettlement sites is on the increase, with many now reliant on food aid.

Merowe would be the first dam on the main stem of the Nile River in Sudan. The idea of constructing a dam on the Fourth Cataract of the Nile, 350 kilometres upstream from Sudan’s capital, Khartoum, was first proposed by British colonial authorities in the early 20th century. However, due to a combination of economic and political factors, it remained shelved until 1992 when the government commissioned Monenco Agra, a Canadian consultancy firm, to carry out a feasibility study.¹⁰ The project was unable to attract funding, however, and it was not until the late 1990s, when Sudan’s oil wealth improved the country’s credit rating, that finance was secured.

Construction of the dam is already advanced: the dam itself now straddles the Nile, damming the river on 30 December 2005.¹¹ Filling of the reservoir has now commenced, with the project slated to become operational in 2008 (delayed from 2007).

The Funders and the Finances

The project owner is Sudan's Ministry of Irrigation and Water Resources' Merowe Dam Implementation Unit, now renamed the Dam Implementation Unit.¹² Official sources cite the following institutions as having provided finance for the dam: the Peoples' Republic of China (\$519 million),¹³ mainly through the China Export Import Bank;¹⁴ the Kuwait Development Fund (\$150 million);¹⁵ the Saudi Development Fund (\$200 million);¹⁶ the Arab Fund for Economic and Social Development (\$250 million);¹⁷ the Abu Dhabi Development Fund (\$150 million);¹⁸ the Sultanate of Oman (\$106 million);¹⁹ and the Government of Qatar (\$15 million).²⁰ The Government of Sudan is also providing \$575 million.²¹

The total cost of the project, however, is not known. The Dam Implementation Unit puts the figure at \$1,966 million.²² However, press reports in 2008 indicate that the Arab Fund for Economic and Social Development has now loaned a further \$211 million and the Kuwait Development Fund an additional \$50 million, which would bring the total cost to date of the project to \$2,227 million.²³

Resettlement costs are also disputed. Monenco Agra (the Canadian consultancy firm which carried out the feasibility study in 1992) estimated that resettlement would cost \$1 billion. The official budget is \$382 million.

The Companies and Institutions

Major contracts for the Merowe project were awarded to three European companies: Germany's Lahmeyer International (project management),²⁴ France's Alstom (hydroelectric equipment),²⁵ and Switzerland's ABB (transmission)²⁶. The Lahmeyer contract is worth \$34 million, Alstom's \$299 million and ABB's \$16 million.

All three companies have a record of involvement in controversial hydropower projects.²⁷ Both ABB and Lahmeyer International were involved in the Lesotho Highlands Water Project²⁸, the biggest water scheme of its kind in the world and one dogged by major resettlement and corruption concerns: in 2004, Lahmeyer International was convicted of seven counts of bribery²⁹ and has since been debarred from bidding for World Bank contracts.³⁰ Alstom has been involved in the Birecik dam in Turkey³¹ (major resettlement concerns) and the massive Three Gorges in China³² (resettlement and corruption concerns). In 2001, ABB announced that it would withdraw from power generation projects, selling its hydro division to Alstom.³³ However, the company is still indirectly involved in dams through its electrical transmission line business.

The main construction work is being undertaken by a Chinese joint venture company established between China International Water & Electric Corp and China National Water Resources and Hydropower Engineering Corporation, which has a contract worth \$650 million.³⁴ Harbin Power Engineering Company and the Jilin Province Transmission and Substation Project Company, both also from China, have contracts

to build transmission lines.³⁵ Some work on the dam and resettlement sites has been sub-contracted to local companies.³⁶

Although not directly contracted to the project, the British Museum has been taking a leading role in salvaging the archaeological sites that would be submerged once the dam's reservoir is filled.

Social, Human Rights and Environment Impacts

The Merowe Dam will have profound social and environmental impacts, many of which have yet to be fully assessed.

Implementation of the project has also been characterised by human rights abuses, forced resettlement, illegality and a failure to conduct all but the most minimal environmental impact studies. Despite this, the companies and institutions involved in the project have consistently failed to use their influence to halt implementation of the project until the issues surrounding its possible impacts are resolved. Following are some examples:

- **Environmental Impacts**

Sudan's Environmental Protection Act 2001 requires that projects such as the Merowe Dam should have an Environmental Impact Assessment (EIA) and that construction should not begin until the EIA has been reviewed and approved by the Government's Higher Council for Environment and Natural Resources (HCENR). The Higher Council is the technical arm of Sudan's Ministry of Environment. No such EIA existed for Merowe prior to the commencement of construction, making the project illegal under Sudanese law. This, however, did not deter the companies involved from entering into contracts with the project developers.

Although an Environmental Impact Assessment (EIA) was belatedly undertaken for the project by Lahmeyer in 2002, it is short, superficial and incomplete. The report lacks both a management plan and a compliance commitments register – components that are routine in environmental assessments that meet international good practice. Moreover, key impacts are glossed over or left unexplored; the evidence presented is often contradictory; and assertions are made without adequate supporting evidence.

The EIA's treatment of downstream flows is indicative. Best practice requires that provision be made in a dam's flow regime for releasing environmental flows "to help maintain downstream ecosystem integrity and community livelihoods".³⁷ The EIA for Merowe/Hamadab acknowledges, however, that the requirements of downstream users have not been taken into account in the existing reservoir operation studies.³⁸ The peak hour operations of the power plant will lead to daily downstream water fluctuations of up to 4.9 metres. This will severely impact the operation of the countless small irrigation pumps on the riverbanks, a threat acknowledged by the EIA.³⁹ Daily massive "water walls" will also present a hazard for the people that work on the riverbanks.⁴⁰

The EIA also accepts that the sedimentation regime downstream will be affected by the dam,⁴¹ but provides no assessment of the impacts for downstream flood-plain agriculture of the loss of fertile silt deposits. Again, no figures are given for the numbers of farmers likely to be affected. Although the EIA notes that the river

downstream will experience “some form” of “degradation of its beds and erosion of its banks”, the data base on which the impacts have been assessed is described as “weak”.⁴² Further modelling would produce better results but the EIA recommends against this.⁴³ Instead it notes: “The issue will have to be addressed by monitoring in order to identify sensitive sites and eventually determine the necessity for revetments to protect endangered building”.⁴⁴

Evaporation of water held in the reservoir is also likely to have severe impacts downstream by reducing water flow below the dam. The EIA estimates that the water loss could be as high as the equivalent of 2 per cent of the annual flow of the River Nile – and describes the issue as “significant”. No consideration, however, is given to the ecological and social impacts downstream and no mitigation measures proposed.

Although the project questionnaire specifically states that an irrigation component is planned for the project, with the intention of irrigating “two areas of 300,000 hectares on both sides of the Nile”, no consideration is given to the impacts that this will have on downstream flows and water quality.⁴⁵

- *Resettlement*

The Merowe Dam will displace an estimated 50,000-78,000 people. The majority of the affected communities are from the Manasir tribe, including two sub-clans who have lived in the “Amri” and “Hamadab” areas and who are often referred to as separate groups. The “Hamadab” and the “Amri” are located in the Northern State, whilst the majority of the Manasir are in Nile State. The dam authorities intend to remove all three affected communities, against their will, out of their ancestral lands to remote desert resettlement sites.

No resettlement plan to international standards exists for the project. Yet not one of the companies or institutions involved has made such a plan a condition of their involvement with the project. And, with the exception of ABB, none of the companies have responded to calls from the committee representing the affected communities to use their influence to press the authorities to reach a negotiated agreement on resettlement.

The result has been a resettlement process that has been marred by violence, broken promises and forced relocation. About 10,000 of the Hamadab, for example, have already been moved to El Multaga, a settlement in the Bayuoda Desert, where the resettlement package has failed to deliver the benefits promised. When two non-governmental organisations, International Rivers Network and The Corner House, visited the site in 2005, many plots were still covered with sand. The soils were so poor that the farmers could not sell their produce on the market. Promised services had not materialised or had been denied to villagers. Villagers were also being charged for services such as water and electricity, which the state promised would be free for the first two years. The poverty rate at El Multaga had escalated from 10% in 2003 to 65% in 2005, and many families were already leaving the resettlement site. “We are poor farmers, but the government is treating us like enemies”, said one of the village leaders. According to recent reports, many of those resettled are now dependent on food aid distributed via local religious charities.

The Amri, who are to be resettled at Wadi Al Mugadam in Bayuoda desert, have suffered a similar fate. It was originally intended to move them by the end of December 2005. However, the resettlement site, known as New Amri, was not ready:

only half of the needed houses had been built, and there was insufficient land to meet the legal resettlement entitlements of the affected communities. The site covers 35,000 feddans but Sudanese law requires that almost double that amount (60,000 feddans) should be made available to compensate the total number of people being resettled. As of March 2008, half of those affected had been moved to New Amri; the remainder have refused to move. Many of those who went to New Amri have since returned, unable to make a living at the new site.

Amongst the Manasir, the planned forced relocation to distant desert resettlement sites at El Fida has also created considerable tension. The Manasir have consistently stated that they would rather die than be forced to move out of their ancestral lands. Arms are reported to have entered the area, and officials from the dam authority have been refused access to villages. In sharp contrast to the government of the Northern State, within whose boundaries the Amri and Hamadab lie, the Manasir's home state – Nile State – has sought to reach a negotiated resettlement agreement that would have the community's active support. The negotiations, which were initiated by the Governor of Nile State, began earlier in February 2006 and came to fruition on 1st June 2006 when an Agreement was formally signed between the Manasir and Nile State in Khartoum. The Agreement provides for a consensual resettlement programme, with responsibility for resettlement being removed from Merowe's Dam Implementation Unit and handed to Nile State. The Agreement, however, has yet to be honoured, the Dam Implementation Unit placing obstacles in its path at every opportunity.

- *Human Rights Abuses*

The communities affected by the Merowe project have consistently stated that they are not opposed to the dam on principle but that they wish to see their rights to just resettlement and compensation respected. Peaceful protests to achieve these ends, however, have repeatedly been met with force. Critics of the project have also been subject to arbitrary arrests, intimidation and torture. For example:

- In September 2003, a group of Hamadab farmers who had been moved to an ill-prepared resettlement site in the Nubian desert sought to return to their original villages. The government met them with unprovoked violence, using live bullets to break up protests, and injuring many; the farmers were forced back to the resettlement site by the police and security agents.
- In October 2003, security forces opened fire on protesting women and children in the village of Korgheli, seriously wounding five people.⁴⁶ Four people – Al nazir Omar Al Tahir, Hussain Zaidan and two persons from Hamdab – were subsequently arrested, detained and tortured for five days.
- In April 2006, militia allegedly associated with the Merowe Dam Authority attacked a peaceful gathering of villagers in the Amri area. The villagers were meeting to discuss whether or not to participate in a planned census by the dam authorities of affected communities. The militia opened fire without warning when the villagers were having breakfast in a school courtyard. Three people were immediately killed and more than 50 injured, 30 of them seriously. Eyewitness say the dam militia attacked the school using 16 pick-up land cruisers equipped with heavy artillery and machine guns. Local car owners drove the wounded to the nearest hospital (25 kilometres away) in Kariema town. According to eyewitness reports, those who assisted the

wounded were arrested.⁴⁷ Police blamed the killings and injuries on protestors, claiming that the police and census officials had been attacked by 1,000 protestors.⁴⁸

The non-governmental organisations that have sought to document the issues surrounding the dam have also been subject to visits by the security forces. Following the visit of The Corner House and International Rivers Network, for example, the Sudanese NGO that had facilitated the visit was interviewed by security agents.

Journalists covering the Merowe Dam have also been detained where they are critical of the project or attempt to report the views of affected people. On 16 August 2006, Naser Eldin Ahmed Al Tayeb, a journalist working for the *Al Ayam* Arabic daily newspaper, was arrested and beaten whilst reporting on the plight of thousands of people who were displaced by floods in the area around the dam, for further details of the flooding).⁴⁹ In March 2008, security officers from Merowe's Dam Implementation Unit threatened to close *Al Sahafa*, one of Khartoum's leading papers. The threats follow coverage in the paper of a meeting in London between China's Envoy to Africa, Mr. Liu Guijin, and Ali Askouri, a leader of Merowe dam affected communities. The newspaper was forced to issue a denial that the meeting in London had taken place.

Reports from the El Multaga resettlement site also confirm ongoing intimidation of resettled villagers who are critical of the resettlement programme. In particular, there is evidence of intimidation through discrimination: in settlement sites where the leadership is linked to the dam authorities, health centres get supplies regularly, some even getting new ambulances assigned to serve that particular village only; by contrast, sites where villagers are critical of the project receive no supplies.

Although the companies have been informed of such abuses, they have (with the exception of ABB) either stood resolutely on the sidelines, refusing to intervene, or have sided with the authorities. Responding to the April 2006 shootings at Amri, for example, the China International Water and Electric Corporation issued a statement denying that any disturbances had taken place.⁵⁰ Lahmeyer acknowledged that shootings had taken place but placed the blame on "a group of landless protestors" who attacked officials who were attempting to deal with compensation disputes.⁵¹ Alstom remained silent on the massacre. Only ABB acted, expressing its concern directly to the Sudanese authorities, calling for "a full inquiry and for the results to be made public".⁵²

- **Cultural Heritage**

The Merowe Dam will flood an area rich in cultural heritage and archaeological remains. According to the EIA, more than 1,000 archaeological sites are located in the reservoir area and 120 in the area of the El Multaga resettlement site. As of 2002, the area had still to be subject to a final archaeological survey.⁵³

An internal memo by Sudan's National Corporation for Antiquities and Museums states:

"Over the last 13 years a number of excavation campaigns were conducted by various international archaeological experts, including UNESCO. These activities have thrown more light on the archaeological potential of the region and resulted in the recording of hundreds of sites. They consist of cemeteries

and tombs, rock drawings, remains of settlements, and monumental fortress of the medieval period.”

Although the British Museum undertook an archaeological survey, it was too late to affect the siting or planning of the project, a key requirement of best practice standards. Despite international recognition amongst archaeologists of the importance of consulting with local people in order to assess the cultural significance of sites, no systematic consultation has taken place.

Although representatives of the affected communities have urged the British Museum to use its influence to improve the project, as they have asked the companies involved, the Museum has refused to do so, arguing that it is a neutral party. Yet such neutrality has not prevented the Museum from criticizing the communities’ leadership when, in 2007, representatives of the communities requested archaeologists excavating the reservoir area to leave. The request follows the failure of the government to honour an undertaking that archaeological treasures salvaged from the reservoir area would not be removed to distant museums.

Failure to Abide by International Standards

Since the 1980s, many countries, international development agencies, companies and hydro industry associations have responded to public concern over the impacts of large-scale dams by adopting policies and regulations aimed at mitigating the environmental and social damage they cause. The World Bank, for example, now has ten safeguard policies,⁵⁴ which set out generic guidance on such issues as environmental assessment, resettlement, indigenous peoples and cultural property. It is generally acknowledged, however, that best international practice for developing water and power projects now consists of the Strategic Priorities and Policy Principles set out by the World Commission on Dams (WCD), an independent multi-stakeholder review set up by the World Bank in 1998, which reported in 2000.⁵⁵

Not only does the Merowe Dam violate at least five of the seven Strategic Priorities of the WCD (Gaining Public Acceptance, Comprehensive Options Assessment, Sustaining Rivers and Livelihoods, Recognising Entitlements, and Sharing Benefits, and Ensuring Compliance), it also breaches World Bank guidelines on Environmental Assessment (on 38 counts), on Natural Habitats (on 10 counts), on Involuntary Resettlement (on 12 counts), and on Cultural Property (on 3 counts).⁵⁶

The WCD states clearly that there must be good baseline information gathered over several years prior to any decision to build a dam. The World Bank’s Environmental Assessment Sourcebook similarly requires that “the functions and services of natural habitats and ecosystems should be systematically assessed and evaluated, and the ecological, social and economic value of such functions quantified as part of the cost/benefit analysis of programmes and projects.”⁵⁷

The Merowe/Hamadab EIA, however, fails to provide adequate – or in many cases, any – assessment and evaluation of the impacts of the project of fauna and flora, biodiversity, and ecosystem functions or to quantify these functions as part of a cost-benefit analysis. Indeed, no cost-benefit assessment is even included in the EIA.

No site specific field surveys appear to have been conducted of flora and fauna (and none is reported in the EIA): instead, the EIA appears to rely on a desk study of regional surveys, the majority of which are over 15 years old (1958, 1984, 1987), very

general (“Important Birds of Africa) or taken from un-peer reviewed web pages. No indication is given as to the “accuracy, reliability and reliability”, in contravention of World Bank guidelines.

The UN’s Appeal to Halt the Project

In August 2007, the UN Rapporteur for Adequate Housing issued a damning statement on Merowe:

“I continue to receive disturbing reports that large-scale forced evictions may be imminent in the Merowe area . . . Last year, thousands of people in the Merowe area were relocated in similar circumstances which temporarily left them without food or shelter, and some remain homeless . . . I urge the companies involved in the projects, such as Harbin . . . Lahmeyer . . . and Alstom . . . to put a halt to their activities until a full and impartial assessment of the impact on the human rights of the population is made . . . I also strongly encourage that States . . . ensure that the work of their national companies does not – directly or indirectly – negatively impact the human rights of the affected people.”⁵⁸

The statement followed an investigation by the UN Rapporteur into the 2006 flooding of an estimated 2,200 Amri families in the reservoir area upstream of the Merowe Dam site. It is widely believed by the affected communities that the flooding was part of a deliberate strategy by Merowe’s Dam Implementation Unit and the Government of Sudan to force the Amri communities to accept a resettlement package that they had previously rejected.

The affected villagers lost everything and were left without shelter, clean water or food. The rising floodwaters covered fields and destroyed crops and fodder. More than 12,000 heads of livestock were lost to the rising floodwaters, with many denied access to fodder. Neither the Dam Implementation Unit nor the Government of Sudan acted to relieve the suffering of the affected communities. On the contrary, the authorities have cordoned off the area and relief efforts have been blocked.

By actively denying relief to those affected by the flooding, the Government of Sudan violated the rights guaranteed to the affected individuals under the following conventions and international instruments to which Sudan is a party: The Universal Declaration of Human Rights; The Covenant on Economic, Social and Cultural Rights (ICESCR); The Convention on the Rights of the Child; and The International Convention on Civil and Political Rights.

Bystanders or Protagonists?

Despite the UN Rapporteur’s statement, the companies remain in the Merowe project and work continues on its construction. Appeals for help in bringing Merowe’s Dam Implementation Unit to the negotiating table also remain unheeded. Alstom’s response to the UN Rapporteur is indicative of the companies’ refusal to assist: “Alstom has not done anything directly to promote and protect human rights as the Group is employed by the MDPIU [Merowe Dam Project Implementation Unit], who is ultimately responsible for such issues.”⁵⁹

Faced with a human rights disaster in the making, such slicing and dicing of responsibility is hard to reconcile with the companies’ rhetoric of commitments to

uphold human rights. The companies may be under contract to Merowe's Dam Implementation Unit, but that does not preclude their pressing the case for negotiations with the communities. Nor are the communities asking the companies to do anything that would jeopardise their commercial future in the Sudan. The Manasir and the other affected communities are not calling for the project to be abandoned, or even for higher compensation. They are not even asking that the companies should engage in a lengthy negotiation with them. All that they are requesting is that the sacrifices they are being asked to make by the Sudanese state should be recognised – and that those who stand to profit from those sacrifices should use their undoubted influence to facilitate dialogue with the authorities and the honouring of existing agreements.

Given these limited demands, the reluctance of the companies involved and the British Museum to respond positively to the communities' requests might be interpreted as arising less from a reluctant "neutrality" born of powerlessness ("we are simply contractors") as from a deliberate decision to turn a blind eye to the impacts of the project, even at the cost of the communities' lives and livelihoods. Only action to support and promote the rights of the affected people is likely to persuade many observers otherwise. It is action that the companies and institutions that have made Merowe possible should now take.

Endnotes

1. Herman, J., *Trauma and Recovery: The Aftermath of Violence – from Domestic Abuse to Political Terror*, Basic Books, 1997.
2. Export Credit Agencies (ECAs) are public agencies that typically provide export finance in the form of government-backed loans, guarantees, and insurance to private corporations from their home country to do business abroad.
3. Brown, P., "Swedish firm deals blow to British-backed dam", *The Guardian*, 26 September 2000.
4. Balfour Beatty, "Balfour Beatty withdraws from Ilisu Dam project – No clear prospect of resolution of environmental, commercial and social complexities", Press release, 13 November 2001.
5. For details, see Ilisu Dam Campaign, <http://www.ilisu.org.uk/index.html>,
6. UBS Bank of Switzerland, Letter to Christine Eberlain, Berne Declaration, received 1 February 2006. "We have withdrawn our funding from the Ilisu Dam project in 2002, due to environmental and social concerns among others".
7. World Development, Ecology and Development (WEED, "Zuericher Kantonalbank withdraws from Turkish Ilisu project", Press Release, 15 June 2007.
8. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, p.I-1 and p.I-2.
At the time the *Environmental Assessment Report* was written, the irrigation project was in the pre-feasibility stage: nonetheless, intakes for two irrigation areas are incorporated into the dam structure. More recently, in 2006, contractors for the dam have confirmed the irrigation component, but put the area to be irrigated at 60,000 hectares. See http://news.xinhuanet.com/english/2006-01/29/content_4115771.htm

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9. Official figures originally put the number of people to be resettled at 50,000. But in 2006, an article in *Hydropower & Dams* by E. Failer (Chief Executive of Lahmeyer International, the company in charge of project management for Merowe), M. Mutaz (Director General of Financing of the Dam Implementation Unit) and A. Al Tayeb (Resident Engineer of the Merowe Dam Project) put the figure at 78,000. *See*: Failer, E., Mutaz, M., and Al Tayeb, A., “Merowe: The Largest Water Resources Project under construction in Africa”, *Hydropower & Dams*, No.6, 2006.
 10. For official history of the project, *see*: Dams Implementation Unit, <http://www.merowedam.gov.sd/en/establishment.html>
 11. Sinohydro Corporation / Xinhua, "Damming on Nile River completed in Merowe/Hamdab", 31 December 2005.
 12. The unit was renamed under Presidential Decree 217, 18 September 2005. *See*: <http://www.merowedam.gov.sd/en/establishment.html>.
 13. Dams Implementation Unit (DIU), “Funding”, <http://www.merowedam.gov.sd/en/funding.html>.
The Peoples Republic of China is providing 85 per cent of the funding required for the transmission lines and electrical sub-stations. The DIU records three loans (of \$400 million, \$65 million and \$54 million), all signed in 2003.
 14. For analysis of China Ex-Im’s environmental record, *see*: Bosshard, P. and Chan–Fishel, M., A Case of Environmental Money Laundering, <http://www.irn.org/programs/finance/index.php?id=050721exim.html>

Established in 1994, the China Export–Import Bank is China’s official export credit agency. Its financial instruments include export credits, guarantees, and concessional loans from the Chinese government. With \$8.2 billion in newly approved credits and \$30.4 billion in outstanding credits, the Bank was one of the world’s three largest export credit agencies in 2003. The Chinese government is actively courting governments such as Burma, Sudan and Zimbabwe that are rich in raw materials; they also have poor human rights records, and are shunned by other governments. Through its active international economic policy, the Chinese government aims to win political patronage, boost trade and secure access to raw materials.

15. Dams Implementation Unit (DIU), “Funding”, <http://www.merowedam.gov.sd/en/funding.html>.
The DIU records two loans: \$100 million in 2002 and \$50 million in 2004. In 2008, *Al Sahafa Daily* (No. 5252, 2 February 2008) reported that the Kuwait Development Fund has lent Sudan a further USD50 million.
16. Dams Implementation Unit (DIU), “Funding”, <http://www.merowedam.gov.sd/en/funding.html>.
The DIU records two loans: \$150 million in 2003 and \$50 million in 2004.
17. Dams Implementation Unit (DIU), “Funding”, <http://www.merowedam.gov.sd/en/funding.html>.
The DIU records two loans: \$150 million in 2002 and \$100 million in 2004. However, in 2008, further loans worth \$211 were reported in the Sudanese press. *See*: *Al Sudani Daily*, 7 March 2008.
18. Dams Implementation Unit (DIU), “Funding”, <http://www.merowedam.gov.sd/en/funding.html>.
The DIU records two loans: \$100 million in 2002 and \$50 million in 2003.

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19. Dams Implementation Unit (DIU), “Funding”,
<http://www.merowedam.gov.sd/en/funding.html>.
The loan was agreed in 2002.
 20. Dams Implementation Unit (DIU), “Funding”,
<http://www.merowedam.gov.sd/en/funding.html>
 21. Dams Implementation Unit (DIU), “Funding”,
<http://www.merowedam.gov.sd/en/funding.html>
 22. Dams Implementation Unit (DIU), “Funding”,
<http://www.merowedam.gov.sd/en/funding.html>
 23. See: *Al Sahafa Daily*, No. 5252, 2 February 2008 and *Al Sudani Daily*, 7 March 2008.
 24. Lahmeyer International, “Merowe, Sudan”,
<http://www.lahmeyer.de/d/units/gw/merowe.pdf>.
 25. “Alstom selected for Merowe M and E package”, *Middle East Economic Digest*,
http://www.accessmylibrary.com/coms2/summary_0286-19671264_ITM.
 26. ABB, “ABB wins \$16 million order to strengthen power supply in Sudan”, 7 June 2004,
<http://www.abb.com/cawp/seitp202/DOD541F0EEC75DF085256E8A006A74C3.aspx>.
 27. For information on the records of ABB and Lahmeyer, see:
–Geary, K, Grainger, M., Hildyard, N. and Lang, C., *Dams Inc 1: The Record of Twelve European Dam Building Companies*, Swedish Society for Conservation of Nature, 2000,
<http://www.thecornerhouse.org.uk/item.shtml?x=52008>;
–Lang, C and Hildyard, N, *Dams Inc 2*, Corner House, 2003.
The updated 2003 analysis of Lahmeyer’s record is available from:
<http://www.irn.org/programs/safrica/pdf/LahmeyerCornerhouse.02.28.03.pdf>
 28. The Lesotho Highlands Water Project is the biggest water scheme of its kind in the world. The £5.5 billion (\$8.7 billion) project, which is due to be completed in 2020, will divert water from the mountains of Lesotho through a series of dams and tunnels to South Africa’s industrial province of Gauteng. Some 27,000 people have lost their farms or access to grazing pastures as a result of the first two dams (Katse and Muela) built so far (five or six are envisaged in all). About 2,000 people have been resettled. Many of these people believe that they have not received fair compensation, and mass demonstrations against the project have taken place. At one demonstration in 1996, prompted by the sacking of 2,300 workers for striking, five people were killed and 30 injured. Massive corruption was discovered on the LHWP in 1999, when more than 12 multinational firms and consortiums were found to have bribed the CEO of the project. After the CEO himself was found guilty, three major European firms were put in the dock; thus far, two have been found guilty and charged, and one has been debarred at the World Bank. For further information, see: <http://www.irn.org/programs/lesotho/>
 29. “The Lesotho High Court yesterday convicted Lahmeyer International, a German engineering consulting firm, of paying approximately US\$550,000 in bribes to the former chief executive of the multi-billion dollar Lesotho Highlands Water Project in exchange for favourable contract decisions, according to South African press reports. Lesotho Justice Gabriel Mofolo found Lahmeyer guilty of 7 of the 13 counts for which they were charged.” See: International Rivers Network, “Lesotho Judge Convicts German Engineering Firm of Bribery Charges”, 18 June 2003,
<http://www.irn.org/programs/lesotho/index.php?id=030618conviction.html>
 30. World Bank, "World Bank sanctions Lahmeyer International for corrupt activities in Bank-financed projects", 6 November 2006,

31. The 672 megawatt Birecik dam is situated on the Euphrates River some 30 kilometres from Turkey's border with Syria. The project affects 1,200 square kilometres, its reservoir flooding or partially flooding 44 settlements, including the town of Halfeti. Some 30,000 people were affected, but only 6,500 people were officially resettled. No resettlement plan or environmental impact assessment was made available for public comment, and those evicted were not consulted, in violation of international standards. Those without title to land were not compensated. The inhabitants of some 18 villages located close to the construction sites were forcibly evacuated by soldiers in 1996 and 1997, while over one thousand villagers from Kavalica, a village close to Halfeti, were forced to abandon their homes and belongings when they awoke to find their houses partially submerged by the rising reservoir. Project officers did not alert them to the rising waters. Numerous families received no compensation whatsoever because they did not have land rights and still have not been given houses despite promises that they would be re-housed. Villagers who have been moved to new resettlement sites complained that their new houses are over-crowded and had not even been finished. One oustee told a fact-finding mission: "In the new villages, it is like death."
See: "Birecik" in ECAWatch, A Trojan Horse for Large Dams, Paris, 2005, http://www.eca-watch.org/problems/fora/oecd/ECAW_reportondams_2sept05.pdf
32. The \$24 billion Three Gorges Dam on the Yangtze river will be the largest hydroelectric dam in the world. It will span nearly one mile across and tower 575 feet above the world's third longest river. Its reservoir will stretch over 350 miles upstream and force the displacement of close to 1.9 million people. Construction began in 1994 and is scheduled for completion by 2009. The project is currently facing massive corruption problems, spiralling costs, technological problems and resettlement difficulties. By 2005, one million people had been displaced; many are living under poor conditions with no recourse to address outstanding problems with compensation or resettlement.
See: <http://www.irn.org/programs/threeg/>
33. Alstom, "ALSTOM Acquires ABBs Share in ABB Alstom Power", Press Release, 28 December 2001.
34. China International Water and Electricity Corp., "China Signs Dam Project Contract for US\$650 million in Sudan", <http://www.cwe.com.cn/Enews1.htm>.
35. "Merowe Dam", http://en.wikipedia.org/wiki/Merowe_Dam
36. Dan Fodio, Dar Consult, Higlign, Brooj (Towers) Consultancy, Ingaz Concrete Contractors, Qasr Al Loolo, National Company for Building, Shirian Al Shamal, and Al Nasr.
37. World Commission on Dams, *Dams and Development: A New Framework for Decision-making*, 2000, available at <http://www.dams.org/docs/report/wcdch8.pdf>
38. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, p.I-9.
39. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002.
40. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, pp.4-11.
41. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, pp.3-6.

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42. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, pp.4-6.
 43. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, pp.4-6.
 44. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, pp.i-4.
 45. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, p.I-1 and p.I-2. The plan is as yet in the pre-feasibility stage: nonetheless, intakes for two irrigation areas are incorporated into the dam structure.
 46. Askouri, A., "The Merowe Dam: Controversy and Displacement in Sudan", *Forced Migration Review*, Oxford, September 2004, <http://www.fmreview.org/FMRpdfs/FMR21/FMR2123.pdf>
 47. LOHAP, "Sudan Government Massacres Merowe Dam Affected People", 23 April 2006, <http://internationalrivers.org/en/africa/merowe-dam-sudan/sudan-government-massacres-merowe-dam-affected-people>.
An *Al Jazeera* report, with footage of the shootings, is available at:
http://www.aljazeera.net/mritems/streams/2006/4/24/1_613597_1_12.wmv
 48. "Three killed in Sudan Protest", <http://www.terradaaily.com/2006/060423102947.sxn7mwoj.html>.
 49. Amnesty International Alert, "Merowe Detainees", *AI Index*: AFR 54/014/2007, 17 April 2007.
 50. "So far within our site no such event of what you mentioned in your e-mail occurred. Meanwhile, we haven't received any report from the project client, Engineer and local government agencies on any of such event beyond the contractor's site".
See: "Response of China International Water and Electric Corporation to concerns about shooting at Merowe Dam, Sudan", 12 May 2006, <http://www.reports-and-materials.org/CWE-response-Merowe-dam-incident-12-May-2006.doc>
 51. "Lahmeyer comments incident in which 3 civilians were killed during protests over Merowe Dam, Sudan", 3 May 2006, <http://www.business-humanrights.org/Links/Repository/646250/jump>
 52. "ABB statement regarding incident in which 3 civilians were killed during protests over Merowe Dam, Sudan", 5 May 2006, <http://www.business-humanrights.org/Links/Repository/420069/jump>
 53. Lahmeyer International, *Environmental Assessment Report for Merowe Dam Project*, Khartoum, April 2002, p3.-21.
 54. World Bank, Safeguard Policies, available at: <http://www.worldbank.org/safeguards>.
The World Bank has 10 safeguard policies covering: Environmental Assessment, Natural Habitats, Forests, Pest Management, Cultural Property, Involuntary Resettlement, Indigenous Peoples, Safety of Dams, Disputed Areas and International Waterways. The safeguard policies are aimed at aimed at "prevent[ing] and mitigat[ing] undue harm to people and their environment in the development process"
 55. The World Commission on Dam's (WCD) review of dams is the most comprehensive to date and its seven strategic priorities have been widely accepted by governments, financial institutions, the dam industry and civil society. The WCD's conclusion as to the record of the industry was unequivocal: "In too many cases, an unacceptable and often unnecessary price" had been paid to secure the benefits of large dams. Moreover, the burden had fallen disproportionately on "the poor, other vulnerable groups and future

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- generations”, causing “the impoverishment and suffering of millions.” For details, *see*: World Commission on Dams, *Dams and Development: A New Framework for Decision-making*, 2000, available at <http://www.dams.org/docs/report/wcdch8.pdf>
56. Bosshard, P. and Hildyard, N., “A critical Juncture for Peace, Democracy and the Environment: Sudan and the Merowe/Hamadab Dam project”, 1 May, 2005, International Rivers Network and The Corner House, <http://internationalrivers.org/en/africa/critical-juncture-peace-democracy-and-environment-sudan-and-merowe-hamadab-dam-project-0>
 57. World Bank, *Environmental Assessment Sourcebook*, Update No.20, October 1997, “Biodiversity and Environmental Assessment”, p.1.
 58. “UN Special Rapporteur on Adequate Housing Statement re Merowe Dam”, Sudan, 27 August 2007, <http://www.business-humanrights.org/Documents/KothariMerowedamAug2007>.
 59. Response of Alstom to UN Rapporteur’s report, 10 September 2007, <http://www.reports-and-materials.org/Alstom-response-Miloon-Kothari-10-Sep-2007.doc>
See also: Harbin’s response, <http://www.reports-and-materials.org/Harbin-response-re-Merowe-Dam-10-Oct-2007.doc>
Lahmeyer’s response, <http://www.reports-and-materials.org/Lahmeyer-response-to-Miloon-Kothari-3-Sep-2007.doc>