

Investments in deep water



The pension fund's holdings
in destructive dam projects

Published by the Association for International Water Studies, September 2011

The Association for International Water Studies (FIVAS) is a voluntary organisation that works to monitor the consequences of water-related projects and developments in the South. FIVAS seeks to prevent any Norwegian participation in projects with major negative consequences for people and nature and works to promote fair and sustainable alternatives.

Author: Silje Kjørberg Hernes

Contributors: Jørgen Fulsebakke, Kristin Lauvstad Tufte, Eric Bischoff Riis Anfinssen and Ola Hanserud

Design: speedesign.no

Published with financial support from Norad (The North American Aerospace Defense Command)

Front page image: Karen Robinson www.karenrobinson.co.uk

A woman praying beside the semi-submerged temple in Khotswar, a village on the banks of the Narmada River in India. The temple was flooded after the construction of the Sardar Sarovar Dam.

FIVAS

Solidaritetshuset, Fredensborgveien 6, N-0177 Oslo • Tel: +47 22 98 93 25 • E-mail: fivas@fivas.org • www.fivas.org

Contents

	Introduction	7
I	The Norwegian Government Pension Fund – Global	8
	The management of the Fund	8
	Towards ethical guidelines	9
	Historical tug of war	9
	Ethical guidelines on the horizon	11
	Ethical guidelines in place	13
	Corporate governance in the Central Bank of Norway	14
	Negative filtering	14
	Active ownership	15
	Changes in the ownership share	17
	Positive filtering	18
	Environmental investments in Norges Bank Investment Management (NBIM)	
	- another attempt	19
	The Board's resources	22
	Exclusion is the last resort	22
	Strong signals... even from a minority investor	24
	The process surrounding the exclusion of companies	24
	The division of responsibilities between the Central Bank of Norway and the Norwegian Ethical Council	25
	Exclusions on environmental criteria	27
II	Large dams - large losses	28
	Global trends in dam construction	28
	Growing criticism	28
	World Commission on Dams	30
	The consequences of constructing large dams	31
	Biodiversity	31
	Sedimentation	32
	Climate change	32
	Involuntary resettlement	33
	Who is investing in dams globally?	34
III	The Pension Fund and destructive dam projects	36
	Dams under construction with investment from the Fund	36
	Belo Monte, Brazil	38
	Gibe 3, Ethiopia	42
	Lower Subansiri Dam, India	46
	Xayaburi Dam, Laos	50
	Conclusions	54
	Recommendations	58

Introduction

Through the Government Pension Fund (hereby referred to as The Fund) income from the Norwegian oil activities is invested in foreign security. There is a broad political consensus on how The Fund is managed and the fundamental goal is to achieve the largest possible return at a moderate risk. Growth in the Fund has been remarkable. Oil revenue is growing, the number of companies The Fund invests in is proliferating, and the number of shares in many companies has increased. This report will examine how the ethical guidelines for The Fund's investments in companies are currently observed, focusing on companies involved in extensive dam projects.

The development of The Fund's ethical guidelines has been a lengthy process. The starting point has been that ethics and politics should be separated from The Fund's investments, however it has now been widely accepted that The Fund should be managed under certain overarching ethical principles. This includes more than just the exclusion of companies that have had unacceptable practices. Recently, the Norwegian Ministry of Finance has recognised that companies with a positive environmental profile should be emphasised in the investments.

Development and construction of renewable energy is vital in a world of increasing energy demands and the ever-present threat of climate change. Nevertheless, we argue that large dams for hydropower are in many cases not explicitly environmentally friendly, in terms both of emissions of greenhouse gases and of other destructive effects that they have on nature. In addition, they entail significant social problems, primarily because of the forced relocation and loss of livelihoods for the affected local population.

The report is divided into three parts. The first part deals with how The Fund is managed with a focus on the Central Bank of Norway and the Ethical Council's work in relation to the ethical guidelines. The second section focuses on global trends in dam construction; the types of companies that are currently building dams, and the consequences of such projects. The third section looks closely at a few case studies that are in the planning or development stages. All presented cases are highly controversial and of current interest at the time of writing, they also include companies that are part of the Fund's portfolio. We argue that the operations of these companies are contrary to The Fund's ethical guidelines.

I The Norwegian Government Pension Fund – Global



The Norwegian Government Pension Fund – Global (the Fund) was originally established in 1990, then called the Norwegian Government Petroleum Fund (the Oil Fund). The main purpose of the Fund is to save state revenue from petroleum operations, so that the country will have revenue sources when the oil revenues decline. The Government Pension Fund is the largest of its kind in the world,¹ and has investments in over 8,700² companies in 69 different countries. The assets which are managed by the Fund reached a record high value in 2010, with over NOK 3,000 billion in its portfolio.³ State revenue on such a scale means that Norway is ranked as the 24th largest economy in the world, and that the Fund is one of the largest with a single owner.⁴ The Fund is continuously growing, and it is estimated that it will be worth over NOK 4,000 billion at the end of 2013⁵ and double to NOK 6,000 billion by the beginning of 2020.⁶

however it has delegated the day-to-day management to the Central Bank of Norway. Since 1998, the Central Bank of Norway. Investment Management Department (hereinafter NBIM) has been responsible for the operational management of the Fund. The Norwegian Ministry of Finance contributes an account deposit to the Central Bank of Norway, which NBIM then invests in securities.

NBIM's management mandate is governed by the regulations and guidelines which the Norwegian Ministry of Finance has given it as the employer⁷ and they have received political approval in the Norwegian Parliament. This means that the management is closely governed by rules and regulations issued by politicians. One of NBIM's main objectives is economic sustainability, with a very long-term perspective. Approximately 278 people are employed by NBIM⁸ and at any given time they manage the money in such a way as to achieve the highest possible returns with moderate risk.

Management of the Fund

Revenue for the Fund is generated from two sources: the government's net cash flow from petroleum activities and the Fund's investment returns. The Norwegian Ministry of Finance has overall responsibility for the Fund,

The resources in the Fund are mainly invested in accordance with the "reference index," which is a kind of shopping list established by the Norwegian Ministry of Finance as to how the money in the Fund should be invested. The reference index gives some indications of how the Fund's

¹ Website of Dagens næringsliv: *Oljefondet er størst i verden.*

<http://www.dn.no/forsiden/politikk/Samfunn/article2159574.ece>. Retrieved on 20 June 2011

² Quarterly NBIM 1st quarter of 2011. <http://www.rorg.no/Artikler/1518.html> retrieved 30 May 2011

³ Annual Report, NBIM, 2010 [http://www.nbim.no/Global/Reports/2010/NORSK% 20% c3% 85rsrapport% 202010% 2024% 20mars%20 \(printed\). Pdf](http://www.nbim.no/Global/Reports/2010/NORSK%20%20c3%85rsrapport%202010%2024%20mars%20(printed).Pdf). Retrieved on 9 April 2011

⁴ The Norwegian Ministry of Finance, 2010: *Ansvarlige investeringer i Statens pensjonsfond Utland.* <http://www.regjeringen.no/Upload/FIN/brosjyre/2010/spu/SPU.pdf>. Retrieved on 7 April 2011

⁵ Strategy for the Central Bank of Norway Investment Management 2011-2013.

http://www.nbim.no/Global/Documents/Governance/2011_NBIM_strategidokumentweb.pdf

⁶ White Paper to the Norwegian Parliament No. 15: *Forvaltningen av SPU 2010*

<http://www.regjeringen.no/pages/16251809/PDFS/STM201020110015000DDDDPDFS.pdf> Retrieved on 15 April 2011

⁷ See further on the mandate in Annex 1

⁸ This was the figure at the end of 2010

⁹ The Norwegian Ministry of Finance, 2010, *Ansvarlige investeringer i Statens pensjonsfond Utland.* <http://www.regjeringen.no/Upload/FIN/brosjyre/2010/spu/SPU.pdf>. Retrieved on 7 April 2011

investments should be placed, and consists of three "asset classes": 60 percent of the investments should be invested in equities, 35 percent goes to bonds, and five percent of should be placed in property.⁹ Within each asset class, investments are spread over a variety of individual holdings in various sectors and regions.¹⁰

The reference index for each asset class is based on a principle of market capitalisation weights. This means that the total composition of the portfolio reflects the company's relative share of the value of the overall stock market in each region. Market capitalisation weights thereby contribute to a broad distribution of the Fund's investments.

Revenues from the oil industry are generally not invested in the Norwegian economy. The reason for this is the risk that a sector exposed to competition will be severely affected and receive a major setback once the money is used up. Contributions from the oil industry are transferred, therefore, entirely to the Fund and invested in foreign securities. This ensures risk diversification and good financial returns, and it protects the Norwegian economy from the effects of varying revenues.¹¹

This policy is partly based on experience from the Dutch gas adventure of the 1970s - "the Dutch disease" - used as an example of the negative effects that an excessive use of income from a non-renewable natural resource can have on a competitive sector, i.e. industries that export or manufacture in competition with foreign producers.¹²

Towards ethical guidelines

Investing in a company on behalf of a nation is a significant responsibility. Being involved in approximately 8,700 companies on a state's behalf requires guidelines for what kind of activity one wants to be a part of and how it should be handled. "One of the reasons that the Fund stands out as a fund internationally is that there is a broad consensus with a strong political foundation as to how the Fund is managed,"¹³ says Finance Minister Sigbjørn Johnsen on the Fund's management. Today, there are ethical guidelines that apply to investments in the companies in the Fund's portfolio, however this has not always been the case.

Historical tug of war

At the outset, the Fund was to be managed exclusively under financial criteria, and the fact that we now have ethical guidelines is the result of a political tug of war that started in 1997, seven years after the Fund was established. In the Voksenåsen Declaration, which was adopted by central government (Bondevik I-administration 1997-2000), the need to take into account human rights and the environment in investment was underlined. However, this proposal was dropped shortly afterwards; the argument was procedures had not been developed to implement an ethical approach to the investments in the Fund. Despite this resistance, the Bondevik I-government in 1999 submitted three proposals to introduce certain ethical limits for the Fund; to exclude tobacco companies, to use the voting rights linked to the Fund's shares and to create an environmental fund.

¹⁰ White Paper to the Norwegian Parliament No. 15: *Forvaltningen av SPU 2010 (The management of the SPU 2010.)* <http://www.regjeringen.no/pages/16251809/PDFS/STM201020110015000DDDPDFS.pdf> retrieved 15 April 2011

¹¹ The Norwegian Ministry of Finance, 2010: *Ansvarlige investeringer i Statens pensjonsfond Utland. (Responsible investments in the Norwegian Government Pension Fund - Global.)* <http://www.no/Upregjeringenload/FIN/brosjyre/2010/spu/SPU.pdf>. Retrieved 7 April 2011

¹² The Norwegian Ministry of Finance's website about the Dutch disease:

http://www.regjeringen.no/nb/dep/fin/tema/norsk_ekonomi/brukavoljepenger/hollandsksyke.html?id=449284. Retrieved on 7 April 2011

¹³ Quote from the open hearing of the Standing Committee on Finance 20 May 2011

The first two proposals were voted down at the time. The exclusion of companies that produce tobacco was voted down on the grounds that:

”(...) If you once make it possible to limit the investment options of the Fund, several other decisions could take place, and as a result the Fund will have a lower spread of investments. This will increase the risk and the result could easily be that the Fund takes on the status of a strategic investor rather than the character of a national financial savings fund.”¹⁴

With regard to using voting rights, the Parliamentary Finance Committee concluded as follows:

”With a maximum 1 percent stake in the companies in which the Fund invests, the majority considers that this proposal will have more symbolism than real importance. The proposal also means that an extensive effort will be required to obtain an overview of proposals for annual meetings in a large and growing number of companies in which the Fund invests.”¹⁵

In 1999, a proposal to introduce ethical guidelines was made by the Norwegian Socialist Left Party (SV), however no other parties supported it. The objections this time around were again that the ethical guidelines would not be practicable, and that such criteria would weaken the returns and increase the Fund’s risk.

Ethical guidelines in the Fund have been the subject of debate outside the political decision-taking bodies. Organisations such as Bellona, Fafo and Fremtiden i våre hender [Future in Our Hands] were the first to demonstrate that investing according to ethical criteria does not lead to lower returns than other investments, that the practical problems are surmountable, and that consideration of consistency in relation to other government activities should not take precedence over international legal obligations.¹⁶ In 1999, NorWatch commenced efforts to identify ethical infringements in companies which were in the Fund’s portfolio, and revealed that several companies were infringing Norway’s obligations under international law by producing landmines and ammunition.

After strong pressure from politicians and public opinion, the Stoltenberg I-administration set up a special environmental fund in 2001, which was originally proposed by the Bondevik I-administration. The purpose of the environmental fund was to give priority to companies with little negative impact on the environment and meeting the specific requirements of environmental reporting.¹⁷ In this context, NBIM was given a sub-portfolio based on defined environmental criteria. The Norwegian Ministry of Finance retained a consultant and gave the bank a reference index for the environmental fund.¹⁸

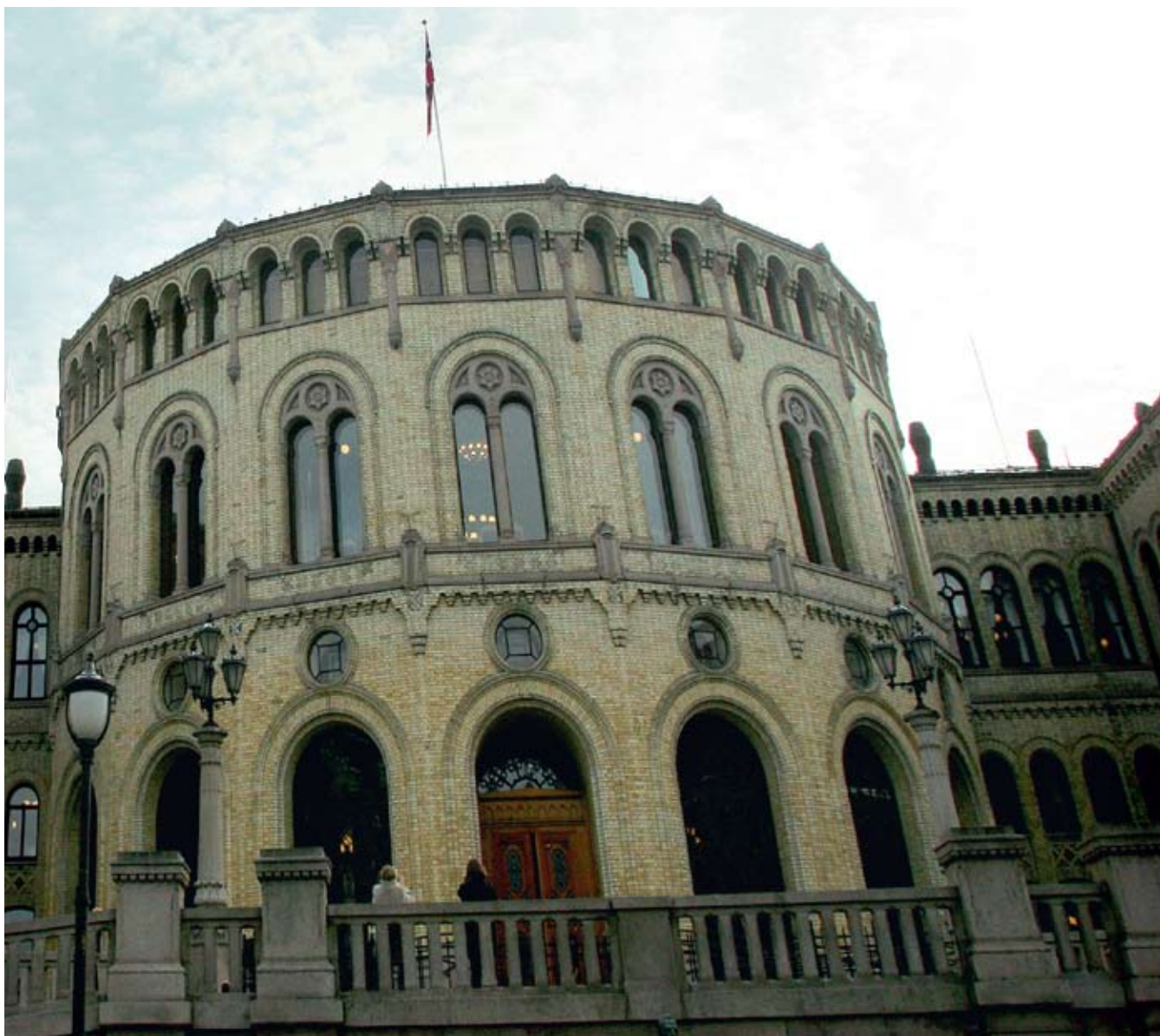
¹⁴ Budget Setting. S. no. (1998/1999), Finance Committee report

¹⁵ Ibid.

¹⁶ NOU 22, 2003: *Forvaltning for fremtiden. Forslag til etiske retningslinjer for statens petroleumsfond.* (Management for the future. Proposed ethical guidelines for the Norwegian Government Petroleum Fund.) <http://www.regjeringen.no/Rpub/NOU/20032003/022/PDFS/NOU200320030022000DDDPDFS.pdf>. Retrieved on 4 April 2011

¹⁷ The Norwegian organisations Forum for Environment and Development and the Future in Our Hands 2007: *Forvaltning for fremtiden? En kartlegging av Norges Banks eierskapsutøvelse i forhold til de etiske ambisjonene for SPU.* (Management for the future? A survey of the Central Bank of Norway’s corporate governance in relation to the ethical aspirations of the SPU.) <http://www.forumfor.no/noop/file.php?id=4757>. Retrieved on 13 May 2011

¹⁸ Article of the Central Bank of Norway 2010. *Ti år med NBIM.* (Ten years of NBIM.) <http://www.nbim.no/no/mediaogpublikasjoner/temaartikler/2008/tiarmednbim/>. Retrieved on 22 April 2011



Ethical guidelines on the horizon

In the revised budget for 2001, the Stoltenberg administration introduced the exclusion mechanism to ensure that the Fund's investments were not in conflict with Norway's obligations in very specific circumstances. The Fund's investments in a company that was involved in anti-personnel mines in Singapore was an example mentioned in the proposal.

*"(...) investments in individual companies pose particularly challenging legal, ethical and political dilemmas"*¹⁹

On the basis of this proposal, in 2001 an expert committee was set up, the Petroleum Fund's international law committee, whose remit was to monitor whether the Funds investments were contrary to Norway's international law obligations.

The political will to introduce ethical guidelines for the Fund was still not present at this time, and the exclusion mechanism was to be restricted to Norway's obligations under international law for the reason that:

*"The Norwegian Government believes in this context that it is necessary to be cautious in establishing rules to exclude companies from the Petroleum Fund in isolation from international law (...) it will not be possible to find clearly defined and objective criteria, and that any decisions should be taken on a discretionary basis. Such rules could also easily lead to inconsistency in relation to other government activities."*²⁰

¹⁹ NOU 22, 2003: *Forvaltning for fremtiden. Forslag til etiske retningslinjer for statens petroleumsfond.*

²⁰ *Ibid.*

Despite this scepticism, the blocking mechanism gained greater impact at this time, because it was now extended to involve actively looking for companies that were infringing the commitments.

Work on the exclusion of companies was given a further boost when a majority in Parliament during the debate on the Revised National Budget 2002 took the initiative to request the government to appoint a committee whose task was to propose ethical guidelines for the Fund.

The parties who put forward this proposal were supported by the other members of the group in their position that it was necessary to develop the Fund's ethical foundation. The Socialist Left Party then submitted a proposal to expand the blocking mechanism so as to incorporate a broader set of criteria, such as human rights, labour rights and environmentally destructive activities,²¹ and was supported by all parties with the exception of the Conservatives, the Christian People's Party and the Left.

The following suggestions were made:

"Parliament requests that the Government appoint a committee with the mandate to propose a set of ethical guidelines for the Petroleum Fund and present a proposal in spring 2004. The committee should consist of individuals with expertise in international law, in addition to know-

ledge of ethical investment, as well as professional expertise in environmental and human rights."

This led to the establishment of the Graver Committee. The committee was chaired by Professor Hans Petter Graver, who concluded in his report that it was both possible and necessary to establish ethical guidelines for the Fund.

The objective of the Graver Committee was to obtain a consensus on the ethical values of Norwegian society that could be sustained over time and could provide overarching principles as to how the Fund should be invested. The Graver report's proposed guidelines are mainly based on internationally accepted principles, and are therefore not particularly focused on the character of Norwegian culture and politics. The report devotes special attention to the environment, human rights, employment standards and ownership control.²² The core of the Graver Committee Report consists of arguments for why a state fund should have ethical guidelines; i.e. what should be the basis for avoiding any involvement in unethical activities.

²¹ Ibid.

²² The report is based primarily on the international principles laid down in the UN Global Compact and adopted by the ILO (International Labour Organisation), Organisation for Economic Cooperation and Development (OECD) and UN Sub-Commission on the Promotion and Protection of Human Rights. (The Albright Group, 2008: *Assessment of Implementation of Articles 3 and 4 of the Ethical Guidelines for the Government Pension Fund*. http://www.responsibleinvestor.com/images/uploads/resources/research/21214492869Albright_Group_Ethical_Guidelines.pdf. Retrieved on 15 April 2011)



Ethical guidelines in place

The ethical guidelines, in accordance with Graver's recommendation, were unanimously adopted by the Norwegian Parliament on 19 November 2004, and had the result that the Fund was the first of its kind to introduce such guidelines for its management practice.²³ The ethical guidelines are intended to deal with companies that commit:

- serious or systematic infringements of human rights, such as murder, torture, deprivation of liberty, forced labour and the worst forms of child labour
- serious infringements of individual rights in war or conflict
- serious environmental damage
- gross corruption
- other particularly serious infringements of fundamental ethical standards²⁴

The first specific measure that was introduced was negative filtering, which means that certain companies are excluded from the Fund's investments. These are picked out by a list of products that it is undesirable to have interests in. In addition, the *Norwegian Ethical Council for the Norwegian Government Pension Fund* was established to ensure in general that the guidelines are met.

The foundation for both NBIM and the Board's work is based on the following international guidelines:

The Global Compact is a voluntary set of principles that were launched by the UN Secretary General Kofi Annan in Davos in January 1999. The UN Global Compact encourages companies to promote and respect international human rights insofar as they have an opportunity to do so, and to ensure that they do not become involved in contributing to infringements. The principles encourage companies to be proactive in relation to environmental challenges, to initiate greater responsibility towards the environment and to promote the development and diffusion of environmentally friendly technology.²⁵

The ILO tripartite declaration for Multinational Companies was adopted in 1977 and revised in 2000. The declaration is not legally binding but provides guidelines that promote social and economic progress and contribute to the development of employment in developing countries. The declaration contains recommendations for multinational companies and governments in the areas of employment, employee relations, living conditions and freedom of association.

The UN Sub-Commission on Human Rights has developed a proposal for principles/guidelines for transnational corporations and other businesses to take into account human rights in countries in which they operate.

The OECD guidelines for corporate governance deal with topics falling under what is often called "corporate governance in the narrow sense", such as shareholder rights, board composition, reporting routines and remuneration structures in companies.²⁶

The OECD guidelines for multinational companies, on the other hand, constitute the only framework for multinational corporate social responsibility, which imposes certain obligations on states, even if they only broadly embrace it and do not impose on companies any explicit liability.²⁷ The guidelines provide principles and standards for responsible business practices with regard to economic, social and environmental conditions and contain a general recommendation to respect human rights and to eliminate child and forced labour. They also encourage multinational companies to improve their environmental performance through measures such as improved internal environmental management, more public disclosure of environmental information and better contingency planning for effects on the environment.²⁸

²³ The Norwegian Forum for Environment and Development and the Future in Our Hands 2007: *Forvaltning for fremtiden? En kartlegging av Norges Banks eierskapsutøvelse i forhold til de etiske ambisjonene for SPU.*

²⁴ The Norwegian Ministry of Finance's website: *Retningslinjer for observasjon og utelukkelse av Statens pensjonsfond utlands investerings-univers.* (Guidelines for observation and exclusion of the Norwegian Government Pension Fund Global's investment range. http://www.regjeringen.no/nb/dep/fin/tema/statens_pensjonsfond/responsible_investment/retningslinjerforobservasjonoguteluk.html?id=594254. Retrieved on 10 April 2011.

²⁵ NOU 22, 2003: *Forvaltning for fremtiden, Forslag til etiske retningslinjer for Statens petroleumsfond*

²⁶ The Norwegian Forum for Environment and Development and the Future in Our Hands 2007: *Forvaltning for fremtiden? En kartlegging av Norges Banks eierskapsutøvelse i forhold til de etiske ambisjonene for SPU.*

²⁷ Ibid.

²⁸ NOU 22, 2003: *Forvaltning for fremtiden, Forslag til etiske retningslinjer for Statens petroleumsfond.*

Corporate governance in the Central Bank of Norway

The Norwegian Ministry of Finance, which administers the Fund on behalf of the Norwegian population, has delegated responsibility for the management to two bodies, with "rules" defined by the reference index and the ethical guidelines. As mentioned earlier, the investments are managed by NBIM, while the ethical work is divided between NBIM and the independent "Norwegian Ethical Council for the Norwegian Government Pension Fund - Global". These two agencies have different mandates for their ethical work: NBIM can influence companies through various forms of ownership, and the Board through recommendations for exclusion or the monitoring of companies engaged in unacceptable activities under the guidelines.

Negative filtering

How NBIM invests is controlled by the reference index (see page 9) set by the Norwegian Ministry of Finance and further limited by the fact that some companies are automatically excluded from the Fund's investment range based on the products they make. In the review of the guidelines in 2008, in particular it was determined that tobacco companies should be excluded, as the Bondevik I-administration proposed in 1997. The *negative filtering* takes place upstream of investment, and is also known as *product-based exclusion*. As of 2010 negative filtering takes place of companies which:

- produce weapons whose normal use infringes fundamental humanitarian principles
- produce tobacco



Cluster bombs are one of the products that lead to automatic exclusion from the investment range.

- sell weapons or military equipment to countries that are covered by the scheme for government bond exclusion described in the mandate for the management of the Fund § 37, tenth part.^{29 30}

Apart from the investments that are eliminated by negative filtering, the Fund managers at the Central Bank of Norway may make investments based on their specific mandates.

The Norwegian Ministry of Finance has excluded 37 companies from the Fund on product-based criteria. Of these, 18 companies were excluded as a result of the production of weapons that in normal use may infringe fundamental humanitarian principles, 18 as a result of tobacco production and one as a result of sales of military equipment to Burma.³¹

²⁹ The Norwegian Ministry of Finance's website: *Retningslinjer for observasjon og utelukkelse av Statens pensjonsfond utlands investeringsunivers*.

³⁰ This applies in practice to the state of Burma.

³¹ White Paper to the Norwegian Parliament to the Norwegian Parliament No. 15 (20102011). section 4.3.4 Om arbeidet med observasjon og utelukkelse <http://www.regjeringen.no/pages/16251809/PDFS/STM201020110015000DDDPDFS.pdf> Retrieved on 19 April 2011

”What and how many companies have been contacted? On what basis were they selected? Of what kind and how extensive was the contact? What ethical questions were raised? What kinds of questions were discussed? Was the response satisfactory?”

Hans Petter Graver on corporate governance in NBIM³⁴

Active ownership

NBIM is mandated to manage the Fund with the objective of high returns with moderate risk, and a good return in the long term is considered to be dependant on sustainable development in economic, ecological and social respects.³² The observance of the ethical guidelines of the Fund will be ensured through active ownership to companies. Voting is the most common form of active ownership, and NBIM has a general principle of voting on all items in the general meetings of all the companies in which it is involved. Other forms of active ownership include shareholder proposals, the preparation of expectation documents, dialogue with companies, legal action, contact with regulatory authorities and cooperation between investors.³³

NBIM focuses its active ownership primarily on six target areas. Three areas are related to good corporate governance: equal treatment of shareholders, shareholders’ rights and board accountability in addition to well functioning financial markets. The other three priority areas cover environmental and social issues: children’s rights, climate and water management.

NBIM has been criticised for not publishing the results of active ownership sufficiently. The above quotation is taken from Hans Petter Graver’s article in which he criticises NBIM for lack of transparency and openness in this work following the 2006 annual report. Since that time, NBIM’s strategies in relation to active ownership have increased in scope, and some of the questions which Graver raised have to some extent been answered.

This is most evident from the increase in expectation documents (see box on page 16) and the publication of voting at general meetings. These constitute the most obvious ways to connect with the public, and for the Central Bank of Norway they are the most appropriate means for a financial investor, like the Fund. The Bank acknowledges its influence on companies through its ethical work:

”Since the overall fund is so extensive, NBIM also has more influence than its holding in individual companies alone would suggest. Thus, NBIM is also in a better position to influence the markets and individual companies than many other investors.”³⁵

The question is therefore whether NBIM’s active ownership is being applied in the most efficient manner, or whether Hans Petter Graver’s issues are still relevant five years on.

Regarding contact with the various companies NBIM itself says that:

”The goal of contact [with companies] is to communicate our expectations and help companies to assess and improve their own management processes. For confidentiality reasons and to ensure efficient and effective processes we do not usually disclose such contact with individual companies.”

The reason that contact with the companies must remain confidential according to NBIM is that they are seeking to take into account the integrity of the dialogue and this is at the request of the companies. In addition, there is the

³² The Norwegian Ministry of Finance, 2010: *Ansvarlige investeringer i Statens pensjonsfond Utland* <http://www.regjeringen.no/Upload/FIN/brosjyre/2010/SPU/SPU.pdf>. Retrieved on 7 April 2011

³³ Ibid.

³⁴ Article by Hans Petter Graver in Dagens Næringsliv 02003.06: *Skuffende om Etikk (Disappointing news on Ethics.)* Available on the RORG website: [Http://www.rorg.no/Artikler/1518.html](http://www.rorg.no/Artikler/1518.html). Retrieved on 25 April 2011

³⁵ NBIM’s website about active ownership: <http://www.nbim.no/no/Investeringer/Eierskapsutovelsen/aktivteierskap/>. Retrieved on 20 April 2011

Women collect water from the Juba River, in southern Somalia.
Photo: Irin



NBIM
Norges Bank Investment Management

NBIM's expectations for companies - water management

Water is the last of the six areas that is a priority for NBIM. An expectation document describes the prospects that NBIM has for the relevant companies regarding responsible management of water resources, and was published in 2009. It has previously published expectation documents on children's rights and climate change.

The expectation document for water management is aimed at companies that operate in or work with production chains in sectors and regions that are prone to water shortages, pollution of water or other water-related risks. At the end of 2010, the six different sectors which NBIM considered particularly relevant for water management were as follows: pulp and paper, pharmaceuticals, mining and industrial metals, food and beverage manufacturers, water supply and power generation.

The expectations that are stated in the document for water management are mainly for companies to engage in sustainable water management. This includes ongoing risk analysis of the water level pressure and taking into account the local environment. Transparency in the activity in relation to water manage-



ment and the need for the company to apply internationally recognised measurement systems for water conservation are also emphasised in the document. It is also expected that the companies should have systems to evaluate environmental and social impacts where they operate and have a dialogue with local communities and relevant organisations where they operate.

The expectation document serves only as a set of expectations that will form the starting point for a dialogue between investors and companies, and it is not binding. The actual standards for corporate water management are up to each individual company to design. The Fund's expectations as a whole are based on the UN Global Compact, the OECD principles of corporate governance and the OECD guidelines for multinational companies.

NBIM's expectation documents have an economic focus on water resources, where the main argument is that inadequate management of water resources will eventually lead to losses. The document stresses that companies must ensure a steady supply of water at affordable costs, and harmful activity can lead to reduced confidence among investors and therefore economic disadvantage.

danger of companies falling in value and of setting a public precedent which will lead to demands for pressure on related companies. It is also stressed that it will often take time to interpret the specific results of dialogues with companies, and that when they become apparent it will not always be possible to prove what is attributable to the NBIM activity; this is the position of the former head of the ownership group in NBIM, Henrik Syse.³⁶

Today, only the number of shareholder meetings NBIM has voted at and how many dialogues they had with the

companies on "social, environmental and corporate governance matters that may affect their activities" are published from the contacts with the companies. In the first quarter of 2011, the number of dialogues with companies amounted to 75.³⁷ A review of companies' compliance with the expectations, published annually by "Sector Compliance Report", provides a general picture of the global situation, with comments on various countries or regions' achievement in various areas.³⁸ The figures in the review are based on figures which the companies themselves disclose.

³⁶ Henrik Syse. *Hvorfor gjør vi det. Om etikk og eierskapsutøvelse i Statens pensjonsfond – Utland*. Penger og Kreditt 4/2007 (årgang 35) 128-132

³⁷ NBIM, 2011. 1. *Kvartalsrapport for Statens pensjonsfond Utland 2011* http://www.nbim.no/Global/Reports/2011/Q1/1kv_2011_web.pdf. Retrieved on 30 May 2011 (*1st quarterly report for the Norwegian Government Pension Fund - Global 2011*). Available in English at http://www.nbim.no/Global/Reports/2011/Q1/Q1_2011_web.pdf

³⁸ See for example, the Sector Compliance Report on Water Management 2010: <http://www.nbim.no/Global/Brochures/Compliance%20Report/Water%20management/Compliance%20Report%20Water%20Management%202010.pdf>. Retrieved on 30 April 2011.

Furthermore, NBIM indicates that:

*”Although we as shareholders hold the Board responsible for matters we address, it is important that our commitment is not seen as attempts to micro-manage the company. If the company does not implement adequate improvements over time, we can try to intervene in other ways, such as by openly recommending the replacement of directors or submitting shareholder proposals.”*³⁹

However, it is not possible to obtain an overview of measurable results in this work, nor the progress of dialogues with selected companies. It can therefore be said that Graver’s point concerning lack of transparency remains relevant today to the highest degree.

Changes in the ownership share

The Fund’s ownership percentage seldom exceeds more than one percent of the voting shares in the given company, although the statutory limitation is currently 10 percent. The ownership limit is set by the Norwegian Ministry of Finance and is part of the Fund’s mission to be a financial and not a strategic investor,⁴⁰ and to ensure that the Fund’s return will be closely integrated with the general trend in the world economy.⁴¹ The difference between the two different investor roles is that a *strategic investor* actively seeks to exploit ownership for purposes beyond the financial ones, such as a given behaviour change. For a strategic investor, it is important to gain influence over the

company, usually through a major holding or a seat on the board. A *financial investor* only has the financial objective of investment in securities. To spread the risk, a financial investor will often prefer to have a small holding in many companies, as the Fund has traditionally done.

In recent years however, the Central Bank of Norway has been working towards obtaining proposals from the Norwegian Ministry of Finance to expand the ownership sections. From the inception of the Fund, the holding limit was three percent, which was then increased to five percent in 2005. In a letter to the Ministry of 2008, the Central Bank of Norway asked for a further increase to 15 percent. The main argument for this was that small businesses were becoming a larger part of the reference portfolio of the Fund and that it would be an advantage if the bank could take part in the recapitalisation of them. The bank believed that the then limit of five percent prevented such recapitalisations on a necessary scale.⁴² In the letter the bank’s management emphasises that the expansion of ownership will not change the character of the bank as a financial investor:

*”(...), the bank’s view is that it is not the percentage limit on ownership which is crucial for the distinction between a ”strategic” and a ”financial” investor, rather the investor’s objectives for his investments and how, through his actions he uses the influence he has as a major owner.”*⁴³

Furthermore, the letter emphasised that an increased holding requires a greater responsibility for increasing the degree of

³⁹ NBIM’s website on active ownership: <http://www.nbim.no/no/Investeringer/Eierskapsutøvelsen/aktiveierskap/>. Retrieved on 20 April 2011

⁴⁰ Letter from the Bank to the Norwegian Ministry of Finance (ownership limit for the Norwegian Government Pension Fund - Global (SPU)) 1 February 2008. <http://www.norgesbank.no/no/om/publisert/brevoguttalelser/2008/brev01022008/>. Retrieved on 18 April 2011

⁴¹ The Norwegian Forum for Environment and Development and the Future in Our Hands 2007: *Forvaltning for fremtiden? En kartlegging av Norges Banks eierskapsutøvelse i forhold til de etiske ambisjonene for SPU*. <http://www.forumfor.no/noop/file.php?id=4757>. Retrieved on 13 May 2011

⁴² Letter from the Bank to the Norwegian Ministry of Finance (ownership limit for the Norwegian Government Pension Fund - Global (SPU)) 1 February 2008.

⁴³ Ibid.



transparency in the investment and ownership strategy. The bank argues that the Fund is a leader in transparency and points out that Norway has an international reputation for transparency in its work on active ownership.⁴⁴

The Norwegian Ministry of Finance has now increased the limit up to 10 percent ownership in a company. This has led to a surge in the number of companies with larger Norwegian ownership,⁴⁵ and in 2010 the Fund owns more than 5 percent in 17 companies. The highest holding was in Chinatown Waters Affairs Group, in which the Fund had a stake of 9.1 percent.⁴⁶

A continued increase in the holdings is considered an important factor in the development of the Fund up to 2020, however the Norwegian Ministry of Finance's view is in accordance with the Bank that the purpose of investment will not change due to the increased holdings. In the recent White Paper to the Norwegian Parliament on the Management of the Fund issued by the Norwegian Ministry of Finance, it is emphasised that the objective of the Fund is and will continue to be to obtain the highest returns over time with moderate risk.⁴⁷

A question that might be raised in light of these considerations is the following: although the objectives of the investments may determine the character of an investor more than an increased holding, would not the latter extend the ethical responsibility for a company's practices?

Positive filtering

The fund's revenues are generated from oil, which is a non-renewable resource, and traditionally much of the Fund was invested in non-renewable energy. As previously mentioned, an environmental fund was established in 2001 in which a certain percentage of the Fund (NOK 1.5 billion at the end of 2003)⁴⁸ should go to companies with an environmental profile, i.e. through *positive filtering*.

Positive filtering involves a restriction of a fund's investment to companies that meet certain criteria, and investment in businesses that in some way appear to be beneficial in terms of ethics, environment, poverty, democracy, etc. through approved policy statements, functions, assessments or social commitment.⁴⁹

Two different forms of positive filtering have been used. The Norwegian Environmental Fund is an example of the best-in-class strategy. It selects companies which based on ethical or other criteria appear to be the best in their class, which may be defined as meaning different industries or geographic regions.

Another method is *pioneer screening*, where the concentration is on investments in certain sectors within the market, such as green energy development. Positive filtering of companies through *pioneer screening* takes its

⁴⁴ Ibid.

⁴⁵ Annual Report, NBIM, 2010. [http://www.nbim.no/Global/Reports/2010/NORSK% 20% c3% 85rsrapport% 202010% 2024% 20mars% 20 \(printed\). pdf](http://www.nbim.no/Global/Reports/2010/NORSK%20%20c3%2085rsrapport%202010%2024%20mars%20(printed).pdf). Retrieved on 9 April 2011 (English version available at [http://www.nbim.no/Global/Reports/2010/ENGLISH%20Annual%20 Report%202010%2024%20March%20\(printed\).pdf](http://www.nbim.no/Global/Reports/2010/ENGLISH%20Annual%20Report%202010%2024%20March%20(printed).pdf))

⁴⁶ Ibid.

⁴⁷ White Paper to the Norwegian Parliament No. 15: *Forvaltningen av SPU 2010*. [http://www.regjeringen.no/pages/16251809/PDFS/STM 201020110015000DDDPDFS.pdf](http://www.regjeringen.no/pages/16251809/PDFS/STM201020110015000DDDPDFS.pdf). Retrieved on 15 April 2011

⁴⁸ White Paper to the Norwegian Parliament No. 2: Revised Budget for 2004. <http://www.regjeringen.no/nb/dep/fin/dok/regpubl/s meld/20032004/stmeldnr220032004/4.html?id=403311>. Retrieved on 15 April 2011

⁴⁹ Gjølborg and Johnsen, 2008: *Etisk forvaltning av Statens pensjonsfond Utland: En oppdatert analyse*. http://www.regjeringen.no/upload/FIN/Vedlegg/aff/analyse_etisk_forvaltning.pdf. Retrieved on 20 April 2011

foundation from the idea that some businesses have beneficial environmental impacts in themselves. This type of selection means that companies that are further ahead for example in relation to solar energy are included in the investment even if the companies have not necessarily presented themselves as ethical pioneers.⁵⁰

The Norwegian Environmental Fund was discontinued in 2004 when the ethical guidelines for the Fund were introduced. During the review of the Environmental Fund in 2004, it emerged that the investments which were earmarked for the environment had marginally lower returns compared with other investments in the Fund, and that there were few positive environmental effects of such a fund.⁵¹

One crucial concern with the Norwegian Environmental Fund was that it had too broad an investment range. Another was that the Fund included both companies *assumed* to have a small negative impact on the environment and companies that met certain requirements for environmental reporting and certification. This led to a series of revelations that tarnished the Fund's reputation as an environmental fund, including investments in companies that released radioactive material, caused oil spills and publicly opposed the Kyoto agreement.⁵²

In the revised budget for 2004, the Norwegian Environmental Fund was removed from the national budget, and this was justified by the fact that the ethical guidelines already met environmental concerns. The Ministry's decision as a result of the review was that the ethical work should be limited to the ethical guidelines proposed by

the Graver Committee, and that it complicated the work of the Central Bank of Norway if the guidelines were to apply to investments through the environmental fund. Active ownership by the Central Bank of Norway was seen as a suitable tool in this respect.

Environmental investments in Norges Bank Investment Management (NBIM) – another attempt

After the Norwegian Environmental Fund was discontinued in 2004, there has been considerable pressure from various organisations and stakeholders again to establish a portion of investments in the Fund which are aimed at companies with a positive environmental profile. A public debate has revolved around whether the Fund should use positive filtering as a means towards responsible investment, and in White Paper to the Norwegian Parliament No. 16 (2007-2008) the Norwegian Ministry of Finance announced that the financial and ethical consequences of separating a small portion of the Fund aimed at environmental investments would be considered in the review of the guidelines.

In 2008, Gjølberg and Johnson on behalf of the Norwegian Ministry of Finance carried out an assessment of the possibilities for the use of positive filtering for the Fund, which they did not recommend. The reason was that *”it is much more difficult to declare a company to be without a doubt ethically good than it is to define a company that is without a doubt outside the ethically acceptable”*.⁵³ The drop is taken to be significantly higher than if only negative filtering is used.

⁵⁰ Ibid.

⁵¹ The Norwegian Ministry of Finance, 2005: White Paper to the Norwegian Parliament No. 4 (20032004). http://www.regjeringen.no/se/dep/fin/tema/statens_pensjonsfond/stmeldnr420032004.html?id=434902. Retrieved on 18 April 2011

⁵² Hearing note on the ethical guidelines of the Norwegian Government Pension Fund by the Future in Our Hands. http://www.regjeringen.no/upload/FIN/etik/h_uttalelser/framtiden.pdf. Retrieved on 19 April 2011

⁵³ Ibid.

Gjølberg and Johnson also emphasised the major potential ethical conflicts and dilemmas that could occur with positive filtering of companies in a fund through "pioneer screening". An example is if a company within the sector of renewable energy, for example the construction of hydropower plants, makes use of corrupt means to get the environmental impact analysis to conclude in its favour.

In retrospect, Gjølberg and Johnson have been criticised for the fact that these conclusions rely on positive filtering as an investment tool for the entire fund, and that they produced a short-term economic analysis that did not take into account the added value in terms of preventing climate change.⁵⁴

After the guidelines were introduced in 2004 and until 2009 the Fund focused its ethical assessments on which companies the Fund did not want to invest in. A thorough consultation was conducted in 2008 in connection with the review of the ethical guidelines. Over 50 different examples were included and suggestions for changes and improvements to the existing system. A series of measures were implemented to collect information from both national and international stakeholders in this respect,⁵⁵ and the conclusion was that the original guidelines should be continued, but with some additional measures. Gjølberg and Johnsen's recommendations not to carry out positive filtering in the Fund were considered, but the Norwegian Ministry of Finance decided to disregard them and implemented positive filtering in 2009.



Photo: Kevin Dooley

The Fund is now using this instrument through earmarked environmental investments, and also investments in emerging markets, however the profitability requirements are the same for them as for the Fund's other investments.⁵⁶ In White Paper to the Norwegian Parliament No. 20 (2008-2009) the Norwegian Ministry of Finance essentially assumed that investment should be in the range of NOK 20-30 billion over a five-year period.⁵⁷ Investments in emerging markets, however, have been put on hold, since the environmental investments had a faster rise than was envisaged at the outset;⁵⁸ figures from the Central Bank of Norway showed that the increase was sharp, and that the investments amounted to NOK 25.7 billion at the end of 2010 alone.⁵⁹ This is an increase of NOK 7.3 billion from the previous year, but still represent only 0.8 percent of the Fund.

⁵⁴ Hammerlin, Joakim, 2008: Null utslipp for full pensjon! Om hvorfor Statens pensjonsfond – Utland bør styrke sin miljøprofil og hvordan det kan gjøres. <http://www.framtiden.no/viewdocument/249nullutslippforfullpensjon.html>. Retrieved on 10 May 2011

⁵⁵ Norwegian Ministry of Finance, 2008: Årsmelding for forvaltningen av Statens pensjonsfond Utland. <http://www.regjeringen.no/pages/2172105/PDFS/STM200820090020000DDDPDFS.pdf>. Retrieved on 15 April 2011

⁵⁶ E-mail correspondence with NBIM

⁵⁷ The Norwegian Ministry of Finance, 2009: Årsmelding for Forvaltning av Statens pensjonsfond Utland 2009

⁵⁸ Ibid.

⁵⁹ Annual Report 2010, NBIM

The investments in the environmental programme shall use the method of "pioneer screening" and go to listed companies or bonds where it is possible to expect a clear additional benefit for the environment, climate-friendly energy efficiency, carbon capture and storage, water technology and waste and pollution management.⁶⁰ In the context of the listing of environmental investments in the Norwegian Ministry of Finance's 2008 annual report, it was indicated that they would include infrastructure investments that would be able to:

*"(...) finance the creation of environmentally-friendly investment projects directly, or be made in established projects in climate-friendly energy sources such as wind, solar, hydro, geothermal plants, carbon capture and storage or other climate-friendly infrastructure forms, such as improvement of the electricity grid. The need for investments in environmental infrastructure and the need for private capital makes this an interesting market with significant growth potential."*⁶¹

Environmental investments will in principle be focused on stocks that are already included in the Fund's reference index. Such investments will result in the Fund through active management choosing to outweigh the individual companies relative to their size in the reference index, so that investment in the environmental programme is additional to investments to be made in the same companies by mechanically following the Fund reference index.⁶² According to the Norwegian Ministry of Finance the environmental contribution of this weighting is difficult to measure.

NBIM considers that the scope of investments related to the environment will vary over time, as the agreements

with some managers are terminated while others are introduced. This is related to the fact that the activity level of environmental investment depends on internal and external investment managers and their risk analyses of the various sectors.

A step towards increasing environmental investments has been creating tailored mandates in NBIM. These are held by managers, external and internal, who specialise in different sectors, countries or regions. The number of environmental mandates has increased from four in 2009 to nine in 2010, and at the end of 2010 NBIM recruited seven external managers to make environmental investments, where geographic proximity and intimate knowledge of a particular sector is vital.⁶³

The distribution of the mandates by sector was as follows:

- three mandates for investment in water management, which focuses on companies developing technologies to improve water quality or infrastructure to treat or distribute water
- three mandates for investment in environmentally friendly technology to improve energy consumption and reduce harmful emissions
- three mandates for investment in clean energy that could apply to companies that produce renewable energy or develop equipment for the production of renewable energy.

Based on these considerations, there is good reason to believe that investment in hydroelectric power stations will increase as part of the Fund's positive filtering.

⁶⁰ The Norwegian Ministry of Finance, 2010: *Ansvarlige investeringer i Statens pensjonsfond Utland*

⁶¹ The Norwegian Ministry of Finance, 2008: *Årsmelding for Forvaltning av Statens pensjonsfond Utland*

⁶² The Norwegian Ministry of Finance, 2010 *Årsmelding for Forvaltning av Statens pensjonsfond Utland*

⁶³ Annual Report 2010, NBIM

The Board's resources

NBIM's investments are also evaluated based on guidelines for responsible investment in the Fund retrospectively. The ethical guidelines for the Fund provides for the two resources that can be used in conjunction with this: Corporate Governance and the exclusion/monitoring of the companies in the portfolio. The Norwegian Ministry of Finance decides on any exclusion based on the recommendations from the Norwegian Ethical Council. In this way, investments that constitute an unacceptable risk to the Fund contributing to serious ethical infringements are avoided.

The Norwegian Ethical Council for the Norwegian Government Pension Fund - Global is an independent board that makes recommendations to the Norwegian Ministry of Finance concerning the exclusion of companies from the Fund on the basis of acts or omissions contrary to the criteria of the Fund's ethical guidelines.⁶⁴ These were adopted by the Norwegian Parliament in 2004, based on the recommendations in the Graver Committee report.⁶⁵

*(...) owning shares or bonds in a company that can be expected to commit gross unethical actions can be regarded as complicity in these actions. The reason for this is that such investments are directly aimed at achieving a return from the company, which establishes a permanent connection between the Petroleum Fund and the company, and that the question of whether to invest in a company is a voluntary matter.*⁶⁶

The Ethical Council monitors the Fund's portfolio to identify companies that engage in grossly unethical conduct, and aims to gather solid evidence of these companies for any measures that may be instigated. In order to be kept up-to-date on any criticism and negative publicity by companies that are invested in, the Ethical Council works in particular

with consultants who contribute information on this area. The consultants provide daily news searches on all the companies in the portfolio of the Fund. They send a report to the Board each month with a list of companies in the Fund's investment range which are accused of serious environmental damage, with the effect of human rights infringements, corruption or other misconduct. The report is then reviewed by the Board, which makes an assessment of the degree of seriousness of the cases and on the basis of this decides which companies their efforts should be focused on.⁶⁷

Exclusion is the last resort

As described above, some types of companies are filtered out before investment. This type of exclusion is product-based, and it is usually relatively constant and easy to identify in a given business. This is limited to product types where the exclusion of whose participation is clearly supported by a consensus among the Norwegian population.

Other factors may lead to the exclusion of a company retrospectively, however these require thorough documentation from the Board before any recommendations are implemented. This is known as *behaviour-based exclusion* and is based on the company's production methods.

The Norwegian Ministry of Finance has stated that the exclusion of a company is the last resort - the company's willingness and ability to improve its practices should be considered before this takes place. Other active agents that may reduce the risk of infringements without the company needing to be excluded are emphasised. For this reason, in 2009 a point was added that makes it possible to place companies on a *watch list*.

⁶⁴ Annual report of the Norwegian Ethical Council 2010

⁶⁵ NOU 22, 2003: *Forvaltning for fremtiden. Forslag til etiske retningslinjer for statens petroleumsfond*. <http://www.regjeringen.no/Rpub/NOU/20032003/022/PDFS/NOU200320030022000DDDPDFS.pdf>. Retrieved on 4 April 2011

⁶⁶ Ibid.

⁶⁷ Annual report of the Norwegian Ethical Council 2010



Photo: Pianporn Deetes

The watch list can be used if there is doubt regarding whether the basic conditions simply for exclusion are met or for future developments. An assessment will take place on a regular basis to establish whether the company should remain under observation. If the risk of infringements decreases over time, the company will be removed from the list. However, if the desired improvements are not made, a company on the watch list may be recommended to be excluded from the Fund.⁶⁸ In 2011, only one company was on the watch list for Fund.⁶⁹

In total, last year ten companies were excluded from the Fund on behaviour-related criteria. Two of the companies were excluded on the basis of contributing to serious or systematic infringements of human rights, ten were excluded because they were considered to be causing serious environmental damage, one on the basis of other particularly serious infringements of fundamental ethical standards⁷⁰ and one on the basis of serious infringements of individual rights in war or conflict.

Exclusion is therefore not regarded as the best means to influence a company engaging in unethical behaviour. The Graver report emphasises that active ownership can lead to greater changes in a company's practices than a principled exclusion will achieve; that the opportunity to influence is greatest when you have a holding in the company.⁷¹ It should be noted that when Graver's report was prepared, the ownership limit was three percent, and the report stresses

that the low ownership portion limits the Fund's ability to influence companies. As mentioned, this limit was later raised to ten percent.

At the same time, Graver's report emphasises that exclusion should be an option if a company shows a lack of willingness to share information or to have a dialogue with its investors. The report acknowledges that the Fund first and foremost pursues financial interests, however a company that is not open to dialogue or input is an unstable company, and this will affect the financial return in the long run. Thus, financial and ethical considerations are closely connected. If the corporate governance practice of a company with unethical behaviour is stalling, there comes a point at which for reasons of principle it is necessary to withdraw investments from that company.

"(...) the advantage of using the influence of an owner is that you can actually affect the situation of those affected by a company's activities. The downside is that you run the risk of contributing to unethical conduct if there has been little success in influencing the companies for the better."⁷²

⁶⁸ Report of the Norwegian Ethical Council 2010

⁶⁹ In November 2007 the Norwegian Ethical Council recommended that Siemens AG be excluded on the basis of gross corruption. In March 2009 the Norwegian Ministry of Finance put the company on a watch list for four years, so that the Board and the Central Bank of Norway would monitor developments in the company. If new corruption cases in the company are discovered, there will be a very low threshold for exclusion. The Norwegian Ethical Council and the Central Bank of Norway must submit an annual report to the Norwegian Ministry of Finance on the development of the company.

⁷⁰ The Norwegian Ministry of Finance's website: *Selskaper som er utelukket av fondets investeringsunivers (Companies that are excluded from the Fund's investment range.)* <http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund/responsible-investments/companies-excluded-from-the-investment-u.html?id=447122>. Norwegian source retrieved on 31 August 2011

⁷¹ NOU 22, 2003: *Forvaltning for fremtiden. Forslag til etiske retningslinjer for statens petroleumsfond.*

⁷² NOU 22, 2003: *Forvaltning for fremtiden. Forslag til etiske retningslinjer for statens petroleumsfond.* <http://www.regjeringen.no/Rpub/NOU/20032003/022/PDFS/NOU200320030022000DDDPDFS.pdf>. Retrieved on 4 April 2011

Strong signals... even from a minority investor

Despite its status as a minority investor, the Fund is often one of the largest single investors in a company. The Fund is regarded as a serious institutional investor, because the requirement for thorough documentation of any recommendation for the exclusion of companies is strict. Many other state pension funds will therefore follow the lead of the Fund, if a recommendation is made public.

Poor reputation can be very negative in the long term for the economic returns of a company. Although it is seldom a financial crisis for a company when the Fund carries out an exclusion, the risk of this is generally taken very seriously even by major companies because it is undesirable to have spots on the ethical rap sheet and exclusion is a signal that is quickly noticed in the financial market in general. *"Therefore, this sanction, or observation (i.e. the rod behind the mirror), creates a greater improvement than one might think, and its spillover effects in the financial markets are evident".*⁷³

This can be exemplified by the fact that in March 2007 a seminar was held on the Fund in Washington. Among those attending were representatives from Wal-Mart and Freeport, companies that have previously been ruled out of the Fund's investment range. C. Fred Bergsten, director of the Peterson Institute for International Economics, said in an interview with NRK that: *"Even big US companies do not like the negative publicity that would come from being excluded from the potential portfolio of the Norwegian pension fund".*⁷⁴

The process surrounding the exclusion of companies

Several factors within the company's activities must be assessed before investments are withdrawn. If withdrawal from the company is considered, it should not be individual cases that are the basis in themselves, but the unethical actions must be an indication of current and also future practice. Exclusion should never take place to punish a company for old sins; it should not be applied retroactively.

In addition to the present and the likelihood of future offences, the seriousness and scope of the breach of standards will also be evaluated. The relationship should be clearly documented between infringements and the company the Fund has invested in, and whether the company is doing what could reasonably be expected to reduce the risk of future infringements within a natural timeframe.⁷⁵

In many cases, further reports will indicate that the probability of future infringements is less than first thought. It may be that old events are reported in news bulletins, or that the company has taken measures to improve the situation. In such cases, the Board will not take the case further until new information is available indicating that the company should be reassessed.

The Norwegian Ethical Council focuses on describing the basis for an exclusion recommendation in detail and on providing thorough documentation. Any allegations are supported by specific references, often from multiple

⁷³ Dag. O. Hessen, 2011: *Hvor etisk kan pensjonsfondet være?* Post on meninger.no.

http://www.nyemeninger.no/alle_meninger/cat1002/subcat1039/thread150377/. Retrieved on 14 June 2011

⁷⁴ Joakim Hammerlin, 2007: *Forvaltning for fremtiden?* Rapport skrevet for Fremtiden i våre hender for Forum for utvikling og miljø. www.forumfor.no/noop/file.php?id=4757. Retrieved on 10 May 2011

⁷⁵ The Norwegian Ministry of Finance, 2010 *Retningslinjer for observasjon og utelukkelse av selskaper fra Statens pensjonsfond utlands investeringsunivers*. http://www.regjeringen.no/nb/dep/fin/tema/statens_pensjonsfond/responsible_investment/retningslinjerfor_observasjonoguteluk.html?id=594254. Retrieved on 17 April 2011

sources. If the Board after an extensive investigation still finds that a company should be excluded or placed under observation, the Board asks the company to comment on a draft recommendation. It is fairly common for companies to ask for follow-up meetings and be willing to provide further information at this stage.⁷⁶

If the company has new information, it may lead to the recommendation being withdrawn. All contact between the Ethical Council and the company is confidential and the documentation of the company's unethical business will in that case never be seen by the public. If the company has no new substantive information after the recommendation, then the recommendation is sent to the Norwegian Ministry of Finance, which takes the final decision. The decision to exclude can be postponed if it is known that the managers (the Central Bank of Norway) are in dialogue with the company, or that its route to more ethical practices is considered likely to be affected by better corporate governance.

It is enshrined in the ethical guidelines of the Fund that the Central Bank of Norway's corporate governance regarding companies must be documented and submitted to the Board if they are working with the same company. The importance of coordinating communication which the Central Bank of Norway and the Board have with the same company is emphasised. However, it seems that it is only in exceptional cases that they work with the same companies.⁷⁷

The division of responsibilities between the Central Bank of Norway and the Norwegian Ethical Council

In the review of the ethical guidelines in 2008, the possibility was envisaged for the Board to have a direct dialogue with the companies in the portfolio, a contact that was previously only possible through the Central Bank of Norway, and also to establish a system of cooperation and coordination between NBIM and the Board. The purpose of this was to streamline the assessment of whether other measures might be better suited to achieving the Fund's objective as a responsible investor before any withdrawal.⁷⁸

A closer cooperation with the Board is not particularly desirable, according to NBIM, because the bank has expressed the need to have distinct roles with respect to the companies in which they invest. The argument for this is that the companies they invest in expect that the investor (the Central Bank of Norway) and owner (the Norwegian Ministry of Finance, which approves the recommendations on exclusion) will have different mandates, respectively, as representative and client.⁷⁹ Therefore, NBIM does not wish to use exclusion as a tool in its ownership, since that could erode confidence in the companies.

The Board has also accepted that these roles should be separated so that both achieve the greatest possible legitimacy. Nevertheless, the Norwegian Ministry of Finance has indicated that the cooperation could have been strengthened

⁷⁶ White Paper to the Norwegian Parliament No. 15 (20102011). Om arbeidet med observasjon og utelukkelse (On the work of observation and exclusion) 4.3.4: <http://www.regjeringen.no/mobil/nb/dep/fin/dok/regpubl/stmeld/20102011/meldst1520102011/4/3/4.html?id = 639775>. Retrieved on 19 April 2011

⁷⁷ Annual report of the Norwegian Ethical Council 2008

⁷⁸ Ibid.

⁷⁹ In the letter from the Central Bank of Norway ("ownership limit for the Norwegian Government Pension Fund (the Fund)") sent on 1 February 2008 to the Norwegian Ministry of Finance, it is emphasised that "*The Ministry has made it routine to ask the Central Bank of Norway about the prospects for dialogue with companies which the Board has recommended for exclusion. If NBIM has started or planned a dialogue in such cases, the Bank will communicate the relevance of this in terms of the Central Bank of Norway's mandate and not of the assessments and facts which the Board puts forward and which derive from the Board's mandate.*" [our translation]

with advantages: "A greater degree of mutual information exchange between the Board and the Central Bank of Norway will strengthen the capacity of the Fund's overall resources for addressing ethical considerations being used in a more effective manner. The Board welcomes this development"⁸⁰ Closer cooperation is assumed by the changes in the ethical guidelines has been followed to a limited extent.

An increased cooperation between NBIM and the Norwegian Ethical Council in the direction of a more holistic application of the ethical guidelines is realistic. In Sweden ethical work is organised in a slightly different way, in which the implementation of the ethical guidelines involves both active ownership and the possibility of the exclusion of companies through the Ethical Council for the AP Fund. The AP Fund consists of four different funds (first, second, third and fourth AP Fund) each of which manages Sweden's state pension fund. The Ethical Council is not an independent body. However, it does consist of representatives of the Funds' various managers. It is suggested that having the opportunity to exercise ownership rights and exclusion within the same organisation as is the norm in Sweden is regarded as the most practical method for the Fund's ethical work.⁸¹

The AP Fund, like the Norwegian Government Pension Fund - Global, is a long-term investor with the remit to achieve the highest possible economic return,⁸² but in its ethical work it has combined its mandate as a manager with the authority to make recommendations on exclusion. In addition, the AP Fund applies international conventions, however their criteria for dialogue is in many

cases slightly more accessible to the public:

*"The fact that the work of the Ethical Council is based on signed agreements leads to a clarification of the background which to an increasing extent is accepted by international investors and companies. This background means that the Ethical Council can achieve greater power because other companies and investors accept the same view. It is precisely this power that could be open to change."*⁸³

The Ethical Council for the AP Fund is composed of one representative from each of the Funds. The various funds have therefore - through the Ethical Council -

*"(...) a dialogue with companies that could be associated with breaches of international conventions. By using the resources of the Fund for engagement, counteracting breaches of the conventions and imposing requirements for changes, the Fund can make a difference. In many cases, the dialogues lead to the desired result (...). It is only when dialogue does not lead to the desired result that a sale or exclusion of the company is considered."*⁸⁴

There are many similarities between the work of the Swedish Ethical Council and the ethical work of the Norwegian Government Pension Fund - Global, primarily because they are based on international conventions and the consideration that dialogue with the companies is more desirable than exclusion. One of the main differences is that the Ethical Council in the AP Fund annually reports examples of several companies they are in dialogue with, the reason and goal of the dialogue and progress in the work with the various

⁸⁰ The Norwegian Ministry of Finance, 2009, Årsmelding for forvaltningen av Statens Pensjonsfond Utland

⁸¹ E-mail correspondence with a source in the Ethical Council for the AP funds

⁸² About the Ethical Council, AP-web page. <http://www.ap4.se/etikradet/Etikradet.aspx?id=573> (English page). Swedish page retrieved on 23 April 2011

⁸³ The work of the Ethical Council, AP-web page <http://www.ap4.se/etikradet/Etikradet.aspx?id=577>. Swedish page retrieved on 23 April 2011

⁸⁴ Annual Report of the First AP Fund 2010. <http://www.ap1.se/documents/ar2010.pdf>. Retrieved on 13 May 2011



Photo: Igor Golubenkov

companies. Disclosure of how the dialogue is proceeding with certain companies does not cause the company's value to drop (which has been used as the argument that NBIM should keep the dialogue processes confidential), as the company's infringements of the conventions, according to the Fund, are already obvious to most people.⁸⁵

Exclusions on environmental criteria

Ten companies have been excluded on environmental criteria in the Ethical Code, and these companies belong mainly to the mining and smelting industry.

The Ethical Council has described the criteria for what should be considered in the assessment of environmental damage, and they involve extensive and long-term damage to the environment and the types of damage that may have major negative consequences for human life and health. For a company to fall under the exclusion criteria, the company must have caused or contributed to the damage, and it will be significant that the company's business is in violation of national laws and international parameters.⁸⁶ The extent of environmental damage is assessed according

to important natural and environmental values, population concentrations and vulnerable groups, legislation and governance in the country and the company's procedures and practices.

Based on these criteria in 2010 the Norwegian Ethical Council assessed which sectors there was particular reason to emphasise in their work, namely:

- oil production with large local pollution problems
- certain types of mining activity where waste involves particular risks,
- illegal and other especially destructive logging,
- illegal and other particularly destructive fishing activities,
- some forms of especially devastating coal production,
- particularly polluting plants in the smelting and processing of minerals and metals,
- some types of chemical industry with emissions of particular environmental and hazardous pollutants
- *very destructive dam projects*⁸⁷

⁸⁵ E-mail correspondence with the Ethical Council for the AP Fund

⁸⁶ Annual report of the Norwegian Ethical Council 2010

⁸⁷ Ibid.

*We do not inherit the earth from our ancestors,
we borrow it from our children*

Indian proverb

II Large dams - large losses

Global trends in dam construction

Renewable energy has been growing rapidly in recent years; despite the financial crisis and low oil prices, the sector has had a formidable development⁸⁸ This is a very welcome trend - the fact that we need alternative solutions to energy production based on fossil fuels and to meet growing world energy demand is indisputable.

At the same time this development takes many forms. The technologies involved in the increased focus on renewable energy include hydropower generation through the development of large dams. As we shall see below, this is not entirely unproblematic.

Worldwide, the number of large dams in 1950 amounted to approximately 5,000; three-quarters of these were in the US, Europe and other industrialised regions. This trend, which was characterised by a very positive outlook for dam construction, reached its peak in 1970 when on average one to two dams were built somewhere in the world every day.

Growing criticism

There was previously extensive support for the benefits of dam construction. Investments in connection with constructions were presented in a way that precluded any doubt that all costs would be covered retrospectively.

Dams

Dams are a mature form of technology - at least in countries such as Norway - and can have multiple functions. In dam construction an area is often dammed and a reservoir created.⁸⁹ This is used to regulate the production of electricity and contribute to a steady supply of water. With the accumulation of large amounts of water the pressure from the reservoirs can generate electricity and also provide water for agricultural, industrial and household use. Dams can also contribute to flood control and river regulation. Hydropower is the preferred most widely used renewable energy source in the world today. Approximately 2,645 TWh per year is generated by hydro power, which covers 19 percent of world electricity output⁹⁰ and constitutes 90 percent of renewable electricity output.⁹¹

The global investment in the dams until 2000 was at least USD 2,000 billion and the positive side effects of development were also included in the calculation to justify the significant investments. They included food security, local employment and capacity expansion, electricity access in rural areas and the expansion of physical and social infrastructure such as roads and schools.⁹²

The benefits of dams were considered self-evident, while the costs associated with their development and operation could be limited to the financial costs.⁹³ Other effects were not usually included in the calculation.

⁸⁸ REN21, 2010: Renewables 2010 Global Status Report.

http://www.ren21.net/Portals/97/documents/GSR/REN21_GSR_2010_full_revised%20Sept2010.pdf. Retrieved on 20 May 2011

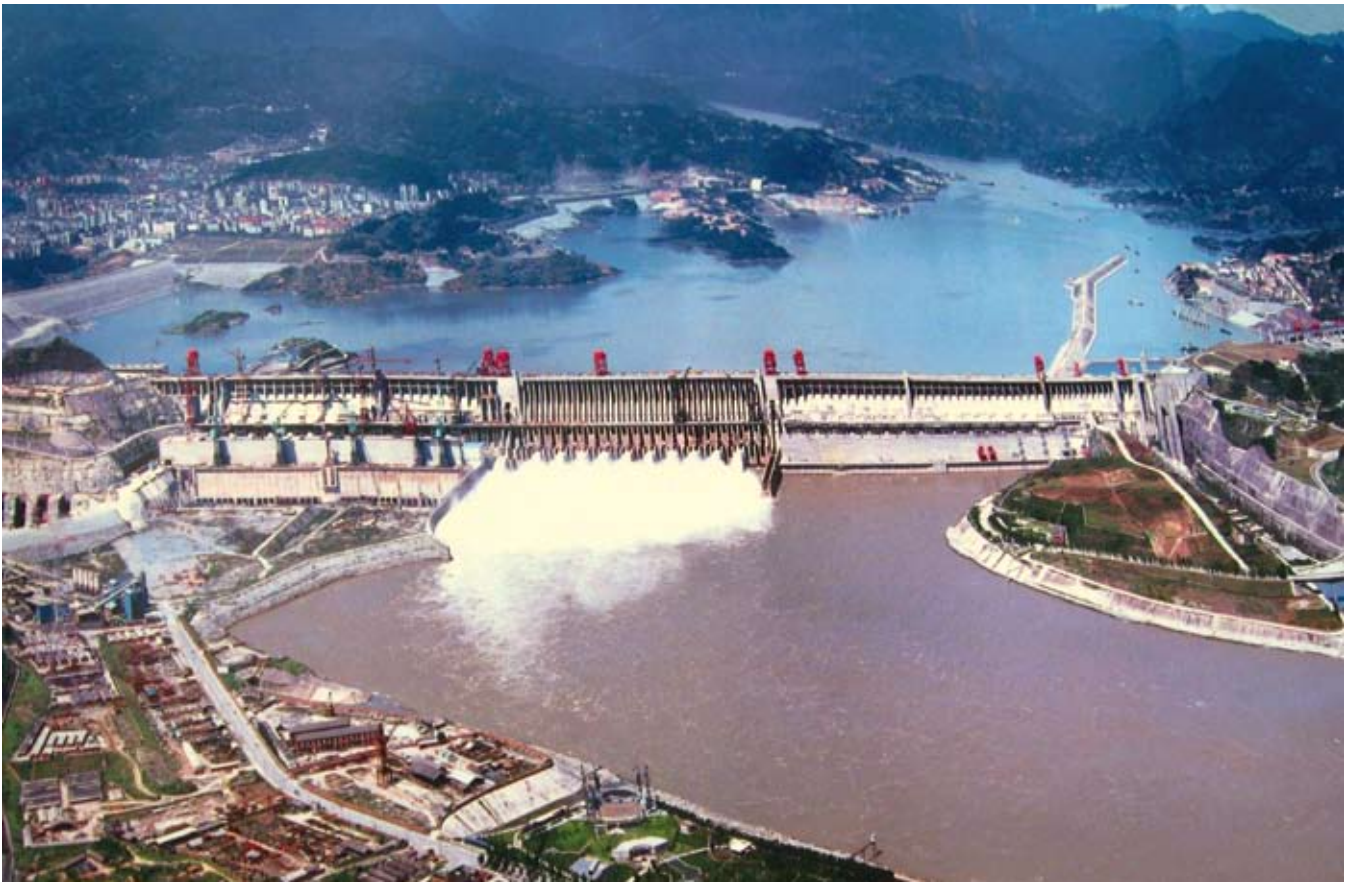
⁸⁹ A water reservoir is a natural or artificial pool to collect water during periods of high inflow and low consumption, with withdrawal of water during periods of low inflow and high consumption.

⁹⁰ REN21, 2010: Renewables 2010 Global Status Report.

⁹¹ Fornybar.no website on hydropower. <http://www.fornybar.no/file.axd?fileID=6>. Retrieved on 19 May 2011

⁹² World Commission on Dams, 2000: *Dams and Development. A new framework for decision making*. Earthscan Publications Ltd.

⁹³ Ibid.



If, however, we look at the real cost of dam developments, it appears that they have had on average 35 percent less profit than was assumed ahead of the development, and that in many cases they have also made a much lower contribution to electricity output than expected.⁹⁴ In addition, the disadvantages of this development far exceed the economic implications.

When one looks at the consequences for the river and the river bed, the local ecology and local communities that live in the vicinity, the picture is quite different. In 1990, less than half of the dams that were built underwent a review of the environmental impacts before construction started. Even fewer had the consent of the people who had to move.⁹⁵

This was the backdrop for the World Commission on Dams (see box on page 30). The growing controversy around large dams in many developing countries, particularly projects funded by the World Bank from the mid-1980s, led to strong opposition from grassroots movements and civil society. Major environmental damage, displacement and lack of measures to restore lost livelihoods were among the grievances.

An internal and largely positive review published by the World Bank in 1996 of fifty of its dam projects led to further dissatisfaction. At a meeting between dam builders and activists in Switzerland the following year, an agreement was signed to establish an independent commission to look at the developmental impact of large dams worldwide and establish standards under which to improve the planning, development and operation of such projects.



Dam protest in Thailand. Photo: Pianporn Deetes

⁹⁴ Fred Pearce, 2006: *When the rivers run dry. What happens when our water runs out?* Transworld Publishers.

⁹⁵ Ibid.

World Commission on Dams

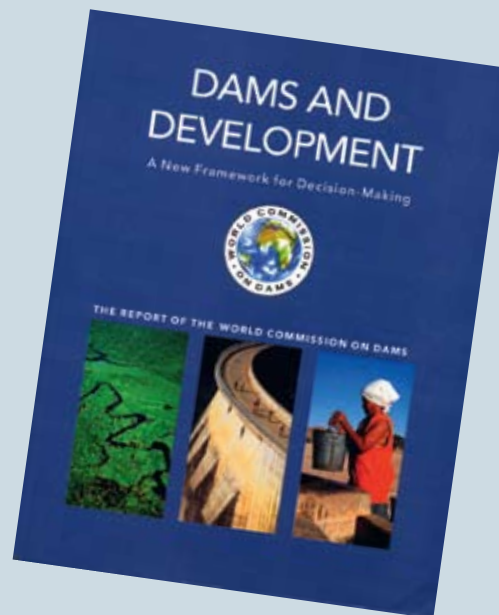
"Perhaps of most significance is the fact that social groups bearing the social and environmental costs and risks of large dams, especially the poor, vulnerable and future generations, are often not the same groups that receive the water and electricity services, nor the social and economic benefits from these."⁹⁶

This quotation is from the introduction to the World Commission on Dams (WCD), which is the most comprehensive independent review of specific development projects ever carried out. The Commission was established by the World Bank and the World Conservation Union (IUCN) in 1998. The twelve commissioners who wrote the report were chosen with an eye to varieties of background and expertise as well as different perspectives on dams and politics. In spite of the essentially different beliefs the commissioners represented, the result was a strongly formulated and coherent document.⁹⁷

After two years of research and consultation, and a number of political controversies and compromises, the final report was issued in 2000. The conclusion was that although large dams have made a significant contribution to human development, this happens far too often to an unacceptable and unnecessarily high price, especially for the affected local community and the environment. An example which the report highlights in particular is how dams have led to the displacement of from 40 to 80 million people worldwide, and that most of these people have never regained their former livelihoods.

The report also highlights the many cases where the construction of dams has led to significant and irreversible loss of species and ecosystems. It seems that efforts to counteract these consequences often fail, and detailed examples are provided of large dams which have failed to provide as much power or water supply as supporters of the development projects had promised.⁹⁸

The Commission made proposals for a new policy framework to reduce the risk of repeating the mistakes in the future. This deals with how dams can be optimally planned and improved and mentions, in particular, that decisions should be based on recognised rights, that there should be a risk assessment for all those involved and that all possible solutions should be considered to meet the need which the dam will cover. It is emphasised that the social problems from existing dams must be corrected before new ones are



built, with a need to achieve public acceptance of key decisions, and how important it is to protect unaffected rivers.

The proposed framework has become the main reference for international dam construction. Although the World Bank and the dam industry have been cautious about the recommendations, they have still accepted the WCD's overall strategic priorities, and more financial and other institutions are referring explicitly to the recommendations in their guidelines.⁹⁹ An example of this is how the EU member states have decided that carbon credits from large dams can only be sold on the European market if the projects comply with the framework of the WCD.



Dr. Kader Asmal, chairman of the commission, and Nelson Mandela at the launch of the report of the World Commission on Dams.

Photo: Birgit Zimmerle, International Rivers

⁹⁶ World Commission on Dams, 2000: *Dams and Development. A new framework for decision making*. Earthscan Publications Ltd..

⁹⁷ Patrick McCully, 2001: *Silenced Rivers - The ecology and politics of large dams*. Zed Books Ltd..

⁹⁸ Post on the International Rivers website: *World Commission on Dams Framework. A brief introduction*. <http://www.internationalrivers.org/a/wayforward/worldcommissiondams/worldcommissiondamsframeworkbriefintroduction>. Retrieved on 3 June 2011

⁹⁹ See the booklet *Protecting Rivers and Rights: the World Commission on Dams Recommendations in Action Briefing Kit* for more information <http://www.fivas.org/fivas/vedlegg/WCDbriefingkit.pdf>

The consequences of constructing large dams

From a Norwegian perspective, hydroelectric power is regarded as the perfect source of renewable energy. Geographical and social conditions in Norway has meant that the expansion of hydroelectric power has had limited negative impact on the environment. It has reached the point where numerous countries are looking to follow the Norwegian example when it comes to hydroelectric power and the construction of dams,¹⁰⁰ but the consequences of this in many other parts of the world are different and can represent a social and environmental catastrophe. Below, some of the most thought-provoking consequences of the construction of large dams are reviewed.

Biodiversity

It is vital to preserve the biodiversity in an ecosystem as every species has a part to play in the overall system and it increases the system's ability to adapt. Over half of the world's major river systems, including the eight with the greatest biodiversity, have been affected by dams due to floods, changes in water flow and fragmentation.¹⁰¹ Large dams have proved to be a threat to biodiversity,

both upstream and downstream of the dam, and in many cases analyses of environmental consequences do not take sufficient account of this. At the moment, blocking a river with a dam often leads to an imbalance between flora and fauna which is dependent on the river retaining its natural water flow.

Dams represent a particular threat to anadromous species of fish, such as trout and salmon which are freshwater fish but seek out the sea for a period of their lives before returning to the river again. If the dam does not allow the fish to pass through, this can represent a major threat to the survival of the species.¹⁰²

Species that also do not migrate as far as this are affected; active species can be injured by turbines and other machinery, lose the ability to find their way when the water flow disappears or are exposed to predators while attempting to cross the dams, while passive downstream migrators can sink and be lost.¹⁰³ The disruption of an ecosystem with dam construction is so drastic that species of all types are threatened, from plants, invertebrates and insects, to fish, birds and mammals. One of the ways a dam will cause damage is by fragmenting the ecosystem, stopping the supply of food and oxygen, destabilising water levels and flood cycles and with the sedimentation and erosion of the riverbank.¹⁰⁴

¹⁰⁰ Information from conversation with a number of representatives from indigenous population groups at the international conference "Rivers for Life 3", in Temacapulin, Mexico.

¹⁰¹ Nilsson et. al., 2005: *Fragmentation and Flow regulation of the World's Large Rivers Systems*. Science pp. 408408. <http://www.sciencemag.org/content/308/5720/405.full>. Retrieved 18 June 2011

¹⁰² Patrick McCully, 2001, *Silenced rivers – The ecology and politics of large dams*. Zed Books Ltd.

¹⁰³ McLarney, William og Mafla, Maribel, 2007: *Probable Effects on Aquatic Biodiversity and Ecosystems Function of Four Proposed Hydro- electric Dams in the Changuinola/Teribe Watershed, Bocas Del Toro, Panama with Emphasis on Effects within the La Amistad World Heritage Site*. http://www.biologicaldiversity.org/campaigns/panama_rainforest_and_rivers/pdfs/Technical_paper_supporting_La_Amistad_Petition_4_23_07.pdf. Retrieved 18 June 2011

¹⁰⁴ B. Gujja og D. O. Hunziker, 2000: *The impact of dams on life in rivers, A WWF research report*. <http://www.scribd.com/doc/14280306/DamsReport>. Retrieved 18 June 2011.



The Chalillo Dam in Belize is one of many large dams with major problems with sedimentation. Photo: Probe International

Sedimentation

Sedimentation means that sediments (small particles in water) which usually drift with rivers sink to the bottom.¹⁰⁵ This can be a problem when the water flow reaches a dam as the sediments will settle and lay at the bottom of the dam.

All rivers contain sediments to a greater or lesser degree, but in Norway sedimentation has not been a serious problem with dams. We live in a temperate zone; the composition of the earth is harder, and for this reason rivers do not contain large amounts of sediments. It is completely different in tropical regions around the equator. Deforestation and looser ground composition are two of the reasons for the rivers containing large amounts of sand and earth for the fact sedimentation occurs to a greater extent in these areas.¹⁰⁶

In many cases, as much as 90% of the sediment is blocked if there is a dam on the river. From a global perspective, it is assumed that dams have reduced the supply of sediments to the sea by a quarter.¹⁰⁷

If the sediments are blocked by a dam, these gradually fill the reservoir and the dam's value as a flow producer, flood controller and source of irrigation declines.¹⁰⁸ The sedimentation process has been shown to lead to the financial expenditure with the construction of dams being higher than expected, and measuring the river's sediment content is a difficult and expensive process.

In some cases, such as the Laoying Dam in China, sedimentation has meant that the dam has never been active.

Climate change

Renewable energy such as hydroelectric power is regarded as one of the solutions to global climate problems as it can take over from non-renewable energy such as coal and oil. Nevertheless, it appears that the reservoirs themselves are a source of global warming. In warm regions in particular, emissions of greenhouse gases from reservoirs can be higher than from facilities which use non-renewable energy. How is this possible?

When a dam is constructed on a river, much of the sediment and nutrients which usually follow the river flow remain in the reservoir and form greenhouse gases. Emissions as a result of this are especially high in the first few years after a dam becomes operative, but they continue in many cases for several decades. The reason for this is that algae and plankton are formed which produce greenhouse gases in the reservoir.¹⁰⁹

A similar process takes place because the construction of a dam involves the flooding of a vegetated area which then forms the reservoir. Firstly, this means that previously land-based plants perish and no longer absorb carbon dioxide, and secondly the dead plants decompose which leads to the emission of greenhouse gases.¹¹⁰

¹⁰⁵ Wikipedia. <http://no.wikipedia.org/wiki/Sediment>. Retrieved 25 May 2011.

¹⁰⁶ Goldsmith, Edward and Nicholas Hildyard, 1984: *The Social and Environmental Effects of Large Dams*. Volume 1. Wadebridge Ecological Centre. Cornwall.

¹⁰⁷ Patrick McCully, 2006: *Fizzy science. Loosening the Hydro Industry's Grip on Reservoir Greenhouse Gas Emissions Research*. International Rivers Network.

¹⁰⁸ Patrick McCully, 2001: *Silenced rivers – The ecology and politics of large dams*. Zed Books Ltd.

¹⁰⁹ Ibid.

¹¹⁰ Vincent St. Louis et al, 2000, *Reservoir surfaces as sources of greenhouse gases to the atmosphere: A global estimate*, *Bioscience* 50, 766



An increasing number of scientific studies indicate that reservoirs, especially those in tropical regions, represent a major source of greenhouse gas emissions. Brazilian researchers estimated in 2007 that methane from dams is the cause of around 4% of global warming created by mankind.

Photo: Frédéric Guérin, International Rivers

In addition to the amount, an assessment must be made of the type of greenhouse gas which is released by these processes. In shallower water, bacteria during decomposition largely form carbon dioxide, but in deeper waters there is a larger amount of methane as the water contains little oxygen. This is true regardless of whether the organic substances are due to natural processes or dams, but the latter has other consequences: deep water means high pressure, which means that it can retain greater amounts of gases, but when water from the bottom of the reservoir reaches fresh air with low pressure in the turbines, methane is released or will otherwise be dissolved in the water. Even though it is difficult to compare climate gases, there is agreement that methane is far worse than carbon dioxide, and the Kyoto Protocol estimates that a tonne of methane is equivalent to twenty tonnes of carbon dioxide.¹¹¹

One of the world's most quoted researchers on global warming, Philip Fearnside, has through his research concluded that dams built in the 1990s in the Amazon region resulted in between 3 and 54 times more global warming than a modern facility producing the same energy in a non-renewable way,¹¹² and in 2007 another study was published which showed that the world's 52,000 dams were a source of 4% of global warming.¹¹³

In many cases, the production of greenhouse gases declines over time meaning that the absolute largest amount occurs in the first few years, this applies for example to calculations of emissions from the Belo Monte Dam (see own

examination). However, this effect varies greatly from place to place, and recorded measurements show that emissions can be constant or can increase over time. In addition, it is worth noting that measured emissions from dams in tropical regions are much higher than in temperate zones, yet another reason why hydroelectric plants in Norway cannot be used to generalise.¹¹⁴

Involuntary resettlement

"I was born here, my forefathers were born here and I have lived my life here. I will die here. If I could travel I would have gone to the dam and destroyed it."

Village woman in Phluk, Cambodia, talking about the planned Sesan 2 Dam which will mean her entire village will be flooded

Involuntary resettlement of people is referred to as a necessity and is explained on the grounds that the projects to be carried out will benefit the "whole population". Historically, millions of people have been moved on account of policies such as this, and especially in connection with the exploitation of natural resources.

In 1996, the World Bank estimated that around four million people have been forcibly moved each year due to

¹¹¹ Fearnside, Philip, 2007: *Why Hydropower is Not Clean Energy*.

http://www.scitizen.com/futureenergies/whyhydropowerisnotcleanenergy_a14298.html

¹¹² Enclosed website, 2008, Big hydro hides its role in Global warming. <http://www.internationalrivers.org/node/1359>. Retrieved 15 June 2011

¹¹³ Enclosed website 2007, 4% of global warming due to dams says new research.

<http://www.internationalrivers.org/node/1361>. Retrieved 15 June 2011

¹¹⁴ Patrick McCully, 2006: *Fizzy science. Loosening the Hydro Industry's Grip on Reservoir Greenhouse Gas Emissions Research*. International Rivers Network.



Traces of a bygone era after the development of Tehri Dam, India. Photo: Silje Kjørberg Hernes

the construction of dams,¹¹⁵ but in addition to this probably being a far too conservative estimate, as it does not include a much larger number of people whose livelihood has been destroyed in more indirect ways.¹¹⁶

Near the dam in Akosombo in Ghana, there are today villages of resettled people who, 45 years after being moved, still long for “home”. Disease eats away at the population, and their existence is one of poverty with a lack of facilities and resources. Here, you can also see individuals suddenly being excluded from the social security network which they have come to rely on, either because families and social networks have been split up with people moving to other areas, or due to conflicts associated with the distribution of financial compensation which has been received.

If the planned Belo Monte Dam in Brazil is built, thousands of people will have to face a similar future in which their own traditions, values and identity are challenged.

Chris McDowell lists eight main reasons why involuntary resettlement leads to poverty and a dramatic reduction in the quality of life: loss of land, unemployment, homelessness, marginalisation, illnesses caused by increased vulnerability and poor sources of water, decreased food safety, less access to community goods and upheaval of social structures.¹¹⁷

In addition to the potential total change in livelihood and their life situation for the population affected, in many

situations the companies and authorities responsible find it difficult to keep the promises they have given regarding compensation. Measures to restore livelihood are seldom adequate.

Who is investing in dams globally?

Despite the huge criticism that dam construction has faced, thousands of dams continue to be under development and in the process of being built around the world. In developed countries such as the USA, Canada, Japan and Europe, the majority of investments go towards improvements in already constructed hydroelectric plants, while in developing countries the majority goes towards building new hydroelectric plants.

Traditionally, the World Bank has been the most important financial investor in large dams from a global perspective. Due to the increased opposition to large dams in the 1990s, the World Bank's investments in dams fell by 90 percent in the course of the decade.¹¹⁸ It took ten years for the World Bank to announce its return to large dams with the financing of the 1,070 MW hydroelectric project Nam Theun 2 in Laos. Since then the proportion of financing for large dams has increased. In September 2010, a progress report from the bank encouraged increased support for “high-risk infrastructure projects”.

¹¹⁵The World Bank, Environment Department: Resettlement and development, 1996: *The bankwide review of projects involving involuntary resettlement, 1986-1993*.

¹¹⁶Chris McDowell, 1996: *Understanding impoverishment: The consequences of development-induced displacement*. http://www.google.com/books?hl=no&lr=&id=ZuQsTLf8IK0C&oi=fnd&pg=PA49&dq=Developmentinduced+impoverishment,+resistance+and+riverbasin+development&ots=sC8N1kQFpi&sig=ZwZvtCRLQgYbJEK_OLK_cbkxM#v=onepage&q=Development+induced%20impoverishment%2C%20resistance%20and%20riverbasin%20development&f=false. Retrieved 20 June 2011

¹¹⁷Chris McDowell, 1996: *Understanding impoverishment: The consequences of development-induced displacement*.

¹¹⁸Patrick McCully, 2001: *Silenced rivers – The ecology and politics of large dams*. Zed Books Ltd.

In the meantime, one can see a clear trend on the part of Chinese and Indian companies and financial institutions to take over the role the World Bank previously had, and where a new wave of global dam construction has been created. Chinese banks and companies are involved in the construction of over 250 dams in 68 different countries, especially in Africa and South-east Asia. Many of these are being constructed with no regard for international environmental and social standards, and information regarding the constructions can be difficult to obtain due to a lack of transparency.

A large number of state-owned and private Indian companies have also in recent years expanded their activities to 16 countries in Asia and Africa, with support from various sources including the Export Import Bank of India. On the respective home fronts, it is China, India and Brazil who are building the most hydroelectric plants, where China is the country with the largest growth. Here, the number of constructions has doubled in the five-year period from 2004-2009.¹¹⁹

Other important investors include regional development banks and export credit offices. For example, the Asian Development Bank invested approximately USD 933 million in 2009 in renewable energy, of which USD 238 million was allocated to the construction of large hydroelectric plants.¹²⁰

¹¹⁹ REN21, 2010: Renewables 2010 Global Status report.

¹²⁰ Ibid.

Men may dam it and say that they have made a lake, but it will still be a river.

Wendell Berry (1934-)

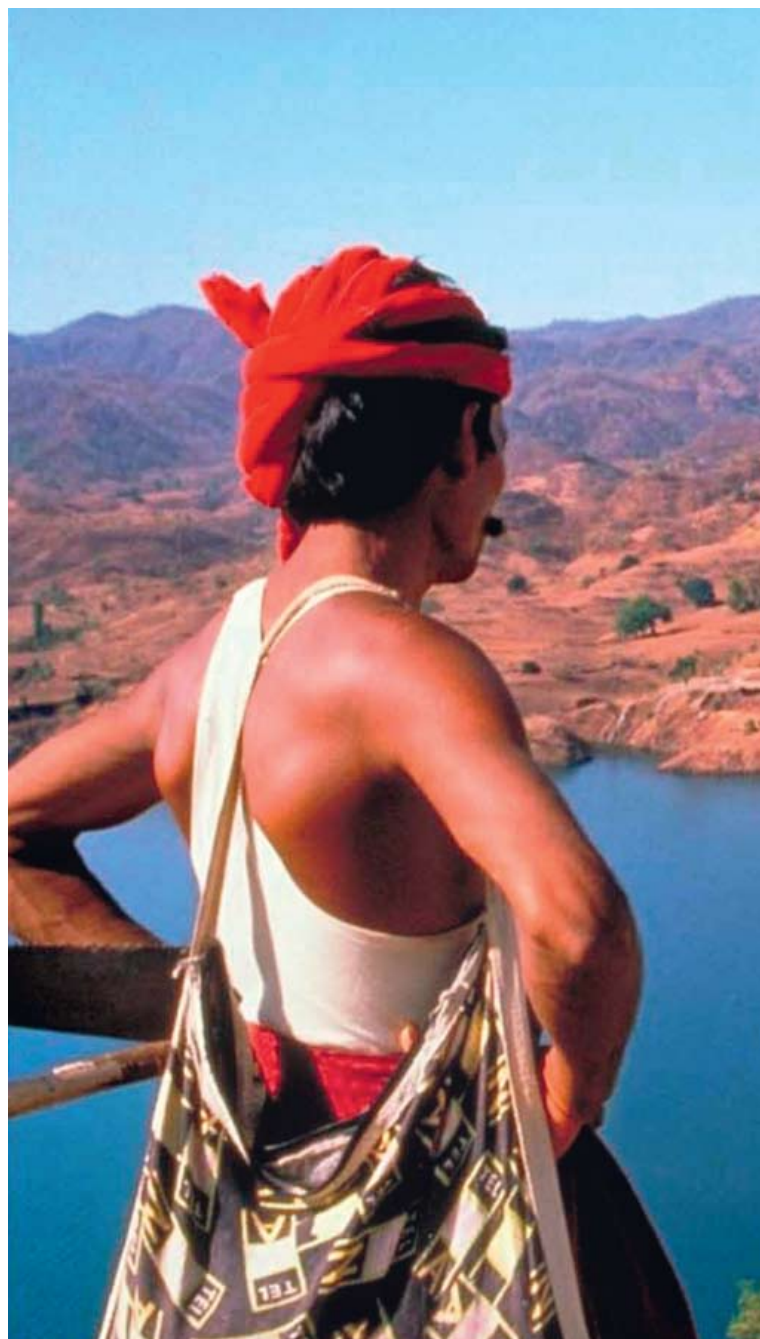
III The pension fund and destructive dam projects

Dams under construction with investment from the Fund

Dams have distinct benefits in the form of electricity production, flood control and irrigation but as we have seen, these benefits can also be detrimental. The technology is no longer assumed to be an unequivocally clean source of energy. Despite the strong growth in other sources of renewable energy such as wind power¹²¹, it is the continued construction of dams for electricity production where the consequences for the environment and society are difficult to predict.

There are many examples of where building large dams have had extremely negative consequences. One example is the Three Gorges Dam in China, which is the world's largest dam. Despite significant criticism, it is only recently that the Chinese authorities have admitted that the dam has resulted in environmental consequences which they had not foreseen; around 40 million tonnes of earth and sand ends up in the reservoir every year due to erosion, a substantial risk of earthquakes due to the weight of the reservoir, algae growth inadequate compensation for the over 1.4 million people who were involuntarily resettled and significant social problems connected with this. Nevertheless, we see a limited willingness to learn from previous mistakes, as China has set up a central dam constructor globally with projects on a very large scale.

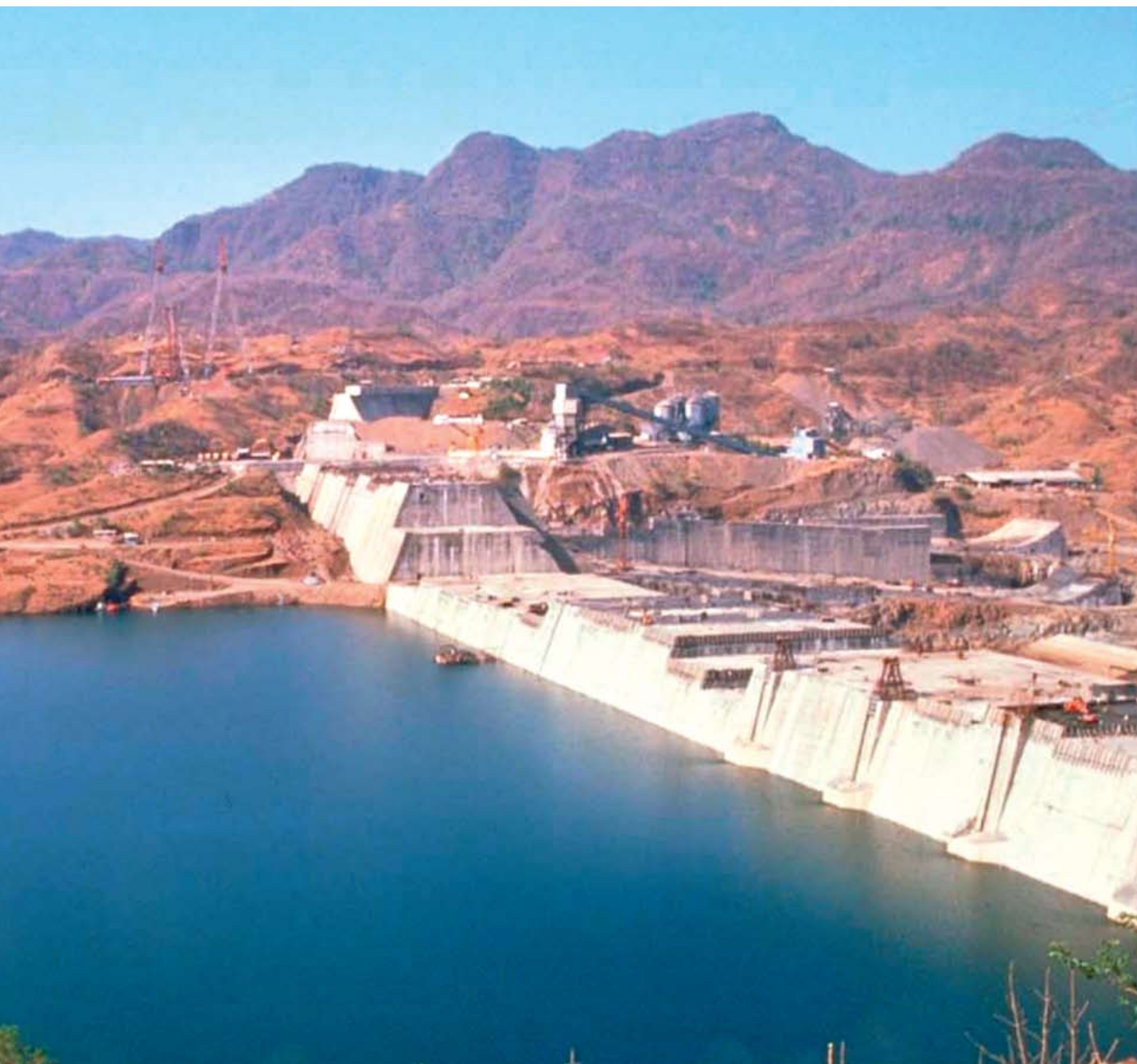
The Norwegian Government Pension Fund - Global is investing in many companies which are involved in building large dams. The reference index for NBIM is spread over various different sectors and countries, and with the introduction of environmental investments it is expected that investments involved in large dams will continue and



possibly increase. Many companies in NBIM's portfolio are participants in very controversial dam projects, including turbine suppliers, constructors and financial companies.

The Norwegian Ethical Council has said that it would like to investigate companies if practice leads to wide-scale environmental destruction, including large dam projects. As we have seen, there has previously been a lot of focus on companies operating in the mining and smelting industries. Some pension funds already have active ownership participation and exclusion of companies in the hydroelectric

¹²¹ REN21, 2010: *Renewables 2010 Global Status report*.



sector, in addition to substantial transparency regarding which companies they are in dialogue with and why.

In Sweden, the AP fund enjoys an open dialogue with two companies involved in hydroelectric power: AES, an American power company which has broken the ILO's convention no. 169 regarding the rights of indigenous peoples with its activities in Panama, and Alstom, a French company which supplies turbines (even though the basis for the dialogue the AP fund has with Alstom is its work in Palestine). In Norway, KLP (Kommunal Landspensjonskasse), a life insurance company, has excluded these two

companies for human rights' infringements. the Norwegian Government Pension Fund - Global has investments in both Alstom and AES: as of today there are no companies involved in hydroelectric power excluded from the Fund's portfolio.

Below is a presentation of four controversial dam projects in different parts of the world. The reason is to support assertions of negative consequences of large dams and to see in more detail how these develop in practice. In all the projects, the companies involved are included in the Fund's portfolio.

*Our ancestors lived in this area, our blood is in this area, and we have to pass this history on to our children. We do not want to fight, but we will fight for our land if we have to. We want to live here in peace with all the history that it entails.*¹²⁴

José Carlos Arara, representative of the Arara tribe

Belo Monte, Brasil

History

Plans for what as time went by became the Belo Monte Dam date back to 1975 when Brazil was still a military dictatorship. The proposal encountered stiff opposition, including media campaigns and lobbying against the World Bank, as the dam and hydroelectric plant would flood 14,500 m² of rainforest and lead to thousands of people having to be involuntarily resettled.¹²⁵

As this project is only one of five along the Xingu River, the historical Altamira Gathering in 1989 urged the local populations in several tribes to gather together to protest against the construction.¹²⁶ The original plan was changed, and Belo Monte, as the only remaining dam, was redesigned with a much smaller reservoir.

In 2008, a new environmental analysis was published, this time by Eletrobras, Brazil's largest power company. Despite fierce criticism, new protests in Altamira and extensive defects in the analysis, as pointed out by a panel of experts

Size: If built as planned, Belo Monte will be the third largest dam in the world
Capacity: 11,233 MW
Objective: Electricity production
Cost: USD 20 billion
Location: The Xingu River, a tributary of the Amazon
Status: Under construction

The Fund's investments in the companies involved:¹²²

- NOK 435,620,842 (1.56% ownership stake) in Andritz, which supplies turbines and generators
- NOK 3,204,160,100 (1.3% ownership stake) in Iberdrola, which is involved in construction, operation and maintenance
- NOK 1,761,148,643 in Alstom (2.14% ownership stake), which is supplying turbines to the project¹²³



¹²² All investments cited in this report are based on figures published at the end of 2010. List of the different companies and investments are published once a year on NBIM's website: <http://www.nbim.no/en/Investments/holdings/holdingsandvoting/>

¹²³ This figure was valid at the end of 2010. Source: <http://www.nbim.no/en/Investments/holdings/holdingsandvoting/>

¹²⁴ About the Belo Monte Dam on Banktrack's webpages: http://www.banktrack.org/show/dodgydeals/belo_monte_dam_project. Retrieved 24 June 2011

¹²⁵ Georgia O. Carvalho, 2006: *Environmental Resistance and the Politics of Energy Development in the Brazilian Amazon*. The Journal of Environment & Development, volume 15 no. 3, 2006. http://www.indiaenvironmentportal.org.in/files/1_38.pdf. Retrieved 20 June 2011

¹²⁶ Fearnside, P.M. 2006. *Dams in the Amazon: Belo Monte and Brazil's Hydroelectric Development of the Xingu River Basin*. Environmental Management 38 (1) 1627.



Indigenous peoples have protested against Belo Monte for many decades.
Photo: International Rivers

in Brazil,¹²⁷ the project received an environmental licence in 2010 from IBAMA, the Environment Department in the Brazilian Government.

This has led to controversy and resignations within IBAMA,¹²⁸ the latter on the cited basis of political pressure from a high level to approve the project.¹²⁹ On 25 February 2011, construction was stopped again by a federal judge for not having complied with environmental requirements,¹³⁰ however this decision was reversed by a higher court, and now construction is underway again under the management of the state-controlled Norte Energia.¹³¹

Environmental consequences

The construction of the Belo Monte Dam will result in up to 80 percent of the Xingu River being diverted from its natural course. This will especially affect local communities who live in the area called *Volta Grande* (Big Bend) along the river as this area will dry up completely for long periods if the dam is built.¹³² Approximately 800 people from different tribes and ethnic groups live in this area.

¹²⁷ Experts Panel Assesses Belo Monte Dam Viability 2007. http://www.internationalrivers.org/files/EXEC%20SUMMARY%20ENGLISH_0.pdf. Retrieved 20 June 2011

¹²⁸ Article on the BBC news' website: *Brazil grants environmental licence for Belo Monte Dam* <http://news.bbc.co.uk/2/hi/americas/8492577.stm>. Retrieved 20 June 2011

¹²⁹ Article on Corporate Accountability International's website: *Shame on Brazil: Stop the Amazon Mega-Dam Project Belo Monte*. <http://www.stopcorporateabuse.org/huntingtonnewsshamebrazilstopamazonmegadamprojectbelomonte>. Retrieved 23 June 2011

¹³⁰ Article Reuters' website: *Brazil court halts massive Amazon Dam construction*. <http://www.reuters.com/article/2011/02/25/brazildamidUSN2513149720110225>. Retrieved 23 June 2011

¹³¹ Article on BBC news: *Brazil court reverses Amazon Monte Belo Dam suspension*. <http://www.bbc.co.uk/news/worldlatinamerica12643261>. Retrieved 23 June 2011

¹³² Article on Amazon Watch's website: *Stop the Belo Monte Monster dam*. <http://amazonwatch.org/work/belomontedam>. Retrieved 23 June 2011



The white-cheeked spider monkey is one of the species threatened with extinction if the Belo Monte is built as planned. Photo: Tom Conger

Biodiversity

The Xingu River is rich in biodiversity, as exemplified by 467 identified species of fish, many of them endemic.¹³³ Belo Monte will impact on this diversity across a wide area in the central Amazon region. As the rivers run dry, water pressure will fall dramatically and lower water levels mean that hundreds of species of fish are in danger of extinction.¹³⁴ The forests which are usually abundant in water will no longer benefit from the periodic flood water with the result that, as well as affecting endemic and migratory species of fish, other fauna both on land and in the water will be threatened, including species threatened with extinction such as the black-bearded saki monkey and the white-cheeked spider monkey. Also under threat will be species of turtle downstream who will lose their breeding grounds.¹³⁵

Climate change

Belo Monte has been proposed as part of the renewable energy gamble in Brazil, and is seen as an important part of the country's obligations to reduce its emissions by 38 percent by 2020. In the mean time it is thought that water reservoirs in tropical forests such as the Amazon can be a substantial source of greenhouse gases due to the decomposition of biological materials.

According to Phillip Fearnside, Brazil's leading expert on reservoir emissions, Belo Monte as a project should not be alone. Due to the dam's low capacity in drought

periods, Fearnside indicates that the Babaquara Dam – a much larger storage dam – will be built upstream as Belo Monte is completely unrealistic without it from an economic perspective.¹³⁶

Fearnside calculates in his studies that the Babaquara and Belo Monte dams, in the first ten years of operation, will be responsible for emissions amounting to four times higher than a comparable power station based on fossil fuels. Even after 20 years, the project will still have emissions one and half times higher than non-renewable energy sources. The project can therefore be severely questioned as an initiative for cleaner energy.

Consequences for society

A criticism of the environmental consequences analysis written by forty independent experts shows many negative consequences of the construction. With the drying out of Volta Grande, the transport opportunities for the local population will be lost, and as a result their opportunities to travel to urban areas to sell their goods will disappear. Declining water levels will also destroy the production of agricultural goods in the region, which will have a major impact on the indigenous peoples and farmers. The studies show that the water quality in the region will deteriorate considerably, and that there is a strong probability that the

¹³³ Camargo et al., 2004. *Review of the geographical distribution of fish fauna of the Xingu River basin. Brazil.* Ecotropica vol. 10 no. 123, 2004: http://www.gtoe.de/public_html/publications/pdf/102/Camargo,Giarizzo,Isaac%202004.pdf. Retrieved 24 June 2011

¹³⁴ Georgia O. Carvalho, 2006: *Environmental Resistance and the Politics of Energy Development in the Brazilian Amazon.* The Journal of Environment & Development, volume 15 no. 3 2006

¹³⁵ Article on Climate Connections' website: *Harmful Impacts of the Belo Monte Dam on the Amazon's Xingu River.* <http://climateconnections.org/2011/04/12/harmfulimpacts-of-the-belo-monte-dam-on-the-amazon%E2%80%99s-xinguriver/>. Retrieved 24 June 2011.

¹³⁶ Fearnside, Patrick, 2011: *Will the Belo Monte Dam's benefits outweigh the costs?* Latin America Energy Advisor p. 6, 2011. http://philip.inpa.gov.br/publ_livres/2011/Belo%20MonteLatin%20America%20Energy%20Advisor.pdf. Retrieved 24 June 2011

rainforest in the area will not survive. The establishment of small stagnant water sources will increase the number of mosquitoes, thus increasing the risk of contracting malaria and other waterborne diseases.¹³⁷

Indigenous peoples who live in the Xingu basin do not think they have been adequately consulted about the project either as it is in contrast to their right to free, prior and informed consent (FPIC), which according to international law should be sought before any decision on a possible construction. There have been many examples of opponents such as tribal leaders, social movements and the local population in general have been victims of death threats.¹³⁸

Involuntary resettlement

Officially, 19,000 people will be involuntarily resettled as a result of the Belo Monte dam; this figure mainly includes inhabitants of the town of Altamira. While droughts will affect people who live along the Volta Grande, Altamira will be flooded in the monsoon season. However, the independent investigation of the project has concluded that the actual number of people who will be directly affected by the dam will be double this number.

During the construction of the dam itself, 100,000 people are expected to arrive in Altamira looking for work in connection with the dam. This will result in a major change in the life and noise among the local population, who usually carry out agriculture on a small scale. The infrastructure in the towns and villages in the region is very limited, and it is expected that a large majority of migrants will not find

work on the dam. These will probably move to the rainforest, which will lead to deforestation and a massive effect on fish and animal life, in addition to the destruction of the native peoples' land areas.¹³⁹

Distribution

Transmission lines to be built to connect Belo Monte with the central network will mean that the electricity from Belo Monte will reach virtually everywhere in Brazil. Nevertheless, it is most likely that the electricity will primarily supply the increasing number of smelting plants for aluminium, iron and other types of metals in the Amazon region such as Juriti, Carajas and Paragomias. These are owned by Alcoa, Vale and Norsk Hydro (80 percent ownership) respectively.

¹³⁷ About the Belo Monte Dam on Banktrack's website: http://www.banktrack.org/show/dodgydeals/belo_monte_dam_project. Retrieved 24 June 2011

¹³⁸ Article on Intercontinental Cry's website: *Indigenous Leaders Suffer Death Threats Because They Resist the Belo Monte Dam*. <http://intercontinentalcry.org/indigenousleaderssufferdeaththreatsbecausetheyresistthebelomontedam/>. Retrieved 24 June 2011

¹³⁹ About the Belo Monte Dam on Banktrack's website: http://www.banktrack.org/show/dodgydeals/belo_monte_dam_project. Retrieved 24 June 2011

Gibe 3, Etiopia

History

As part of Ethiopia's strategy for economic development, a drastic increase in energy production was planned – both for the country's own use and for export to neighbouring countries. It was clear early on that hydroelectric power would play a key role in this development.¹⁴⁰ According to the authorities' 5-year plan,¹⁴¹ annual energy production was to increase by 280% between 2005 and 2010,¹⁴² something which would mean the construction of a range of large and smaller power stations. The largest and most controversial of these projects is Gibe 3, which is under construction on the 760 kilometre-long Omo River.

Media pressure and no report on the consequences

Against the background of this ambitious and rapid 5-year plan for the authorities, the construction of the dam started back in 2006, after the Italian company Salini was awarded the project without any form of tender competition. The lack of an international tendering competition is contrary to national legislation, international agreements and current practice, and the Ethiopian Government encountered strong criticism for the way the tender has been awarded to the Italian company. A further contravention of Ethiopian legislation was that there was no analysis of the project's environmental and social consequence, in addition to completely inadequate consultation with the indigenous peoples directly affected by the construction.

Size: Will be Africa's largest dam if as planned

Capacity: 1,870 MW

Objective: Production of electricity

Cost: In excess of USD 2 billion

Location: The Omo River

Status: Under construction, scheduled completion 2012

The Norwegian Government Pension Fund's - Global investments in companies involved:

- NOK 41,178,191 (0.07 percent ownership stake) in Dongfang Electric corp Ltd., which is supplying turbines for the project



¹⁴⁰ Hailu, Solomon Seyoum. *Hydropower of Ethiopia: Status, potential and prospects*. Ethiopian Association of Civil Engineers. <http://www2.webng.com/bahirdarab/hydropower.pdf>. Retrieved 19 May 2011.

¹⁴¹ Ministry of Works and Urban Development Ethiopia, 2007: *PASDEP - Plan for Accelerated and Sustained Development to End Poverty*. <http://www.ldphs.org.za/resources/localgovernmentdatabase/bycountry/ethiopia/nationalpolicy/Plan%20for%20Urban%20Development%20and%20Urban%20Good%20Governance.PDF>. Retrieved 20 May 2011

¹⁴² The Norwegian Ministry of Finance and Economic Development Ethiopia, 2006: *PASDEP - Plan for Accelerated and Sustained Development to End Poverty*. http://planipolis.iiep.unesco.org/upload/Ethiopia/Ethiopia_PASDEP_2005_2010.pdf. Retrieved 20 May 2011



14 March 2009: A large demonstration in Kenya protecting against Gibe III on the Omo River in Ethiopia. Photo: Ikal Angelei

In 2008, two years after the construction of Gibe 3 began, an environmental consequences assessment was drawn up – a document which met with fierce criticism in a report written by a group of (anonymous¹⁴³) academics and consultants.¹⁴⁴ The report alleged that said assessment was based on false premises and misrepresentation of the facts, and that the data on which it was based was both unscientific and carefully chosen. Despite repeated reports^{145 146 147} which point to faulty analysis, lack of consultation with the local population downstream of the dam and other weaknesses in the project's implementation, the construction of the dam is going ahead as planned.

Gibe 3 will have major repercussions for the population and nature downstream of the dam, and critics claim that the project will mean a future of hunger and conflict for as many as half a million people.¹⁴⁸

Environmental consequences

Flood – a source of life

A damming up of the Omo River will prevent the annual flood which is crucial for the food supply to more than 200,000 people in the areas around the river.¹⁴⁹

¹⁴³ Another problem in connection with the Gibe III is the fear amongst critics of getting into conflict with the authorities if they openly criticise the construction.

¹⁴⁴ Africa Resources Working Group (ARWG), 2009. *A Commentary on the Environmental, Socioeconomic and Human Rights Impacts of the Proposed Gibe III Dam in the Lower Omo River Basin of Ethiopia*. http://www.arwggibe.org/uploads/ARWG_COMMENTARY_GIBE_III_DAM_downstreamEIA.pdf. Retrieved 21 May 2011

¹⁴⁵ Hathaway, Terri and the International Rivers Network, 2009: *Facing Gibe III Dam: Indigenous Communities of Ethiopia's Lower Omo Valley*. <http://www.internationalrivers.org/files/LowerOmoValleyfinal.pdf>. Retrieved 21 May 2011

¹⁴⁶ International Rivers Network, 2009: *Ethiopia's Gibe III Dam: Sowing Hunger and Conflict*. http://www.internationalrivers.org/files/Gibe3FS_051509final.pdf. Retrieved 21 May 2011.

¹⁴⁷ Article on BBC news: *The dam that divides Ethiopians*. <http://news.bbc.co.uk/2/hi/africa/7959444.stm>. Retrieved 21 May 2011

¹⁴⁸ Article on the BBC News website: *Web Campaign against Ethiopia Gibe III dam*. <http://news.bbc.co.uk/2/hi/africa/8582682.stm>. Retrieved 21 May 2011

¹⁴⁹ Article on Survival International's website: *Giant dam to devastate 200,000 tribal people in Ethiopia*. <http://www.survivalinternational.org/news/5683>. Retrieved 21 May 2011

Lake Turkana is the world's largest permanent desert lake and is facing environmental disaster if Gibe III is built.
Photo: African Youth Initiative on Climate Change



Today, the majority of the population in the lower part of the Omo Valley live off the land in particular the nutrient-rich areas which are under water for many months of the year. The loss of this nutrient-rich flood water, combined with a lower water flow, will threaten the basis of existence for large parts of the population along the river. The Ethiopian authorities are open to a regulated flood over a short period of time in an attempt to recreate the favourable conditions, however critics claim that such a solution will not work. The critics point to the fact that an artificial 19-day flood will be too quick and intense to be able to replace the 3-4 month-long natural flood.

Increased erosion and sinking water table level

Preservation of the current water table level in the Omo Valley is dependent on implementing in the long term the annual flood and the water level in the river. With the damming up of the Omo, the water flow in the river will decline substantially with the result that the groundwater reserves will not be able fill up sufficiently. In addition, the groundwater is critical for the maintenance of the cultivable ground and the forest zone which stretches along the river – a type of forest which is the last of its kind in Africa south of the Sahara.

Turkana under threat

Lake Turkana is the world's largest desert lake and lies at the mouth of the Omo and over the border into Kenya. Today, this lake is the basis of existence for over 300,000 people, and it is estimated that as many as 89-90 percent of the water supply to the lake originates from the Omo. According to a study, the construction of Gibe 3 could limit the water supply to Lake Turkana by up to 80 percent

per year and has the potential to dry up the most productive fishing areas in the lake in addition to lowering the water quality in the lake as well. If the water level falls by 10 metres, this means that the lake's volume will fall by 30 percent and the salt level will increase by 146 percent. An even water supply from the river is critical to compensate for the water which evaporates from the lake, and plays an important role in maintaining the water level.¹⁵⁰

Lake Turkana is currently home to tens of different species of fish which are dependent on the annual flood from the Omo to get through the spawning season. The flood is also crucial for the production of plankton in the lake. With a falling water supply and a lack of flooding, the salt level in the water will increase and make both the living conditions for the fish and plankton production much worse.

Consequences for society

Lack of food and increased conflict

In an area where the local population is so dependent on the water resources in the Omo Valley and around Lake Turkana due to agriculture and fishing, the construction of Gibe 3 will have serious consequences. Not only will it threaten the food security and create further challenges associated with hunger and poverty, it will also increase the potential for conflict regarding access to important resources such as food and water. The region in the lower Omo Valley and around Lake Turkana is already characterised by unrest and conflict over both ethnic and national boundaries, and there is a grave risk that an increased lack

¹⁵⁰ Campagna per la Riforma della Banca Mondiale and International Rivers, 2010: *Fighting for Lake Turkana. Why Kenyan communities are resisting Gibe III dam.* <http://www.internationalrivers.org/files/LakeTurkanaTripReport0610.pdf>. Retrieved 20 May 2011

of resources necessary to live with will further escalate the level of conflict.

Inadequate consultation

In contravention of internationally recognised rights of indigenous peoples, Ethiopian legislation and financial institutions' guidelines, many reports point out that the obligatory consultations with the local communities affected have been inadequate at best.¹⁵¹

According to one report, it is claimed that fewer than 300 individuals (out of at least 200,000) have participated in official consultations associated with the construction of Gibe 3 – and none of these consultations took place until 10-17 months after the contract had been signed and work had begun. Nor have these consultations taken into account the fact that the local population in the area do not speak Amharic, but primarily local tribal languages and therefore have major problems in understanding the little information that they have received.

Inadequate consequent analyses

"Gibe III Environmental and Social Impact Assessment" (ESIA) is a consequence analysis which, according to critics, is characterised by self-contradiction, inaccuracies, a defective approach to problems and poor information. The criticism also includes the fact that the population on the Kenyan side of the border with Lake Turkana were not included in the report and the questionnaires which formed the basis of the data in the report were in some cases filled in by administrative personnel and not by those who actually live in the areas affected.

Another example is taken from the basis for the calculation of how large the water flow will be when the dam has been completed. ESIA bases its figure from March 1964 – the driest month of the year when water flow is 24 m³ per second. In comparison, the average water flow for the month of March for the period 1964 – 2001 is calculated as being 60 m³ per second.¹⁵² This will be very significant for the water level in the river, everyday life for people along the river, and not least for the future of Lake Turkana.

¹⁵¹ International Rivers Network, 2009: *Key Concerns Regarding AfDB's Consideration to Support the Gibe 3 Hydropower Dam in Ethiopia: A Discussion Document*. http://www.internationalrivers.org/files/Gibe%203%20AfDB%20Discussion%20Final_0.pdf. Retrieved 21 May 2011

¹⁵² Article on Wildlife Direct's website: *The Gibe III Dam must be stopped*. <http://richardleakey.wildlifedirect.org/2009/03/26/thegibeiiidammustbestopped/>. Retrieved 21 May 2011

The construction area for the Subansiri Dam will be the largest dam in India if the construction goes ahead as planned. An expert panel who examined the project has pointed out numerous flaws with the construction. Photo: Ritu Raj Konvar



Lower Subansiri Dam, India

History

The Subansiri Dam is located in the northeast of India on the border between the states of Assam and Arunachal Pradesh. In recent years, this part of India has been the focus for dam constructors, and is called the "power station of the future". With eleven hydroelectric plants in operation, and over 150 planned, there are several major conflicts in the region. The basis for the conflicts described in many reports which has pointed out the social and environmental consequences the construction will have for these vulnerable areas.¹⁵³ A project which is especially relevant in this area is the Subansiri dam.

Construction companies cutting corners

In 2000, it was decided that a hydroelectric plant should be built on the Subansiri River, and the project was awarded to the Indian construction company the National Hydropower Corporation (NHPC). NHPC started preparations and the construction of the project two years before the required permission was given. During this period, there were clear infringements of the recommendations from the environmental consequences analysis for the project and standards for the preservation of forest areas.

Criticism of the NHPC pointed to the materials used and the waste dumped in the river, and the fact that the company had erected fences which led to the disruption of a necessary elephant path.¹⁵⁴ The issue was addressed in 2003 in the Supreme Court, something which led to many months of delay while the NHPC made good its practices.¹⁵⁵

Size: According to the plan, the Lower Subansiri Dam will be India's largest dam
Capacity: 2,000 MW
Objective: Electricity production
Cost: Approximately USD 2 billion
Location: Subansiri, tributary to Brahmaputra
Status: Construction expected

The Norwegian Government Pension Fund's - Global investments in the company's involved:

- NOK 8,958,256 NHPC Ltd. (0.02 percent ownership stake), the construction company for the project
- NOK 1,761,148,643 in Alstom (2.14 percent ownership stake), who supplies the turbines for the project



¹⁵³ Peter Bosshard's blog: *People's power blocks dam construction in Northeast India*. <http://www.internationalrivers.org/en/blog/peterbosshard/2011511/people%E2%80%99spowerblocksdamconstructionnortheastindia> Retrieved 15 June 2011

¹⁵⁴ People's movement in Subansiri Valley and Riverbasin Friends: *Subansiri Hydro Electric Project*. <http://old.cseindia.org/programme/industry/eia/subansiri.pdf>. Retrieved 13 June 2011

¹⁵⁵ International Rivers Network etc., 2005: *Financing dams in India: Risks and challenges*. http://www.banktrack.org/download/financing_dams_in_india_risks_and_challenges/050201_financing_dams_in_india_risks_and_challenges.pdf. Retrieved 15 June 2011



Supplies of Alstom's turbines to Subaniri were blockaded by the local population in Assam. Photo: International Rivers

In 2009, the project again met with fierce criticism when a report pointed to numerous failings in the mission. The report claimed that it was inappropriate for a dam of such size to be located in an area of such geographical and seismological vulnerability,¹⁵⁶ and that the height of the dam was simply incorrectly calculated. It was pointed out by many sources that the environmental consequences analysis had not taken into consideration consequences downstream in the river. Over 40 different groups have mobilised in India to stop further construction of the project, and so far they have successfully blockaded turbine deliveries to the construction site.

Environmental consequences

Flood damage

The construction of the dam will have major consequences for areas downstream. The overflow of the dam, which is supposed to regulate the flood level, has been set at a capacity of 12,024 m³ in the river.¹⁵⁸ Therefore, the risk of

NHPC – National Hydropower Corporation – is India's largest hydroelectric power company and is state owned. The company builds and operates dams for hydroelectric power; mainly in India, but is also a contractor to construction companies in Burma.¹⁵⁷ In many years of activity, the company has been the subject of many accusations, for example that it has flooded villages without warning, using force to involuntarily relocate people and degradation to force people from their homelands.



flood damage continues to be high, and the arguments that the dam prevents floods downstream can be a false security.

The geological conditions around the dam – in a valley, with inadequate foundations – make the dam especially vulnerable should an earthquake occur. Every day, the Subansiri River carries approximately 21,338 tonnes of mud and clay, and this mass will be blocked and accumulated in the reservoir.

¹⁵⁶ Neeraj Vaghlikar & Partha J. Das, 2010: *Damming Northeast India. Juggernaut of hydropower projects threatens social and environmental security of region.*

¹⁵⁷ Livemint.com. *NHPC to submit report on Myanmar project by Oct.* <http://www.livemint.com/2010/09/07213124/NHPCtosubmitreportonMyanm.html?atype=tp>. Retrieved 12 June 2011

¹⁵⁸ Article on Down to Earth's website: *Reduce Subansiri Dam height: panel.* <http://www.downtoearth.org.in/node/1532>. Published 15 June 2011

Consequences downstream

The planned flow regulation will lead to problems for people and animal life downstream in the Subansiri, especially in winter. At present, 400 m³ of water flow per second down the river. Both the ecology and human beings who live downstream have adapted to the low but constant supply of water in this period. If the Subansiri Dam is opened and operates as planned, this will change radically. Twenty hours a day, large amounts of water will be back in the reservoir, and only 6 m³ will flow through the turbines. In the four remaining hours, when the electricity production is at its peak, this increases to 2,560 m³. The river therefore has very low water flow for twenty hours but access to the water for the rest of the time will vary up to 600 percent of normal access – a drastic deviation from the natural state of affairs.¹⁵⁹

Biodiversity

The dam will lead to floods 47 km upstream in the river. An area of 4,000 hectares of forest will be affected, of which 3,436 will be directly flooded. The area around Subansiri is known for being rich in terms of biodiversity. The environmental consequences analysis, in addition to being faulty in terms of consequences downstream of the dam, has also been criticised for inadequate reporting of this. The information about the different species in the area is completely incorrect. One example which can be mentioned is that, according to the analysis, the area contains 55 species of fish, but biologists who have been consulted regard the figure as at least 118, some of them endemic to this river.¹⁶⁰

Consequences for society

Change in the basis of existence

The local population in the area is close to water resources, and poverty will be a direct consequence of the dam construction. It is assumed that all of the families living downstream of the Subansiri River live off agriculture in one form or another,¹⁶¹ and fishing is also commonplace. The change to the river's natural circuit will affect the local population's food production due to erosion of the earth and by preventing nutrient-rich substances in the mud and clay from permeating the agricultural areas. Reduced nutritional status will affect women, children and the elderly in particular.

Traditionally, there has been much political unrest in the north-eastern part of India, and it continues today. Different groups of tribal peoples have often protested against the oppression they continue to be subject to in their own territory. The dam's sole area of operation is electricity production, and there will therefore be no benefit to the local population downstream in the form of irrigation, fishing, tourism and other related benefits. The electricity generated from the Subansiri Dam will be transferred directly to central areas in India and not to the local population in the northeast. This is largely seen as a further example of the suppression of tribal people.

Inadequate consultation

The compulsory consultation in the run-up to the Subansiri Dam project has been inadequate. The environmental consequences of the project had not been considered at all, and the NHPC and its consultants gave presentations in English and Hindi, even though large numbers of the local

¹⁵⁹ Neeraj Vaghlikar & Partha J. Das, 2010: *Damming Northeast India. Juggernaut of hydropower projects threatens social and environmental security of region.*

¹⁶⁰ People's movement in Subansiri Valley and Riverbasin Friends: *Subansiri Hydro Electric Project.* <http://old.cseindia.org/programme/industry/eia/subansiri.pdf>. Retrieved 13 June 2011

¹⁶¹ Expert group from Gauhati University, IIT Guwahati, Dibrugarh University, 2008: *Downstream Impact study of the ongoing Subansiri Lower hydroelectric power project at Gerukamukh and National Hydroelectric Power Corporation Limited*

Alstom – global hydro electric giant with dirty fingers

Alstom is a multinational group based in France which operates within the power and transportation sectors. As well as being a major player within many areas, it is also the leading producer of components for hydroelectric plants; from a global perspective, 25 percent of machinery installed originates from Alstom.¹⁶³

Examples of projects in which Alstom is involved are the Three Georges Dam in China and the Merowe Dam in the Sudan. The local population in the area to be flooded during the construction of the Merowe Dam were first forced to move to new infertile areas with no basis for existence, and then forced to move again to slum areas.¹⁶⁴ When the rest of the population refused to move from their homes, the dam builders and politicians responded with the massacre of civilians,¹⁶⁵ torture¹⁶⁶ and depriving villagers of water without notice.¹⁶⁷

Furthermore, an independent report concludes from the water research institute Eawag in Switzerland that the original consequences analysis was very defective in terms of greenhouse gas emissions, consequences for biodiversity and erosion along the river bed.¹⁶⁸

Alstom has been accused many times of corruption, including in Italy,¹⁶⁹ France and Switzerland.¹⁷⁰ The reason is the procurement of contracts with the help of bribery, and in 2004 it was found guilty of this in Mexico. In addition to a fine of USD 31,000, it was prohibited from taking part in public tenders.¹⁷¹ An appeal against the judgement was rejected in 2007.¹⁷² At the time of writing, authorities in France, the USA, Great Britain and Switzerland are investigating other allegations against the company.¹⁷³

Kommunal landspensjonskasse (KLP) in Norway has excluded the company due to the construction of the Merowe Dam in the Sudan. Alstom, which was the main supplier of electrical equipment for the project, was asked by the UN's Human Rights Council to stop operations due to reports of human rights breaches in connection with critical conditions and involuntary resettlement of over 50,000 people. This recommendation was ignored by the company.¹⁷⁴ The Swedish AP Fund has also documented dialogue with Alstom due to breaches of human rights on account of being involved with the construction of a disputed tram line in the Palestinian areas.¹⁷⁵



population only speak other tribal languages. The environmental consequences analysis had still not been published when the consultation took place, and no representatives from the Environment Department were present. On many occasions, questions were unanswered, and there were

disruptions to the normal routines for consultations. Even so, the authorities' representatives at the meeting got people to sign a statement that there was no opposition to the construction project.¹⁶²

¹⁶² People's movement in Subansiri Valley and River basin Friends: *Subansiri Hydro Electric Project*. <http://old.cseindia.org/programme/industry/eia/subansiri.pdf>. Retrieved 13 June 2011

¹⁶³ Brochure regarding Alstom on Alstom's website: *Alstom's Hydropower Solutions*. <http://www.alstom.com/assetmanagement/DownloadAsset.aspx?ID=deb18025926445d099d1fb63e3ee8db6&version=706df68eea3b47e9aa78165acc12cc301.pdf>. Retrieved 15 June 2011

¹⁶⁴ Peter Bosshard's blog: *German Company Brought to Justice Over Abuses in Sudan Dam?* <http://www.internationalrivers.org/node/5349>. Retrieved 15 June 2011

¹⁶⁵ Hilyard, Nicholas, 2008: *Neutral? Against what? Bystanders and human rights abuses: The case of Merowe dam*. Sudan studies, no. 37, 2008. <http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/MeroweSudanStudies.pdf>. Retrieved 15 June 2011

¹⁶⁶ Ali K. Askouri, 2006: *The Merowe dam: controversy and displacement in Sudan. Forced mitigation review no. 21, 2004*. <http://www.fmreview.org/FMRpdfs/FMR21/FMR2123.pdf>. Retrieved 15 June 2011

¹⁶⁷ Peter Bosshard's blog: *German Company Brought to Justice Over Abuses in Sudan Dam?* <http://www.internationalrivers.org/node/5349>. Retrieved 15 June 2011

¹⁶⁸ Teodoru, Wüest and Wehrli: *Independent review of the environmental impact assessment for the Merowe Dam project*, Eawag aquatic research, 2006 <http://www.eawag.ch/medien/bulletin/archiv/2006/20060323/IndependentReview20060323.pdf>. Retrieved 15 June 2011

¹⁶⁹ Transparency International Progress Report 2007: *Enforcement of the OECD convention on combating bribery of foreign public officials, 2007* http://www.transparency.org/news_room/in_focus/2007/oecd. Retrieved 15 June 2011

¹⁷⁰ Article on Agence France Presse's website: *Prosecutors probe Alstom for contact corruption*. <http://afp.google.com/article/ALeqM5if0Wac42KwRglSaQf0G5sCrcfgtQ>. Retrieved 16 June 2011

¹⁷¹ OECD, Directorate for financial and enterprise affairs, Working group on bribery, Followup on the implementation of the phase 2 recommendations, 2007: <https://secure.traceinternational.org/compendium/view.asp?id=109> (under "related documents")

¹⁷² Transparency International, Progress Report 2007: *Enforcement of the OECD convention on combating bribery of foreign public officials, 2008* http://www.transparency.org/news_room/latest_news/press_releases/2008/2008_06_24_oecd_progress. (under "download the TI progress report 2008"). Retrieved 15 June 2011

¹⁷³ Trace International indicated at the source: *estadio.com.br: "France and Switzerland send documents in the Alstom case"* <https://secure.traceinternational.org/compendium/view.asp?id=109>. Retrieved 17 June 2011

¹⁷⁴ Article on KLP's website: *To nye selskaper ekskludert*. http://www.klp.no/web/klpno.nsf/pages/OmKLPPressePressemeldinger.html?open&disp_key=5FFD63935E2C25D6C12573A6002F219D. Retrieved 17 June 2011

¹⁷⁵ 2010 The Norwegian Ethical Councils annual report. http://www.ap4.se/upload/Etikr%C3%A5det/Etikradet_Arsrapport2010.pdf. Retrieved 16 June 2011

Xayaburi Dam, Laos

History

At 4,909 km, the Mekong River is the tenth longest in the world. It meanders from Tibet's high mountains through China, Burma, Laos, Thailand, Cambodia and Vietnam. Plans for hydroelectric plants exploded in recent years, however towns in Thailand and Vietnam are the destinations for the electricity. Eleven dams are currently in the planning stages in the lower part of the river, in addition to China building higher up in its part of the Mekong.

The Xayaburi Dam is the first of these to have been submitted for approval to the country's Mekong authorities. The

approval process is facilitated by the Mekong River Commission, a regional organisation formed in 1995 with representatives from Laos, Cambodia, Thailand and Vietnam. China and Burma are involved as dialogue partners. The aim of the committee is to ensure the development of the Mekong in a way which benefits all member countries. Almost 40 million people rely on resources from the river, which is often referred to as "the mother of all rivers". If the proposed dams are built, it will have a destructive effect on the river's ecosystem.

The Xayaburi Dam is to be built on the Kaen Luang stretch approximately 30 km from the town of Xayaburi in Northern Laos by the Thai company Ch. Karnchang Public Company. Of the electricity produced, 95 percent will be exported to Thailand, and if built, 2,100 people will be forced to move and 202,000 will have their livelihood threatened. Such an

Size: As planned, the dam shall be one of the largest on the Mekong River¹⁷⁶

Capacity: 1,260 MW

Aim of the dam: electricity production

Cost: USD 3.5 billion

River: Mekong

Status: Started, but not approved

The Norwegian Government Pension Fund's - Global investments in the companies involved:

- NOK 7,531,645 (0.07 percent ownership share) in Ratchaburi Electricity Generating Holding PCL
- NOK 27,691,866 (0.07 percent ownership stake) in Siam Commercial Bank PCL
- NOK 460,450,056 (0.43 percent ownership stake) in Bangkok Bank
- NOK 634,325 (0.02 percent ownership stake) in Italian-Thai Development PCL
- NOK 4,961,487 (0.05 percent ownership stake) in Electricity Generating PCL
- NOK 7,679,575 (0.01 percent ownership stake) in Kasikorn Bank



¹⁷⁶Radio Free Asia's website: *New Impact study for Dam*. <http://www.rfa.org/english/news/laos/study06102011132153.html>. Retrieved 25 May 2011



The area where the proposed Xayaburi Dam is to be built. The dam is currently the greatest threat to the Mekong and the people who rely on it. The project will result in the relocation of 2,100 people and will affect 202,000 people due to the effect the dam will have on the river's ecology and fish stocks.

Photo: Pianporn Deetes, International Rivers

encroachment on the river may lead to catastrophic and irreparable consequences for those who subsist from it.¹⁷⁷

Ch. Karnchang Company was commissioned in 2008, however an environmental effects analysis was not prepared until February 2010. The report was published in March 2011, but has met with fierce criticism for its poor quality. In April, the member countries decided to postpone the approval process, however despite this the construction process was implemented. This has met with large scale protests. A report written at the request of the Mekong River Commission in 2010 had previously concluded that the consequences of the eleven proposed dams will be so severe that the construction should be postponed for ten years.^{178 179}

Environmental consequences

Dwindling fish migration

According to the Mekong River Commission, 2.6 million tonnes of fish and other marine resources, with a value of USD 9.4 million, are harvested from the river every year. This therefore provides important income and, not least, food security. As many of the region's poorest people are concentrated around and subsist from the river, any change will be of major significance for those concerned.

Rivers are the scene of extensive fish migration, and approx. 70 percent of fish caught have covered long distances. The obstruction which a dam will entail will put a stop to this. Currently, there are no technical

¹⁷⁷ International Rivers Network, 2009: *Mekong Mainstream Dams: Threatening South-East Asia's food security*. http://www.internationalrivers.org/files/Mekong_Mainstream_Aug09.pdf. Retrieved 30 May 2011

¹⁷⁸ Article on the Mekong River Commission's website: *Proposed Xayaburi Hydropower project MRC's prior Consultation Process*. <http://www.mrcmekong.org/pnpca/PNPCAtechnicalprocess.htm>. Retrieved 27 May 2011

¹⁷⁹ Article on the International Union for Conservation of Nature's website: *Xayaburi Dam: waves of unpredictable destruction*. http://www.iucn.org/about/union/secretariat/offices/asia/asia_news/?7120/XayaburiDamWavesofUnpredictableDestruction. Retrieved 27 May 2011



The Mekong giant catfish is a species of fish threatened by the construction of the Xayaburi dam. Photo: Terra

solutions which can tackle the enormous volume of fish migration, which can amount to three million fish per hour. This diversity of fish will disappear, something which may lead to a monoculture, and a non-sustainable ecosystem. Such loss of fish stocks can create a more vulnerable ecosystem and lead to worse power of resistance and ability to adapt.

Biodiversity

The Amazon is the only river in the world with a greater biodiversity than the Mekong River. Key species, which are critical for the survival of many other species, may disappear. This will then lead to major ecological consequences. The Irrawaddy dolphin and the Mekong catfish will be threatened with extinction, and at least 41 species of fish will be at risk if there is any change to their habitat. The ecosystem will suffer and the fishes' original lifecycle becomes inaccessible and they cannot follow their natural development.

Consequences for society

Livelihood threatened

Food security will be threatened if fish stocks disappear – fish is the main source of animal protein among the population along the Lower Mekong. The resulting increased prices will lead to less access in general, and will hit the poor in particular. It will be difficult to replace fish with something else as the alternatives are more expensive. Malnutrition is a major problem in Asia, something which will become worse if fish stocks decline. It is a vicious circle with more frequent illness and increased poverty. Chinese dams are already a feature of this river. Local production of *kai* (freshwater grass) is threatened, and this is food for people and fish. For local women, this often represents a part of their income.

Around 2,100 people in ten villages will be forced to move due to Xayaburi, and around 202,000 farmers and fishermen will be indirectly affected.¹⁸⁰ Many ethnic groups subsist from the river, and a change in lifestyle can result in lost income and be a threat to their culture. Despite the planned move, the local population has received little and often misleading information, and they have not been given any opportunity to express their concerns. Involuntary resettlement is a dark chapter in the history of Laos; the population often has no alternative and often have to set off without having somewhere to go to. The political will to comply with environmental legislation and restrictions is also on the wane somewhat.

not work in such a complex ecosystem, in addition to the fact that the dam is too high. The idea behind the dam is to create economic growth, but it has forgotten that the Mekong River is already an important economic and social resource. These resources are free and renewable if the river is allowed to exist as it is. There is a large gap between those who stand to lose and those who stand to gain.

Laos: Asia's battery?

The Xayaburi dam, according to the vision, will make Laos "Asia's battery". There is strong opposition to the dam, especially from Vietnam, which lies downstream. In addition, the internal political situation in Laos is unsettled. It is an authoritarian one-party state with substantially limited press freedom and freedom of expression. Laos' goal is to no longer be part of the "Least Developed Countries" categories by 2020. The country has strong ties to Vietnam and China, and is economically dependent on Thailand.¹⁸¹

A consequence analysis without consequences

Those responsible for the project have ignored the scientifically proven consequences of such a dam. They claim, for example, that fish ladders incorporated into the dam will help fish migration, but such fish ladders will

¹⁸⁰ International Rivers Network, 2011: *Xayaburi Dam: A looming threat to the Mekong river*. http://www.internationalrivers.org/files/The%20Xayaburi%20Dam_Eng.pdf. Retrieved 30 May 2011.

¹⁸¹ About Laos on landsider.no: <http://www.landsider.no/land/laos/fakta/politikk/>. Retrieved 25 May 2011

Conclusions

Challenges that dams present

Dams provide benefits in the form of economic development and in many cases energy production, flood control and irrigation. Nevertheless, we have shown in this report that large dam projects can also have negative consequences for the surrounding environment and communities, which can often outweigh the aforementioned benefits. This is significant in determining the extent to which the Norwegian Government Pension Fund – Global, should be involved in this kind of projects via investments, as these, in line with political regulations, must comply with certain ethical guidelines.

Norwegians feel that hydroelectric power provides access to pure energy without any particular consequences. It has been seen that this is not always transferable to other parts of the world due to different geographic, political and social conditions. Using various sources, which deal with both consequences of dams in general, and specific examples in India, Ethiopia, Brazil and Laos, we posit the following problems associated with dam construction:

If an area is to be turned into a reservoir it is often necessary to forcibly resettle the local population, which is often indigenous. We see that these indigenous people's rights are often disregarded, as with the Belo Monte in Brazil. Here, despite the fact that projects resulting in the involuntary resettlement of indigenous peoples are prohibited under Brazilian law, Dam construction has still gone ahead, in the face of extensive protests and political resistance.

Historically, we have seen that the laws regarding compensation after such involuntary resettlements are seldom complied with, and those affected lose their means of subsistence as well as having their way of life threatened. The environmental impact analyses carried out in advance can be very unreliable, the views of the local population carries little weight and those involved in the construction

process cut corners to advance the project. Unfortunately, there is no reason to believe that the examples shown here are exceptions to the rule, and not representative of the trends described above. The irrawaddy dolphin, the Mekong catfish and at least 40 other species of fish in Laos are threatened with extinction if the Xyaburi Dam and other planned projects in the Mekong river are implemented. In many ways, a river can be regarded as a living wound in nature; such extinctions, which have been observed after previous dam constructions, put the entire ecosystem at risk while simultaneously threatening the local population's means of subsistence. In South-east Asia, for example, around 40 million people depend on the Mekong River as a major source of food, and the construction of dams along the river may deprive communities throughout the region of a secure food source.

Similar to dam construction, hydroelectric power cannot always be regarded as a source of pure and renewable energy. Although this has certainly been one of the main arguments for expanding hydroelectric power overall. Research shows that reservoirs also emit climate gases, and that the dams have, in many cases, a limited life due to sedimentation, while the river and the surrounding area are exposed to irreversible damage.

Comments regarding the Fund

The Fund's investments are believed to be long term and therefore have a goal regarding economic, social, and environmental sustainability objectives. Purely ethical considerations will also prevent ownership in companies if their operations prove to contradict these principles. The Fund is involved in all of the examples mentioned; in the form of investment in companies, which are active in the dam constructions. We believe that the consequences of these qualify the companies to be prioritised in the Fund's ethical work. Why are they seemingly not highlighted at an earlier stage? What should be changed in the design or monitoring of the ethical guidelines?

Since they were conceptualised, there has been much political discussion regarding how the ethical guidelines in The Fund should be enforced. Much of the discussion has been regarding where the boundaries should be – many believe that the more often we intervene, the more limitations we set for The Fund’s potential returns. However there are also arguments for The Fund to achieve returns in the long term by investing in companies which have a positive social and environmental track record with respect to the long-term consequences of their relative projects.

By having ownership interests in a company, you are also involved in its activities. The Fund’s aim has been to achieve the greatest possible return at a moderate risk, and there has been insistence on the definition of The Fund as a financial investor itself, which generally limits its involvement in the company’s activities. Nevertheless, there ought to be a discussion regarding where the boundary falls in terms of its response to situations where the ownership share continuously increases its growth. The Fund is often the largest single investor and this is set to continue to increase over time.

Currently, 51 companies are excluded from the Fund’s portfolio, which consists of in excess of 8,700 companies. Undoubtedly, there are many more than these 8,700 companies who do not comply with the ethical guidelines, the likes of which have been highlighted in this report. The current threshold for exclusion is very high; the company’s connection with infringement of standards should be very explicit and well documented and they should be given the opportunity to rectify their activities before exclusion takes place. We do not disagree with this strategy as companies should not be unjustifiably accused, and should have the opportunity to address and improve on past actions, but where these unethical actions have been too significant this can lead to companies with substantial unethical practices not being challenged in The Fund’s ethical work.

The introduction of an observation list was thus an important step towards increasing pressure on companies in the event that their activities conflict with The Fund’s ethical guidelines. Since the introduction of an observation list as a tool in 2008, there is only one company currently in this category, but there is a strong likelihood that many more companies qualify for inclusion in the observation list.

With an increase in the number of companies on the observation list, the transparency for authorities with regards to how The Fund puts pressure on companies becomes clearer, something which has been in demand by a range of organisations and interested parties for a long time. This will again increase expectations that NBIM and the Norwegian Ethical Council will engage in an active dialogue with clear criteria for companies, and increase collaboration between the two bodies so that the guidelines will be enforced.

Previous exclusions also largely took place in cases where the infringement of standards and the consequential damage had a clear and direct connection. In the context of dam construction, it will often be the case that this connection between cause and effect will be less clearcut. Accordingly, industries that are involved in a less direct manner (e.g. materials supply), should also be held accountable for the consequences of their activities as these actions still entail serious repercussions for the associated peoples and the environment.

The fact that long and short-term consequences of ethical (or unethical) practices are to be included in the exclusion criteria does not necessarily mean that the ethical guidelines themselves need to be amended. Further clarification is simply required with this regard. For example, what effect would be observed if The Fund used the exclusion mechanisms when a company’s indirect involvement resulted in gross neglect of environmental considerations and human rights?

In this respect, we can refer to the turbine supplier Alstom, which has been and is still involved in numerous controversial dam projects. As far as we can see, Alstom's dubious activities have been picked up by The Fund even though the company qualifies for exclusion and is required to engage in dialogue in other funds. The fact that companies assess the consequences of their activities within a wider context is a new trend, which the pension fund can successfully support, by being more proactive in its work.

The Fund's environmental effect

The Fund's environmental investments through positive filtering are a commendable measure with great potential, and it is good that The Fund recognises the additional positive outcomes that this can have. The growth in environmental investments is greater than planned, but at less than one percent of the total fund, this is still much too little. Even though it has been shown that environmental investments can have a marginally lower return, one should not ignore the fact that the Norwegian population, as owners of The Fund, would like to see more strategic support to certain sectors which contribute to a more sustainable development.

When sectors are weighted in this way, it becomes highly important that they actually have a positive environmental effect, both to ensure achievement of the set goals, and to ensure their credibility.

It is evident that large hydroelectric plants, by virtue of representing a renewable energy source, can be thought of as part of environmental investments. In relation to this, it is also worth noting that the Norwegian Department of Finance has given notice of further investments in emerging markets. Countries such as China, India and Brazil are included in this category, and are also well advanced globally when it comes to dam construction; a trend which can be forecasted to increase.

Nevertheless, we have seen that there are powerful arguments stating that this is not having the beneficial effect that was initially promised. Can we justify supporting large dams which dry out river beds, destroy peoples' livelihoods and which can hardly be described as a part of a "sustainable development" process?

Gradually, as knowledge of the damaging effects of such products, technologies and activities grows, and new insights reveal that companies involved are breaching principles regarding human rights, good corporate management and sustainable development, the ethical guidelines should reflect this growth of knowledge by developing accordingly.

Exclusions and transparency

If a company is excluded then the opportunity to affect the company as an owner is lost, and it is by no means certain that those who buy ownership shares have the same ethical standards as The Fund. Active ownership should therefore be the first tool to be adopted. Similarly, it is by no means certain that exercising ownership will prove beneficial, and it is important to work to clarify procedures in relation to when it should be brought to a close and steps should be taken in relation to the company if the dialogue is not producing results— increased coordination between NBIM and the Norwegian Ethical Council is therefore important in this regard.

NBIM's response to this is that its contact with companies will be made more difficult if they have exclusion as a possible sanction, as this will lead to mistrust and a poor basis for exercising ownership. However, we need look no further than Sweden to see that this can work in practice. Here, institutions, which are comparable to the NBIM and the Norwegian Ethical Council, the AP Fund and the Swedish Ethical Council respectively, cooperate and we can see a dialogue with companies that is still productive,

without the confidence or values of the company being explicitly damaged. It is important to note that the portfolio companies are often very interested in having a stable and long-term player such as The Fund as a shareholder of the business.

Another factor which differentiates the Swedish and Norwegian model is the fact that the Ethical Council for the Swedish AP fund publishes dialogue processes with many of the companies in its portfolio. One of the reasons why the NBIM's exercise of ownership is withheld from public disclosure is that the prospective exposure of this issue would damage the market as companies could receive poor publicity and fall in value. Yet, with such good returns from The Fund, and with the positive experience from Sweden, there is reason to consider whether active ownership through appliance of the ethical guidelines could be allowed to impinge economic returns - this will certainly also act as an extra mechanism to give companies the incentive to maintain a positive profile. In addition, there is a democratic value to the publicity which owners have access to being prioritised in NBIM's ethical work.

And finally

Large dams can be a threat to nature and humanity, especially in tropical regions, where the need for electricity is also increasing rapidly. If the world's major rivers are dammed up for the benefit of humankind, there will be major negative consequences for the rivers' hydrology, biodiversity and the livelihood of the local community.

Exclusions by the Fund and the fund's other tools are noticed on an international level, and should be used more actively to put the spotlight on companies if their activities are unacceptable. It is therefore important to grasp this opportunity, and to show at all times that Norway is a country where ethical responsibilities enjoy a

high priority and in order to reflect this, we must, at all times, be dynamic in terms of giving a signal to the market regarding which ethical standards should be maintained.

An additional responsibility follows from this, in that The Fund is the world's largest state-owned pension stock and must take the lead in its ethical work, as it is, by virtue of this fact, setting the tone the world over. This gives us the opportunity to take the lead in the development of ethical responsibility with investments.

Recommendations

To decision makers, the Norwegian Department of Finance:

- Carry out an assessment as to how an increased ownership limit (currently 10 percent) requires a change in the Fund's exercise of ownership
- Ensure that involvement in serious environmental damage or other negative consequences is also prioritised. In the ethical work, the main bulk have been companies who are directly responsible for the damage in question, even though involvement can be just as problematic and unethical as direct responsibility.
- Ensure that the observation list is used to a greater extent
- Increase funding of both the Norwegian Ethical Council and the Ownership group in NBIM so that the role of ethical work is strengthened.

To the Central Bank of Norway:

- Have clearer criteria for, and more openness regarding, how environmental investments should be placed and how the environmental effect of this is measured. The criteria must take into account the fact that environmental damage and other negative consequences can occur with companies within sectors where you would expect a clear additional benefit for the environment. Too great a focus on technology can mask problematic aspects.
- Prioritise dialogue with companies, which construct large dams, or are involved in the construction of large dam projects.
- Publish how dialogue with companies is conducted with respect to the setting and achieving of objectives.
- Assess the publication of dialogue with individual companies.
- Ensure closer cooperation and a greater exchange of information between the Norwegian Ethical Council and NBIM.

To the Norwegian Ethical Council:

- Strengthen work with companies who are included under gross environmental destruction.
- Monitor, to a greater degree, companies involved in environmental destruction and loss of livelihood in connection with large dam projects.
- Ensure closer cooperation and a greater exchange of information between the Norwegian Ethical Council and NBIM

www.fivas.org