Policies and Practices in financing large dams

Research paper II prepared for
WWF International - Living Waters Programme

Janette Worm, Jan Maarten Dros (AIDEEnvironment)
Jan Willem van Gelder (Profundo)

April 2003
AIDEEnvironment  Profundo
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Summary and conclusions

Introduction

The objective of the study was to assess and evaluate the funding mechanisms, policies and practices of globally operating financial institutions with regard to large-scale dam projects. Twelve commercial and three development banks were selected for further research:

- ABN AMRO Bank The Netherlands
- Barclays United Kingdom
- Crédit Suisse Switzerland
- Crédit Agricole France
- Deutsche Bank Germany
- Dresdner Bank Germany
- ING Bank The Netherlands
- J.P. Morgan Chase & Co. United States
- Mitsubishi Tokyo Financial Group (MTFG) Japan
- Société Générale France
- UBS Switzerland
- WestLB Germany
- European Investment Bank European Union
- Japan Bank for International Cooperation Japan
- World Bank International

Separately a selection of 23 globally distributed recent dam projects was analysed, of which 17 had arranged financing at the time of writing (March 2003). All of these 23 dam projects are controversial and face NGO opposition because of their social and environmental consequences.

Financing of dams

In this project an analysis was made of the financing structures of 23 large-scale dam projects. Facts sheets containing the financial analysis for each dam project can be found in Appendix 2 of this report.

The on-going liberalisation of global electricity markets during the past two decades, the further internationalisation of commercial banking operations, and the more sophisticated stage into which global capital markets have developed, have changed the way in which large dams are financed. Direct financing by the host government has declined, as many state-owned electricity companies are privatised. Multilateral development banks also play a less prominent role. However, the amount of private financing, by electricity companies and commercial banks, is increasing. ECA financing has also augmented spurred mainly by the globalisation of equipment markets.

The increasing necessity for hydropower projects to compete with other forms of electricity production complicates finding a suitable financing structure. The competitive advantage of hydropower - its long lifespan - should not be made undone by high annual capital costs. To reach this goal, usually various types of financial services and financial institutions have to be involved in the financing structure of a dam project. The financial solutions applied thus may vary considerably.
Consequently, no single financial institution or single type of financial institutions can be singled out as the most important financier(s) of large dam projects world-wide. Within specific countries, however, national development banks or national financial institutions dedicated to the development of the power industry, often play a crucial role. Based on their finance mechanisms three types of dams have been identified in this study:

- **Development dams**

  Multilateral and foreign development banks and agencies play a dominant role in the financing of *Development dams*, such as:

  - Bujagali Falls, Uganda
  - Nam Theun I, Laos
  - Nam Theun II, Laos
  - Sondu Miriu, Kenya
  - Urrá, Colombia

- **National Interest dams**

  Loans from national development banks and other domestic banks, as well as domestic bond and equity issuances by the project operator play a dominant role in the financing of *National Interest dams*, such as:

  - Caruachi, Venezuela
  - Ertan, China
  - Longtan, China
  - Maheshwar, India
  - Sardar Sarovar, India
  - Three Gorges, China
  - Tucuruí, Brazil

- **Commercial dams**

  Loans from foreign and domestic private banks together with the equity of the private project operator play a dominant role in the financing of *Commercial dams*, such as:

  - Birecik, Turkey
  - Deriner, Turkey
  - Lesotho Highlands Water Project (LHWP) - phase 1A, Lesotho
  - Lesotho Highlands Water Project (LHWP) - phase 1B, Lesotho
  - Ralco, Chile

For the other six dams researched no financing structure has been arranged yet.

**Financial involvement of the selected banks**

The financial analysis of the 17 dam projects for which financing is arranged, revealed that all 15 banks recently were involved in the financing of two to six of these dam projects. Ten banks were strongly involved in financing one to three dam projects. The multilateral development banks were most influential in financing *Development dams*, whereas the private banks were found to be most influential in financing *Commercial dams*. An overview of the influence assessment of the selected banks is presented in the following table:
## Bank policies on dam investments

Three out of fifteen banks analysed have no environmental policy at all. The other twelve have policies with varying levels of detail, the development banks leading in terms of publicly available guidelines and criteria. According to their policy statements the banks have been divided into three categories:

- **Banks with stakeholder participation policy**

  The following banks have committed themselves to policies that imply the application of environmental criteria developed by themselves or others (World Bank, World Commission on Dams), and are willing to discuss criteria for implementation with NGOs:

  - ABN AMRO Bank
  - Barclays
  - European Investment Bank
  - Japan Bank for International Cooperation
  - World Bank

- **Banks with risk evasion policy**
The following banks have committed themselves to policies that imply the application of environmental criteria, but appear reluctant to share these guidelines with NGOs:

- Crédit Suisse Switzerland
- Deutsche Bank Germany
- Dresdner Bank Germany
- ING Bank The Netherlands
- Société Générale France
- UBS Switzerland
- WestLB Germany

**Banks without policy**

The following banks have no policy or were unwilling to share it:

- Crédit Agricole France
- J.P. Morgan Chase & Co. United States
- Mitsubishi Tokyo Financial Group Japan

As all of these banks have recently been involved in the financing of two or more controversial dam projects, our analysis throws up questions as to whether the banks, which have adopted environmental policies actually apply these to their investments in dam projects. All 15 financial institutions analysed in this report therefore are at risk that their actual investment decisions are contravening their commitment to sustainable development. Eventually this might lead to their environmental policies being seen as mere ‘greenwash’.

**Financial sector initiatives**

A number of financial sector initiatives addressing sustainability were also analysed, such as the UNEP-Finance Initiatives and the Global Reporting Initiative. Banks tend to use their subscription to these initiatives as proof of their commitment to sustainability. However, all of those initiatives are voluntary and non-binding, and are thus not necessarily an indicator of sustainable behaviour. As there are no mechanisms in place to actually enforce the implementation of policies, no proof can be provided that the signatories of these initiatives actually live up to the principles they have underwritten. These initiatives can play a useful role in communication and achieving greater transparency, but are not appropriate certificates for sustainable practices of financial institutions.

**Recommendations for financial institutions**

- Financial institutions, which have not adopted a sustainable or environmental policy yet, should do so as soon as possible.
- Adherence to the guidelines of the World Commission on Dams by the financial sector is recommended to ensure that projects with excessive social and environmental costs are excluded from financing.
- All financial institutions should focus on implementing and monitoring their policies with regard to dam projects.
• Financial institutions should be aware that undersigning a declaration in itself will not convince NGOs that the bank really lives up to these principles. It is in the interest of financial institutions themselves to come up with mechanisms to comply with their own policies or with the international initiatives which they have underwritten. Otherwise, NGOs have little other option but to try to damage the reputation of non-compliant financial institutions.

• Transparency is a crucial element to gain NGOs trust. Transparency means, (closely) involving NGOs in policy formulation, in the establishment of implementation strategies and in the decisions regarding concrete investments and other financial services.
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Chapter 1  Introduction

Background

In April 1997, with support from the World Bank and the IUCN - The World Conservation Union and representatives of diverse interests met in Gland, Switzerland to discuss the role of large dams in development in light of reactions to a pertinent report by the Operations Evaluation Department (OED) of the World Bank. The Gland-workshop brought together 39 participants from governments, the private sector, international financial institutions, civil society organisations and affected people. The consensus proposal that came out of the meeting was for all parties to work together in establishing the World Commission on Dams (WCD). In November 2000 the World Commission on Dams (WCD) reported back on its review of the development effectiveness of large dams and assessment of alternatives for water resources and energy development.

The WCD report provided the first-ever-independent study of large dams involving contributors from around the world and from different disciplines and backgrounds, who carried out a wide range of investigations. The report confirmed that dams have made an important contribution to human development, providing significant benefits. However, it also pointed to the huge environmental and social costs of some dam projects. The WCD suggested a way forward through a new framework for decision-making which, if applied by key institutions involved in dam projects, should lead to less controversy and more benefits in the future. Financial institutions can be a key partner in this new approach if they apply the WCD’s recommendations to their lending criteria.

AIDEnvironment and Profundo were commissioned by WWF to carry out an analysis on the financing mechanisms, roles of financial institutions as well as the environmental and social impacts for 37 controversial large dams across the globe to find out which financial institutions are involved in dam financing. The main conclusion of this research was that the financial mechanisms for funding large dams are generally very complex, involving a large number and variety of financial institutions and financing mechanisms. Additionally, during the past decades, globalisation, privatisation and liberalisation mechanisms have further diversified the ways in which large dams are financed. With respect to the environmental and social impacts of these dams it was concluded that all dams have some severe impacts, mostly with respect to the loss of biodiversity and the loss of sustainable livelihoods.

As a follow-up to this preliminary analysis WWF International has commissioned AIDEnvironment and Profundo to prepare this second research report To look more specifically at the policies and practices of some of the banks identified in the first report.

Objective

The main goal of this study is to analyse bank policies and practices in more detail, with respect to the funding of large dam projects. The result of this study could be used for developing sustainability guidelines for financial institutions considering financing large dams.

Methodology

The results of the first project on the impacts and financing of large dams (37) served as the starting point for this follow-up project. For this study 23 dam projects were selected as basis for analysis of current financing mechanism, 18 dam projects from were selected from the first study, while five additional dams in construction or planning phase were added.

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1 The impacts and financing of large dams, AIDEnvironment and Profundo, November 2002.
The financing structures for all these dams were arranged recently (after 1995) or are still in the arranging phase, while a limited sample of these dams is currently under construction. Overall, these dams provide a sound and representative overview of recent financing structures of controversial large dams world-wide. See chapter two for an analysis of the financing of these 23 dam projects.

The selected dams include dams for single or multiple purposes (e.g. water supply, water storage or hydropower). For each dam, a fact sheet is included in the appendices.

Separately, WWF International made a selection of 12 commercial banks from the Netherlands, United Kingdom, Germany, France, Switzerland, Japan and the US which were found to be prominently involved in funding large dams world-wide in the first research report on 37 dams. Additionally, three development banks (two multilateral and one national foreign development bank) were selected.

For each of those 15 banks publicly available (dam-related) policies, statements and commitments were collected through an Internet search. In addition an official request letter was sent out by WWF to ask those banks to provide additional information. Based on the collected information on bank policies and practices an analysis was made to reflect the degree of sustainability and commitment of those banks with respect to dam projects. See chapter three for the analysis of these bank policies and practices.
Chapter 2  Analysis of the financing of dam projects

2.1  Introduction

This chapter presents the results of our analysis of financing structures of 23 large-scale dam projects. Fact sheets containing the financial analysis for each dam project can be found in Appendix 2 of this report. The following sections summarise and analyse these findings. Section 2.2 starts with a brief overview of the size and geographical spread of the selected 23 dam projects. In section 2.3 the trends and developments in the financing of large-scale dam projects world-wide are being discussed, with special emphasis on the various options explored to bring the financing schemes of large-scale dam projects in par with their strongest competitive advantage - their long lifespan.

In section 2.4 an overview is given of the financing structures of the 23 dam projects. A tentative division of the different financing structures in three different models is presented, and the relative importance of various types of financial institutions is discussed.

Finally, section 2.6 presents the analysis of the roles played by individual financial institutions in the financing of the 23 dam projects researched, including a discussion of the criteria used for this assessment.

A discussion of the basics of company and project financing, including a definition of various types of financial institutions and financial services, can be found in Appendix 1 of this report.

2.2  Selection of dam projects

For this study 23 dam projects world-wide were selected to analyse their financial structure. Main criteria for selection were:

- Geographical spread
- Considerable size, their project value varying between US$ 65 million and US$ 24,600 million
- Well-known environmental and social impacts
- Recently constructed or in the planning phase

In figure 2.1 the distribution of the dams over the continents is presented.

![Figure 2.1 Distribution of the dams over the continents](image-url)
The selected dams vary considerably in size and hence, cost. Below, an overview is presented of the total finance sums for the 22 dams with known project cost. Note that the Three Gorges dam (project value US$ 24.6 billion) exceeds the graph maximum fivefold.

![Dams by project value](image)

**Figure 2.2 Total project value per dam**

For 6 of the 23 dam projects, no financing has been arranged yet, or the financing has failed (Ilisu, Turkey). Hence the financial analyses presented in this chapter only relate to 17 dams.

### 2.3 Recent developments in the financing of hydropower projects

Most large dam projects in the world are essentially hydropower projects. Of the 23 dam projects researched for this report, 20 are hydropower projects. It therefore seems appropriate to take a closer look at the financing dynamics of the global hydropower sector. Until the 1980s, large dam projects in the South were largely financed by public funds. The government of the host country played a very important funding role, either directly or indirectly through state-owned electricity companies. Multilateral development banks and foreign development banks and aid agencies often added substantial funds. Funding by commercial bank loans or bonds was rare, and foreign Export Credit Agencies (ECAs) were not as prominent as they are today.

For non-hydropower dams, which usually are much smaller, this state of affairs has not changed very much. But for large hydropower dams this situation has changed decisively starting in the 1980s. Several developments play a role in this process of change, of which the on-going liberalisation of global electricity markets undoubtedly is the most important as far as hydropower dams are concerned. But the further internationalisation of commercial banking operations, and the more sophisticated stage into which global capital markets have developed, certainly also play a role.
These developments have increased the amount of private financing in hydropower projects, especially on the equity side. Direct financing by the host government obviously has declined, as many state-owned electricity companies are privatised. And most countries which still have state-owned electricity companies, have at least given room to the establishment of (hydro)power plants by so-called Independent Power Producers (IPPs). On the debt side private capital also plays a growing role, mainly through loans from local and foreign commercial banks. ECA financing has augmented as well during the past decades, spurred mainly by the globalisation of equipment markets.

But the larger role for commercial banks and ECAs in financing hydropower projects does not imply that the traditional public funds are now obsolete. In fact, the liberalisation of electricity markets also created a new demand for specific types of public funding for large hydropower projects. As Chris Head points out in an analysis published by the World Bank in July 2000, the liberalisation of energy markets has made the realisation of such projects much more difficult. In most countries, hydropower projects are no longer unilaterally planned by the government. They have to compete with other power projects, mainly thermal, for market share and scarce investment funds.

Comparing them with thermal power projects, hydropower projects lose out in many important respects. The construction costs of a hydropower project are typically 100 to 200 percent higher than those of a thermal power station on a $/kW basis. Construction risks are higher and hydropower has to deal with extra (hydrological as well as social) risks. The construction period also is longer, causing higher interest charges. For these and other reasons, hydropower tariffs are determined to a large extent by the capital costs of the project. As a consequence, hydropower projects will generally not be able to compete with thermal power plants when financed completely with commercial bank loans and ECA loans, which usually have a maximum tenure of 10 years, respectively 15 years: the high annual loan repayments would drive tariffs up too much.

Of course, hydropower projects still have many proponents, among governments, electricity companies, equipment producers, and financial institutions. There are many reasons for their enthusiasm, but the main economic reason of course is that a hydropower project has a much longer lifespan than a thermal power plant. This means that in the long-term hydropower projects probably produce cheaper electricity and higher profits. The financial key to successfully developing a hydropower project, therefore is to - at least partially - finance the project with funds bearing a low interest rate (or no interest at all) and/or a long tenure. These kind of funds, however, are relatively scarce and/or bounded by all kind of restrictions and public financial institutions are more likely to provide these than private financial institutions are.

Various answers involving various actors are apparent with regard to the dilemma of bringing interest-rate and tenure of the financing structure on par with the particular strong point of a hydropower project (its long lifespan):

- **Raising equity**: The most obvious answer towards the dilemma mentioned is to raise the equity percentage in the financing plan. As equity is interest-free and has an unlimited tenure, this obviously has advantages. Equity is basically provided by the initiators and operators of the dam project, most often state-owned or private electricity companies. The disadvantage of raising the equity however is, that the larger the equity percentage the lower the return on equity will be. Especially private electricity companies strive for a certain minimal return on equity to please their shareholders, which will limit the percentage of equity they are prepared to invest.

In Chris Head’s study of ten hydropower projects developed on a *Build Operate Transfer (BOT)* basis, an average of 25% equity is mentioned, ranging from 15 to 40%.
Most of our case studies fall in this range as well, although in the Sondu Miriu case the equity component seems to be lower (5%), while the Nam Theun I (46%), Caruachi (44%), Ertan (47%) and Three Gorges (55%) cases have a higher portion of equity. Generally, cases with a high amount of equity are developed by state-owned electricity companies, which can be satisfied with a lower return on investments. Electricity companies, which are developing a series of dams, such as Edelca in Venezuela, CTGPC in China and Eletrobrás in Brazil, can therefore use the returns of running projects to invest in the equity of new dams.

But the high amount of equity in some cases is also caused by the fact that various means are used to raise the project’s equity above the amount the operators are prepared to invest:

- Construction companies and equipment suppliers can be enticed to invest in the dam’s equity, in return for contracts. Such is the case with Italian-Thai Development in the Nam Theun II case, Bharat Heavy Industries in the Maheshwar case, and a large number of construction companies involved in the Birecik case.
- Multilateral banks are sometimes prepared to invest directly or indirectly (through the host country) in the equity of a dam project, such as the Asian Development Bank did in the Nam Theun I case. This is especially the case in low-income countries.
- Private financial institutions can be lured to take a share in the project, as a form of passive investment. Such is the case in the Maheshwar case.
- In less-liberalised markets, the government can step in by raising a levy over all electricity sales, which is the main source for the high equity stake of the Three Gorges project.

- **Raising more long-term loans and grants from development banks and aid agencies:** Using long-term money from public financial institutions is the traditional answer to the necessity to spread capital costs over the lifespan of the dam. In many cases this answer is still applied. Public financial institutions which would we willing to offer long-term loans (sometimes with reduced interest rates) or even grants, can include:
  - Multilateral development banks and agencies
  - National development banks and dedicated financing agencies (in the host country)
  - Export credit agencies (from countries exporting equipment)
  - Foreign aid agencies and development banks

Financing schemes, which do not include one or more of these types of public financial institutions, are very rare. Ralco, Birecik and Deriner are rather unique in this respect, as no development banks are involved.

But increasingly multilateral development banks and aid agencies are under NGO pressure, which for instance caused the World Bank to pull out of the Sardar Sarovar project and the Pangu and Ralco projects in Chile, and to be very hesitant towards Nam Theun II.

Also, the costs associated with obtaining multilateral development bank financing (for instance the required environmental impact assessments and stakeholder dialogues) are becoming increasingly prohibitive. Similar problems occur with projects relying heavily on foreign development banks, such as Sondu-Miriu and Ta Trach.
Multilateral development banks still play an important role in funding large dams, but increasingly less in terms of their direct financial commitment. Multilateral development banks increasingly play a role in facilitating other funding, by legitimising and guaranteeing investments in a project. The main reason why many project initiators still apply for a partial financing by multilateral development banks is that such financing opens doors towards other financiers. Loans committed by development banks are in fact often partially or completely financed by commercial banks, such as in the Bujagali Falls case. Nevertheless, it can be expected that more project initiators will just not apply anymore for financing by multilateral development banks, just as in the Three Gorges, Birecik and Tucuruí cases.

- **Using credit guarantees to extend the tenure of loans:** Credit guarantees, issued by export credit agencies or multilateral banks, are increasingly used to extend the tenure of loans. Export credit agencies try to stimulate the export from their country by guaranteeing loans extended by commercial banks to exporters of equipment or to their buyers (such as the operators of hydropower dams). Multilateral development banks can also issue guarantees for loans. The Bujagali Falls case shows that through a combination of ECA and World Bank guarantees, which is a novelty, all loans to the project could have a tenure of 16 years, despite the political instability of the host country Uganda.

It could be possible however that the prominent role played by ECAs will decrease again in the future. Many ECAs are under high pressure to apply more environmental and social criteria to their financing activities, making ECA loans a less simple and reliable funding source for project operators. NGOs for instance forced the US Exim bank to pull out of the Three Gorges dam and Hermes and COSEC to abandon Maheshwar.

A very different factor however, is the fact that large economies such as Brazil, India and China are increasingly developing their own equipment industry, which is able to compete with foreign suppliers. More domestic supplies to large dams of course would diminish ECA involvement, which in itself could be a reason for project operators to prefer imports. The outcome of this development, in other words, is far from certain.

- **Issuing domestic long-term bonds:** Another option to spread capital costs over the lifespan of the dam, is to look for more long-term financing on the domestic capital market. Especially in larger economies in the South, the domestic capital markets have also developed over the years. With the help of private investment banks, the project operators can sell long-term bonds to domestic insurance companies, pension funds, saving banks and other institutional investors. This is becoming an increasingly attractive alternative for foreign financing. Especially when these bonds are guaranteed by the government of the host country, which reduces interest rates and augments demand. It is noteworthy that this instrument is used in many of our case studies: Three Gorges, Sardar Sarovar, Lesotho Highlands and Tucuruí. It is used as a means of raising initial project financing, but also to refinance other - more expensive and more short-term - forms of financing when the project is underway, such as in the Lesotho Highlands case.

### 2.4 Financing structures of selected dam projects

For this report the financing structures of 23 large, controversial dams world-wide were analysed. The financial fact sheets can be found in Appendix 2. Table 2.1 shows the financing structures for 17 dam projects researched for this report. (The financing structures for the other 6 projects have not been arranged yet). They have been grouped according to three finance models, which will be discussed below.
<table>
<thead>
<tr>
<th>Country</th>
<th>Dam project</th>
<th>Project sum (US$ mln)</th>
<th>Equity</th>
<th>Multilateral Development Loans</th>
<th>National Development Loans</th>
<th>Foreign Development Loans/Grants</th>
<th>Private Bank Loans</th>
<th>Bonds</th>
<th>ECA Loans</th>
<th>Credit guarantees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development dams</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>Urrá</td>
<td>800</td>
<td>40%</td>
<td>10% + (20%)</td>
<td>15%</td>
<td>24%</td>
<td>8%</td>
<td>3%</td>
<td>(10%)</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>Sondu Miriu</td>
<td>150</td>
<td>5%</td>
<td></td>
<td></td>
<td>95%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laos</td>
<td>Nam Theun I</td>
<td>240</td>
<td>46%</td>
<td>3% + (24%)</td>
<td>12% + (3%)</td>
<td>27%</td>
<td>12%</td>
<td>(12%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laos</td>
<td>Nam Theun II</td>
<td>1,227</td>
<td>30%</td>
<td>37%</td>
<td>28%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
<td>(8%)</td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td>Bujagali Falls</td>
<td>583</td>
<td>20%</td>
<td>20%</td>
<td>3%</td>
<td>19%</td>
<td>3%</td>
<td>36%</td>
<td>(55%)</td>
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<td></td>
<td></td>
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<tr>
<td><strong>National Interest dams</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Brazil</td>
<td>Tucurui I</td>
<td>1,478</td>
<td>37%</td>
<td></td>
<td>32%</td>
<td></td>
<td>31%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Tree Gorges</td>
<td>24,600</td>
<td>55%</td>
<td></td>
<td>20%</td>
<td>5%</td>
<td>19%</td>
<td>1%</td>
<td>(4%)</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Ertan</td>
<td>3,400</td>
<td>47%</td>
<td></td>
<td>23%</td>
<td>25%</td>
<td>4%</td>
<td>1%</td>
<td>(4%)</td>
<td></td>
</tr>
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<td>China</td>
<td>Longtan</td>
<td>3,180</td>
<td>25%</td>
<td></td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>India</td>
<td>Sardar Sarovar</td>
<td>1,000</td>
<td>37%</td>
<td></td>
<td>1%</td>
<td>2%</td>
<td>60%</td>
<td></td>
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</tr>
<tr>
<td>India</td>
<td>Maheshwar</td>
<td>465</td>
<td>30%</td>
<td></td>
<td>53%</td>
<td>17%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>Caruachi</td>
<td>2,300</td>
<td>44%</td>
<td></td>
<td>27%</td>
<td></td>
<td>16%</td>
<td>13%</td>
<td>(22%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Chile</td>
<td>Ralco</td>
<td>568</td>
<td>30%</td>
<td></td>
<td></td>
<td>65%</td>
<td>5%</td>
<td></td>
<td></td>
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<tr>
<td>Lesotho</td>
<td>LHWP 1A</td>
<td>2,415</td>
<td>26%</td>
<td></td>
<td>20%</td>
<td>6%</td>
<td>48%</td>
<td></td>
<td></td>
<td>(17%)</td>
</tr>
<tr>
<td>Lesotho</td>
<td>LHWP 1B</td>
<td>1,150</td>
<td>30%</td>
<td></td>
<td>17%</td>
<td></td>
<td>53%</td>
<td></td>
<td></td>
<td>(10%)</td>
</tr>
<tr>
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<td>Birecik</td>
<td>1,566</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
<td>82%</td>
<td></td>
<td></td>
<td>(61%)</td>
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<td>Turkey</td>
<td>Deriner</td>
<td>711</td>
<td>24%</td>
<td></td>
<td></td>
<td></td>
<td>76%</td>
<td></td>
<td></td>
<td>(20%)</td>
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<tr>
<td>Total</td>
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<td></td>
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<td></td>
<td></td>
<td>6,410</td>
</tr>
</tbody>
</table>

2 In some cases multilateral development banks and foreign development banks/agencies have contributed to the equity of the project. In this case, their contribution to the equity is put between parentheses to avoid double counting.

3 Credit guarantee percentages are put between parentheses, as these credit guarantees are provided for loans extended by other financial institutions (commercial banks or ECAs). Adding this percentage would therefore lead to double counting and would bring the total figure for a given project above 100%.
Table 2.1 shows that the financial sources used for large-scale dam projects generally are provided by a combination of many financial institutions. The financing package for each individual dam is tailor-made and therefore different. However, to provide a better understanding of the financial structures of the 17 dam projects we discern three different financing models. These models have been classified according to their main source of finance as follows:

- **Development**
  - Foreign (multilateral or bilateral) development loans and grants
- **National Interest**
  - Domestic capital (public and private)
- **Commercial**
  - Foreign private loans

It should be kept in mind of course that these three models are only archetypes, no single dam fits exactly in a certain model. But between the financing structures for the dams grouped under a certain model the similarities are strong enough to justify this grouping. Each model has its own dynamics, as will be described in the following sub-sections.

### 2.4.1 Development dams

Development dams are established to develop water- and hydropower resources in low-income countries that do not have the means to finance dams with domestic capital. The financing structure is highly dependent upon loans and grants from multilateral or bilateral development banks and agencies. These loans and grants are very necessary to finance feasibility studies, to attract other forms of debt and even to finance a minimum amount of equity which is often an import precondition to attract debt.

Of the 17 dams of which the financing structure was analysed, the following 5 dams can be regarded as development dams:

- Bujagali Falls, Uganda
- Nam Theun I, Laos
- Nam Theun II, Laos
- Sondhu Miriu, Kenya
- Urrá, Colombia

For these development dams, development loans generally make up more than 35% of total project sum. For Bujagali Falls this includes the guarantees issued by World Bank subsidiary MIGA, which are of crucial importance. The total project value of these five dams was US$ 3.0 billion. Figure 2.3 shows, which forms of finance contributed to this total.
Apart from the five dams mentioned above, it seems highly likely that the following dams can also be classified as development dams when their financing structure is arranged:

- Boruca Costa Rica
- Mepanda Uncua Mozambique
- Ta Trach Vietnam

The total project value of these three dams is US$ 3.4 billion.

2.4.2 National Interest dams

National Interest dams are mainly funded through domestic sources in countries that both have a strategic interest in developing (major) hydropower and / or irrigation schemes, such as China, Brazil and India, as well as the financial means to pursue these goals. National development banks and state-owned electricity companies play a dominant role in financing these national interest dams, supplemented by loans from domestic (private or state-owned) banks and the issuance of bonds on the domestic capital market.

Of the 17 dams of which the financing structure was analysed, the following 7 dams can be regarded as development dams:

- Caruachi Venezuela
- Ertan China
- Longtan China
- Maheshwar India
- Sardar Sarovar India
- Three Gorges China
- Tucuruí Brazil
For these National Interest dams, loans from the national development bank plus the equity of the state-owned project operator generally make up more than 50% of total project sum. Caruachi and Sardar Sarovar do not comply completely to this criterion but are included here as they rely on other sources of domestic financing and they are backed by the governments in their country. The total project value of these seven dams was US$ 36.4 billion. Figure 2.4 shows which forms of finance contributed to this total.

**National Interest dams**

![Figure 2.4: Financing of National Interest dams](image)

Criterion: National development loans + state-owned equity > 50% of total project sum

Dams: Brazil: Tucurui
      China: Ertan
      China: Longtan
      China: Three Gorges
      India: Maheshwar
      India: Sardar Sarovar
      Venezuela: Caruachi

As figure 2.4 shows, only 4% of the national Interest dams was financed by multilateral development loans. And only 4% of their financing was covered by foreign export credit guarantees, indicating the limited dependency on foreign credits and equipment. Apart from the seven dams listed above, Tocoma in Venezuela (project value US$ 2.0 billion), will probably also be classified as national interest dam when its financing structure is arranged.

### 2.4.3 Commercial dams

Commercial dams are mostly developed by a private or privatised power or water utility that will pay back the loans with proceeds from the dams operation. Therefore, the economic feasibility of these dams is likely to be more secure than with national Interest dams or development dams, where political feasibility is more important. Domestic and foreign private banks are the main source of finance for commercial dams, funding generally more than 50% of the total project sum. To limit their risks however, the private banks often seek some partial involvement of multilateral development banks and/or export credit guarantees from ECA’s.

Of the 17 dams of which the financing structure was analysed, the following 5 dams can be regarded as commercial dams:
The total project value of these five dams was US$ 6.4 billion. Figure 2.5 shows which forms of finance contributed to this total.

As Figure 2.5 indicates, commercial dams are predominantly financed by loans from private banks, often covered by ECA export credit guarantees. On average, 25% of the total project value of Commercial Dams was covered by ECA guarantees, or 41% of total private bank loans.

Apart from the five dams listed above, Ilisu in Turkey (project value US$ 1.5 billion), would probably also be classified as commercial dam when its financing structure would get arranged.

2.5 The role of different financial institutions

As became apparent in the preceding sections, no single financial institution or single type of financial institutions can be singled out as the most important financier(s) of large dam projects world-wide. This section will give a quick overview of the roles played by various types of financial institutions.

- Multilateral development banks

Multilateral development banks still play an important role in the development of large development dams world-wide, but increasingly less in terms of their direct financial commitment. Multilateral development banks increasingly play a role in facilitating other funding, by legitimising and guaranteeing investments of a dam project.
NGO pressure on multilateral development banks to abstain from environmentally and socially destructive projects is often countered by high political pressure from the host countries, project operators and other financiers to keep multilateral development banks aboard. On the other hand, an increasing number of projects do not even apply for multilateral development bank funding because of the high costs and exposure associated with their involvement.

- **Export Credit Agencies (ECAs)**

In the past few decades Export Credit Agencies (ECAs) have increased their role in financing large development dams and commercial dams world-wide, to assist the export of equipment. It could be possible that this prominent role played by ECAs will decrease again in the future as many ECAs are under pressure to apply more environmental and social criteria to their financing activities. This in turn makes ECA loans a less simple and reliable funding source for project operators. In addition large economies such as Brazil, India and China are increasingly developing their own equipment industry and are thus able to compete with foreign suppliers. The involvement of domestic suppliers obviously diminishes ECA involvement.

- **Foreign development banks and agencies**

Foreign development banks and agencies in some cases play a crucial role by financing feasibility studies of especially development dams in an early stage, which later can be used to convince other financial institutions to invest in the project. For some of the smaller dam projects in low-income countries the financial role of foreign development banks and agencies can also be very important.

- **Foreign private banks**

Foreign private commercial and investment banks also play an increasingly important role in financing large commercial dams, but mostly in combination with guarantees from ECAs and multilateral development banks. In almost every large dam project, a foreign private bank is assigned as financial advisor to establish and negotiate a financing plan. The skills of private investment banks in piecing together a variety of financial instruments into a financing plan is thus possibly more important than their direct financial contribution.

- **Domestic commercial and development banks**

In larger emerging economies, such as Brazil, China, India and South Africa loans from domestic private and development banks play an increasingly important role in financing large national interest dams. Domestic investment banks also assist the project operators in issuing long-term bonds to the domestic capital markets, including domestic saving banks, pension funds, insurance companies, et cetera.

### 2.6 Influence assessment of financial institutions in dam projects

In this section we aim to identify which financial institutions are most important in financing the 23 large dam projects researched and what level of influence they have on each of these specific dam projects. Firstly we will discuss the criteria used to assess the level of influence of a certain financial institution on a certain dam project. To make this assessment we will basically use three criteria:
• the directness of the financial service
• the currency of the financial relation
• the financial importance of the service

We will elaborate on these three criteria in the following sub-sections.

2.6.1 Directness of the financial service

If a financial service is provided to a large-scale dam project, we will call the financial service direct. If the financial service is provided to the parent company of the dam project operator, we will call the financial service:

• direct if more than 50% of the sales of the parent company is derived from the dam project;
• indirect if less than 50% of the sales of the parent company is derived from the dam project, or if the financial service to the parent company clearly is directed at other activities.

2.6.2 Currency of the financial relation

We will call the financial relation:

• current if at the moment when a financing structure for the dam project was concluded a loan was outstanding, a share or bond issuance was prepared, shares or bonds were owned, or other financial services were continuously being provided;
• finished if a loan is repaid, a share or bond issuance is finalised, or other financial services are not longer provided.

2.6.3 Financial importance of the service

The financial importance of shareholdings is assessed separately, as risk-taking capital is more influential. We assess the financial importance of shareholdings as follows:

• high a shareholding of 10% or more;
• medium a shareholding between 1% and 10%;
• low a shareholding below 1%.

To assess the financial importance of other financial services, we relate the capital provided by the financial service to the total assets of the project. We will call the financial importance of the service:

• high if the capital provided amounts to more than 10% of the total assets of the project;
• medium if the capital provided amounts to more than 1% of the total assets of the project, but less than 10%;
• low if the capital provided amounts to less than 1% of the total assets of the project.

Regarding the application of this criterion, we make the following remarks:
• With regard to a syndicated loan, we will look at the part of the loan provided by each individual bank. But for the arranging banks (the syndicate leaders), we will look at the total value of the syndicated loan;
• With regard to a share or bond issuance, we will look at the amount underwritten by each individual bank. But for the arranging banks, we will look at the total value of the issuance;
• A project’s principal financial adviser is regarded to provide between 1% and 10% of the total assets of the project;
• Credit guarantees are estimated to represent 25% of the value of the credit guaranteed.

2.6.4 Influence assessment

Taking the three criteria together, we can assess the influence of the financial institution on a certain project. We will call this influence:

• **strong** if the financial service is *direct*, the currency is *current*, and the importance is *high*;
• **moderate** if the financial service is *direct*, the currency is *current*, and the importance is *medium*, or if the financial service is *indirect*, the currency is *current*, and the importance is *high*;
• **minimal** in all other cases, where the currency is *current*;
• **finished** in all other cases, where the currency is *no longer current*.

We define these four levels of influence as follows:

• **Strong influence**

  The financial institution has such a strong financial relationship with the project, that it will be able to influence the project’s policies on its own.

• **Moderate influence**

  The nature and extent of the financial relationship between the financial institution and the project is such that the financial institution can assert a certain influence on the project’s policies, especially when it joins forces with other financial institutions.

• **Minimal influence**

  The financial relationship between the financial institution and the project gives the financial institution in theory some influence on the project’s policies, but because of the extent and nature of the financial relationship this influence is not of practical relevance.

• **Finished influence**

  The ability of the financial institution to influence the project’s policies is no longer existent.

2.6.5 Results of the influence assessment

Using the criteria described above, we determined which financial institutions were most important in financing the 23 dam projects analysed. Table 2.2 lists the results. The 15 financial institutions, of which the policies are being analysed in chapter 3, are presented in bold.
<table>
<thead>
<tr>
<th>Financial institution</th>
<th>Country</th>
<th>Strong influence</th>
<th>Moderate influence</th>
<th>Minimal influence</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tr>
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<td>The Netherlands</td>
<td>Deriner</td>
<td>Birecik</td>
<td>Three Gorges</td>
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<tr>
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<td>Turkey</td>
<td>Deriner</td>
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<tr>
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<td>Australia</td>
<td>Nam Theun II</td>
<td>Three Gorges</td>
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<td>Thailand</td>
<td>Nam-Theun I</td>
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<tr>
<td>Hermes Kreditversicherungs</td>
<td>Germany</td>
<td>LHWP Phase 1A</td>
<td></td>
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<tr>
<td>Svensk Exportkredit</td>
<td>Sweden</td>
<td>Bujagali Falls</td>
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Chapter 3  Analysis of bank policies

3.1 Introduction

This chapter describes the analysis of sustainability policies of 15 financial institutions with respect to financing large-scale dam projects. On the basis of the first study carried out by AIDEnvironment and Profundo, WWF International selected 12 internationally operating commercial banks, as well as three development banks (two multilateral and one foreign development bank):

- ABN AMRO Bank  The Netherlands
- Barclays  United Kingdom
- Crédit Suisse  Switzerland
- Crédit Agricole  France
- Deutsche Bank  Germany
- Dresdner Bank  Germany
- ING Bank  The Netherlands
- J.P. Morgan Chase & Co.  United States
- Mitsubishi Tokyo Financial Group (MTFG)  Japan
- Société Générale  France
- UBS  Switzerland
- WestLB  Germany
- European Investment Bank  European Union
- Japan Bank for International Cooperation  Japan
- World Bank  International

In addition to publicly available information on bank policies found on websites and in annual reports, a specific request letter was sent out on behalf of WWF International (see Appendix 3). This letter aimed to give banks the opportunity to provide additional information on their water sector investments and specifically to large dams, within a three weeks delay. In response to this request letter, four out of fifteen banks replied in time, while another ten replied within two weeks after the deadline. Only one bank, Mitsubishi Tokyo Financial Group, did not reply by 29 February 2003 (more than four weeks after the given delay) and therefore the analysis for this bank is solely based on publicly available sources. All fourteen replies by the banks are reflected in Appendix 4.

In general, there have been four types of replies to the WWF request letter:
1. Answers with policy statements including more or less elaborated internal guidelines and criteria (or reference to guidelines by public banks / agencies such as Coface and the World Bank) were provided by ABN AMRO Bank, Barclays, UBS, Deutsche Bank, WestLB, Dresdner Bank, Société Générale, Japan Bank for International Cooperation, European Investment Bank.
2. Crédit Suisse and ING Bank provided shortest possible answers, with reference to publicly available documents.
3. Reply that indicated unwillingness to respond (Crédit Agricole).
4. No reply at all by Mitsubishi Tokyo Financial Group.

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4 The impacts and financing of large dams, AIDEnvironment and Profundo, November 2002.
5 No confirmation of receipt was received from Mitsubishi Tokyo Financial Group even after repeated attempts to contact the bank by AIDEnvironment and WWF-Japan.
The following section (3.2) provides a general overview of bank policies assessment. A central part of this report is depicted in section 3.3, which highlights elements of individual bank policies and practices with respect to financing large dams. Subsequently, a number of financial sector initiatives and bank policies in practice are discussed in section 3.4 and 3.5 respectively. The WCD-guidelines are assessed and described in section 3.6, while section 3.7 evaluates which banks are committed to dialogue and transparency. Finally, in section 3.8 recommendations are given for financial institutions to improve environmental and social implications of their activities with respect to financing large dam’s.

### 3.2 Overview of bank policies

In general, sustainability policies of the analysed banks are limited to qualitative statements and references to (voluntary) sector initiatives. To evaluate the banks’ policies, we have looked at four different aspects:

1. Policy statements
2. Implementation guidelines and assessment criteria
3. Reporting on environmental/sustainability policies
4. Reference to sector initiatives and/or other Financial Institutions

#### Policy statements

Policy statements can be further subdivided in:
- Sustainable development policies
- Environmental policies
- Specific dam policies

Most banks have recently adopted a general sustainable development or an environmental policy. Only the World Bank has developed a specific policy regarding dam-related issues including specific assessment criteria.

#### Implementation guidelines

Refers to the presence of guidelines and criteria for implementation of these policies. When banks indicate ‘secret’, it often means that such guidelines exist but banks are not willing to share these with WWF. In general very little information is provided on specific criteria for dam / large hydropower investments, with exception of the World Bank. Several banks however, do refer to World Bank ‘standards’ when asked about their investment criteria for dam projects.

#### Reporting

Refers to reporting on environmental (and social) impacts of the bank, for instance through a (annual) sustainability report.

#### Reference to sector initiatives or other Financial Institutions

Reference is made to the World Commission on Dams (WCD) guidelines, to sector initiative guidelines and criteria (see Appendix 8), and/or to other financial institutions such as the World Bank.

Table 3.1 summarises the policies and implementation guidelines for the 15 banks covered in this report. The information is grouped as follows:

- **Policy; general**: The availability of a corporate social responsibility statement; a sustainable development policy statement, which is broader than an environmental policy but covers some environmental and/or social aspects. If known, the first year of such statement or policy is indicated.
• **Policy; environmental**: The availability of an environmental policy statement is indicated, with indication of the first year the policy was adopted and/or the most recent revision if known.

• **Policy; dam / water specific**: The availability and year of adoption of a specific dam/water investment policy.

• **Implementation; internal guidelines**: Indicates the existence of internal guidelines to implement/operationalise the policies, and whether the bank is willing to share those with WWF if not publicly available.

• **Implementation; external guidelines**: The external source referred to by the bank as guideline for policy implementation. Banks referred to the World Bank or Coface (Société Générale) and not to specific policies or guidelines published by these institutions. The way banks refer to World Bank “standards” is discussed in more detail in section 3.4.

• **Implementation; adopted WCD guidelines**: The answer provided by the banks when asked whether they included the WCD recommendations in their investment decisions.

• **Most recent environmental report**: The date of the most recent environmental, social, or sustainability report publicly available.

### Table 3.1 Overview of bank policies

<table>
<thead>
<tr>
<th>Policy Implementation</th>
<th>Reporting</th>
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</thead>
<tbody>
<tr>
<td>ABN AMRO Bank</td>
<td>2001 1995 under development forestry and tree plantation policy 2001, public World Bank Yes, available on request</td>
</tr>
<tr>
<td>Crédit Agricole</td>
<td>No No no</td>
</tr>
<tr>
<td>EIB</td>
<td>2002 no 2002</td>
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<tr>
<td>ING Bank</td>
<td>1999 1995 under development confidential</td>
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<tr>
<td>JBIC</td>
<td>2002 2002 no 2002</td>
</tr>
<tr>
<td>JP Morgan Chase &amp; Co.</td>
<td>no no no</td>
</tr>
<tr>
<td>Mitsubishi Tokyo Financial Group</td>
<td>2001 no no</td>
</tr>
<tr>
<td>Société Générale</td>
<td>2001 ? no World Bank Yes</td>
</tr>
<tr>
<td>UBS</td>
<td>1993 revised 1998</td>
</tr>
<tr>
<td>WestLB</td>
<td>no no no</td>
</tr>
</tbody>
</table>

\(^6\) A “?” is used to indicated the non-availability of a specific policy, guideline or report.

\(^7\) Sustainability report in German only.
Bank policies assessment
Based on the analysis of publicly available information on bank policies and dam sector initiatives it became apparent that numerous initiatives have been undertaken in the field of sustainable development, which are relevant to dam investments and the specific role of financial institutions in this sector.

Twelve out of fifteen banks that were analysed have a sustainability or environmental policy. On the whole, bank policy statements are characterised by general and non-binding phrases and are better described as ‘principles’ than as policies. Generally, the policies lack:

1. Clear criteria - or reference to criteria / guidelines - on what the bank considers as ‘sustainable’ or ‘environmentally’ sound.
2. Transparency - except for a few banks (Barclays, ABN AMRO and the development banks) the environmental risk assessment procedure that translates the policies into practice is regarded as confidential.
3. Accountability - the banks indicate that they behave ‘responsibly’ rather than explicitly taking responsibility for the controversial projects they finance.

References to World Bank operational policies
The World Bank was cited by five of the selected banks⁸ as a reference for project or loan appraisal. Furthermore, Société Générale referred to COFACE guidelines ‘very similar to those of the World Bank’.

It should be noted however, that the operational policies, safeguard policies and assessment criteria of the World Bank are by no means perfect as is illustrated in this report. Many specific clauses of World Bank Policies are non-binding guidelines rather than binding criteria. In addition, the World Bank places the responsibility to apply the guidelines with the borrower of the dam project. In other words if the borrower decides not to carry out the Environmental Impact Assessment (EIA) that is ‘requested’ under the World Bank policy, this is no reason for the World Bank to abstain from funding. The latter also implies that dam projects in third-world countries, which do not have the suitable capacity to carry out a proper EIA may still obtain funding.

The five banks that referred to the World Bank choose different wordings to indicate the importance of the WB ‘standards’ for their loan assessment.⁹ ABN AMRO Bank, Barclays and Dresdner Bank refer to the World Bank standards as ‘minimum’ or ‘baseline’. Deutsche Bank says that its EIA procedures meet World Bank guidelines. ABN AMRO Bank indicates that it requires independent EIA for World Bank ‘Class A’ projects and WestLB indicates that it applies ‘World Bank standards […] where suitable’. Further research is required to find out whether these commitments to World Bank standards refer only to the content of the World Bank policies or also to the World Bank procedures to place responsibility for implementation of those with the borrower.

Concise descriptions of the individual bank policies, the financial sector initiatives and the WCD guidelines are given in the following sections.

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⁸ ABN AMRO Bank, Barclays, Deutsche Bank, Dresdner Bank, WestLB
⁹ See replies by banks, Appendix 4
3.3 Individual bank policies

3.3.1 ABN AMRO Bank

ABN AMRO Bank approved its first environmental policy in 1995. It has adopted a set of business principles, which include environmental and social principles in 2001. The first (environmentally relevant) policy developed in line with these principles is the risk policy on forestry and tree Plantations. As of today, this policy is a benchmark for the financial sector because of its clear guidelines, transparency and the involvement of (southern) stakeholder groups and NGOs in its inception. ABN AMRO Bank is currently developing similar policies for the mining and oil and gas sectors and has indicated that after these are implemented other “sensitive sectors”, which include dam finance, will be assessed.

**ABN AMRO Bank business principles**

The ABN AMRO Bank has formulated ten business principles as result of intensive discussions with management, employees and external audiences, as well as an international benchmark. With respect to the actual implementation of these the bank indicates; “putting our principles on paper is only the beginning. Living them is the challenge we face in our day to day working lives”. The principles 8, 9 and 10 refer to society and compliance aspects “We support sustainability, human rights and preservation of the environment”.

**Principle 8- We are a responsible institution and a good corporate citizen**

We are aware of and act on our broader responsibilities to the societies and communities in which we operate. We behave as good citizens, working closely with local regulators and complying with their regulations. We play an active role in local communities, as well as in the global community and suitable international forums.

**Principle 9- We respect human rights and the environment**

Respecting human rights and the environment is an integral part of responsible social behaviour and corporate citizenship. We follow these principles of sustainable development in line with the legitimate role of a business.

**Principle 10- We are accountable for our actions and open about them**

Accountability and transparency are great business strengths and important in all our relationships. We are accountable for all activities over which we have management control. We provide relevant, timely and correct information in an open way. Within the boundaries of confidentiality, we are open to dialogue with parties who have a sincere interest in us.

**ABN AMRO Bank environmental policy on lending abroad**

Full disclosure of environmental concerns is a key aspect of all credit applications since neglecting this can expose the bank to undesired levels of risk, both from a business and a reputation perspective. For this reason, one of the conditions precedent for entering into financing arrangements is world-wide compliance with strict environmental standards. In this respect it is not only local legislation that is important. The World Bank and OECD standards also play a part in determining the framework of a project in terms of its impact on water, air, soil, animals, forests and local populations, as well as its effects on a world wide scale and any secondary effects there may be in the longer term. ABN AMRO Bank will only deal with internationally renowned, prime names for technical evaluations.

Furthermore, ABN AMRO Bank signed the International Chamber of Commerce Charter in 1992 and joined the World Business Council for Sustainable development in 2000. In its response to WWF ABN AMRO Bank declared that

- It is aware of the WCD guidelines but has not formally adopted them in investment policies; ABN AMRO Bank claims to have a ‘very conservative’ dam finance portfolio
• All high risk (i.e. World Bank category A) projects must have an Environmental Impact Assessment / Social Impact Assessment carried out by an independent consultant.
• World Bank ‘standards’ are used as a baseline.

In 2004 it will issue a sustainability report that takes SPI-finance indicators into account.

Since ABN AMRO Bank undersigned the ICC Charter in 1992, it has contributed to financing the following controversial dams:

1995: Birecik dam, Turkey; Moderate influence
1999: Three Gorges dam, China; Minimal influence
2001: Deriner dam, Turkey; Strong influence

3.3.2 Barclays


Excerpt from Barclays Social and Environmental Report 20019

Barclays recognises that our position as financier to a wide range of customers and projects has the potential to impact significantly on society and the environment. When assessing financial propositions, if we identify areas of sensitivity, we apply the relevant Barclays policy. In the absence of specific guidance, we aim to ensure the issues are considered carefully at an appropriate level within the organisation. We are conscious of the increasing demand for information about our social, ethical and environmental policies from concerned investors and customers, community organisations, pressure groups, government agencies and the media. These groups are all important to the success of our business and their concerns and opinions help to shape our approach to corporate social responsibility.

Barclays social and environmental report includes statements on human rights, third world debt and African development. Barclays’ environmental policy requires:

• Compliance to environmental legislation in countries in which Barclays operates
• Evaluation and management of environmental impacts of all policies, products and major change; the EIA policy statement does not explicitly state which projects require an EIA.
• Assessment of environmental risks before advances are paid; environmental management measures may be required as condition for lending
• Monitoring of environmental aspects of Barclays group wide
• Collaboration with suppliers to improve environmental performance
• Conformation to standards set by UNEP-FI and ICC-BCSD.

In its letter to WWF, Barclays indicated that

• When considering project finance World Bank “standards” are considered as the minimum when addressing environmental and social issues
• Barclays complies with OECD guidelines
• It uses the Global Reporting Initiative guidelines for its environmental reporting
• For dam projects, WCD guidelines have been included in the terms of reference for Environmental Impact Assessments that are input for Credit Risk Assessments
• Barclays has a sector-specific guideline for dam investments, the Briefing Note on Dams and Reservoirs which Barclays is willing to show to WWF in a meeting, but was not shared for the purpose of this research.
Barclays has so far refused to undersign the UNEP-FI declaration as it disagrees with its aspirations. It is however active in the UNEP-sponsored project to encourage cleaner production. It follows GRI guidelines in reporting and claims to comply with OECD guidelines for multinational enterprises. Since the establishment of the Environmental Risk Management Unit in 1992, which is presented by Barclays as a milestone in its history of environmental commitment, Barclays has been involved in financing the following controversial dams:

1995: Birecik dam, Turkey; Moderate influence
1996: Nam Theun II, Laos; Finished influence
1999, 2001: Three Gorges dam, China; Minimal influence

3.3.3 Crédit Agricole

In response to the WWF request letter, Crédit Agricole has sent a letter to thank for its inclusion in the survey, however the bank declined the offer to provide any additional information. All information on its policies and practices is thus based on the publicly available information on the web. Nonetheless, on its website very little information is available on policies or strategies. In the most recent annual report of 2001, no single reference has been made to sustainable development, environment or dams. In fact those words do not appear at all in the description of the mission or activities of Credit Agricole.

Over the past decade Crédit Agricole has contributed to financing the following controversial dams:

1995: Birecik, Turkey; Moderate influence
1995: Caruachi, Venezuela; Strong influence
1996: Nam Theun II, Laos; Moderate influence
1999: Three Gorges, China; Minimal influence

3.3.4 Crédit Suisse

The Crédit Suisse Group has published environmental / sustainability reports since 1995. It has adopted a Code of Conduct based on ethical and performance values in which it states that its core ethical values (integrity, responsibility, fairness, compliance, transparency and confidentiality) come before profits. The most recent version of the Crédit Suisse Group environmental policy was approved in 2002.

Crédit Suisse Group Environmental mission statement

We support effort to protect the environment and ease pressure on natural resources. By acting in an environmentally responsible fashion we wish to contribute to sustainability and therefore create added value for our company, customers and the environment.

Crédit Suisse committed itself to “regional, national and international environmental standards” and specifically refers to UNEP-FI, ICC-BCSD and the Global Compact – all voluntary initiatives. In its letter to WWF Crédit Suisse also stated that they comply with OECD guidelines. In its policy these commitments to sustainability are weakened by including reservations on the inclusion of environmental considerations in risk assessment and on implementation of the policy itself:

4. We aim to include environmental considerations in existing and new products and services in order to avoid ecological risks. […]
7. To implement the environmental policy, we continue to pursue our internal corporate process aimed at promoting environmentally conscious behaviour. We attach great importance to the environmental policy being taken into account in all environmentally relevant decisions.

Crédit Suisse has not adopted the WCD guidelines and states that “In general we do not finance large dam projects”. The bank is member of the SPI-Finance project. In its sustainability report 2001 Crédit Suisse indicates: “We do not enter into any business with undesirable borrowers. The description ‘undesirable’ applies, in particular, to borrowers who do not comply with the law or violate ethical principles.” It also indicates that lending transactions with ‘excessive risks’ or those ‘which are unjustifiable for legal, ethical or environmental reasons’ will be refused. These excessive risks, unjustifiable reasons and ethical principles are not further specified.

Since it started environmental reporting in 1995, Crédit Suisse has been involved in the financing of the following controversial dams:

1997: Ralco dam, Chile, Moderate influence
1997: Lesotho Highlands water Project, Lesotho, Moderate influence

3.3.5 Deutsche Bank

Deutsche Bank adopted an environmental policy in 1997, which was revised in 2001.

**Principles behind Deutsche Bank Environmental Policy**

Acting responsibly when it comes to the environment is part of the way that we at Deutsche Bank view ourselves. We act in accordance with the core theme of sustainable development. In addition to observing the provisions of environmental legislation, we strive to protect natural resources like our air, water and soil.

We have integrated environmental protection into our business processes and use the most environmentally friendly technology wherever possible. Environmental protection is a key factor in our business-policy decision-making. We consider environmental issues when deciding on loans and support our customers in recognising environment-related risks and opportunities.

In addition to our business activities, we make practical contributions to help eliminate environmental damage and encourage others to share their experiences with environmental issues.

Furthermore, Deutsche Bank was one of the founders of the UNEP Financial Initiatives in 1992 (see section 2.4) and as such committed itself to sustainable finance from that date. Deutsche Bank indicates that the guidelines and criteria it uses to screen projects are strictly confidential. The guidelines for Environmental Impact Assessments for project finance (Grossprojekt) are public and include the following:

- Deutsche Bank (DB) requires Environmental Assessments for all major projects (Grossprojekt);
- These EA’s meet the criteria of World Bank, United Nations and are conform the applicable national laws and regulations;
- EA’s should be carried out in an early stage of the project, covering all stages of project implementation;
- DB will assess the EA commissioned by the borrower, either by an independent third party or by DB’s specialised Technical Services Group;
- DB will require modification of the project proposal if the EA indicates that the project violates the DB environmental policy.
Since Deutsche Bank undersigned the UNEP-FI declaration in 1992, it has contributed to financing the following controversial dams:\textsuperscript{15}

1995: Birecik dam, Turkey; Moderate influence
1995: Lesotho Highlands Water Project 1B, Lesotho; Minimal influence
1997: Ralco dam, Chile; Moderate influence
2000: Three Gorges dam, China; Minimal influence
2001: Three Gorges dam, China; Minimal influence
2001: Lesotho Highlands Water Project 1B, Lesotho; Minimal influence

3.3.6 Dresdner Bank

In June 2001, Dresdner Bank adopted a set of environmental guidelines\textsuperscript{16} based on the below philosophy:

\textbf{Dresdner Bank Environmental Philosophy}

\textit{Responsibility with regard to the environment, natural resources, our employees and society at large are key elements of Dresdner Bank’s corporate philosophy. They are crucial to how we perceive ourselves and are recorded in our environmental policy guidelines.}

\textit{Signing the UNEP statement by financial institutions on the environment and sustainable development in 1992, we acknowledged the collective responsibility of financial services providers and committed ourselves to active co-operation.}

\textit{In the interests of our clients, employees and shareholders, we wish to base our conduct on ecological, economic and social responsibility. We see active environmental management and environmental marketing as prerequisites for sustainable growth.}

The guidelines are accompanied by an environmental programme\textsuperscript{17} that includes two aims relevant to dam financing:

\textbf{Aim 4:} Greater inclusion of environmental risks and aspects in creditworthiness check

\textbf{Aim 5:} Improve information and decision making basis of environmental aspects with regard to decisions on loans and investment banking

The aims include three and two activities respectively, all of which were planned to be implemented by years end 2002. No specific criteria are mentioned in the programme. A loan councillor’s manual, \textit{“environmental risks and lending operations”} is used by the bank but was not provided to AIDEnvironment. Dresdner Bank indicates that Environmental Impact Assessments are \textit{‘business as usual’} and that World Bank ‘standards’ are their ‘minimum guideline’. HERMES, the German Export Guarantee agency, is part of the Allianz group and has included an explicit reference to the WCD guidelines in its Guiding Principles for Environment.\textsuperscript{18}

Dresdner has undersigned the UNEP-FI declaration in 1992 and therewith acknowledged responsibility for sustainable development and committed itself to compliance with the declaration.

Since acknowledging this responsibility Dresdner Bank and other Allianz group members have contributed to the financing of the following controversial dam projects:

- Early 1990’s: Lesotho Highlands Water Project phase 1A; Lesotho; Minimal influence
- 1995: Birecik dam, Turkey; Moderate influence
- 1997: Ralco dam, Chile; Strong influence
- 1999: Three Gorges dam, China; Minimal influence
3.3.7 European Investment Bank (EIB)

As depicted in their mission statement; “The European Investment Bank"<sup>19</sup> considers itself accountable to all stakeholders. It maintains and develops an active policy of transparency about its activities and policies in line with relevant EU regulations and policies. At the same time, European investment bank has to operate as a bank and is subject to conventional bank-client relationships. This includes the need to protect the business and commercial interest of its clients, which may require keeping project information confidential”.

In its Environmental Policy Statement of 1996, the EIB refers to “sustainable and non-inflationary growth respecting the environment” and it advocates the "precautionary principle”. Overall, the EIB’s mission is to finance projects that further European Union priority policy objectives, as is reflected in EIB’s Corporate Operational Plan. In its corporate operational plan 2003-2005, the EIB has identified environmental protection and improvement as a main operational priority. In order to facilitate the implementation of this priority, ‘Environmental procedures’ were formulated in July 2002, which describes EIB’s approach to the environmental assessment of projects. All projects selected by EIB have to be acceptable in environmental terms.

A “Preliminary Opinion for Appraisal Authorisation” for each project identifies potential environmental risks and specific issues to be assessed during appraisal. Environmental “screening” includes the likely degree of difficulty and/or risks, based on EU environmental legislation, especially the classifications and criteria laid down in the Environmental Impact Assessment (EIA) Directive 85/337/EEC, as amended by 97/11/EC. The application and enforcement of the EIA process, including public information and consultation, is the responsibility of the promoter and the Competent Authority. The Bank will not finance projects where this has not been fully respected. EIB may advise on the need for and the content of an EIA. In certain circumstances it can help finance an EIA and other studies to develop and define the project.

Environmental acceptability is specified in terms of:
- Its characteristics (including whether the new technology is appropriate), size and location (especially with respect to areas of nature conservation and cultural heritage sites) and relevant evidence from the site visit;
- The presence/absence of any legal compliance issues;
- The quality of the EIA - including the environmental study and the nature/extent of public participation where required, and the quality of any other related studies;
- The environmental management capability of the promoter, including the promoter’s environmental awareness as well as the capacity and willingness to act on environmental issues;
- Expected environmental impact of the project among other things, on land, air and water, on humans, flora and fauna and natural assets and its implications for cultural heritage;
- The appropriateness, including cost effectiveness, of the proposed mitigation and/or compensation measures these may be based on recommendations by the EIB team - that are physically and financially integrated into the project design and financing;
- The presence/absence of any major environment related project risks for the Bank;
- Any environmental issues that may arise during construction and operation of the project.

Following the appraisal, the Projects Directorate prepares a “Project Report” based on the assessment team’s findings and recommendations, including a chapter devoted to environmental issues. Lending for projects that contribute towards safeguarding the environment and improving the quality of life, both within and outside the European Union, totalled some EUR 9 billion in 2001<sup>20</sup>.
On February 14th 2003, the EIB presented its first environmental report. The report provides an account of recent environmental developments at the EIB, including new policy initiatives, changes in its environmental organisation and environmental lending in 2001-2002, defined by its status as a European institution.

With respect to multilateral development banks (MDBs), EIB indicates to maintain cooperative institutional and operational links with each other to ensure effective mutual inputs in their respective fields of activity. For its operations outside the Union, the EIB is therefore in close contact with the World Bank and numerous regional multilateral banks. Cooperation between the EIB and MDBs takes the form of both exchanges of information on their respective priorities and action plans and joint project appraisal missions. Co-financing decisions relating to a growing number of projects give practical expression to these cooperative ties. With respect to the LHWP EIB indicated that “throughout its implementation and operation to keep up with the latest scientific findings, procedures and measures, in close co-operation with and under the guidance of the World Bank”.

In response to the WWF request letter, EIB provided additional information and made specific references to their policies. EIB highlighted the fact that it uses EU environmental policy and legislation as a reference for assessing the environmental acceptability of projects, including legislation on EIA, water (the principles of the Water Framework Directive), and the protection of birds and habitats. Furthermore, in line with best practice in financing large dam projects, the EIB applies stringent requirements with regard to the project's justification, the EIA process and the management capacities of the project promoter. The Bank subscribes the principles of the WCD recommendations on financing large dams within the context of its general policy on the environment. It recommends promoters of large projects to take account of the WCD recommendations in their justification and design of the project, as well as in the area of mitigating measures. The EIB is currently formulating a specific policy on financing large dams, taking account of the WCD recommendations.

The EIB has not signed the UNEP-F1 statement, nor does it formally subscribe to any particular reporting code, such as the GRI guidelines. The Bank's lending policy and operations in general comply with the OECD guidelines for multinational enterprises. In this respect, EIB has made the following publications: Guide to Procurement, Code of Conduct of Good Administrative Behaviour, Information Policy Statement, Rules on Public Access to Documents and the Tripartite Agreement. The latter is governing the cooperation between the EIB, Commission and European Court of Auditors in managing EU and EDF public funds involved in EIB lending and guarantee operations.

The EIB indicated to finance “a small number of dams only, following the publication of the WCD recommendations: Lesotho Highlands Water Project and the Naga Hammadi project in Egypt, to replace a 60-year old obsolete barrier”. However, in this study the Lesotho Highlands Water Project is considered as a large controversial dam project.

1997: LHWP 1A, Lesotho; Minimal influence
1999: LHWP 1B, Lesotho; Strong influence

3.3.8 ING Bank

ING formulated a corporate environmental policy in 1995. Overarching are ING's business principles, of which two are relevant to dam issues:
ING Business Principles

Principle 3 Environment
ING recognises that certain resources are finite and must be used responsibly. Therefore it pursues a two-pronged, internal and external, approach designed to promote environmental protection. Its external policy is aimed at anticipating developments in the environmental field related to commercial services, and the professional management of environmental risks. Internally, the policy is aimed at controlling any environmental burdens caused by ING itself.

Principle 6 Community relations
Wherever ING operates, it recognises that good relations with its local communities are fundamental to its long-term success. The Group’s community relations policy is founded upon mutual respect and active partnership, aimed at sustaining lasting and trusting relationships between the Group’s operations and local communities. [..]

ING’s environmental policy as discussed in the ING in Society report focuses on internal environmental management and innovative ‘green’ products. No criteria for risk assessment or project screening are provided. ING is in the process of developing a set of Corporate Social Responsibility (CSR) statements for dealing with environmental, social and reputation risk. Natural resources and electricity generation are mentioned as industry sectors that will be subject to such CSR statements.26 In its reply to WWF, ING indicates that it has not adopted the WCD guidelines, has not undersigned the UNEP-FI statement and has not undersigned the OECD guidelines for multinational enterprises as “these guidelines are addressed to governments, not to companies”. The next ING in Society report will be released in June 2003 and has “as much as possible” integrated the guidelines or GRI and SPI-finance.

Since adoption of its environmental policy in 1995 ING has contributed to financing of the following controversial dams:

1995: Birecik dam, Turkey; Moderate influence
1997: Ralco dam, Chile; Moderate influence
1999: Three Gorges dam, China; Minimal influence

3.3.9 Japan Bank for International Cooperation (JBIC)

Until 2002 JBIC had two different environmental guidelines, one for the international finance operations and the other for the overseas economic corporation operations. These guidelines were replaced by two new and integrated environmental guidelines for both operations in April 2002. In its Annual report 2002, “Sharing knowledge and experience and disseminating information”, JBIC outlines the establishment of two new environmental guidelines. These guidelines provide procedural guidance, respectively, for International Financial Operations (IFOs) and Overseas Economic Cooperation Operations (OECOs) and confirm environmental considerations made for its projects.
Environmental and Social Considerations, a refined version incorporating the two guidelines. The new guidelines stipulate that JBIC should confirm considerations made to address not only environmental issues but also social issues, including resettlement.

The new guidelines will come into effect from October 1, 2003. However, in advance of their full enforcement, JBIC implemented key provisions in the new guidelines from October 2002, such as category classification. Questions and answers on detailed procedures and practices for implementing the new guidelines were made available in October 2002.

JBIC has strengthened its partnerships with the World Bank, OECD and other multilateral institutions, as well as export credit agencies (ECAs) by exchanging views and information about environmental considerations. It also shares views and information with domestic government ministries and agencies, industry associations, civil society.

In response to the WWF letter, JBIC has provided additional information and specific explanation with respect to their policies and activities. Firstly, it was indicated that most of JBIC’s public documents regarding environment issues are Japanese, which made it difficult to give a timely response in English. However, reference was made to the following documents “to understand JBIC continuous efforts for protecting natural and social environments”:

1. The Guidelines for International Financial Operations (for ex-Export Import Bank of Japan) which consist of three components, namely; general Principles, environmental checklists (26 categories) and a monitoring form (Sample: 14 project types).
2. The Guidelines for Overseas Economic Cooperation Operations (for ex-Overseas economic Cooperation Fund), “which consists of two parts, the purpose of the guidelines and the check Items, comments and sub contents.
3. New Guidelines based on the previous two guidelines, which have been effective since 1st April 2002. “JBIC is continuously making efforts to establish better guidelines and had so far 12 intensive public consultation meetings with various stakeholders”.

With respect to JBIC’s view on WCD on the Guidelines, the following remarks were made; “We will use the WCD recommendations as a valuable reference. Having said this, we consider that we can share some of the core values in the WCD report. Therefore, our new environmental guideline contains them. For example, "Considering alternatives", "Social Acceptability", and "Compliance with laws, standards and plans" etc. are written as environmental and social considerations required for funded projects in Part 2-1. and 2-2. of our environmental guidelines. "Ensuring compliance with the Guidelines" are written in Part 1-7. of our environmental guideline”.

Regarding the UNEP FI statement, the Japan Bank for International Cooperation indicated “we have not singned the UNEP FI Statement yet” and continued “JBIC has not participated in SPI-Finance project and no reports are based on GRI guidelines. However, JBIC has published "Environmental Report" in Japanese (English report is now in process) which is based on Japanese government's Guidelines”.

JBIC has contributed to the financing of the following controversial dam projects:

1985: Sardar Sarovar, India; Minimal influence
1997-1999: Sondu-Miriu, Kenya; Strong influence
2000-2002: Ta Trach, Vietnam; Strong influence
3.3.10 J.P. Morgan Chase and Co.

J.P. Morgan Chase & Co. is a leading global financial services firm with assets of US$ 741 billion and operations in more than 50 countries. J.P. Morgan Chase & Co. is headquartered in New York (United States).

The J.P. Morgan Chase & Co. website and its most recent annual report (2001) do not make a single reference to sustainable development or environmental issues. With respect to the WWF letter asking for additional information, no reaction has been received.

J.P. Morgan Chase & Co. has been involved in the funding of the following dams:

- 1995: Birecik, Turkey; Strong influence
- 1997: Ralco, Chile; Moderate influence
- 1999: Three Gorges, China; Minimal influence
- 1999: LHWP 1B, Lesotho; Minimal influence

3.3.11 Mitsubishi Tokyo Financial Group

Mitsubishi Tokyo Financial Group, Inc. (MTFG) was established in April 2001 and is a holding company overseeing all the operations of The Bank of Tokyo Mitsubishi, Ltd. (BTM) and the Mitsubishi Trust and Banking Corporation (MTB) and their subsidiaries.

MTFG has formulated six codes of ethics, which includes; respect for Human Rights and the Environment, ‘We respect human rights and the environment and seek to co-exist in harmony with society’. Other than this statement no specific reference to sustainability issues, the environment or dams is made. With respect to the WWF letter asking for additional information, no reaction has been received.

Mitsubishi Tokyo Financial Group has been involved in the funding of the following controversial dams:

- 1995: Birecik, Turkey; Strong influence
- 1997: Ralco, Chile; Moderate influence
- 1997: Three Gorges, China; Minimal influence
- 1997: LHWP 1B, Lesotho; Minimal influence

3.3.12 Société Générale

Société Générale has taken the official definition of sustainable development and adapted it to its activity: "development that meets the needs of the present without compromising the needs of future generations thanks to a responsible approach, which takes into account the interest of all stakeholders: customers, suppliers, staff, shareholders, society at large and the environment."
By adopting a permanent 360° vision, which takes into account the interest of all stakeholders in 2001, the Société Générale Group protects itself against risks that threaten its future. The commitment to development can also be a source of new opportunities in terms of financing, as well as a source of investment activities through the creation of ethical funds, which are meeting with increasing success. Société Générale considers environmental matters when granting loans and financing projects. The Risk Division has a unit of advisors that includes specialists in environmental issues. In order to meet the specific energy-saving and environmental protection requirements of companies and local authorities, Société Générale has two specialised lease finance companies, Sogéfinerg and Génécal, which have the status of Sofergies (Sociétés pour le Financement des Économies d’Énergie). The outstanding finance provided by these two companies amounts to around EUR 500 million, compared with a total of EUR 2,200 million for the profession as a whole. A number of household waste incinerators, waste sorting centers, cogeneration plants and geothermal heating projects have been financed in this way. A number of applications are being examined, including the finance for a windpower project.

For Société Générale, the signing of UNEP FI agreement in November 2001 aims to reinforce the group's image of responsibility and commitment to the future, in a context of growing concern for sustainable development. Subsequently, Société Générale had set up a cross-business steering committee co-led by quality, human resources and communications with representatives of finance, risk, properties management divisions (head office and the branch network in France), and legal departments. The Group has adopted the following definition of sustainable development:

“development that satisfies current needs without compromising those of future generations, via a responsible approach that combines the interests of all involved customers and partners, employees, shareholders, society and the environment”.

With a view to reducing both the pollution generated by its internal operations and cutting costs, Société Générale has set up a resources management program.

On the 10th of January 2003 Société Général hosted in collaboration with UNEP-FI, Observatoire de la Responsabilité Sociale des Entreprises (ORSE) and Caisse des Dépôts et consignations and Dexia a one day meeting to brings together more than 250 bankers, insurers and asset managers from across Europe. The aim of this meeting was to explore the implications for the finance sector of last year’s World Summit on Sustainable development™. At the World Summit on Sustainable Development it was highlighted that financial markets and companies must play central role in addressing environmental degradation, social dislocation and poverty.

In response to the WWF letter, Société Générale commented the following:

On November 21, 2001, Société Générale signed the UNEP Financial Institutions list on the Environment and Sustainable Development. The Group is thus the first listed French bank to affirm its commitment to sustainable development. At Société Générale, the decision making process for loan/investment includes a risk assessment procedure. Following the signature of the UNEP statement, the risk review guidelines were amended to take into account environmental risk issues. As large dams are concerned, the review includes compliance with international standards and with criteria set by COFACE, the French export finance entity, which has a policy very similar to that of the World Bank.

Société Générale has been involved in the funding of the following dams:

1997: Ralco, Chile; Moderate influence
1997: Birecik, Turkey; Strong influence
1999: Three Gorges, China; Moderate influence
3.3.13 UBS

UBS' environmental policy on group level was passed in 1993 and revised in 1998. UBS also has a Corporate Responsibility policy.

**UBS Environmental policy**

Environmental protection is one of the most pressing issues facing our world today. Consequently, environmental issues are a challenge for all companies in all sectors. UBS regards sustainable development as a fundamental aspect of sound business management and was one of the first banks to sign the United Nations Environment Programme's "Statement by Financial Institutions on the Environment and Sustainable Development". UBS is committed to continuing the integration of environmental aspects into its business activities.

UBS signed UNEP-FI in 1992 and is active in its steering committee. It is also a member in the WBCSD. UBS Warburg, active in global project finance has a Global Environmental Risk Policy to assess environmentally sensitive transactions, which takes World Bank policies and guidelines into consideration. Where there are indications of increased risk, external experts are involved in the due diligence process. Environmental risk assessment was integrated in UBS loan processes in 2001.

UBS sold its international project and export finance branch to Standard Chartered (UK) in 1999 and deems it "unlikely" that it will finance dams. Should that be the case however, UBS will consider the WCD guidelines. UBS states that it complies with OECD guidelines and has adopted aspects of the OECD guidelines on environmental protection and fighting bribery and corruption and community affairs in its internal policies. UBS acknowledges that there are areas in their environmental policy "that still need to be addressed".

UBS is part of the SPI-finance project and helped develop the EPI-finance (Environmental Performance Indicators for the financial sector).

Since it undersigned the UNEP-FI declaration, UBS has been involved in the financing of the following controversial dams:

1997: Ralco dam, Chile; Moderate influence
1997: Three Gorges dam; China; Minimal influence
2001: Deriner dam, Turkey; Strong influence
2002: Nam Theun II, Laos; Moderate influence
2002: Ilisu dam, Turkey; pulled out because of unacceptable social and environmental impacts

3.3.14 Westdeutsche Landesbank

WestLB indicates that the UNEP-FI declaration is the basis of their entire finance business. WestLB implements the UNEP-FI declaration through:

- Integration of environmental aspects in its Credit Risk strategy
- Inclusion of sustainability aspects in each individual credit analysis, which includes a feasibility study and an analysis of operational risks
- In international project finance, World Bank 'standards' are an integral part of financing contracts ‘where suitable’
- Adherence to local law

In its annual report and website, WestLB does not mention how it deals with environmental and social issues related to project finance.
In the past years, WestLB has been involved in the financing of the following controversial dams:

1995: Birecik dam, Turkey; Moderate influence
2002: Bujagali Falls dam, Uganda; Strong influence

### 3.3.15 World Bank

The World Bank group is one of the world's largest sources of development assistance. In fiscal year 2001, the institution provided more than $17 billion in loans to its client countries. It works in more than 100 developing economies with the primary focus of helping the poorest people and the poorest countries.

**Sector strategies and operational policies**

World Bank has developed and formulated several strategies and operational policies. Numerous of these address a broad range of dam related issues. The thematic and sector-specific strategies have been developed to address crosscutting facets of poverty reduction, such as HIV/AIDS, the environment, and the role of participation and decentralisation in government. In addition to assessing the appropriateness and impact of related Bank policies, they provide a vision to guide the Bank's future work in a given sector. The following sector strategies are most relevant with respect to the sustainable development of dams;
- Environment
- Water resources management
- Participation
- Rural development
- Community-Driven Development.

On February the 27th 2003, the Board of Executive Directors of the World Bank unanimously endorsed a new Water Resources Strategy aimed at providing more effective assistance to countries, using water as a vehicle for increasing growth and reducing poverty in a socially and environmentally responsible manner. By providing water access to unserved millions through more efficient use of existing resources and the strengthening of capacity in poor countries, the new strategy will make a significant contribution to the international development goal of halving poverty by 2015. The Bank also stated its intention for increased involvement in ‘high gain – high risk’ hydraulic infrastructure projects, i.e. dams.

**Environmental policy statement**

“Concern for the environment is viewed by many as a rich-country luxury. It is not. Natural and manmade environmental resources fresh water, clean air, forests, grasslands, marine resources, and agro-ecosystems provide sustenance and a foundation for social and economic development. Today, the World Bank is one of the key promoters and financiers of environmental upgrading in the developing world”.

On 17 July 2001, World Bank Board of Executive Directors endorsed the Environment Strategy Making Sustainable Commitments: An Environment Strategy for the World Bank, which has three interrelated objectives:

1. Improving people’s quality of life
2. Improving the prospects for and the quality of growth
3. Protecting the quality of the regional and global environmental common
With this strategy the World Bank has consolidated its approach to environmental protection into a single document. It outlines how the World Bank will work with client countries to address their environmental challenges and ensure that Bank projects and programs integrate principles of environmental sustainability.

The Strategy sets a vision, objectives, and a course of action for the longer term and suggests specific actions, targets, and institutional measures for the next five years. It reviews the international state-of-the-art in using strategic environmental assessment (SEA, May 2002) as a tool for developmental planning, policymaking, and decision-making.

For the implementation of the above-mentioned strategies the World Bank has established policies and procedures that help ensure its operations are economically, financially, socially, and environmentally sound. These policies and procedures are codified in the Bank’s Operational Manual and are subject to extensive review while being formulated, and to compliance monitoring once approved. With respect to operational policies the following nine safeguard policies are most relevant for sustainable dam development, comprising the Bank’s policy on
- Indigenous Peoples (September 1991);
- Environmental Assessment (EA, January 1999);
- Cultural Property (June 1999);
- Disputed Areas (June 2001);
- Forestry (June 2002);
- International Waterways (June 2001);
- Natural Habitats (June 2001);
- Involuntary Resettlement (December 2001); and
- Safety of Dams (October 2001).

Strategic environmental assessment

The Bank conducts environmental screening of each proposed project, to determine the appropriate extent and type of EA to be undertaken, and whether or not the project may trigger other safeguard policies. The Bank classifies the proposed project into one of four categories (A, B, C and FI) depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. Category A would require the project to undergo the most comprehensive environmental assessment, Category B a narrower assessment, and Category C no environmental assessment. A project could be classified as A, B or C and trigger other safeguard policies. In this case, additional assessments specifically related to that policy are required. Category FI identifies subprojects, funded by the Bank through financial intermediaries, which may result in adverse environmental impacts. Assessments provide mechanisms for public review and scrutiny.

Despite the numerous internal operational policies, strategies, guidelines and assessment criteria practically many of those do not have a lot substance, when it comes to practical applicability. Further, it is interesting to note that the "Borrower is responsible for any assessment required by the Safeguard Policies with general assistance provided by Bank staff". The Bank's Legal Vice Presidency monitors compliance with the policies addressing international waterways and disputed areas. The Environmental and Socially Sustainable Development (ESSD) Network monitors all other safeguard policies”.

Commenting on WCD Report

In December 2001 the World Bank's board of Directors approved on a no-objection basis the WCD report. In response to the WCD Report (2000) the World Bank prepared a position report with the following summary:
The World Bank considers the WCD Report to be a major contribution in defining the issues associated with large infrastructure in developing countries, and in engaging a wide variety of stakeholders in the debate. The World Bank is committed to continued support for its borrowers in developing and managing priority hydraulic infrastructure in an environmentally and socially sustainable manner, and views the WCD Report as a significant point of reference in this process. The World Bank intends to continue to work with its borrowers in effective implementation of current World Bank operational policies, which the WCD describes as “…the most sophisticated set of policies, operational procedures and guidelines amongst the international donor community.”

To emphasize its support, the World Bank is a Steering Committee member of the Development of Dams Project (DDP) to ensure the follow-up of the WCD report. The Bank has also developed a specific "Dams Planning and Management Action Plan" to improve the quality of its operations by following up on specific issues identified in the WCD report. The Action Plan will produce guidance documents, training courses and support some demonstration applications. A dissemination and communication plan will be developed to disseminate knowledge and results to client countries, World Bank professionals, donors and other interested parties.

In response to the WWF letter, the World Bank has provided additional information and specific explanation with respect to their dam policies and activities. In its reply, the World Bank indicated to have an active role in the Dams and Development Project (DDP) that is being coordinated by UNEP, as a follow-up to the work of the World commission on dams. In addition, the World Bank is supporting a number of activities to improve methods used for the evaluation, planning and management of dams in the broader context of water resources management. Regarding, the ‘Dams Planning and Management Action Plan’ (DAMP), a status report was provided in which was distributed at the first formal DDP meeting in Nairobi, July 2002. The next DDP meeting is planned for July 4-6, 2003, again in Nairobi. This event will be preceded by a multistakeholder workshop on "Options Assessment” in which the World Bank will contribute with one of the projects included in the DAMAP, "Stakeholders Involvement in Options Assessment”.

The World Bank has been involved in the financing of the following controversial dams:

1991, 1995: Ertan, China; Strong influence
1997: LHWP 1A, Lesotho; Moderate influence
1999: Maheshwar, India; Moderate influence
2001: LHWP 1B Lesotho; Moderate influence
2002: Nam Theun II, Laos; Strong influence
2002: Bujagali Falls, Uganda; Strong influence

3.4 Financial Sector Initiatives

Within the financial sector there are several initiatives put in place to improve and stimulate the sustainability of investments, with particular focus on environmental and social aspects. Some typical examples of these initiatives are UNEP-FI, ICC-BCSD/WBCSD, Global Compact, GRI/ EPI/ SPI and the OECD guidelines (see appendix 8 for a brief description).

The table 3.2 indicates which private sector or financial sector initiative towards sustainability the selected banks undersigned or participated in and whether the banks have acknowledged to comply with OECD guidelines for multinational corporations. The OECD Guidelines for Multinational Enterprises are non-binding recommendations to enterprises, made by the thirty-seven governments that adhere to them.
Table 3.2 Overview of sector initiatives towards sustainability.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>UNEP-FI</th>
<th>ICC-BCSD/WBCSD</th>
<th>Global Compact</th>
<th>OECD guidelines</th>
<th>GRI / EPI / SPI</th>
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<tr>
<td>ABN AMRO Bank</td>
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<td>GRI from 2004</td>
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<tr>
<td>Barclays</td>
<td>X</td>
<td></td>
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<td></td>
<td>GRI</td>
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<td>Crédit Suisse</td>
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<td></td>
<td>GRI, SPI, EPI</td>
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<tr>
<td>Crédit Agricole</td>
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<td></td>
<td></td>
<td>GRI, SPI, EPI</td>
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<tr>
<td>Deutsche Bank</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>GRI, SPI, EPI</td>
</tr>
<tr>
<td>Dresdner Bank</td>
<td></td>
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<td></td>
<td></td>
<td>GRI from 2003</td>
</tr>
<tr>
<td>European Investment Bank</td>
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<tr>
<td>ING Bank</td>
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<td></td>
<td></td>
<td>No 11</td>
<td>GRI/SPI from 2003</td>
</tr>
<tr>
<td>Japan Bank for International Cooperation</td>
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<td></td>
<td>X</td>
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<tr>
<td>J.P. Morgan Chase &amp; Co.</td>
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<tr>
<td>Mitsubishi Tokyo Financial</td>
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<td>Société Générale</td>
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<td>UBS</td>
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<td>SPI, EPI</td>
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<td>Westdeutsche Landesbank</td>
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<td>World Bank</td>
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All sector initiatives investigated consist of voluntary, non-binding measures and statements. On top of that, the initiatives’ owners (OECD, UNEP, ICC) are not accountable themselves, and seem unable or unwilling to push their signatories to live up to their principles. For example, pressure of a large group of NGOs on UNEP to screen its constituency for ‘free riders’ has after almost two years not lead to any concrete results.

3.5 Bank policies in practice

Together with the previous study 12, this study defined a cross-reference between the influence of banks on large dam projects and their degree of commitment to good environmental policies. Based on this analysis, a rough assessment can be made of the gap between what banks practice and what they preach. As can be seen in table 3.3, the level of commitment does not correlate with a lower degree of involvement in financing of dam projects.

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10 In its reaction to WWF Barclays questions the ‘aspirations’ of UNEP-FI without further details.
11 ING stated that OECD guidelines are undersigned by governments, not corporations.
12 The impacts and financing of large dams. AIDEnvironment and Profundo, November 2002.
Table 3.3: Bank involvement in 17 large dam projects by type of bank

<table>
<thead>
<tr>
<th></th>
<th># projects with strong influence</th>
<th># projects with moderate influence</th>
<th># projects with minimal influence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Committed banks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABN AMRO Bank</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Barclays</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>EIB</td>
<td>1</td>
<td>0</td>
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<tr>
<td>JBIC</td>
<td>2</td>
<td>0</td>
<td>1</td>
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<tr>
<td>World Bank</td>
<td>3</td>
<td>3</td>
<td>0</td>
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<tr>
<td><strong>Risk evaders</strong></td>
<td></td>
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<tr>
<td>Crédit Suisse</td>
<td>0</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Deutsche Bank</td>
<td>0</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Dresdner Bank</td>
<td>1</td>
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<td>3</td>
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<tr>
<td>ING Bank</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Société Générale</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>UBS</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>WestLB</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<tr>
<td><strong>Rejecters</strong></td>
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<tr>
<td>Crédit Agricole</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>J.P. Morgan Chase &amp; Co.</td>
<td>1</td>
<td>1</td>
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<tr>
<td>MTFG</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
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</table>

As all of the 23 dam projects selected for this report are controversial and face NGO opposition because of their social and environmental consequences, our analysis throws up questions as to whether the banks which have adopted environmental policies actually apply these to their investments in dam projects. All 15 financial institutions analysed in this report therefore risk their actual investment decisions contravening their commitment to sustainable development. Eventually this might lead to their environmental policies being seen as mere ‘greenwash’. To make their environmental policies meaningful, a transparent implementation with the active participation of NGOs is an essential requirement.

3.6 WCD guidelines

In response to escalating controversy over the role of dams in development, dam proponents and opponents agreed in 1997 to establish an independent international multistakeholder commission. The World Commission on Dams (WCD) was created through a unanimous decision and was given a broad-based mandate to review the development effectiveness of large dams, to assess alternatives in energy and water resources management, and to develop internationally acceptable criteria and guidelines to guide future decision making on dams. The WCD published its report “Dams and Development - a New Framework for Decision Making” in November 2000. The World Commission on Dams (WCD) and the International Energy Agency have independently proposed principles and guidance for hydroelectric and other major dams, both with a strong emphasis on strategic assessment.

The Report of the WCD advocates:
- Five core values: equity, efficiency, participation, sustainability and accountability for future decision-making on dams;
- A rights and risks approach for identifying stakeholders in negotiating development choices and agreements;
- Seven strategic priorities gaining public acceptance, assessing options, addressing existing dams, sustaining rivers and livelihoods, recognising entitlements and sharing benefits, ensuring compliance, and sharing rivers for peace, development and security;
- A set of criteria for assessing compliance and twenty-six guidelines for review and approval of projects at five stages of decision-making.
The International Energy Agency issued the twenty-six guidelines for hydropower development and environment in May 2000. These were based on extensive analysis across experience globally, and identified the following five areas of decision-making as posing significant challenges to the hydropower sector:
1. Energy policy framework
2. Decision making process
3. Comparison of hydropower project alternatives
4. Improved environmental management of hydropower plants
5. The sharing of benefits with local communities.

For each of these challenges, the guidelines provide detailed recommendations. The first recommendation, on the energy policy framework, calls for comparative environmental analysis of power generation options and decision making on the basis of informed public debate and consensual approach. The guidelines call on governments to consider SEA as a planning tool at the national energy policy level. A detailed overview of the WCD principles and guidelines is given in Appendix 7.

Hydropower dams and irrigation schemes have received much attention in recent years as an area requiring more and better environmental and social focus. The considerable controversy around a number of projects over the last two to three decades has generated a demand for new and better approaches, geared toward more strategic and participatory analysis, planning, and policymaking. The World Commission on Dams addressed the range of environmental and social issues associated with large dams based on worldwide experience over the last several decades, and provided a rich analytical and planning menu to draw from. A key recommendation to multilateral financial institutions was to accelerate the shift from project to sector-based finance, especially through increasing financial and technical support for effective, transparent, and participatory needs and options assessment, and the financing of non-structural alternatives (WCD 2000).

Dams and Development Project
Based on the WCD core values and strategic priorities the United Nations Environment Programme (UNEP) initiated the Dams and Development Project (DDP) to promote dialogue on improving decision-making, planning and management of dams and their alternatives. The executive director of UNEP, Dr Klaus Töpfer commented on the WCD report, "UNEP strongly believes that the report provides an excellent "roadmap" from the present, often unsatisfactory, process to a more equitable and sustainable one."
A first DDP meeting was held in July 2002 in Nairobi. The next Dams and Development Forum meeting is planned for July 4-6, 2003. In addition the DDP will prepare a session during the World Water Forum in Japan, March 2003.

Other Follow-up Initiatives
Besides the DDP there are numerous other follow-up initiatives to the WCD report that include discussions at the international, national, institutional and local level. Interesting to mention here are the discussions at the level of:
- Multilateral Development Banks
- International Development Organisations
- International Conventions (Ramsar convention, CBD)
- Regional Groups
- NGOs
- Professional Organisations
- Private Sector
With respect to the private sector initiatives, it is particularly to note that the SAM sustainability Group has a joint venture with Dow Jones Indexes to undertake research on top companies for the Dow Jones Sustainability Index. Subsequently, SAM has formulated a questionnaire for companies involved in the dam-building industry based on WCD recommendations.

**Bank’s commitment to WCD guidelines**

Six banks (Barclays, Dresdner Bank, EIB, JIBC, UBS, World Bank) explicitly state they have incorporated the WCD guidelines in their dam finance assessments, but only Barclays is willing to share these guidelines with WWF. Two others (ABN AMRO Bank and Deutsche Bank) are ‘aware’ of the guidelines but have not included them explicitly in their assessment procedures. Crédit Suisse and ING Bank have unambiguously indicated not to adopt the WCD guidelines.

### 3.7 Commitment to dialogue

Based on the availability of sustainability policies, commitments made to WCD guidelines and the commitments made to stakeholder participation in their policies and publications, a categorisation of banks can be made to reflect the likelihood of successful inclusion and implementation of operational criteria through NGO involvement. However, it should be noted that policies and implementation guidelines provided by the banks are insufficient to judge their ability or selectivity to screen out ‘bad’ projects in practice.

Regarding their commitment to sustainability policies, the WCD guidelines and dialogue, the banks have been classified as follows:

- **Banks with stakeholder participation policy**

  The following banks have committed themselves to policies that imply the application of environmental criteria developed by themselves or others, and are willing to discuss criteria for implementation with NGOs:

  - ABN AMRO Bank The Netherlands
  - Barclays United Kingdom
  - European Investment Bank European Union
  - Japan Bank for International Cooperation Japan
  - World Bank International

  These banks are classified as *Committed banks*.

- **Banks with risk evasion policy**

  The following banks have committed themselves to policies that imply the application of environmental criteria, but refuse to share these guidelines with NGOs:

  - Crédit Suisse Switzerland
  - Deutsche Bank Germany
  - Dresdner Bank Germany
  - ING Bank The Netherlands
  - Société Générale France
  - UBS Switzerland
  - WestLB Germany

  These banks are classified as *Risk evaders*. 
• **Banks without policy**

The following banks have no policy or were unwilling to share it:

- Crédit Agricole  France
- JP Morgan Chase & Co.  United States
- Mitsubishi Tokyo Financial  Japan

These banks are classified as **Rejecters**.

### 3.8 Recommendations for financial institutions

- Financial institutions, which have not adopted a sustainable or environmental policy yet, should do so as soon as possible.
- **Adherence** to the guidelines of the World Commission on Dams by the financial sector is recommended to ensure that projects with excessive social and environmental costs are excluded from financing.
- All financial institutions should focus on implementing and monitoring their policies with regard to dam projects.
- Financial institutions should be aware that undersigning a declaration in itself will not convince NGOs that the bank really lives up to these principles. It is in the interest of financial institutions themselves to come up with mechanisms by which they could be held accountable for non-compliance with their own policies or international initiatives, which they have underwritten. Otherwise, NGOs have little other option but to try to damage the reputation of non-compliant financial institutions.
- **Transparency** is the most important recommendation. Transparency means, closely involving NGOs in policy formulation, in the establishment of implementation strategies and in the decisions regarding concrete investments and other financial services.
Notes


6 For a description of ecological and social impacts of these projects see: The impacts and financing of large dams, AIDEnvironment and Profundo, 2002. References to sources of financial information can be found in the respective dam fact sheets, appendix 2, unless stated otherwise.

7 See appendix 3; reply by Barclays.

8 Environmental Management policy statement; Barclays web site: www.society.barclays.co.uk/env_policy_statement.htm; viewed December 2002.


10 http://www.credit-agricole.fr/index-fla.shtml

11 For a description of ecological and social impacts of these projects see: The impacts and financing of large dams, AIDEnvironment and Profundo, 2002. References to sources of financial information can be found in the respective dam fact sheets, appendix 2, unless stated otherwise.


15 For a description of ecological and social impacts of these projects see: The impacts and financing of large dams, AIDEnvironment and Profundo, 2002. References to sources of financial information can be found in the respective dam fact sheets, appendix 2, unless stated otherwise.


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dams, AIDEnvironment and Profundo, 2002. References to sources of financial information can be found in
the respective dam fact sheets, Appendix 2, unless stated otherwise.


UBS 2002 environmental policy, www.ubs.com/e/index/about/ubs_environment/commitments/
environmentpolicy.print.html, viewed February 2003.


Appendices

Policies and Practices in financing large dams

Research paper II prepared for
WWF International - Living Waters Programme

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AIDEnvironment
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Appendix 1 The basics of company and project financing

1.1 Assets, equity and debt

Each company owns a certain amount of assets, which it uses to produce and sell goods and/or services. The assets of a company consist of all material and immaterial belongings of the company, including land, building, machines, cash, investments, et cetera. These assets are financed by the capital of the company. If the company has no capital, it cannot acquire assets and cannot run its business. The providers of the capital of the company - the financial stakeholders - therefore are very important, and collectively control the company.

There are two main forms of capital: equity and debt. The differences between these two forms of capital will be described here:

- **Equity**

  Equity is the present value of the shares bought by the shareholders. The shareholders are the co-owners of the company, and this form of capital therefore participates in all the risks which are taken by the company. A shareholder buys shares at a certain value. But if the company makes profits, the present value of the shares (the equity) increases. Consequently, if the company incurs losses the equity decreases.

  Part of the increased value of the shares is paid out, in the form of dividends. The other part is retained by the company to finance expansion. Until the shareholder sells the shares, he or she does face the risk the company goes bankrupt, in which case he or she will not get anything back for his or her investment.

- **Debt**

  Debt is the other main form of capital a company can acquire, to finance its day-to-day operations and its expansion plans. Debt (which is also called *liabilities*) is mostly provided by financial institutions, but also by trading partners and tax agencies. Different from shareholders, creditors (= the providers of debt) are not co-owners of the company. Therefore they do not participate fully in the risks the company takes. Debts are entitled to a financial reward in the form of a certain amount of interest, which the company and its creditor have laid down in the debt agreement. This amount of interest can be fixed, but can also be related to the performance of the company. Most forms of debts have to be paid back within a certain period of time.

  Debt can be provided by various financial stakeholders, including private persons, financial institutions, other companies and governments. The most important categories of debt-providers (or creditors) are:

  - Banks
  - Bondholders
  - Governments (including tax agencies)
  - Trade creditors

  When a company gets into financial difficulties, the rights of the creditors are stronger than those of the shareholders. When a company goes bankrupt, the assets of the company are in the first place used to pay off the creditors. Some of the creditors will have stronger rights, and are paid off before others. Only after all creditors have been paid off, the shareholders can claim some part of the remaining assets.
It should be noted that not all creditors do intentionally provide capital to a company. When a company waits a few weeks or months before paying its bills or its taxes, its suppliers or the tax agency unintentionally become its creditors during that period.

- **Minority interests**

Apart from these two main forms of capital - equity and debt - there are some in-between categories. The most important are the so-called *minority interests*. This is the capital provided by the outside shareholders of the not-fully-owned subsidiaries of the company. Not all subsidiaries are 100% owned by the company, but if they are majority owned by the company their assets will be regarded as belonging fully to the company. In other words: in the financial accounts of a company, all assets of its majority-owned subsidiaries are treated as assets of the company itself. In reality, a part of these subsidiary-assets are being financed by the outside or minority shareholders of these subsidiaries. This implies that the outside shareholders of the company’s subsidiaries indirectly finance part of the total assets of the company. Minority interest or outside subsidiary shareholders therefore should be treated as a separate category of financial stakeholders.

Various financial institutions can provide various forms of capital to a company, or can assist it in acquiring these. The next paragraphs describe the various categories of financial institutions, followed by a description of the various financial services which banks and other financial institutions can offer to companies. In the last paragraph of this chapter, we will establish criteria for the level of influence which could be exerted by the provision of these financial services.

1.2 **Private financial institutions**

Private financial institutions (FIs) can be divided in two broad categories - banks and institutional investors - which each can provide different forms of financing to a company. Within each category, we can discern various sub-categories:

- **Banks**

  - **Commercial banks**

    Commercial banks use the saving money of individuals, organizations, institutions and companies to provide loans to other individuals, organizations, institutions and companies.

  - **Investment banks**

    Investment banks assist companies in finding the capital they need, predominantly by issuing shares or bonds to institutional and private investors. Sometimes investment banks acquire a large shareholding in a company themselves, with the intention to take over the management of the company, restructure it, and sell the shareholding at a profit.

- **Trust companies**

  Trust companies manage the financing subsidiaries of a company in a tax haven. These financing companies are used to reduce tax payments on international loans, to reduce tax payments on the international transfer of dividends, et cetera.
• **Private banks**

  Private banks (or asset managers) invest funds provided to them by wealthy individuals. Different from mutual funds, private banks tune their investment strategy to the wishes of the individual client.

  Large international banking groups generally undertake each of the four forms of banking described above.

• **Institutional investors**

  • **Insurance companies**

    Insurance companies invest the premiums paid by individuals and companies, in order to be able to pay benefits to these individuals and companies when they are confronted with damage or loss of income.

  • **Pension or retirement funds**

    Pension or retirement funds are a specific category of insurance companies, investing premiums paid by employees in order to be able to pay these employees benefits after their retirement.

  • **Mutual funds**

    Mutual funds invest money provided by individuals and organizations, and pay the benefits of these investments directly to these individuals and organizations. Different from insurance companies and pension funds, mutual funds don’t guarantee a certain benefit. Mutual funds can be managed by a bank, by an insurance company, as well as by a specialized fund manager.

  • **Venture and investment funds**

    Venture and investment funds invest in companies, with the money provided by individuals and organisations in companies. Different from mutual funds, venture and investment funds generally acquire large shareholdings in companies with the intention to influence or even take over the management of these companies. Also, venture and investment funds generally concentrate on starting or otherwise strongly expanding companies which are not listed on a stock exchange. Some investment banks also operate similar to venture and investment funds.

    Together with private investors (individuals), these institutional investors are also referred to as the **capital market**. Although banks do also provide capital to companies, the general definition of the term capital market excludes banks.

It should be noted that the distinction between banks and institutional investors outlined above is very schematic and getting increasingly blurred. In the past, legislation in most countries prohibited insurance companies from undertaking banking activities and the restrictions applying to pension funds were even stricter. However, during the last two decades, these restrictions have been relaxed or abandoned in most countries. Many large financial groups now include banking divisions as well as insurance divisions. Some pension funds are also beginning to undertake banking and/or insurance activities.
1.3 Public financial institutions

Public financial institutions are generally owned by one or more states. Semi-public financial institutions are generally partly or completely privately owned, but they supply certain financial services (especially export risk guarantees) on behalf of a state. In this case, the state also bears the financial risks associated with these services. The public and semi-public financial institutions can be divided in the following categories:

• **Multilateral development banks**

  Multilateral development banks like the World Bank and the Asian Development Bank are owned by a large number of states. The activities of multilateral development banks are very similar to those of private commercial and investment banks. But their activities are also politically motivated, which can make a difference in the risks and conditions they are prepared to accept and the type of (public and private) companies they are prepared to invest in.

• **Multilateral development agencies**

  Multilateral development agencies, like the United Nations Development Programme and the United Nations Development Programme are part of the United Nations. These agencies provide grants and loans to development- or environment-related companies, projects and activities, mostly in low-income countries. Their budgets are limited and they are not specialized in large-scale financing as the multilateral development banks. Nevertheless they can sometimes play a crucial role in the financing of large-scale projects by financing feasibility studies in an early stage, which later can be used to convince other financial institutions to invest in the project.

• **National development and investment banks**

  Many states have their own development and/or investment bank, which is sometimes partly privatised. The activities of these national development and investment banks are very similar to those of private banks. But their activities are intended to contribute to the economic development of their own country, which can make a difference in the risks and conditions they are prepared to accept and the type of (public and private) companies they are prepared to invest in.

• **Foreign development aid agencies**

  Most industrialized, high-income states own foreign development agencies. Agencies provide grants and loans to development- or environment-related companies, projects and activities, mostly in low-income countries. Often foreign development aid agencies also try to promote the economic interests of their own country. Their budgets are limited and they are not specialized in large-scale financing. Nevertheless they can sometimes play a crucial role in the financing of large-scale projects by financing feasibility studies in an early stage, which later can be used to convince other financial institutions to invest in the project.
• Foreign development and investment banks

Some industrialized, high-income states own foreign development and investment banks, complementing the activities of their foreign development aid agencies. These foreign development and investment banks operate very similar to multilateral development banks. Their principal aim of is to contribute to the (sustainable) economic development of other, low-income countries. The secondary aim of most of these foreign development and investment banks, which sometimes surpasses the principal aim, is to promote the economic interests of the country where the bank is located.

• Export credit agencies

Export credit agencies intend to stimulate exports from their host country, by issuing export credits to either exporting companies in their own country or to the foreign customers of these exporters in foreign countries. Or, even more common, the export credit itself is extended by a private bank and the export credit agency (ECA) only guarantees its repayment. Export credits are especially needed for capital goods, which are usually paid in some (semi)annual instalments by the foreign customer. The risk that the customer will not pay some or all instalments, is transferred to the bank or ECA issuing the export credit. If it is a bank which issues the export credit, an export credit guarantee can transfer part of the risk to the ECA. Export credit agencies are mostly state-owned, but sometimes they are privately owned insurance companies supplying a financial service on behalf of the state.

1.4 Categories of financial services

As equity and debt are the two main categories of capital, the services provided by financial institutions to a company can be divided into three categories:

• Services related to acquiring equity
• Services related to acquiring debt
• Other financial services

We will discuss these three categories of financial services in the following sub-paragraphs.

1.4.1 Services related to acquiring equity

Financial institutions can help a company with acquiring more equity in the following ways:

• Direct participation

Financial institutions can, through the funds they are managing, buy shares in a certain company. This provides the company with new equity, and gives the financial institution direct influence on the company strategy. This influence of course depends on the size of the shareholding.

• Helping to attract equity on the stock exchange

Going to the stock exchange gives a company the opportunity to increase its equity by attracting a large number of new, small and big, shareholders. These shareholders can be private investors as well as institutional investors. When it’s the first time a company offers its shares on the stock exchange, this is called an Initial Public Offering (IPO). When a company’s shares are already traded on the stock exchange, it can issue a secondary offering of additional shares.
To arrange an IPO or a secondary offering, a company needs the assistance of one or more investment banks, who will promote the shares and find shareholders. As an IPO attracts a lot of public attention for the company as well as for the arranging investment banks, the investment banks will closely scrutinize the strategies and policies of the company, and demand adjustments if needed. The role of investment banks in this process therefore is very important.

- **Finding equity outside the stock exchange**

Going to the stock exchange is expensive, tied to certain restrictions, and requires transparency of the company. So especially small, starting companies, and privately-held family enterprises, will not always be able or willing to attract capital through the stock exchange. In stead, they can look for equity in an informal way, by approaching private investors, institutional investors, or other companies (e.g. a competitor). They can also ask an investment bank to help them find suitable investors. Many institutional investors will not be prepared to invest in companies which are not traded on any stock exchange. But some will, and some venture and investment funds even specialize in this way of investing.

### 1.4.2 Services related to acquiring debt

Financial institutions can help a company with acquiring more debt in the following ways:

- **Loans**

  The easiest way to obtain debt, is to lend money. Money can be lent from individuals or other companies, but most often money is lent from a commercial bank. Institutional investors don’t play an important role in this respect. There are several forms of loans:

- **Short-term loans**

  Short-term loans (including trade credits, current accounts, leasing agreements, et cetera) have a currency of less than a year. They are mostly used as working capital for day-to-day operations; paying materials, machines, taxes, et cetera. Short-term debts are usually provided by a single commercial bank, which does not ask for substantial guarantees from the company. As the company fails to pay interest or repayment, the bank can claim part of the machinery or inventory of the company. This is especially the case with leasing agreements, which are earmarked for financing certain fixed assets. Working capital facilities don’t have a fixed currency, but give the bank the same strong guarantees for repayment as other short-term debt.

- **Long-term loans**

  A long-term loan has a currency of at least one year, but generally of three to ten years. Long-term loans are in particular useful to finance expansion plans, which only bring rewards after some period of time. Often long-term loans are extended by a loan syndicate, which is a group of banks brought together by one or more arranging banks. The loan syndicate will only undersign the loan agreement if the company can provide certain guarantees that interest and repayments on the loan will be fulfilled. This of course gives the commercial banks in the banking syndicate a considerable influence on the company’s strategies and policies.
• **Bonds**

Issuing bonds is a different way of lending money. It can be best described as cutting a large loan into small pieces, and selling each piece separately. The buyer of each bond is entitled to repayment after a certain number years, and to a certain interest during each of these years. Bonds are issued on a large scale by governments (the so-called *sovereigns*), but also by corporations (the so-called *corporates*).

Bonds have some similarities with shares: both are *securities* traded on the stock exchange. But the owner of a bond is not a co-owner of the issuing company, he is creditor of the company. And bonds have, different from shares, a fixed income (the interest), and bonds will be paid back after a number of years. Bonds (and similar kind of securities like warrants and convertibles) are therefore called *fixed-income securities*.

When comparing bonds with loans, bonds have some advantages. The borrower taps another source of capital (not commercial banks, but the capital market); bonds can have a much longer currency (up to 25 years) than loans; and bonds require less reporting to the lenders. But at the other hand: to reschedule the terms and conditions of bonds when a company is getting into trouble, is very difficult. Loans are more custom-built than bonds, and easier to adapt during the currency.

Bonds are sold on the capital market, to private investors as well as to institutional investors. Banks rarely buy any bonds. But to issue bonds, you need the assistance of one or more investment banks. This process is very similar to an IPO.

### 1.4.3 Other financial services

Apart from activities connected directly to acquiring capital (equity or debt), financial institutions do also provide some other services to production, trading and service companies. These are discussed below:

• **Fiscal planning and trust services**

A financial institution can help a production company with facilities to plan its investments, loans, bonds, and other capital movements in a fiscal attractive way. A clear example of such a facility, is setting up, housing, and managing a financing company in a tax haven like the Netherlands. The Netherlands is a preferred country to set up financing companies, because of the clauses on so-called back-to-back loans which the Netherlands have concluded in their numerous tax treaties with other countries. A financing company lends a certain amount from a bank in The Netherlands or another country, and then on-lends the same amount to its parent company elsewhere for a slightly higher interest. The interest-difference is taxed in the Netherlands, but the interest paid by the parent company is free of tax in its own country.

These kind of services, often referred to as *trust banking*, are provided by specialized trust companies as well as by trust banks.

• **Selling of assets**

Selling of assets, either physical or financial, frees capital for the company. This makes it possible to reduce its debts and strengthen its financial position, or reinvest in other business opportunities. An investment bank can use its international contacts to help a company to sell some assets, thereby maximizing the amount of capital which is freed for the company. In general, institutional investors will not be interested in buying the physical assets of a company. But they could be interested in buying certain financial assets of a company, the so-called *secondary debt market*. 
• **Insurance facilities**

Insurance companies offer various insurance facilities to companies, from damage done to their properties to the (political) risk that their customers will not be able to pay. For exporting companies, this last form of insurance can be particularly important.

• **Export credit guarantees**

Export credit guarantees are a specific form of credit insurance, generally provided only by (semi-)public export credit agencies. The guarantee assures the bank that its loan will be repaid, also when the customer is not able to repay it. This reduces the risks involved, and makes it more attractive for banks to extend loans. In turn, this makes it possible for the bank to offer more attractive conditions for its loan.

• **Commodity and currency swap contracts**

Commodity and currency swap contracts are financial services provided mostly by commercial banks to exporting customers. A commodity swap contract guarantees the exporter a fixed price for its commodity during a certain period, independent of market and exchange rate fluctuations. A currency swap contract thus guarantees a company a fixed exchange rate for exchanging its export earnings in local currency.
Appendix 2  Financial fact sheets for the dam projects

2.1  Brazil: Tucuruí Dam

2.1.1  Key project data

- **Location:** Tocantins River, Pará, Brazil
- **Construction period:** The dam was built between 1985 and 1994 (phase I). From 2000 to 2003 the production capacity was doubled (phase II)
- **Height:** 77 meters
- **Production capacity:** 4,000 MW (phase I); 8,125 MW (phase II) ¹
- **Reservoir area / volume:** 285,000 hectares
- **Project operator:** Eletronorte, which is a subsidiary of Eletrobrás (Brazil).

2.1.2  Project financing phase I

- **Project value:** US$ 5,541 million ²

- **Financing overview:** The Tucuruí dam was built between 1985 and 1994 at a total cost of US$ 5,541 million. The project was financed as follows: ³

  **Equity**
  - Equity Eletronorte  
    - US$ 2,533 million  
    - 45.7%

  **Debt**
  - Loans Eletrobrás and Brazilian banks  
    - US$ 2,175 million  
    - 39.3%
  - Loans foreign banks and ECAs  
    - US$ 833 million  
    - 15.0%

- **Total**  
  - US$ 5,541 million

- **Equity financing:** Eletronorte invested US$ 2,533 million of its own equity in the Tucuruí dam, equivalent to 45.7% of total project costs. Eletronorte is majority owned by the state-owned electricity company Eletrobrás. ⁴

- **Debt financing:** Domestic and international loans financed 54.3% of total project costs. The following information was found regarding the debt financing of the Tucuruí dam:

  - Domestic loans accounted for US$ 2,175 million, or 39.3% of total project costs. Loans were provided by Eletrobrás itself as well as by the following Brazilian financial institutions: ⁵
    - BNH (now part of Caixa Econômica Federal)
    - Banco do Brasil
    - Caixa Econômica Federal
    - FINAME (part of BNDES)
In June 1981, Eletrobrás secured a US$ 300 million loan from an international banking syndicate comprising 32 banks. The proceeds would be used for financing the construction of the Tucurui dam. Lead managers for the loan were:  

- Arab Banking Corporation  
- Bank of America  
- CIBC  
- Chase Manhattan (now part of J.P. Morgan Chase & Co.)  
- Dresdner Bank (now part of Allianz)  
- Libra Bank (now dissolved)  
- National Bank of Canada  
- Nippon Credit Bank (now part of Aozora Bank)  

In July 1981, Eletrobrás secured a US$ 50 million loan from an international banking syndicate comprising 7 banks. The proceeds would be used for financing the construction of the Tucurui dam. Participating in the loan syndicate were:  

- Bank of America  
- Bankers Trust (now part of Deutsche Bank)  
- Continental Illinois (now part of Bank of America)  
- Crocker National Bank (now part of Wells Fargo & Co.)  
- First Chicago (now part of Equiserve)  
- First Interstate (now part of Wells Fargo & Co.)  
- Royal Bank of Canada  

In July 1981, Eletronorte secured a US$ 150 million loan from an international banking syndicate. The proceeds would be used for financing the construction of the Tucurui dam. Participating in the loan syndicate were:  

- Banco do Brasil  
- Bank of America  
- Continental Bank of Canada (now Continental Corporation)  
- European Brazilian Bank (now dissolved)  
- Manufacturers Hanover Trust (now part of J.P. Morgan Chase & Co.)  
- National Bank of Canada  
- Nippon Credit Bank (now part of Aozora Bank)  

In October 1984, Eletronorte secured a US$ 170 million loan from an international banking syndicate headed by Manufacturers Hanover Trust, which is now part of J.P. Morgan Chase & Co. (United States). The proceeds would be used for financing the construction of the Tucurui dam.  

2.1.3 Project financing phase II  

- **Project value:** R$ 2,630 million (US$ 1,096 million)  

**Financing overview:** Between 2000 and 2003 the annual production capacity of the Tucurui dam was expanded from 4,000 MW to 8,125 MW at a total cost of R$ 2,630 million (US$ 1,096 million). The expansion project was financed purely by domestic sources, in the following way:  

**Equity**  
- Equity from Eletronorte  

<table>
<thead>
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<th>Equity</th>
<th>Value</th>
<th>Percentage</th>
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<tr>
<td>R$ 978 million</td>
<td>37.1%</td>
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Debt

- Loans from **BNDES**  
  R$ 850 million  
  32.3%

- Domestic bonds issued by Eletrobrás  
  R$ 802 million  
  30.5%

**Total**  
R$ 2,630 million

**Equity financing:** Equity provided by Eletrobrás and its subsidiary Eletronorte is financing 37% of the capacity expansion of the Tucurui dam. To finance its equity contribution, Eletrobrás probably has used international and domestic loans and bonds.\(^{12}\)

**Debt financing:** The following information was found regarding the debt financing of the capacity expansion of the Tucurui dam:

- In October and November 2001, Eletrobrás secured loans totalling R$ 850 million (US$ 354 million) from state-owned development bank **BNDES** (Brazil). Eletrobrás will use these funds in the expansion of the Tucurui hydroelectric project.\(^{13}\)

### 2.1.4 Transmission line financing

- **Project value:** US$ 382 million.

- **Financing overview:** Brazil’s national electricity agency Aneel has awarded two 30-year concessions to build and operate two high-voltage transmission lines connecting the Tucurui dam with neighbouring states. These are a 323 kilometer line from Tucurui to Vila do Conde in the state of Para and a 920 kilometer line between Tucurui and Presidente Dutra in the state of Maranhao. Both concessions were won in February 2001 by a consortium of electrical services company Alusa (Brazil) and construction company Schahin (Brazil). Project costs for the first line are estimated at US$ 76 million and for the second line at US$ 306 million. Both projects will be financed primarily by domestic sources and will be operational in 2003.\(^{14}\)

  The following information was found regarding the financing of the new transmission lines:

- In July 2002 the consortium of Alusa and Schahin raised a loan of R$ 488 million (US$ 175 million) from state-owned development bank **BNDES** (Brazil) to finance the 920 kilometer high-voltage line between Tucurui and Presidente Dutra in the state of Maranhao. The reinsurance companies **IRB-Brasil Resseguros** (Brazil) and **UBF Garantías & Seguros** (Brazil) provided guarantees. **Unibanco** (Brazil) acted as financial advisor.\(^{15}\)
### 2.1.5 Summary of findings

**Brazil: Tucurui Dam**

**Project value:** US$ 1,096 million (phase II) and US$ 382 million (transmission line)

### Financing percentages (phase II)

<table>
<thead>
<tr>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>37%</td>
<td>32%</td>
<td></td>
<td>31%</td>
<td></td>
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</tbody>
</table>

### Influence assessment (phase II and transmission line)

- **Strong influence**
  - BNDES (Brazil)
  - Unibanco (Brazil)

- **Moderate influence**
  - IRB-Brasil Resseguros (Brazil)
  - UBF Garantias & Seguros (Brazil)

- **Minimal influence**
2.2 Chile: Ralco Dam

2.2.1 Key project data

- **Location:** Bío Bío River, Chile
- **Construction period:** 1997-2004
- **Height:** 155 meters
- **Production capacity:** 570 MW
- **Reservoir area / volume:** 3,400 hectares, 1.22 billion m$^3$.
- **Project operator:** Endesa (Spain).
- **Remarks:** The Pangue Dam (finished in 1996) and the Ralco Dam are the first in a series of six dams Endesa is planning to build on the Bío Bío River. Total production capacity would be 2,300 MW.\(^1\)

2.2.2 Project financing

- **Project value:** US$ 568 million.\(^2\)
- **Financing overview:** We estimate that the Ralco project is financed with 30% equity and 70% debt.

- **Equity financing:** No information found.

- **Debt financing:** The following information is found regarding loans to the Ralco project:
  
  In September 1997, Dresdner Bank, which is now part of **Allianz** (Germany), and Chase Manhattan, which is now part of **J.P. Morgan Chase & Co.** (United States), arranged a US$ 380 million syndicated loan for Endesa, to finance the Pangue and Ralco Dams.\(^3\)

  Of the total proceedings, US$ 170 million was used to pay back a loan arranged in 1992/93 by the International Finance Corporation, which is part of the **World Bank** (International), for the Pangue Dam. The IFC demanded repayment because of a breach of the environmental standards agreed.\(^4\)

  Probably the remaining US$ 210 million was used for financing the Ralco Dam. Other banks participating in the loan syndicate were:

  - Argentaria Banco Exterior de España (now part of **Banco Bilbao Vizcaya Argentaria**) Spain
  - **Banca Monte dei Paschi di Siena** Italy
  - Bank of Nova Scotia (now: **Scotiabank**) Canada
  - Bank of Tokyo-Mitsubishi, which is part of **Mitsubishi Tokyo Financial** Japan
  - Banque Nationale de Paris (now part of **BNP Paribas**) France
  - **Bayerische Landesbank** Germany
  - **Caja Madrid** Spain
- Crédit Suisse First Boston (part of Crédit Suisse) Switzerland
- Deutsche Morgan Grenfell (part of Deutsche Bank) Germany
- Deutsche Girozentrale-Deutsche Kommunalbank (now part of DekaBank) Germany
- ING Barings (part of ING Bank) The Netherlands
- J.P. Morgan Securities (now part of J.P. Morgan Chase & Co.) United States
- Paribas (now part of BNP Paribas) France
- Société Générale France
- Union Bank of Switzerland (now: UBS) Switzerland

- In 1997, the Export Development Corporation (Canada) granted a loan of US$ 17 million to the Ralco Dam.  

- Early 1999, Endesa secured a US$ 160 million loan from Banque Nationale de Paris, which is now part of BNP Paribas (France), for the Ralco project.  

2.2.3 Summary of findings

<table>
<thead>
<tr>
<th>Chile: Ralco Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project value:</strong> US$ 568 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing percentages</th>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td></td>
<td>65%</td>
<td>5%</td>
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<table>
<thead>
<tr>
<th>Influence assessment</th>
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<table>
<thead>
<tr>
<th>Strong influence</th>
<th>Dresdner Bank / Allianz (Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BNP Paribas (France)</td>
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<table>
<thead>
<tr>
<th>Moderate influence</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Banca Monte dei Paschi di Siena (Italy)</th>
<th>Banco Bilbao Vizcaya Argentaria (Spain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayerische Landesbank (Germany)</td>
<td>Caja Madrid (Spain)</td>
</tr>
<tr>
<td>Crédit Suisse (Switzerland)</td>
<td>DekaBank (Germany)</td>
</tr>
<tr>
<td>Deutsche Bank (Germany)</td>
<td>Export Development Corporation (Canada)</td>
</tr>
<tr>
<td>J.P. Morgan Chase &amp; Co. (United States)</td>
<td>ING Bank (The Netherlands)</td>
</tr>
<tr>
<td>Mitsubishi Tokyo Financial (Japan)</td>
<td>Scotiabank (Canada)</td>
</tr>
<tr>
<td>Société Générale (France)</td>
<td>UBS (Switzerland)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Minimal influence</th>
</tr>
</thead>
</table>


2.3 China: Ertan Dam

2.3.1 Key project data

- **Location:** Yalong River, Sichuan Province, China
- **Construction period:** 1991-1999
- **Height:** 245 meters
- **Production capacity:** 3,300 MW
- **Reservoir area / volume:** 10,100 hectares; 5,800 Mm³
- **Project operator:** Ertan Hydroelectric Development Corporation (China), which is a joint-venture of:
  - State Development Investment Company China
  - Sichuan Investment Company China
  - Sichuan Electric Power Company China

2.3.2 Project financing

- **Project value:** US$ 3,400 million.
- **Financing overview:** We estimate that the Ertan project is financed with 47% equity and 53% debt.

- **Equity financing:** According to some reports, the Chinese government and the Sichuan province have both invested US$ 795.4 million in the Ertan Dam. Total equity financing would therefore equal US$ 1,590.8 million (47% of total project value).

- **Debt financing:** Debt probably has contributed around US$ 1,800 million (53% of total project value) to the total project financing. The following loans to the Ertan project have been reported:
  - World Bank International 1991 US$ 380 million
  - World Bank International 1995 US$ 400 million
  - US Export-Import Bank United States ? US$ 30 million
  - Commercial bank syndicate Various 1995 US$ 149.7 million
  - China Development Bank China 1999

- The following banks were involved in the loan syndicate providing a US$ 149.7 million loan to the Ertan Dam project in September 1995:
  - Asahi Bank (now part of Resona Bank) Japan
  - Bank of America United States
  - Daiwa Bank (now part of Resona Bank) Japan
  - Fuji Bank (now part of Mizuho Bank) Japan
  - Industrial Bank of Japan (now part of Mizuho Bank) Japan
  - Korea Development Bank South-Korea
  - Long-Term Credit Bank of Japan (now: Shinsei Bank) Japan
• Mitsubishi Trust and Banking Corporation (now part of Mitsubishi Tokyo Financial) Japan
• Sakura Bank (now part of Sumitomo Mitsui Financial) Japan
• Sanwa Bank (now part of UFJ Bank) Japan
• Sumitomo Bank (now part of Sumitomo Mitsui Financial) Japan
• Sumitomo Trust & Banking Japan
• Tokai Bank (now part of UFJ Bank) Japan
• Yasuda Fire & Marine Insurance (now part of Sompo Japan) Japan
• Zenshinren Bank (now: Shinkin Central Bank) Japan

• In February 1999, a group of seven Chinese commercial banks provided a loan of US$ 200 million to the China Development Bank (China). Proceeds from the loan went to the development of the Daya Bay nuclear project, the Qinshan nuclear project III and the Ertan hydropower project. The seven banks were: 29

  • Agricultural Bank of China China
  • Bank of China China
  • Communication Bank of China China
  • Construction Bank of China China
  • Development Bank of China China
  • Industrial and Commercial Bank of China China
  • Merchant Bank of China China

Total loans from the China Development Bank for the Ertan project are estimated at US$ 850 million.

• **Credit guarantees:** The syndicated US$ 149.7 million loan of September 1995 was guaranteed by the World Bank. 30

• **Insurance:** Allianz (Germany) participated in the reinsurance of the Ertan project. 31
### 2.3.3 Summary of findings

**China: Ertan Dam**

**Project value:** US$ 3,400 million

**Financing percentages**

<table>
<thead>
<tr>
<th>Equity Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>47%</td>
<td>23%</td>
<td>25%</td>
<td>4%</td>
<td>1%</td>
<td></td>
<td>(4%)</td>
</tr>
</tbody>
</table>

**Influence assessment**

<table>
<thead>
<tr>
<th>Influence assessment</th>
<th>Strong influence</th>
<th>Moderate influence</th>
<th>Minimal influence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>China Development Bank (China)</td>
<td>Agricultural Bank of China (China)</td>
<td>Allianz (Germany)</td>
</tr>
<tr>
<td></td>
<td>World Bank (International)</td>
<td>Bank of China (China)</td>
<td>Bank of America (United States)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication Bank of China (China)</td>
<td>Korea Development Bank (South-Korea)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction Bank of China (China)</td>
<td>Mitsubishi Tokyo Financial (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development Bank of China (China)</td>
<td>Mizuho Bank (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Industrial and Commercial Bank of China (China)</td>
<td>Resona Bank (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Merchant Bank of China (China)</td>
<td>Shinkin Central Bank (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Export-Import Bank of the United States (United States)</td>
<td>Shinsei Bank (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sumo Japan (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sumitomo Mitsui Financial (Japan)</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Sumitomo Trust &amp; Banking (Japan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UFJ Bank (Japan)</td>
</tr>
</tbody>
</table>
2.4 China: Longtan Dam

2.4.1 Key project data

- **Location:** Hongshui River, Guangxi Zhuang Autonomous Region, China
- **Construction period:** 2001-2010
- **Height:** 192 meters
- **Production capacity:** 5,400 MW
- **Reservoir area / volume:** 
  - **Operator:** Longtan Hydroelectric Development Co. Ltd., which is a joint-venture of:
    - China National Power China
    - Guangxi Development Investment China
    - Guangxi Power China
    - Guizhou Capital Construction Investment China

2.4.2 Project financing

- **Project value:** US$ 3,180 million.
- **Financing overview:** We estimate that the Longtan project is financed with 25% equity and 75% debt.
  - **Equity financing:** Equity probably accounts for US$ 800 million, or 25% of total project value. Equity will be supplied by Longtan Hydroelectric Development Co. Ltd., which is a joint-venture of:
    - China National Power China
    - Guangxi Development Investment China
    - Guangxi Power China
    - Guizhou Capital Construction Investment China
  - **Debt financing:** Debt probably accounts for US$ 2,380 million, or 75% of total project value. This debt is covered by loans from four Chinese banks:
    - Agricultural Bank of China China
    - Bank of China China
    - China Development Bank China
    - Construction Bank of China China
2.4.3 Summary of findings

<table>
<thead>
<tr>
<th>China: Longtan Dam</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project value:</strong></td>
<td>US$ 3,180 million</td>
</tr>
<tr>
<td><strong>Financing percentages</strong></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>Multilateral development bank loans</td>
</tr>
<tr>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Influence assessment</th>
<th></th>
</tr>
</thead>
</table>
| Strong influence | Agricultural Bank of China (China)  
Bank of China (China)  
Construction Bank of China (China)  
China Development Bank (China) |
| Moderate influence |  |
| Minimal influence |  |
2.5 China: Three Gorges Dam

2.5.1 Key project data

- **Location:** Yangtze River, Hubei Province, China
- **Construction period:** 1994-2009
- **Height:** 185 meters
- **Production capacity:** 17,680 MW
- **Reservoir area / volume:** 30,000 hectares
- **Project operator:** China Yangtze Three Gorges Project Development Corporation (CTGPC).

2.5.2 Project financing

- **Project value:** US$ 24,600 million.\(^{38}\)

**Financing overview:** With total project costs of 204 billion yuan (US$ 24.6 billion), the Three Gorges dam is the most expensive hydro project ever realised. When project planning started in the 1980s it was intended to finance a large part with foreign funds, by attracting loans and issuing shares.\(^{39}\) But because of the large social and environmental consequences of the project, multilateral financial institutions declined to get involved. Obtaining ECA financing also was very difficult, especially after the Export-Import Bank of the United States (United States) declined financial support for the project. For the same reasons, an international share issuance had to be postponed several times. Also, at the end of the 1990s, foreign private banks (in)directly investing in the Three Gorges project came under heavy pressure. For these reasons the financing structure of the Three Gorges dam deviates from the normal pattern for large-scale dams: multilateral banks are not involved in the financing; financing by ECAs is relatively minimal; a very large percentage of the project (possibly more than 60%) is financed by equity; and direct financing by foreign private banks is also relatively minimal.

An estimated break-down of the financing structure of the Three Gorges project is as follows:

**Equity:**

- Electricity levy: US$ 12,000 million 48.8%
- Profit from Gezhouba hydropower: US$ 1,200 million 4.9%
- Share issuance: US$ 500 million 2.0%

**Debt:**

- China Development Bank loans: US$ 3,600 million 14.6%
- Other Chinese bank loans: US$ 1,000 million 4.1%
- Chinese bonds: US$ 4,700 million 19.1%
- Foreign bank loans: US$ 1,250 million 5.1%
- Foreign ECA loans: US$ 350 million 1.4%

**Total project costs:** US$ 24,600 million 100%
The high portion of equity financing, as well as the high portion of domestic debt, shows that the Chinese government is able to use its abundant domestic resources to realise a project such as Three Gorges, despite of foreign opposition. Most remarkable is the fact that the Chinese population is directly financing more than half (US$ 12 billion) of the total project costs, by a dedicated, nation-wide levy upon the electricity price. Each of the 1.2 billion Chinese is thus contributing US$ 10 to the project.

Also the Gezhouba hydropower dam was transferred to the China Yangtze Three Gorges Project Development Corporation (CTGPC), which can use its expected profits during the Three Gorges construction period (US$ 1.2 billion). To complement these equity contributions, a share listing of China Yangtze Electric Power Corporation is planned for 2003, but probably the share issuance will concentrate on the domestic market predominantly.

If the Chinese government also has contributed to the Three Gorges project from its general state budget is not clear, however. NGOs nevertheless have connected international bond issuances by the Chinese government to the project, but it is doubtful if the clear political connection also is complemented by a strong financial connection. (These bond issuances are described below as “indirect financing”)

The debt part of the Three Gorges financing, is also stemming predominantly from domestic sources. The has been issuing a large number of bonds on the domestic market (with a total value of US$ 2.0 billion) and has obtained very large loans from the China Development Bank as well as from some other Chinese banks. Direct foreign financing plays a minor role. ECA’s contributed around US$ 400 million in loans and guaranteed another US$ 800 million of private bank loans. Taken together, direct foreign financing only equals 5.5% of total project costs.

Most important creditor of the project is the China Development Bank (CDB), which has committed US$ 3.6 billion in loans. To finance its large loans to Three Gorges and other projects, CDB has realised a number of international bond issuances. NGOs have strongly protested against the foreign (mostly American) investment banks involved in these issuances. The bond issuances of the CDB have a direct financial link with the Three Gorges project, but it should be taken into account that Three Gorges account for no more than 4.5% of CDB’s total loan portfolio. (The CDB bond issuances are described below as “indirect financing”)

Concluding: as a result of the controversiality of the project, the Chinese government has mostly used domestic financial sources to finance the Three Gorges project. Direct foreign financing covers no more than 5-6% of the total project costs. Indirectly the foreign funding part probably is somewhat larger, as funds raised by international bond issuances of the CDB and the China government could have been partly used for the Three Gorges project.

Nevertheless: Three Gorges is not very dependent upon international funding. This can not be said of the Chinese power sector or all Chinese infrastructure projects, however: channelling so much domestic funding to Three Gorges inevitably makes China more dependent on foreign funding for realizing its other ambitious development goals.

**Equity financing:** Possibly as much as 55% of the total project value will be financed by the equity of China Yangtze Three Gorges Project Development Corporation (CTGPC).

- The equity of CTGPC is financed by contributions from several budgets as well as a levy upon all electricity sold in China:
- Levy on electricity price US$ 12,000 million
- Profit from Gezhouba power plant US$ 1,200 million
- Guangdong province US$ 27.7 million
- People’s Republic of China Amount unknown

From 1992 a *Three Gorges Tax* of 0.3 - 0.7 cent/KWh has been levied nation-wide, with an exception of poverty-stricken regions and the electricity used for agricultural irrigation and drainage purposes. With annual power consumption expected to rise from 1,000 TWh in 1990 to 2,500 TWh in 2010, this levy will bring in at least 6 billion yuan (US$ 725 million) per year. During the 17-year construction period this would amount to Rmb 100 billion (US$ 12.0 billion).  

- In September 2002 CTGPC established a new subsidiary: China Yangtze Electric Power Corporation. This subsidiary already holds the Gezhouba power plant and will gradually acquire all 26 power generators belonging to the Three Gorges dam between 2003 and 2009. This acquisitions will be paid by continuous share issuances. China Yangtze Electric Power Corporation is planning an initial public offering (IPO) offering 15% of its shares on the Shanghai stock exchange in 2003, followed by listings in Hong Kong and possibly London later. The IPO is planned to raise US$ 400 to 483 million.  

China Yangtze Electric Power Corporation is now 89.5% owned by CTGPC. Huaneng Power International (the largest Chinese independent power company), China National Petroleum Corporation and China National Nuclear Corporation each invested 255 million yuan (US$ 30 million) for a 3% stake. Gezhouba Group and the Designing Institute of the Yangtze Commission also contributed 85 million yuan (US$ 10.24 million) and 42.5 million yuan (US$ 5.12 million) respectively to hold a 1 and 0.5 per cent stake in the company. CTGPC intends to entice foreign and Hong Kong power giants, including Mirant (United States) and CLP (Hong Kong) to invest in its subsidiary.  

The investment bank *China International Capital Corporation* (China), which is managed and 35% owned by *Morgan Stanley* (United States) is the main advisor of the CTGPC on this issue.

- **Loans:** Loans to CTGPC and its suppliers probably finance around 25% of total project costs. The following information is found regarding these loans:


  - In 1995 CTGPC obtained a US$ 100 million loan from *Bank of China*.  

  - In 1996, the state-owned *China Development Bank* (China), formerly known as State Development Bank of China, commissioned 30 billion yuan (US$ 3,600 million) in soft loans to the CTGPC. However, this sum probably includes many of the foreign loans mentioned below which were channelled to the Three Gorges project via the CDB.  

  - In September 1997, a consortium of German banks committed a US$ 271 million loan package to German suppliers of the Three Gorges Dam. The following banks participated in the syndicate:  

    - *Commerzbank* Germany  
    - DG Bank (now part of DZ Bank) Germany
• Dresdner Bank (now part of Allianz) Germany
• Kreditanstalt für Wiederaufbau Germany

Reportedly, Hermes Kreditversicherungs (Germany) guaranteed US$ 40 million of this loan. 49

• In September 1997, a banking syndicate arranged by Société Générale (France) committed a twelve-year US$ 53.4 million trade credit to State Development Bank of China, which is now called China Development Bank (China). The facility was meant to finance the supply of eight generators by ABB (Sweden/Switzerland) for the Three Gorges project and is due in September 2009. Banks participating in the syndicate were: 50
  • Commerzbank Germany
  • Société Générale France
  • Standard Chartered Bank United Kingdom

• In September 1997, a banking syndicate arranged by UBS (Switzerland) and Société Générale (France) committed a 21-year US$ 160.5 million ECA-backed credit facility to State Development Bank of China, which is now called China Development Bank (China). The facility was meant to finance the supply of equipment for the Three Gorges project and is due in September 2018. Banks participating in the syndicate were: 51
  • Société Générale France
  • UBS Switzerland

Reportedly, Exportrisikogarantie (Switzerland) guaranteed US$ 143.1 million of this facility. 52

• In October 1997, a banking syndicate arranged by Société Générale (France) committed a eight-year US$ 220 million loan to State Development Bank of China, which is now called China Development Bank (China). The facility was meant to finance the supply of generators and turbines for the Three Gorges project and is due in October 2005. Banks participating in the syndicate were: 53
  • ABB Export Bank Switzerland US$ 5 million
  • Bank of China China US$ 10 million
  • Bank of Tokyo-Mitsubishi, which is part of Mitsubishi Tokyo Financial Japan US$ 15 million
  • Banque Nationale de Paris, which is now part of BNP Paribas France US$ 25 million
  • Banque Paribas, which is now part of BNP Paribas France US$ 15 million
  • Commerzbank Germany US$ 10 million
  • Crédit Lyonnais France US$ 10 million
  • Generale Bank, which is now part of Fortis Bank Netherlands/Belgium US$ 10 million
  • HSBC Bank United Kingdom US$ 25 million
  • Industrial Bank of Japan, which is now part of Mizuho Bank Japan US$ 15 million
  • Natexis Banques Populaires France US$ 15 million
  • Société Générale France US$ 34 million
  • Standard Chartered Bank United Kingdom US$ 10 million
• **UBS** Switzerland US$ 21 million

• Around 1999 BNDES-exim, which is part of state-owned development bank **BNDES** (Brazil), issued a loan package of US$ 150 million to Brazilian suppliers to the Three Gorges project.  

• In April 1999, a consortium of German banks committed a US$ 80 million loan to German suppliers of the Three Gorges Dam. The following banks participated in the syndicate:
  - **Commerzbank** Germany
  - DG Bank (now part of **DZ Bank**) Germany
  - Dresdner Bank (now part of **Allianz**) Germany
  - **Kreditanstalt für Wiederaufbau** Germany

Reportedly, **Hermes Kreditversicherungs** (Germany) guaranteed US$ 52.7 million of this loan.  

• In July 1999, CTGPC signed loan agreements with:
  - **Bank of China** China US$ 480 million
  - **Construction Bank of China** China US$ 480 million
  - **Industrial and Commercial Bank of China** China US$ 480 million

• In December 1999, a 14-year US$ 347 million export credit and a 12-year US$ 14 million syndicated loan were committed to **China Development Bank** (China) by an international banking syndicate. The proceeds will be used to finance a 2,000 MW HVDC transmission station at the Three Gorges Dam. The export credit will mature in December 2013 and the syndicated loan will mature in December 2011. The following financial institutions participated in the syndicate:
  - **Australia and New Zealand Banking (ANZ)** Australia US$ 120.3 million
  - **Crédit Agricole** France US$ 120.3 million
  - **Société Générale** France US$ 120.3 million

The export credit was guaranteed by **Exportkreditnämnden (EKN)** (Sweden) and possibly **Exportrisikogarantie** (Switzerland).  

• **Bonds**: Bonds issued by CTGPC could finance around 20% of total project costs. The following information is found regarding bonds issued by CTGPC:

• In 1996, CTGPC issued domestic bonds with a value of 1 billion yuan (US$ 120 million).  

• In early 1999, CTGPC issued domestic bonds with a value of 2 billion yuan (US$ 240 million).  

• In July 2000, CTGPC issued 10-year bonds with a value of 3 billion yuan (US$ 360 million) on the domestic market. **China International Trust & Investment Corporation** (CITIC) is the lead underwriter. Six other financial companies are also underwriters.
• In November 2001, CTGPC issued two bond tranches on the Chinese capital market with issue sizes of 3 billion yuan (US$ 362.5 million) and 2 billion yuan (US$ 241.6 million). The issuance was managed by state-owned China International Trust & Investment Corporation.  

• In January 2003, CTGPC issued a new bond tranche on the Chinese capital market with issue size of 5 billion yuan (US$ 602.4 million). The issuance was managed by state-owned China International Trust & Investment Corporation. This new issuance brought the total amount raised by bond issuances by the CTGPC to 16 billion yuan (US$ 1,920 million).  

• In January 2003, CTGPC announced it was planning to issue more corporate bonds with a value of 20-30 billion yuan (US$ 2.4 to 3.6 billion) on the domestic capital market in the period until 2009.  

• Other direct financing:  

  • A US$ 14 million grant was provided to the Three Gorges project by the Canadian International Development Agency (Canada) for a feasibility study in 1985.  

• Indirect financing:  

  • The People’s Republic of China has been issuing a number of international bonds in the past few years. The proceeds are possibly partly used to fund the government’s direct contribution from the state budget to the Three Gorges Dam. This concerns the following international bond issuances:  

    • International US$ 1,000 million bond issuance by the People’s Republic of China at the end of 1998, lead managed by:  
      • Crédit Suisse First Boston (part of Crédit Suisse) Switzerland  
      • Goldman Sachs United States  

    • International US$ 1,750 million bonds issuance by the People’s Republic of China in May 2001 in Hong Kong and Luxembourg, lead managed by:  
      • Barclays Bank United Kingdom  
      • BNP Paribas France  
      • Deutsche Bank Germany  
      • Goldman Sachs United States  
      • J.P. Morgan Chase & Co. United States  
      • Morgan Stanley United States  

  • To finance its large loans to Three Gorges an other projects, the China Development Bank (formerly known as State Development Bank of China has been issuing international bonds several times. It should be remembered however that CDB had a total amount of 671.5 billion yuan of loans outstanding at the end of 2000, of which only 30 billion yuan is committed to the Three Gorges project (and not yet entirely outstanding). This equals 4.5% of total loans outstanding.  

  • In 1996, the China Development Bank (China) raised ¥ 30,000 million (US$ 269 million) with a bond offering on the Japanese capital market. The bond issuance was underwritten by:
• Daiwa Securities Japan
• IBJ Securities, which is now part of Mizuho Bank Japan
• Kokusai Securities, which is now part of Mitsubishi Tokyo Financial Japan
• LTCB Securities, which is now part of Shinsei Bank Japan
• New Japan Securities, which is now part of Shinko Securities Japan
• Nikko Securities, which is now part of Nikko Cordial Japan
• Nomura Securities Japan
• Norinchukin Securities, which is part of Norinchukin Bank Japan
• Sumitomo Capital Securities, which is now part of a joint-venture between Daiwa Securities Japan and Sumitomo Mitsui Financial Japan
• Wako Securities which is now part of Shinko Securities Japan
• Yamaichi Securities (now dissolved) Japan

In January 1997, the China Development Bank (China) raised US$ 330 million with an international bond offering. The following banks participated in the issuing syndicate (figures refer to amounts underwritten): 71

• Bank of America United States US$ 19.8 million
• Crédit Suisse First Boston (part of Crédit Suisse) Switzerland US$ 66.0 million
• J.P. Morgan & Co. (now part of J.P. Morgan Chase & Co.) United States US$ 66.0 million
• Lehman Brothers United States US$ 66.0 million
• Morgan Stanley United States US$ 66.0 million
• Smith Barney (now part of Citigroup) United States US$ 46.2 million

In May 1999, the China Development Bank (China) issued US$ 500 million bonds, due in 2009. The lead managers for this issuance were, including the amounts underwritten: 72

• Merrill Lynch United States US$ 225 million
• Salomon Brothers, now part of Citigroup United States US$ 225 million

Other banks involved in this issuance were: 73

• ABN AMRO Bank The Netherlands
• Bank of China China
• Banque Paribas (now part of BNP Paribas) France
• Barclays Bank United Kingdom
• Chase Manhattan, which is now part of J.P. Morgan Chase & Co. United States
• China International Capital Corporation China
• Crédit Suisse First Boston (part of Crédit Suisse) Switzerland
• Daiwa Securities Japan
• Deutsche Bank Germany
• Goldman Sachs United States
• HSBC Bank United Kingdom
• ING Bank The Netherlands
• J.P. Morgan & Co., which is now part of J.P. Morgan Chase & Co. United States
• Lehman Brothers United States
• Morgan Stanley United States
• Nomura Securities Japan
• Tokyo-Mitsubishi Bank (part of Mitsubishi Tokyo Financial) Japan

• Between August 2002 and January 2003, China Development Bank issued ten series of domestic bonds with a total value of RM 127,700 million (US$ 15,428.4 million).\(^{74}\)

• Insurance

• Before 2001 CTGPC had concluded insurance contracts with a total value of Rmb 24.3 billion (US$ 2,925 million). Of these contracts, 70% was concluded with People’s Insurance Company of China (China), for a total value of Rmb 17 billion (US$ 2,050 million).\(^{75}\)

• In February 2001 CTGPC insured the installation of 14 hydropower generating units on the Three Gorges’ left bank and the transportation of transformers and gas insulated systems with three Chinese insurance companies. The total value of the contract is Rmb 10 billion (US$ 1,200 million). Underwriting the contract are:
  • China Pacific Insurance Company China US$ 360 million
  • China Ping An Insurance Company China US$ 240 million
  • People’s Insurance Company of China (PICC) China US$ 600 million
2.5.3 Summary of findings

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<th>China: Three Gorges Dam</th>
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<tr>
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<th>Financing percentages</th>
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**Influence assessment**

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<td>Morgan Stanley (United States)</td>
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<tr>
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<th>ABB Export Bank (Switzerland)</th>
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<td>UBS (Switzerland)</td>
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<td>Yamaichi Securities (Japan)</td>
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</tbody>
</table>
2.6 Colombia: Urrá Dam

2.6.1 Key project data

- **Location**: Sinú River, Colombia
- **Construction period**: 1993-2000
- **Project operator**: Empresa Multiproposito Urrá SA, which is a semi-public company under the supervision of Colombia’s Mines and Energy Ministry.
- **Height**: 73 meters
- **Production capacity**: 340 MW
- **Reservoir area / volume**: 7,400 hectares

2.6.2 Project financing

- **Project value**: US$ 800 million
- **Financing overview**: The Urrá reportedly is financed by 40% and 60% debt.
- **Equity financing**: The equity of Empresa Multiproposito Urrá reportedly accounts for 40% of the project value. This equity is supplied by the Colombian government, which has secured funds from other sources.
- **Debt financing**: Debt reportedly accounts for 60% of the project value. The following information is found on loans provided to Empresa Multiproposito Urrá and its suppliers:
  - **Corporación Andina de Fomento** (International) provided a long-term loan to the Urrá project.
  - **The Nordic Investment Bank** (International) has reportedly also granted a loan to the Urrá project.
  - In September 1997, a US$ 60 million 14-year loan was provided by Nordbanken, which is now part of **Nordea** (Finland/Sweden/Denmark).
  - **The Export Development Corporation** (Canada) has provided a US$ 18.2 million loan to the project.
  - In March 1998, **Financiera Energética Nacional** (Colombia) approved a US$ 115 million five-year loan to the Urrá project. Of this amount, US$ 57 million was used to refinance outstanding debt that was due in 1998 and 1999. The rest of the loan was used for investments needed to complete the project.
- Credit guarantees: (Export) credit guarantees have reportedly been granted by: 87
- Exportkreditnämnden (EKN) Sweden Amount unknown
- Government of Colombia Colombia US$ 197 million

2.6.3 Summary of findings

<table>
<thead>
<tr>
<th></th>
<th>Colombia: Urrá Dam</th>
<th>Project value: US$ 800 million</th>
<th>Financing percentages</th>
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<td>Equity</td>
<td>Multilateral development bank loans</td>
<td>National development bank loans</td>
<td>Foreign development loans/aid</td>
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<tr>
<td>40%</td>
<td>10% + (20%)</td>
<td>15%</td>
<td>24%</td>
</tr>
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<td>Influence assessment</td>
<td>Strong influence</td>
<td>Financiera Energética Nacional (Colombia)</td>
<td>Inter-American Development Bank (International)</td>
</tr>
<tr>
<td>Moderate influence</td>
<td>Corporación Andina de Fomento (International)</td>
<td>Export Development Corporation (Canada)</td>
<td>Exportkreditnämnden (Sweden)</td>
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<tr>
<td>Minimal influence</td>
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</tbody>
</table>
2.7 Costa Rica: Boruca Dam

2.7.1 Key project data

- **Location**: Rio Grande de Térraba, Cantón de Buenos Aires.
- **Construction period**: 2003-2008
- **Height**: 260 meter
- **Production capacity**: 832 MW
- **Reservoir area / volume**: 25,000 ha.
- **Project operator**: Instituto Costarricense de Electricidad (ICE - Costa Rica)

2.7.2 Project financing

- **Project value**: US$ 800 million.  

- **Financing overview**: Plans to build the Boruca Dam in combination with an aluminium processing plant (owned by Alcoa) first emerged in the 1970s. The aluminium plant is skipped, and the primary goal of the project is now defined as exporting electricity to other countries in Central America. For various reasons the financing of the project has still not been concluded, however. A new feasibility study is planned to be ready in April 2005, after which ICE will look for financing.  

- **Debt financing**: The following information is found regarding loans to the Boruca project:
  - In the 1980s the Inter-American Development Bank (International) supplied a US$ 60.2 million loan for the preparation of the Boruca project.  
  - In 2000 the Inter-American Development Bank (International) provided a loan to ICE to finance the review, completion and update of the feasibility studies of the project from the 1980s.  

2.7.3 Summary of findings

<table>
<thead>
<tr>
<th>Costa Rica: Boruca Dam</th>
<th>Project value: US$ 800 million</th>
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</thead>
<tbody>
<tr>
<td><strong>Financing percentages</strong></td>
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<tr>
<td>Equity</td>
<td>Multilateral development bank loans</td>
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<tr>
<td>Not yet financed</td>
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</tbody>
</table>

**Influence assessment**

- **Strong influence**: Inter-American Development Bank (International)
- **Moderate influence**
- **Minimal influence**
2.8 Croatia: Novo Virje Dam

2.8.1 Key project data

- **Location:** Drava River
- **Construction period:**
- **Height:**
- **Production capacity:** 138 MW
- **Reservoir area / volume:**
- **Project operator:** Hrvatska Elektroprivreda (HEP - Croatia)

2.8.2 Project financing

- **Project value:** No information found.
- **Financing overview:**
- **Equity financing:**
- **Debt financing:**
- **Credit guarantees:**

2.8.3 Summary of findings

<table>
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<tr>
<th>Croatia: Novo Virje Dam</th>
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<tr>
<td><strong>Financing percentages</strong></td>
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<td>Multilateral development bank loans</td>
</tr>
<tr>
<td>Not yet financed</td>
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</table>

**Influence assessment**

- Strong influence
- Moderate influence
- Minimal influence
2.9 India: Maheshwar Dam

2.9.1 Key project data

- **Location:** Narmada River, Madhya Pradesh, India
- **Construction period:** 1999-?
- **Project operator:** Shree Maheshwar Hydel Power Corporation (India), which is a joint-venture of the Indian textile company S. Kumars Group with several partners. ④
- **Height:** 36 meters
- **Production capacity:** 400 MW
- **Reservoir area / volume:**
- **Remarks:** The Maheshwar Dam is part of the Narmada Valley Development Project, a plan to build 30 major, 135 medium and 3,000 small dams on the Narmada river and its tributaries. ④ ⑤

2.9.2 Project financing

- **Project value:** US$ 465 million. ⑤

- **Financing overview:** Organizing funding for the Maheshwar dam has been a very difficult process, from the moment the project was first launched in 1993. These problems were mostly caused by the strong resistance of local NGOS and their international supporters against the project, because of its severe social and environmental consequences. Over the years, four foreign electricity companies - PacifiCorp (United States), Ogden (United States), Bayernwerk (now E.on, Germany) and VEW (now RWE, Germany) - have been planning to participate in the equity of the project, but all have withdrawn now. The contractors Bechtel (United States), Siemens (Germany) and Alstom (France) also have withdrawn. The ECAs Hermes (Germany) and Companhia de Seguro de Créditos (COSEC) (Portugal), as well as HypoVereinsbank (Germany) in the past two years have withdrawn their financial support for the project, or have refused to get involved. In the 1990s, ABN AMRO Bank (The Netherlands) and Australia and New Zealand Banking (Australia) also have been trying to arrange financing, apparently without success. ④ ⑤

Almost the only constant factor in this project has been the project initiator, the S. Kumars Group, which originally is an Indian textile company. During the past year, S.Kumars has been looking for Indian banks, companies and funds to co-fund the project in the form of equity or loans.

Equity is to provide 30% of total financing, of which S.Kumars wants to contribute 20%. Several Indian financial institutions and companies have expressed interest to participate in the other 80% of the shares, but a definitive composition of the shareholder base has not been agreed yet.

Debt is to provide 70% of total financing, but multilateral banks, foreign ECAs and foreign private banks are not interested to participate (anymore). The gap is filled by a number of Indian financial institutions, which have made sufficient loan commitments. The state-owned Power Finance Corporation (India) will be the most important creditor, supplying US$ 206.3 million (44.4% of total project costs).
Although foreign financial institutions are not directly funding the project, indirectly they do play a role. **Power Finance Corporation** (India), the main creditor of the project, is attracting foreign funds to finance its domestic loans, among others from the **World Bank**. (This is treated under “indirect financing” below.)

- **Equity financing:** The equity of the Shree Maheshwar Hydel Power Corporation is to provide 30% of the total project costs (US$ 140 million). The following information is found regarding equity financing:

  - The following shareholders are willing to participate in the share capital of Shree Maheshwar Hydel Power Corporation: 97
    
    - **S.Kumars** US$ 28 million 20%
    - **Industrial Development Bank of India** (India) with **Life Insurance Corporation (India)** and with **General Insurance Corporation of India** (India) US$ 21 million 15%
    - **Bharat Heavy Industries (India)** US$ 14 million 10%
    - **Madhya Pradesh government (India)** few %

  - Shree Maheshwar Hydel Power Corporation is still looking for other shareholders. A domestic share listing is also considered. 98

- **Debt financing:** Around 70% of the project (US$ 326 million) is to be financed with debt. **Industrial Finance Corporation of India** (India) is arranging bank loans.

  - Reportedly the following banks have committed loans, which together would be sufficient to cover for the debt needed: 99
    
    - **Bank of India** India US$ 12.0 million
    - **Dena Bank** India US$ 5.2 million
    - **Industrial Development Bank of India** India US$ 20.7 million
    - **Industrial Finance Corporation of India** India US$ 10.3 million
    - **Madhya Pradesh State Industrial Development Corporation** India US$ 9.3 million
    - **Power Finance Corporation** India US$ 206.3 million
    - **Punjab National Bank** India US$ 5.2 million
    - **State Bank of India** India US$ 32.3 million
    - **Unit Trust of India** India US$ 46.3 million

- **Indirect financing:** The main creditor of the Maheshwar dam is the Indian state-owned **Power Finance Corporation** (PFC). At the end of March 2002, PFC owned total assets with a value of Rp 164.7 billion (US$ 3,400 million). Of these assets, US$ 441 million (13.0%) was financed by foreign loans. 100

  The following information is found on the foreign funding of PFC:

  - The **Asian Development Bank** (International) in 1997 issued a US$ 250 million loan to PFC. 101
  
  - In 1997, **IKB Deutsche Industrie Bank** (Germany) issued a line of credit of around DM 100-200 million (US$ 50 - 100 million) for financing imports by Indian power utilities. 102
  
  - The **World Bank** (International) has issued a loan of US$ 258.5 million to PFC. 103
• **Export Development Corporation** (Canada) has issued a loan of US$ 75 million to PFC in May 2001.\(^{104}\)

• In November 2001, PFC concluded two structured interest rate swaps worth a total of US$ 50 million with **Crédit Lyonnais** (France) to hedge a portion of its outstanding dollar floating rate debt.\(^{105}\)

• In December 2001, PFC approached **ABN AMRO Bank** (The Netherlands), **Standard Chartered Bank** (United Kingdom), **Crédit Lyonnais** (France) and **Royal Bank of Scotland** (United Kingdom) as it is seeking US$ 50 million in foreign currency loans.\(^{106}\)

Apart from foreign loans, PFC is also hoping to attract foreign shareholders by an Initial public offering (IPO) on a foreign stock exchange. In July 2002, PFC appointed **Morgan Stanley** (United States) to advise on this issue, which should raise around US$ 600 million.\(^{107}\)

### 2.9.3 Summary of findings

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<th><strong>Financing percentages</strong></th>
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<th><strong>Influence assessment</strong></th>
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- **Strong influence**
  - Industrial Finance Corporation of India (India)
  - Power Finance Corporation (India)

- **Moderate influence**
  - Asian Development Bank (International)
  - Bank of India (India)
  - Dena Bank (India)
  - General Insurance Corporation of India (India)
  - Industrial Development Bank of India (India)
  - Life Insurance Corporation (India)
  - Madhya Pradesh State Industrial Development Corporation (India)
  - Morgan Stanley (United States)
  - Punjab National Bank (India)
  - State Bank of India (India)
  - Unit Trust of India (India)
  - World Bank (International)

- **Minimal influence**
  - Crédit Lyonnais (France)
  - Export Development Corporation (Canada)
  - IKB Deutsche Industrie Bank (Germany)
2.10 India: Sardar Sarovar Dam

2.10.1 Key project data

- **Location:** Narmada River, Gujarat, India
- **Construction period:** 2002-?
- **Project operator:** Sardar Sarovar Narmada Nigam Ltd. (India).
- **Height:** 95 meters (current), 139 meters (final)
- **Production capacity:** 1,450 MW
- **Reservoir area / volume:** 37,690 ha.
- **Remarks:** The Sardar Sarovar Dam is part of the Narmada Valley Development Project, a plan to build 30 major, 135 medium and 3,000 small dams on the Narmada river and its tributaries.

2.10.2 Project financing

- **Project value:** US$ 1,200 million (estimated).
- **Financing overview:** The financing of the Sardar Sarovar dam has ran into trouble since the World Bank (International) pulled out in 1993. The dam is half-finished, and an intense political and legal struggle is continuing between the project organisation, Sardar Sarovar Narmada Nigam, local NGOs and the regional governments of Madhya Pradesh and Gujarat over the future of the project. In the mean time, Sardar Sarovar Narmada Nigam and its financial advisor Industrial Credit and Investment Corporation of India (India) are looking mainly to domestic sources to fund the finishing of the dam.
- **Equity financing:** No information is found on the equity financing of Sardar Sarovar Narmada Nigam.
- **Debt financing:** The following information is found on debt financing of the Sardar Sarovar project:
  - In 1985, the World Bank (International) had granted a US$ 450 million loan to the Sardar Sarovar Dam. After an international NGO campaign and a squabble with the Indian government, the World Bank was forced to withdraw from the Sardar Sarovar project in March 1993. At this point, US$ 280 million out of the US$ 450 million loan had already been disbursed.
  - In 1985, the OECF, which is now part of the Japan Bank for International Cooperation (Japan), issued a loan of ¥ 2,850 million (US$ 13.6 million) to the Sardar Sarovar project.
  - In November 1998, Sumitomo Corporation (Japan) provided a loan of ¥ 2,850 million (US$ 24.7 million) to Sardar Sarovar Narmada Nigam to part finance the import of two 200 MW turbine-generator sets.
• Some years ago, Sardar Sarovar Narmada Nigam has issued domestic bonds guaranteed by the government of Gujarat with a value of Rs 35.2 billion (US$ 725 million).\textsuperscript{115}

• In June 2002, over 372 co-operative banks and other co-operative societies from Gujarat received government permission to invest Rs 5.0 billion (US$ 103 million) in the bonds issued by Sardar Sarovar Narmada Nigam.\textsuperscript{116}

2.10.3 Summary of findings

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<td>Moderate influence</td>
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<tr>
<td>Minimal influence</td>
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2.11 Kenya: Sondu-Miriu Dam

2.11.1 Key project data

- **Location:** Sondu River, Nyanza Province
- **Construction period:** 1999-2005
- **Height:** 18 meter
- **Production capacity:** 60 MW
- **Reservoir area / volume:** 500 hectares
- **Project operator:** Kenya Electricity Generating Company Ltd. (Kenya)

2.11.2 Project financing

- **Project value:** US$ 150 million

  - **Financing overview:** Loans from the Japan Bank for International Cooperation (Japan) will probably fund around 95% the total project costs. This leaves only 5% to be financed by the equity of Kenya Electricity Generating Company Ltd.

  - **Equity financing:** Equity of Kenya Electricity Generating Company Ltd. will probably finance only 5% of total project costs.

  - **Debt financing:** Debt could account for around 95% of total project costs. The following information is found on sources of debt:

    - The Overseas Economic Cooperation Fund, which is now part of the Japan Bank for International Cooperation (Japan), in 1998 provided a ¥ 668 million (US$ 4.7 million) loan for a feasibility study for the Sondu-Miriu project.

    - The Overseas Economic Cooperation Fund, which is now part of the Japan Bank for International Cooperation (Japan), in 1997 promised two 30-year soft loans with a total value of US$ 150 million to finance the construction of the Sondu-Miriu project. The first loan of ¥ 6,933 million (US$ 57.4 million) was provided in 1997. The second loan of around US$ 100 million was planned for 2001 but is still not disbursed, because disagreements on financial and environmental issues have risen between Japan Bank for International Cooperation and Kenya Electricity Generating Company Ltd.
### 2.11.3 Summary of findings

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<th><strong>Financing percentages</strong></th>
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<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
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<td>Japan Bank for International Cooperation (Japan)</td>
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<td>Moderate influence</td>
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<td>Minimal influence</td>
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2.12 Laos: Nam Theun-Hinboun Dam (Nam Theun I)

2.12.1 Key project data

- **Location:** Theun River, Khammouane Province, Laos
- **Construction period:** ? - 1998
- **Height:**
- **Production capacity:** 210 MW
- **Reservoir area / volume:**
- **Project operator:** Theun-Hinboun Power Company, which is owned by: 123
  - Electricité du Laos, Laos 60%
  - GMS Power (90%) with Crown Property Bureau (10%), Thailand 20%
  - Vattenfall (50%) with Statkraft (50%), Sweden and Norway 20%

2.12.2 Project financing

- **Project value:** US$ 240.3 million 124

- **Financing overview:** The Nam Theun-Hinboun dam was established as a BOT (build-operate-transfer) project. This means that the Theun-Hinboun Power Company (THPC) built the dam and will operate it during a concession period of 30 years (1998 - 2028). After this period, the dam will be transferred at no cost to the government of Laos. The advantage of this structure for the government of Laos is that it will not be exposed to financial risks such as construction cost overruns.

  Original financing was arranged in 1996. Estimated total project costs amounted to US$ 270.0 million, but actual costs turned out lower: US$ 240.3 million. This means that committed loans were scaled back. The actual financing structure of the project, for which Citigroup (United States) acted as financial advisor, was as follows: 125

  **Equity**
  - Theun-Hinboun Power Company, US$ 110.0 million, 45.8%

  **Debt**
  - Loan from Laos government, US$ 6.9 million, 2.9%
  - Loans from foreign ECAs, US$ 58.6 million, 24.4%
  - Loans from foreign commercial banks, US$ 64.8 million, 27.0%

The financing structure of Nam Theun-Hinboun shows an exemplary mix of different sources of funding: development agencies and multilateral banks (funding part of the equity), ECAs and commercial banks. Notably though, is the fact that large Western banks were involved as financial advisors but didn’t commit funds themselves. The commercial bank loans were completely funded by a syndicate of Thai banks.

- **Equity financing:** The equity of the Theun-Hinboun Power Company (THPC) equalled US$ 110 million, or 45.8% of total project costs. This equity was financed as follows: 126
• GMS Power (90%) with Crown Property Bureau (10%) Thailand US$ 22.0 million
• Vattenfall (50%) with Statkraft (50%) Norway US$ 22.0 million
• Electricité du Laos Laos US$ 66.0 million

The equity contribution of Electricité du Laos (US$ 66.0 million) as well as a loan from the government of Laos to THPC (US$ 6.9 million) together amounted to US$ 72.9 million. Of this amount, US$ 72.5 million was financed by the following grants and interest-free loans to the government of Laos: 127

• Asian Development Bank International US$ 57.7 million
• Nordic Development Fund International US$ 7.3 million
• Norwegian Agency for Development Cooperation Norway US$ 7.1 million
• United Nations Development Programme International US$ 0.4 million

• ECA financing: ECA loans with a total amount of US$ 62 million were secured in 1996 by the Theun-Hinboun Power Company: 128

• Banque Indosuez, which is now part of Crédit Agricole (France) and Australia and New Zealand Banking (Australia) arranged two ECA-guaranteed loans: 129
  • A US$ 30.3 million loan from development agency Absec (Sweden), which was guaranteed by Exportkreditnämnden (EKN) (Sweden);
  • A US$ 21.0 million loan from Eksportfinans (Norway), which was guaranteed by Garanti-Instituttet for Eksportkreditt (GIEK) (Norway).

• Another ECA-loan of US$ 10.7 million was extended by the Export Import Bank of Thailand (Thailand). 130

These three ECA-loans together amounted to US$ 62 million, but only US$ 58.6 million was actually disbursed. The three loans were probably all scaled back proportionally, resulting in the following actual amounts: 131

• Absec Sweden US$ 28.6 million
• Eksportfinans Norway US$ 19.8 million
• Export Import Bank of Thailand Thailand US$ 10.1 million

• Commercial bank loans: A consortium of Thai banks in 1996 committed commercial bank loans for the baht equivalent of US$ 121.5 million. Only US$ 64.8 million was actually committed. The following banks (including their commitments) participated in the syndicate: 132

• Bangkok Bank Thailand US$ 45.3 million
• Bank of Asia (Thailand), which is now part of ABN AMRO Bank Netherlands US$ 18.9 million
• First City Investment which is now part of BankThai Thailand US$ 9.5 million
• Siam City Bank Thailand US$ 19.2 million
• Siam Commercial Bank Thailand US$ 19.0 million
• Union Bank of Bangkok, which is now part of BankThai Thailand US$ 9.5 million
• **Refinancing:** In June 2002, US$ 98.0 million of the original financing structure was refinanced. This refinancing probably included: 133

- **Export Import Bank of Thailand** Thailand US$ 10.1 million
- **Commercial bank loans** Thailand US$ 64.8 million
- **Equity of THPC** Laos US$ 23.1 million

The refinancing consists of the following two loans: 134

- A 10-year US$ 30 million loan by **Export Import Bank of Thailand** (Thailand);

- A 10-year Bt 3,000 million (US$ 69 million) syndicated bank loan arranged by Bangkok Bank (Thailand). Participating in this loan were:
  
  - **Bangkok Bank** Thailand
  - **Bank of Ayudhya** Thailand
  - **BankThai** Thailand
  - **Ekachart Finance, part of National Finance** Thailand
  - **Siam City Bank** Thailand
  - **Siam Commercial Bank** Thailand
  - **Thai Military Bank** Thailand

The agent for both loans was **Crédit Agricole** (France). Financial advisor of THPC on the refinancing was **BNP Paribas** (France).

### 2.12.3 Summary of findings

<table>
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<th>Laos: Nam Theun-Hinboun Dam</th>
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| Project value: US$ 240 million |

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<th>Financing percentages</th>
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<td>Equity</td>
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<td>46%</td>
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<th>Influence assessment</th>
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**Strong influence**

- Absec (Sweden)
- Asian Development Bank (International)
- Bangkok Bank (Thailand)
- Citigroup (United States)
- Export Import Bank of Thailand (Thailand)

**Moderate influence**

- Bank of Ayudhya (Thailand)
- BankThai (Thailand)
- Eksportfinans (Norway)
- Exportkreditnämnden (Sweden)
- Garanti-Institutet for Eksportkreditt (Norway)
- National Finance (Thailand)
- Nordic Development Fund (International)
- Norwegian Agency for Development Cooperation (Norway)
- Siam City Bank (Thailand)
- Siam Commercial Bank (Thailand)
- Thai Military Bank (Thailand)

**Minimal influence**

- United Nations Development Programme (International)
2.13 Laos: Nam Theun II Dam

2.13.1 Key project data

- **Location:** Theun River, Khammouane Province, Laos
- **Construction period:** 2004-2008
- **Height:** 50 meters
- **Production capacity:** 1,070 MW, of which 995 MW will be sold to Electricity Generating Authority of Thailand (EGAT) and 75 MW to Electricité du Laos.\(^{136}\)
- **Reservoir area / volume:** 45,000 hectares
- **Project operator:** Nam Theun 2 Power Company (NTPC), which is owned by: \(^{137}\)
  - Electricité du Laos Laos 25%
  - Electricité de France France 35%
  - Italian-Thai Development Thailand 15%
  - Electricity Generating Public Company (EGCO) Thailand 25%

2.13.2 Project financing

- **Project value:** US$ 1,227 million. \(^{138}\)
- **Financing overview:** The Nam Theun II dam is established as a *Build-Own-Operate-Transfer project* (BOOT). This means that the Nam Theun 2 Power Company (NTPC) will build the dam and will operate it during a concession period of 25 years (from 2006 to 2031). After this period, the dam will be transferred at no cost to the government of Laos. The advantage of this structure for the government of Laos is that it will not be exposed to financial risks such as construction cost overruns.\(^{139}\) The intended financing structure for the project is as follows.\(^{140}\)

**Equity**
- Equity of the NTPC US$ 368 million 30.0%

**Debt**
- Loans from ECAs and commercial banks US$ 400 million 32.6%
- Loans from multilateral banks US$ 459 million 37.4%

**Total** US$ 1,227 million

The project has been delayed for several years however, during which the shareholder composition of the NTPC changed considerably. Funding has not yet been secured, as negotiations on a power purchase agreement (PPA) between NTPC and Electricity Generating Authority of Thailand (EGAT) dragged on. Serious doubts were raised in Thailand if EGAT would need the output of the Nam Theun II dam and if the electricity price would not be too high. Lowering the electricity price would make the project unprofitable, however. Without a signed PPA the World Bank was not prepared to issue a partial-risk guarantee, and without such a guarantee ECAs and foreign commercial banks were not prepared to provide loans.\(^{141}\)
Finally, in February 2002 an initial PPA was signed between EGAT and NTPC, and the final PPA now is expected to be signed in mid-October 2002. In the mean time the BOOT-concession was awarded by the government of Laos to the NTPC in October 2002.\textsuperscript{142}

But in July 2002 the \textbf{World Bank} announced it is only prepared to issue a partial-risk guarantee if it receives wider support among the international donor community and from social and environmental groups. If the project, which is now planned to be in operation in 2008, will find funding therefore is still uncertain.\textsuperscript{143}

Despite the difficulties experienced in realising Nam Theun II, the Thai power company GMS Power (also involved in Nam Theun I) in April 2002 announced it would start developing the Nam Theun III hydropower project.\textsuperscript{144}

- **Equity financing:** Around 30\% of the project (US$ 368 million) is intended to be financed by Nam Theun 2 Power Company Limited (NTPC), which is owned by:\textsuperscript{145}

  - Government of Laos  \hspace{1cm} Laos  \hspace{1cm} 25\%
  - Electricité de France  \hspace{1cm} France  \hspace{1cm} 35\%
  - Italian-Thai Development  \hspace{1cm} Thailand  \hspace{1cm} 15\%
  - Electricity Generating Public Company (EGCO)  \hspace{1cm} Thailand  \hspace{1cm} 25\%

EGCO is a publicly-listed Thai electricity producer, whose major shareholders are Electricity Generating Authority of Thailand (25.4\%) and China Light & Power (Hong Kong, 21.5\%). \textbf{HSBC Bank} (United Kingdom) holds a 2.1\% shareholding in EGCO.\textsuperscript{146}

- **Debt financing:** Around 70\% of the project (US$ 859 million) is intended to be financed by debt. The following information is found on the debt financing of the Nam Theun II project:

  - In 1993, when the project was awarded to the Australian joint-venture Transmec formed by Transfield International and Snowy Mountains Engineering Corp., Citicorp was appointed by the Laotian government to advise it on Nam Theun 2. Citicorp, which is now part of \textbf{Citigroup} (United States), probably has left the field just as Transmec.\textsuperscript{147}

  - In 1996, three banks were appointed to arrange financing: BZW, which is part of \textbf{Barclays Bank} (United Kingdom), Deutsche Morgan Grenfell, which is part of \textbf{Deutsche Bank} (Germany) and \textbf{Société Générale} (France). But in 1998 it was reported that this arranger group had fallen away, although Barclays Bank continued to advise the NTPC.\textsuperscript{148}

  - At present, the following financial institutions are reportedly advising the NTPC on financing the Nam Theun II Dam: \textsuperscript{149}

    - \textbf{Australia and New Zealand Banking (ANZ)}  \hspace{1cm} Australia
    - \textbf{Crédit Agricole}  \hspace{1cm} France
    - SBC Warburg, which is now part of \textbf{UBS}  \hspace{1cm} Switzerland
    - \textbf{Krung Thai Bank}  \hspace{1cm} Thailand
    - \textbf{Thai Farmers Bank}  \hspace{1cm} Thailand

  - The search for banks willing to arrange a banking syndicate started in late October 2002. Thai and international banks would be invited. No final selection has been made yet.\textsuperscript{150}
- The NTPC is in the process of selecting contractors. Bidders are being asked to quote pricing, as well as letters of support from their respective export credit agencies. The NTPC and its financial advisers are also holding talks with ECAs.\textsuperscript{151}

- The NTPC is in advanced talks with the World Bank (International) and Asian Development Bank (International) to commit financial support totalling US$ 150-200 million, or about 20% of total costs.\textsuperscript{152}

- **Credit guarantees:** In 1995 the NTPC asked the World Bank (International) to provide a US$ 94 million partial-risk guarantee, without which the project is unlikely to get commercial funding and to proceed. In February 2000 the World Bank said it would not give its endorsement until the government of Laos commits itself to significant political and economic reforms. In July 2002 the World Bank decided not to extend the guarantee until it receives wider support among the international donor community and from social and environmental groups.\textsuperscript{153}

- **Other financing:**

  - In 1986/87 the World Bank (International) was the executing agency for a pre-feasibility study of Nam Theun II funded by the United Nations Development Programme (International).\textsuperscript{154}

  - In 1989, the World Bank (International) and United Nations Development Programme (International) funded a feasibility study of Nam Theun II by Australian hydropower consultants Snowy Mountains Engineering Corporation (SMEC).\textsuperscript{155}

### 2.13.3 Summary of findings

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#### Financing percentages

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<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
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<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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<tr>
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#### Influence assessment

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<td>World Bank (International)</td>
<td>Crédit Agricole (France)</td>
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<td>Krung Thai Bank (Thailand)</td>
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<td>Thai Farmers Bank (Thailand)</td>
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<td>UBS (Switzerland)</td>
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2.14 Lesotho: Lesotho Highlands Water Project

2.14.1 Key project data Katse Dam

- **Location:** Malibamatso River, Lesotho
- **Construction period:** 1986-1998
- **Height:** 182 meters
- **Production capacity:** No power generation.
- **Reservoir area / volume:**
- **Project operator:** Lesotho Highlands Development Authority (Lesotho) is responsible for the hydropower component, while Trans-Caledon Tunnel Authority (South Africa) is responsible for the water transfer component.\(^\text{156}\)
- **Remarks:** Construction of the Katse Dam, the Muela Dam and 82 kilometer of tunnels together comprise Phase 1A of the Lesotho Highlands Water Project (LHWP), which involves the construction of six dams in Lesotho's Maluti Highlands between 1990 and 2020. The scheme will eventually divert about 40% of the water in the Senqunyane river basin, via a complex system of dams, pumps and tunnels to the Ash River in the neighbouring Gauteng province of South-Africa. Gauteng includes the major conurbations of Johannesburg and Pretoria, as well as the highest concentration of mining and industrial activities in the country. Water demand in this area is growing strongly. Phase 1A was finished in 1998 and since then results in a waterflow of 18 m\(^3\)/second to the Ash River and the production of hydropower.\(^\text{157}\)

2.14.2 Key project data Muela Dam

- **Location:** Nqoe River, Lesotho
- **Construction period:** 1986-1998
- **Height:**
- **Production capacity:** 72 MW
- **Reservoir area / volume:**
- **Project operator:** Lesotho Highlands Development Authority (Lesotho) is responsible for the hydropower component, while Trans-Caledon Tunnel Authority (South Africa) is responsible for the water transfer component.\(^\text{158}\)
Remarks: Construction of the Katse Dam, the Muela Dam and 82 kilometer of tunnels together comprise Phase 1A of the Lesotho Highlands Water Project (LHWP), which involves the construction of six dams in Lesotho’s Maluti Highlands between 1990 and 2020. The scheme will eventually divert about 40% of the water in the Senqunyane river basin, via a complex system of dams, pumps and tunnels to the Ash River in the neighbouring Gauteng province of South-Africa. Gauteng includes the major conurbations of Johannesburg and Pretoria, as well as the highest concentration of mining and industrial activities in the country. Water demand in this area is growing strongly. Phase 1A was finished in 1998 and since then results in a waterflow of 18 m$^3$/second to the Ash River and the production of hydropower.\textsuperscript{159}

2.14.3 Key project data Mohale Dam

- **Location:** Senqunyane River, Lesotho
- **Construction period:** 1998-2002
- **Height:** 145 meters
- **Production capacity:** No electricity generation.
- **Reservoir area / volume:**
- **Project operator:** Lesotho Highlands Development Authority (Lesotho) is responsible for the hydropower component, while Trans-Caledon Tunnel Authority (South Africa) is responsible for the water transfer component.\textsuperscript{160}
- **Remarks:** The Mohale Dam, the Mohale Tunnel (32 kilometer) and the Matsoku Diversion together form Phase 1B of the Lesotho Highlands Water Project, which is aimed at increasing the water supply from the Lesotho Highlands to the South-African Gauteng province from 18 to 30 m$^3$/second.\textsuperscript{161}

2.14.4 Project financing

- **Project values:** US$ 2,415 million (Phase 1A)\textsuperscript{162}  
  US$ 1,150 million (Phase 1B)\textsuperscript{163}
- **Financing overview:** The Lesotho Highlands Water Project is a joint project between the government of South Africa and the kingdom of Lesotho, carried out by the project operators Lesotho Highlands Development Authority (Lesotho) and Trans-Caledon Tunnel Authority (South Africa). Lesotho Highlands Development Authority (LHDA) is responsible for mobilising capital for project implementation within Lesotho and Trans-Caledon Tunnel Authority (TCTA) is responsible for the South African part of the project. But TCTA is managing all debt of the LHWP, including the debt owed by the LHDA.

The original financing structure of Phase 1A, with total project costs of US$ 2,414.8 million, was as follows: \textsuperscript{164}

- **Equity:**
  - Republic of South Africa \hspace{1cm} US$ 579.2 million \hspace{1cm} 24.0%  
  - Kingdom of Lesotho \hspace{1cm} US$ 57.2 million \hspace{1cm} 2.4%  
- **Debt:**
  - Loans from foreign development banks and agencies \hspace{1cm} US$ 632.2 million \hspace{1cm} 26.2%
Loans from foreign banks  US$ 478.0 million  19.8%
Loans & bonds from Southafrican investors  US$ 668.2 million  27.7%

Total:  US$ 2,414.8 million

Possibly, the loans from foreign development banks and agencies include some grants to the Lesotho government as well. This would mean the debt financing would be somewhat lower than presented here, and the equity contribution of Lesotho would be somewhat higher. Nevertheless, it seems clear that South Africa provided the largest equity portion for the project, while the status of Lesotho as a LDC-country and a member of the ACP-countries made it possible to attract a large amount of development loans. Foreign financing (from outside Lesotho and South Africa) accounted for 36.0% of total project costs.

The original financing structure of Phase 1B, with total project costs of US$ 1,150 million, was as follows:

**Equity:**
- Republic of South Africa (included in SA loans below)  pm
- Kingdom of Lesotho  US$ 25 million  2.2%

**Debt:**
- Loans from development banks  US$ 200 million  17.4%
- Loans from foreign commercial banks  US$ 100 million  8.7%
- Loans & bonds from Southafrican investors  US$ 825 million  71.7%

Total:  US$ 1,150 million

Clearly, South Africa is financing the major part of Phase 1B, although the division between the Southafrican government, Southafrican banks and Southafrican bondholders is not clear. Foreign financing accounts for 26.1% of total project costs. Different from phase 1A, direct financing by bilateral development agencies as well as by ECAs is absent (although ECAs have issued guarantees for part of the foreign commercial bank loans).

The two financing structures presented above, describe the situation at the start of Phase 1A and Phase 1B respectively. Since then TCTA - which is managing the debt of the entire LHWP - is in the process of refinancing some of the debt. Several foreign loans granted for Phase 1A are maturing shortly and are being replaced by funds raised by TCTA on the Southafrican capital market. TCTA has an extensive programme of long-term bond issuances, guaranteed by the Southafrican government, which are sold to Southafrican investors.

At the end of March 2002, the LHWP had a total outstanding debt of R 17,588 million (US$ 1,552 million). At that moment, this debt was financed as follows:

- Bonds issued in South Africa  R 11,339 million  64.5%
- Loans from Southafrican banks  R 2,308 million  13.1%
- Foreign loans  R 3,733 million  21.2%
- Others  R 208 million  1.2%

Already, the foreign financing percentage has clearly decreased. And according to the TCTA, the foreign funding component will decrease substantially during the 2002/03 financial period as all Phase 1A foreign loans are going to be refinanced in the local capital market.
• **Equity financing:** The equity financing for the LHWP is provided by the governments of South Africa and Lesotho.

• **Loan financing:** The following information is found regarding loans issued to TCTA and LHDA to finance the LHWP:

  The following development agencies and multilateral development banks have reportedly committed loans to the funding of Phase 1A of the Lesotho Highlands Water Project (LHWP) in the early 1990s: ¹⁶⁷

  - **African Development Bank** International US$ 50.0 million
  - Foreign development agencies Various US$ 117.8 million
  - Commonwealth Development Corporation (now: **CDC Capital Partners**) United Kingdom US$ 36.1 million
  - **Development Bank of Southern Africa** International US$ 241.0 million
  - **European Development Fund** International US$ 57.0 million
  - **European Investment Bank** International US$ 20.0 million
  - **United Nations Development Programme** International US$ 0.3 million
  - **World Bank** International US$ 110.0 million

  The following foreign banks have reportedly committed loans to the funding of Phase 1A of the Lesotho Highlands Water Project (LHWP) in the early 1990s: ¹⁶⁸

  - Banque Nationale de Paris (now part of **BNP Paribas**) France US$ 19.7 million
  - **Crédit Lyonnais** France US$ 17.0 million
  - Hill Samuel (now part of **Lloyds TSB**) United Kingdom with **Crédit Lyonnais** France US$ 14.5 million
  - Dresdner Bank (now part of **Allianz**) Germany with **Kreditanstalt für Wiederaufbau** Germany US$ 15.8 million

  The following development agencies and multilateral development banks have reportedly committed loans to the funding of Phase 1B of the Lesotho Highlands Water Project (LHWP) at the end of the 1990s: ¹⁶⁹

  - **Development Bank of Southern Africa** International US$ 45.0 million
  - **European Investment Bank** International US$ 110.0 million
  - **World Bank** International US$ 45.0 million

  Additionally, US$ 8 million of the **World Bank** loan for Phase 1A was used for Phase 1B.

  In September 1995 Deutsche Morgan Grenfell, which is part of **Deutsche Bank** (Germany), was appointed as financial advisor to the LHDA for the financing of Phase 1B of the LHWP. ¹⁷⁰

  In September 1997, an international banking syndicate provided a loan to TCTA for Phase 1B of the LHWP. The total value of this loan was US$ 100 million. Part of the loan was guaranteed by ECAs. The banks arranging the syndicate were: ¹⁷¹

  - **Bankgesellschaft Berlin** Germany US$ 14.2 million
  - **Crédit Lyonnais** France US$ 14.2 million
  - Crédit Suisse First Boston, which is
part of Crédit Suisse Switzerland US$ 14.2 million
- Dai-Ichi Kangyo Bank, which is now part of Mizuho Bank Japan US$ 14.2 million
- Fuji Bank, which is now part of Mizuho Bank Japan US$ 14.2 million

Other banks participating in the syndicate were: 172

- Banc Agricol i Comercial d’Andorra, which is now part of Andbanc Grup Agricol Reig Andorra US$ 1.5 million
- Bank of Tokyo-Mitsubishi, which is part of Mitsubishi Tokyo Financial Japan US$ 2.5 million
- Banque et Caisse d’Epargne de l’Etat Luxembourg US$ 2.5 million
- BfG Bank, which is now part of SEB Sweden US$ 2.5 million
- Caixa Geral de Depósitos Portugal US$ 5.0 million
- Frankfurter Sparkasse Germany US$ 2.5 million
- National Bank of Abu Dhabi Abu Dhabi US$ 2.5 million
- National Bank of Greece Greece US$ 2.5 million
- Norinchukin Bank Japan US$ 7.5 million

- Nedbank (South Africa) and Standard Bank (South Africa) supplied a loan of M 40 million (US$ 8.2 million) to the LHDA for the construction of the Maseru-by-pass road in November 1997. 173

- HSBC Bank (United Kingdom) and Crédit Lyonnais (France) supplied a loan of M 230 million (US$ 51 million) to the LHDA for the Mohale Tunnel in December 1997. 174

- In November 1998, Nedbank (South Africa) supplied a loan of M 60 million (US$ 10.5 million) to the LHDA for refinancing of loans for the Muela Hydropower station. 175

- Bond financing: The following information is found regarding domestic bond issues of TCTA to (re)finance the LHWP:

  In November 2001, TCTA started issuing its fifth series of domestic bonds on the South African capital market. All bonds are guaranteed by the Southafrican government, making them more attractive to domestic investors. The first four series had fixed interest rates, the fifth is inflation-linked and matures in 2015. The total value of all five series, when fully issued, is R 23.5 billion (US$ 2.1 billion). Total value of TCTA bonds outstanding at the end of March 2002 was R 11,339 million (US$ 1.0 billion). 176

  Each month a number of bonds of various bond series is being auctioned to South-African investors. Six banks are responsible for this selling process: 177

- Deutsche Bank Germany
- Gensec Bank South Africa
- Investec South Africa
- J.P. Morgan Chase & Co. United States
- Rand Merchant Bank South Africa
- Standard Bank South Africa

- Credit guarantees:
The following foreign ECAs have reportedly provided credit guarantees for Phase 1A of the Lesotho Highlands Water Project (LHWP) in the early 1990s:

- **Coface** France US$ 104.0 million
- **Export Credits Guarantee Department** United Kingdom US$ 82.0 million
- **Hermes Kreditversicherungs** Germany US$ 118.0 million
- **SACCE** South Africa US$ 107.0 million

The following ECA’s are reported to have provided credit guarantees for Phase 1B of the Lesotho Highlands Water Project:

- **Hermes Kreditversicherungs** Germany
- **SACE** Italy
### 2.14.5 Summary of findings

**Lesotho: Lesotho Highlands Water Project Phase 1A**

**Project value:** US$ 2,415 million

<table>
<thead>
<tr>
<th>Financing percentages</th>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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<tbody>
<tr>
<td></td>
<td>26%</td>
<td>20%</td>
<td>6%</td>
<td>48%</td>
<td>(17%)</td>
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</table>

**Influence assessment**

- **Strong influence**
  - Development Bank of Southern Africa (International)

- **Moderate influence**
  - African Development Bank (International)
  - CDC Capital Partners (United Kingdom)
  - Coface (France)
  - European Development Fund (International)
  - Hermes Kreditversicherungs (Germany)
  - SACCE (South Africa)
  - World Bank (International)

- **Minimal influence**
  - BNP Paribas (France)
  - Crédit Lyonnais (France)
  - Dresdner Bank / Allianz (Germany)
  - European Investment Bank (International)
  - Export Credits Guarantee Department (United Kingdom)
  - Kreditanstalt für Wiederaufbau (Germany)
  - Lloyds TSB (United Kingdom)
  - United Nations Development Programme (International)

**Lesotho: Lesotho Highlands Water Project Phase 1B**

**Project value:** US$ 1,150 million

<table>
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<th>Financing percentages</th>
<th>Equity</th>
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<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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</thead>
<tbody>
<tr>
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<td>30%</td>
<td>17%</td>
<td>53%</td>
<td></td>
<td>(10%)</td>
<td></td>
<td></td>
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</table>

**Influence assessment**

- **Strong influence**
  - European Investment Bank (International)

- **Moderate influence**
  - Bankgesellschaft Berlin (Germany)
  - Crédit Lyonnais (France)
  - Crédit Suisse (Switzerland)
  - Development Bank of Southern Africa (International)
  - Hermes Kreditversicherungs (Germany)
  - HSBC Bank (United Kingdom)
  - Mizuho Bank (Japan)
  - Nedbank (South Africa)
  - SACE (Italy)
  - World Bank (International)

- **Minimal influence**
  - Andbank Grup Agricol Reig (Andorra)
  - Banque et Caisse d'Epargne de l'Etat (Luxembourg)
  - Caixa Geral de Depósitos (Portugal)
  - Deutsche Bank (Germany)
  - Frankfurter Sparkasse (Germany)
  - Gensec Bank (South Africa)
  - Investec (South Africa)
  - J.P. Morgan Chase & Co. (United States)
  - Mitsubishi Tokyo Financial (Japan)
  - National Bank of Abu Dhabi (Abu Dhabi)
  - National Bank of Greece (Greece)
  - Norinchukin Bank (Japan)
  - Rand Merchant Bank (South Africa)
  - SEB (Sweden)
  - Standard Bank (South Africa)
2.15 Mozambique: Mepanda Uncua Dam

2.15.1 Key project data

- **Location:** Zambezi River
- **Construction period:** 2005-2011
- **Height:** 101 meter
- **Production capacity:** 1,300 MW (first phase); 1,100 MW (second phase)
- **Reservoir area / volume:** 9,650 hectares
- **Project operator:** Not yet decided.
- **Remarks:** The project includes the building of two 400 kV, 1,540 kilometer transmission lines to the Mozambican capital Maputo. These transmission lines account for more than half of the total project costs.

2.15.2 Project financing

- **Project value:** US$ 2,500 million
- **Financing overview:** Financing is not yet arranged.
- **Equity financing:**
- **Debt financing:**
- **Credit guarantees:**
- **Other financing:** In 1999 Unidade Técnica de Implementação dos Projectos Hidroeléctricos (UTIP), a governmental body, commissioned a US$ 10 million comprehensive study of hydropower development options in the Zambezi River downstream of Cahora Bassa. This study was financed by:
  - Caisse Française de Développement, which is now called Agence Française de Développement (AFD) (France)
  - Deutsche Investitions- und Entwicklungsgesellschaft (DEG) (Germany)
  - Norwegian Agency for Development Cooperation (NORAD) (Norway)
### Summary of findings

**Mozambique: Mepanda Uncua Dam**

**Project value:** US$ 2,500 million

#### Financing percentages

<table>
<thead>
<tr>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<td></td>
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</table>

#### Influence assessment

<table>
<thead>
<tr>
<th>Influence</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>Agence Française de Développement (France)</td>
</tr>
<tr>
<td></td>
<td>Deutsche Investitions- und Entwicklungsgesellschaft (Germany)</td>
</tr>
<tr>
<td></td>
<td>Norwegian Agency for Development Cooperation (Norway)</td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>Minimal</td>
<td></td>
</tr>
</tbody>
</table>
2.16 Turkey: Birecik Dam

2.16.1 Key project data

- **Location:** Euphrates River, South-Eastern Anatolia, Turkey
- **Construction period:** 1996-2000
- **Height:** 63 meters
- **Production capacity:** 672 MW
- **Reservoir area / volume:**
- **Project operator:** Biracik Baraj Ve Hidroelektrik Santrali Tesis Ve Isletme or Birecik Company (Turkey). This is a joint-venture between:
  - TEAS Turkey 30.0%
  - Gama Turkey 18.0%
  - Philipp Holzmann Germany 16.9%
  - GEC Alsthom Belgium/France 10.5%
  - Strabag Osterreich Austria 8.4%
  - Cegelec Belgium/France 6.2%
  - Verbundplan Austria 4.3%
  - Sulzer Hydro Germany 3.7%
  - TGT (joint-venture Gama & TEAS) Turkey 2.0%

TEAS is the Turkish state-owned electricity company. The other partners are construction companies and equipment suppliers.

- **Remarks:** The Birecik Dam is part of the South-Eastern Anatolia Project (GAP), a US$ 32 billion infrastructure development programme that envisages the construction of 22 dams and 19 power plants on the Tigris and Euphrates rivers and their tributaries. It is planned that at full development over 1.7 million hectares of land will be irrigated and 27 billion kWh of electricity will be generated annually with an installed capacity over 7,500 MW.

2.16.2 Project financing

- **Project value:** US$ 1,566 million

- **Financing overview:** The Birecik dam is the first power plant in Turkey built on a build-operate-transfer (BOT) basis. This means that the Birecik Company (NTPC) will build the dam and will operate it during a concession period of 15 years (from 2001 to 2016). After this period, the dam will be transferred at no cost to the government of Turkey. The advantage of this structure for the government of Turkey is that it will not be exposed to financial risks such as construction cost overruns. After years of discussion, the financing agreements were signed in November 1995. The financing structure was as follows:

**Equity**
- Shareholders Birecik Company: US$ 226.7 million 14.5%
- Start-up revenues: US$ 56.8 million 3.6%
Debt

- Commercial bank loans guaranteed by ECAs: US$ 956.7 million (61.1%)
- Not guaranteed commercial bank loans: US$ 325.8 million (20.8%)

Total: US$ 1,566.0 million

What is remarkable in this financing structure is the large role played by commercial banks, which have provided 82% of total financing. But it should be noted that 75% of their loans are guaranteed by foreign ECAs, which therefore also play a prominent role. Multilateral and bilateral development banks and agencies are totally absent, however, making this a rather unique case.

Equity financing plays a smaller role than usual (18%). Also remarkable is the large percentage of the equity supplied by construction companies and equipment suppliers. The electricity off-taker, TEAS, is the largest shareholder, but only holds 30%.

**Equity financing:** Around 18% of the total project costs (US$ 283.5 million) is financed by equity. The shareholders of the Birecik Company contribute US$ 226.7 million. These shareholders are:

- TEAS Turkey 30.0%
- Gama Turkey 18.0%
- Philipp Holzmann Germany 16.9%
- GEC Alsthom Belgium/France 10.5%
- Strabag Österreich Austria 8.4%
- Cegedel Belgium/France 6.2%
- Verbundplan Austria 4.3%
- Sulzer Hydro Germany 3.7%
- TGT (joint-venture Gama & TEAS) Turkey 2.0%

**Debt financing:** Around 82% of the project (US$ 1,282.5 million) is financed by two international bank loans extended in November 1995. The first loan (US$ 956.7 million) is guaranteed by ECAs and has a tenure of 15.5 years. The second loan (US$ 325.8 million) is not guaranteed and has a 8 year tenure.

Both loans are extended by the same banking syndicate. The arranging banks were:

- Bayerische Landesbank Germany
- Chase Manhattan (now part of J.P. Morgan Chase & Co.) United States
- Generale Bank (now part of Fortis Bank) The Netherlands/Belgium
- GiroCredit Bank (now part of Erste Bank) Austria
- Kreditanstalt für Wiederaufbau Germany
- Société Générale France

Other banks participating in the loan syndicate were:

- ABN AMRO Bank The Netherlands
- Bank Austria (now part of HypoVereinsbank) Germany
- Bank für Arbeit und Wirtschaft Austria
- Bank für Oberösterreich und Salzburg (now: Oberbank) Austria
- Bankhaus Carl Spängler & Co. Austria
- Banque Bruxelles Lambert (now part of ING Bank) The Netherlands
- Banque Française du Commerce Extérieur (now part of Natexis Banques Populaires) France
• Banque Indosuez (now part of Crédit Agricole) France
• Banque Nationale de Paris (now part of BNP Paribas) France
• Banque Paribas (now part of BNP Paribas) France
• Banque Worms (now part of Deutsche Bank) Germany
• Barclays Bank United Kingdom
• Bayerische Hypotheken und Wechsel Bank (now part of HypoVereinsbank) Germany
• Berliner Bank (now part of Bankgesellschaft Berlin) Germany
• Berliner Handels und Frankfurter Bank (now part of ING Bank) The Netherlands
• Commerzbank Germany
• Crédit Commercial de France (now part of HSBC Bank) United Kingdom
• Crédit Local de France (now part of Dexia) Belgium/France
• Creditanstalt-Bankverein (now part of HypoVereinsbank) Germany
• Deutsche Girozentrale-Deutsche Kommunalbank (now part of DekaBank) Germany
• DG Bank (now part of DZ Bank) Germany
• Erste Bank der Österreichischen Sparkassen (now: Erste Bank) Austria
• Dresdner Bank (now part of Allianz) Germany
• Gulf International Bank Bahrain
• Kärntner Sparkasse Austria
• Korea First Bank (now part of Newbridge Capital) United States
• Krediet aan de Nijverheid (now part of Fortis Bank) The Netherlands/Belgium
• Landesbank Berlin (now part of Bankgesellschaft Berlin) Germany
• Landesbank Hessen-Thüringen Girozentrale (now: Helaba) Germany
• Landesbank Rheinland-Pfalz Germany
• Mitsubishi Trust & Banking (now part of Mitsubishi Tokyo Financial) Japan
• Norddeutsche Landesbank Germany
• Rabobank The Netherlands
• Raiffeisen Zentralbank Österreich Austria
• Royal Bank of Scotland United Kingdom
• SaarLandesbank (now part of Bayerische Landesbank) Germany
• Salzburger Landes-Hypothekenbank (now: Hypobank Salzburg) Austria
• Salzburger Sparkasse Bank Austria
• Sanwa Bank (now part of UFJ Bank) Japan
• Türkiye Vakıflar Bankası (now: VakıfBank) Turkey
• Westdeutsche Landesbank (WestLb) Germany

• Credit guarantees: The following ECAs in November 1995 guaranteed an international syndicated bank loan of US$ 956.7 million, equivalent to 61.1% of total project costs: 194

- Ducroire-Delcredere Belgium US$ 206.1 million
- Coface France US$ 167.5 million
- Hermes Kreditversicherungs Germany US$ 403.2 million
- Österreichische Kontrollbank Austria US$ 179.9 million
2.16.3 Summary of findings

Turkey: Birecik Dam

Project value: US$ 1,566 million

<table>
<thead>
<tr>
<th>Financing percentages</th>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(61%)</td>
</tr>
</tbody>
</table>

Influence assessment

**Strong influence**

- Bayerische Landesbank (Germany)
- Erste Bank (Austria)
- Fortis Bank (The Netherlands/Belgium)
- J.P. Morgan Chase & Co. (United States)
- Kreditanstalt für Wiederaufbau (Germany)
- Société Générale (France)

**Moderate influence**

- ABN AMRO Bank (The Netherlands)
- Bank für Arbeit und Wirtschaft (Austria)
- Bankgesellschaft Berlin (Germany)
- Bankhaus Carl Spängler & Co. (Austria)
- Barclays Bank (United Kingdom)
- BNP Paribas (France)
- Coface (France)
- Commerzbank (Germany)
- Crédit Agricole (France)
- DekaBank (Germany)
- Deutsche Bank (Germany)
- Dexia (Belgium/France)
- Dresdner Bank / Allianz (Germany)
- Ducroire-Delcredere (Belgium)
- DZ Bank (Germany)
- Gulf International Bank (Bahrain)
- Helaba (Germany)
- Hermes Kreditversicherungs (Germany)
- HSBC Bank (United Kingdom)
- Hypobank Salzburg (Austria)
- HypoVereinsbank (Germany)
- ING Bank (The Netherlands)
- Kärntner Sparkasse (Austria)
- Landesbank Rheinland-Pfalz (Germany)
- Mitsubishi Tokyo Financial (Japan)
- Natexis Banques Populaires (France)
- Newbridge Capital (United States)
- Norddeutsche Landesbank (Germany)
- Oberbank (Austria)
- Österreichische Kontrollbank (Austria)
- Rabobank (The Netherlands)
- Raiffeisen Zentralbank Österreich (Austria)
- Royal Bank of Scotland (United Kingdom)
- Salzburger Sparkasse Bank (Austria)
- UFJ Bank (Japan)
- VakifBank (Turkey)
- Westdeutsche Landesbank (Germany)

**Minimal influence**
2.17 Turkey: Deriner Dam

2.17.1 Key project data

- **Location:** Coruh River, East Turkey
- **Construction period:** 1998-2005
- **Height:** 254 meter
- **Production capacity:** 670 MW
- **Reservoir area / volume:** 2000 Mm$^3$
- **Project operator:** State Hydraulic Works (Turkey).

2.17.2 Project financing

- **Project value:** US$ 850 million (estimated).

- **Financing overview:** It is estimated that the Deriner project is financed by 24% equity and 76% debt.

- **Equity financing:** Equity participation by State Hydraulic Works is estimated at US$ 205 million (24% of total project costs).

- **Debt financing:** Debt is probably funding US$ 645 million, or 76% of total project costs. The following information is found regarding loans provided to the Deriner project:
  
  - In November 1997 SBC Warburg Dillon Read, which is now part of **UBS** (Switzerland), arranged a US$ 315 million package of syndicated bank loans for the Deriner project. The package included one export credit facility guaranteed by the Swiss and Austrian export credit agencies, and two additional uncovered facilities. Among the eight European banks participating in the syndicates were ABB Structured Finance, which is now part of **GE Commercial Finance** (United States) and Generale Bank, which is now part of **Fortis Bank** (The Netherlands/Belgium).  

  - In April 2001 an international banking syndicate arranged by **ABN AMRO Bank** (The Netherlands) and **Akbank** (Turkey) arranged a 6-year US$ 330 million loan to the Deriner project. Akbank itself participated with US$ 220 million in the syndicate. Other banks participating in the syndicate were **Isbank** (Turkey) and **Pamukbank** (Turkey).

- **Credit guarantees:** Credit guarantees for part of the loans issued in November 1997 to the Deriner project were issued by the following ECA's:
  
  - **Exportrisikogarantie** Switzerland
  - **Österreichische Kontrollbank** Austria
### 2.17.3 Summary of findings

**Turkeu: Deriner Dam**

**Project value:** US$ 711 million

#### Financing percentages

<table>
<thead>
<tr>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
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<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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</thead>
<tbody>
<tr>
<td>24%</td>
<td></td>
<td>76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(20%)</td>
</tr>
</tbody>
</table>

#### Influence assessment

- **Strong influence**
  - ABN AMRO Bank (The Netherlands)
  - Akbank (Turkey)
  - UBS (Switzerland)

- **Moderate influence**
  - Exportrisikogarantie (Switzerland)
  - Fortis Bank (The Netherlands / Belgium)
  - GE Commercial Finance (United States)
  - Isbank (Turkey)
  - Österreichische Kontrollbank (Austria)
  - Pamukbank (Turkey)

- **Minimal influence**
2.18  Turkey: Ilisu Dam

2.18.1  Key project data

- **Location:** Tigris River, South-eastern Anatolia, Turkey
- **Construction period:** 2000-2008
- **Height:** 135 meters
- **Production capacity:** 1,200 MW
- **Reservoir area / volume:** 31,300 hectares
- **Project operator:** State Hydraulic Works (Turkey).
- **Remarks:** The Ilisu Dam is part of the Southeastern Anatolia Project (GAP), a US$ 32 billion infrastructure development programme that envisages the Construction of 22 dams and 19 power plants on the Tigris and Euphrates rivers and their tributaries. It is planned that at full development over 1.7 million hectares of land will be irrigated and 27 billion kWh of electricity will be generated annually with an installed capacity over 7,500 MW. 198

2.18.2  Project financing

- **Project value:** US$ 1,520 million. 199
- **Financing overview:** If and how a financing package for the Ilisu dam will be organized, is highly uncertain since most of the important players in the project have dropped. After the construction companies Balfour Beatty (United Kingdom), Impregilo (Italy), and Skanska (Sweden), in February 2002 financial advisor UBS also dropped out.
- **Equity financing:** Unclear.
- **Debt financing:** The Union Bank of Switzerland, which is now **UBS** (Switzerland), tried to arrange a syndicated loan since 1998. But in February 2002, the bank pulled out of its mandate because of fears about Ilisu Dam’s social and environmental impact. 200
- **Credit guarantees:** The following ECAs provisionally agreed to provide export credit guarantees for the Ilisu Dam:
  
  - Exportrisikogarantie  Switzerland  US$ 335 million
  - Export Credits Guarantee Department  United Kingdom  US$ 200 million
  - SACE  Italy  US$ 152 million
  - Export-Import Bank of the United States  United States  US$ 20 million

These export credit guarantees have not been formally committed however, as they were tied to deliveries by contractors which have since pulled out of the project. 201
## 2.18.3 Summary of findings

<table>
<thead>
<tr>
<th>Turkey: Ilisu Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project value:</strong> US$ 1,520 million</td>
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</table>

### Financing percentages

<table>
<thead>
<tr>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
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<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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</thead>
<tbody>
<tr>
<td>Not yet financed</td>
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### Influence assessment

<table>
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<tr>
<th>Strong influence</th>
<th>Moderate influence</th>
<th>Minimal influence</th>
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</thead>
<tbody>
<tr>
<td>Exportrisikogarantie (Switzerland)</td>
<td>Export Credits Guarantee Department (United Kingdom) SACE (Italy) Export-Import Bank of the United States (United States)</td>
<td></td>
</tr>
</tbody>
</table>
2.19 Uganda: Bujagali Falls Dam

2.19.1 Key project data

- **Location**: Victoria Nile river, southeastern Uganda
- **Construction period**: 2002-2006
- **Height**: 30 meters
- **Production capacity**: 200 MW
- **Reservoir area / volume**: 
- **Project operator**: AES Nile Power, which is a joint-venture of:
  - AES Corporation United States 94%
  - Madhvani International Uganda 6%

2.19.2 Project financing

- **Project value**: US$ 583 million
- **Financing overview**: Financial advisor Westdeutsche Landesbank (Germany) originally proposed to finance the Bujagali project by a mixed financing structure, comprising multilateral development bank loans as well as commercial bank loans backed by ECA-guarantees. But several ECAs and development agencies, including the Overseas Private Investment Corporation (United States), the Export Credits Guarantee Department (United Kingdom) and Deutsche Investitions- und Entwicklungsgesellschaft (Germany) declined support for Bujagali.
  
  Other ECAs were prepared to step in, but objected to the large political risk they had to carry. In an innovative solution, in July 2002 World Bank-subsidiary Multilateral Investment Guarantee Agency (MIGA) was brought in to carry the political risk. ECA-linked banks Svensk Exportkredit (Sweden) and Eksportfinans (Norway) are arranging the ECA-guaranteed loans. This means that the role of commercial banks in the total financing structure is much reduced.

  The most recent proposal for the financing structure looks as follows:

  **Equity**
  - Equity of AES Nile Power US$ 116.7 million 19.7%

  **Debt**
  - Loans by (multilateral) development banks US$ 130 million 22.0%
  - IDA-guaranteed commercial bank loans US$ 115 million 19.4%
  - ECA-guaranteed loans US$ 210 million 35.5%
  - Bonds US$ 20 million 3.4%

  **Total** US$ 591.7 million

As total funding commitments exceed total project costs (US$ 583 million), actual funding will probably be scaled down.
The financing of the project has not been finalized yet, as the World Bank (International) has stalled its commitments since evidence came up that one of the subcontractors of the project, Veidekke (Norway), had bribed an Ugandan official.  

- **Equity financing**: Around 20% of the total project value (US$ 116.7 million) will be financed by the equity of AES Nile Power. This is a joint venture of:

- AES Corporation United States 94%
- Madhvani International Uganda 6%

AES is a large independent power producer (IPP). More information on Madhvani is not found.

- **Development bank loans**: Around 22% of the total project value (US$ 130 million) will be financed by 16-year loans from (multilateral) development banks. The following information is found on development bank loans which will be provided to the Bujagali Falls project:

  - African Development Bank International US$ 55 million
  - FMO The Netherlands US$ 15 million
  - International Finance Corporation (part of the World Bank) International US$ 60 million

- **Commercial bank loans**: Around 19% of total project value (US$ 115 million) will be covered by 16-year commercial bank loans. These loans will be guaranteed by the International Development Agency (IDA), a subsidiary of the World Bank (International), under the partial risk guarantee programme. The arranging banks for this banking syndicate originally were Westdeutsche Landesbank (Germany) and Australia and New Zealand Banking (ANZ) (Australia). But ANZ has dropped out because it has already lent considerable amounts to AES in other countries and a new arranging bank is being sought. Société Générale (France) is mentioned as a candidate.

- **ECA-guaranteed loans**: Around 36% of total project value (US$ 210 million) will be covered by 16-year ECA-guaranteed loans. The following ECAs have extended export credit guarantees:

  - Exportkreditnämnden (EKN) Sweden US$ 90 million
  - Exportrisikogarantie Switzerland US$ 55 million
  - Finnrvera Finland US$ 15 million
  - Garanti-Instituttet for Eksportkreditt (GIEK) Norway US$ 70 million

Overall amount of the export credit guarantees will be reduced to US$ 210 million. Overall political risks will be covered by the Multilateral Investment Guarantee Agency, part of the World Bank (International). This guarantee is on hold, however, during the investigations in the alleged bribery. The ECA-guaranteed loans will be arranged by two ECA-linked banks:

- Svensk Exportkredit (SEK) Sweden
- Eksportfinans Norway

The banks which will actually provide the loans are still unknown.
• **Bonds**: Around 3% of total project value (US$ 20 million) will be covered by the issuance of Ugandan shilling-denominated eight-year bonds. **FMO (The Netherlands)** will backstop the principal payments. **Standard Chartered Bank** (United Kingdom), **Standard Bank** (South Africa) and **Westdeutsche Landesbank** (Germany) are expected to participate in the issue. 213

### 2.19.3 Summary of findings

<table>
<thead>
<tr>
<th>Uganda: Bujagali Falls Dam</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project value</strong>: US$ 583 million</td>
<td></td>
</tr>
</tbody>
</table>

#### Financing percentages

<table>
<thead>
<tr>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>20%</td>
<td>3%</td>
<td>19%</td>
<td>3%</td>
<td>36%</td>
<td></td>
<td>(55%)</td>
</tr>
</tbody>
</table>

#### Influence assessment

**Strong influence**

- African Development Bank (International)
- Eksportfinans (Norway)
- Svensk Exportkredit (Sweden)
- Westdeutsche Landesbank (Germany)
- World Bank (International)

**Moderate influence**

- Exportkreditnämnden (Sweden)
- Exportrisikogarantie (Switzerland)
- FMO (The Netherlands)
- Garanti-Institutt for Eksportkreditt (Norway)
- Standard Bank (South Africa)
- Standard Chartered Bank (United Kingdom)

**Minimal influence**

- Finnvera (Finland)
2.20 Venezuela: Caruachi Dam

2.20.1 Key project data

- **Location:** Caroní River, Bolívar, Venezuela
- **Construction period:** 1995-2006
- **Height:** 55 meters
- **Production capacity:** 2,160 MW
- **Reservoir area / volume:** 23,680 hectares
- **Project operator:** CVG Electrificación del Caroní (Edelca), which is a subsidiary of Corporación Venezolana de Guayana (CVG). CVG is a state-owned Venezuelan conglomerate.
- **Remarks:** Caruachi dam is one of the five dams in the Caroní riverbasin in the Bolívar state in south-eastern Venezuela, together comprising the Lower Caroní Development scheme. Of these, Macagua I was finished in 1961, Guri in 1978 and Macagua II in 1997. Caruachi will start operating in 2003 and will be finished in 2006. Preparation for the construction of Tocoma started in the spring of 2002 and the dam should be finished in 2010. When completed the development project will generate, in total, an estimated 16,300 MW. Already, the Lower Caroní dams supply 70% of Venezuelan electricity consumption.

2.20.2 Project financing

- **Project value:** US$ 2,300 million
- **Financing overview:** Banque Indosuez, which is now part of Crédit Agricole (France) acted as financial advisor for the financing package for the Caruachi dam. This was structured as follows:

  **Equity**
  - Equity provided by Edelca: US$ 1,000.0 million, 43.5%

  **Debt**
  - Multilateral bank loans: US$ 620.0 million, 26.9%
  - ECA-guaranteed bank loans: US$ 504.0 million, 21.9%
  - Unknown: US 176.0 million, 7.7%

  **Total**: US$ 2,300.0 million

- **Equity financing:** Equity provided by Edelca reportedly contributes US$ 1,000 million or 44% of total project costs.
- **Multilateral bank loans:** Multilateral bank loans reportedly accounted for US$ 620 million, or 27% of total project costs. The following information is found on multilateral bank loans provided to Edelca for the Caruachi project:
• In November 1993, the Inter-American Development Bank (International) approved a US$ 500 million loan to the project.\textsuperscript{220}

• Around 1994, the Nordic Investment Bank (International) provided a US$ 60 million loan for the Caruachi Dam.\textsuperscript{221}

• Around 1994, the Corporación Andina de Fomento (International) supplied a US$ 60 million loan to Edelca for the Caruachi project.\textsuperscript{222}

• Probably to refinance other loans and cover additional costs, the Corporación Andina de Fomento (International) in June 2002 supplied a new 14-year US$ 100 million loan to Edelca for the Caruachi project.\textsuperscript{223}

• ECA-guaranteed loans: Reportedly, an international banking syndicate supplied ECA-guaranteed loans with a value of US$ 504.0 million, contributing 22% of total project costs.\textsuperscript{224}

  The following banks and ECAs probably took part in this syndicate:\textsuperscript{225}

  • Creditanstalt-Bankverein, which is now part of HypoVereinsbank Germany
  • Eksportfinans Norway
  • Export Development Corporation (EDC) Canada
  • Finnish Export Credit, which is now part of Sampo Finland
  • SEB Sweden

• Credit guarantees: The following ECAs probably have provided export credit guarantees with a total value of US$ 504.0 million for the ECA-guaranteed loans to the Caruachi project:\textsuperscript{226}

  • Compañía Española de Seguros de Crédito a la Exportación (CESCE) Spain Amount unknown
  • Export Credits Guarantee Department United Kingdom Amount unknown
  • Export Development Corporation (EDC) Canada Amount unknown
  • Exportkreditnämnden Sweden Amount unknown
  • Finnvera Finland Amount unknown
  • Garanti-Instituttet for Eksportkreditt (GIEK) Norway US$ 190 million
  • Österreichische Kontrollbank Austria Amount unknown
### 2.20.3 Summary of findings

<table>
<thead>
<tr>
<th>Country: Caruachi Dam</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project value:</strong></td>
<td>US$ 2,300 million</td>
</tr>
</tbody>
</table>

#### Financing percentages

<table>
<thead>
<tr>
<th></th>
<th>Equity</th>
<th>Multilateral development bank loans</th>
<th>National development bank loans</th>
<th>Foreign development loans/aid</th>
<th>Private bank loans</th>
<th>Bonds</th>
<th>ECA loans</th>
<th>(Credit guarantees)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>44%</td>
<td>27%</td>
<td>16%</td>
<td>13%</td>
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<td>(22%)</td>
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#### Influence assessment

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<tr>
<th>Influence level</th>
<th>Influencing Institutions</th>
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</thead>
<tbody>
<tr>
<td>Strong influence</td>
<td>Crédit Agricole (France)</td>
</tr>
<tr>
<td></td>
<td>Inter-American Development Bank (International)</td>
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<tr>
<td>Moderate influence</td>
<td>Corporación Andina de Fomento (International)</td>
</tr>
<tr>
<td></td>
<td>Eksportfinans (Norway)</td>
</tr>
<tr>
<td></td>
<td>Export Development Corporation (Canada)</td>
</tr>
<tr>
<td></td>
<td>Garanti-Instituttet for Eksportkreditt (Norway)</td>
</tr>
<tr>
<td></td>
<td>HypoVereinsbank (Germany)</td>
</tr>
<tr>
<td></td>
<td>Nordic Investment Bank (International)</td>
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<tr>
<td></td>
<td>Sampo (Finland)</td>
</tr>
<tr>
<td></td>
<td>SEB (Sweden)</td>
</tr>
<tr>
<td>Minimal influence</td>
<td>Compañía Española de Seguros de Crédito a la Exportación (Spain)</td>
</tr>
<tr>
<td></td>
<td>Export Credits Guarantee Department (United Kingdom)</td>
</tr>
<tr>
<td></td>
<td>Exportkreditnämnden (Sweden)</td>
</tr>
<tr>
<td></td>
<td>Finnvera (Finland)</td>
</tr>
<tr>
<td></td>
<td>Österreichische Kontrollbank (Austria)</td>
</tr>
</tbody>
</table>
2.21 Venezuela: Tocoma Dam

2.21.1 Key project data

- **Location:** Caroní River, Bolívar, Venezuela
- **Construction period:** 2002-2010
- **Height:** 80 meters
- **Production capacity:** 2,160 MW
- **Reservoir area / volume:** 8,734 hectares
- **Project operator:** CVG Electrificación del Caroní (Edelca), which is a subsidiary of Corporación Venezolana de Guayana (CVG). CVG is a state-owned Venezuelan conglomerate.
- **Remarks:** Tocoma dam is one of the five dams in the Caroní riverbasin in the Bolívar state in south-eastern Venezuela, together comprising the Lower Caroní Development scheme. Of these, Macagua I was finished in 1961, Guri in 1978 and Macagua II in 1997. Caruachi will start operating in 2003 and will be finished in 2006. Preparation for the construction of Tocoma started in the spring of 2002 and the dam should be finished in 2010. When completed the development project will generate, in total, an estimated 16,300 MW. Already, the Lower Caroní dams supply 70% of Venezuelan electricity consumption.

2.21.2 Project financing

- **Project value:** US$ 2,000 million
  
  - **Equity financing:** Equity will reportedly cover 50% of total project costs. Edelca is negotiating with two other companies willing to invest in the project.
  
  - **Debt financing:** Loans will reportedly cover 50% of total project costs. Edelca is looking for financing from multilateral development banks.

2.21.3 Summary of findings

<table>
<thead>
<tr>
<th>Venezuela: Tocoma Dam</th>
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</thead>
<tbody>
<tr>
<td><strong>Project value:</strong> US$ 2,000 million</td>
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</table>

<table>
<thead>
<tr>
<th>Financing percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Not yet financed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Influence assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong influence</td>
</tr>
<tr>
<td>Moderate influence</td>
</tr>
<tr>
<td>Minimal influence</td>
</tr>
</tbody>
</table>
2.22 Vietnam: Ta Trach Dam

2.22.1 Key project data

- **Location:** Huong (Perfume) River, Thua Thien-Hue Province
- **Construction period:** ?
- **Height:**
- **Production capacity:** No electricity production envisaged.
- **Reservoir area / volume:** 71,700 hectares
- **Project operator:**

2.22.2 Project financing

- **Project value:** US$ 65 million

- **Financing overview:** Financing is not arranged yet.

- **Equity financing:**

- **Debt financing:** The following information is found on debt financing for the Ta Trach dam:
  - The Vietnamese government in 1999 applied for concessional loans from the Japanese government's official development assistance budget. The project was put on a long list of future foreign development loans/aid projects of the [Japan International Cooperation Agency](Japan) in April 2000.
  - In March 2002 [Japan Bank for International Cooperation](Japan) provided financing for a feasibility study.

2.22.3 Summary of findings

<table>
<thead>
<tr>
<th>Vietnam: Ta Trach Dam</th>
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</thead>
<tbody>
<tr>
<td><strong>Project value:</strong> US$ 65 million</td>
</tr>
<tr>
<td><strong>Financing percentages</strong></td>
</tr>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>Not yet financed</td>
</tr>
<tr>
<td><strong>Influence assessment</strong></td>
</tr>
<tr>
<td>Strong influence</td>
</tr>
<tr>
<td>Moderate influence</td>
</tr>
<tr>
<td>Minimal influence</td>
</tr>
</tbody>
</table>
Appendix 3    Letter to banks

«Bank»
«Contactpersoon»
«Functie»
«Adress»
«Plaats»
«land»

January 21, 2003

Dear ……..,

Through this letter, the World Wide Fund for Nature, WWF, would like to provide you with the opportunity to share your policies and / or guidelines relevant to water sector investments, specifically to large dams.

WWF has commissioned AIDEnvironment to assess the dam investment policies and guidelines (project and corporate finance, equity and loans, arranging) of 15 major global financial institutions. «Bank» which is, or has recently been, involved in the financing of large dams.

Background
Over the past decades, it has become clear that large dams can have severe environmental and social impacts. This progressive insight culminated in the World Commission on Dams' decision making framework 'Dams and Development' that has become a guiding principle for many organisations involved in the construction, operation and financing of dams.

UNEP – through their Finance Initiatives- has established statements on environmental protection that many financial institutions have undersigned. The key role of financial institutions in arranging finance for large dam projects and assessing of financial, environmental and political risks entails a responsibility of these institutions for the effects and impacts of the dams realised.

What we ask of you
AIDEnvironment will assess the policies of (at least) 15 banks. This assessment will primarily be based on public commitments made by the banks in their annual report, website and through participation in industry initiatives, such as UNEP-FI.

However, your bank may have environmental and / or social guidelines that are not available through these public channels. We want to give you the opportunity for you to share these guidelines or policies with WWF.

We would thus like to provide you with the opportunity to provide us with additional information, so that WWF can gain a complete understanding of your organisation's endeavours to minimise risks to the environment and local communities at water project sites.

In addition to any specific corporate social and environmental guidelines and criteria applicable to dam investments, WWF is interested to know whether

• «Bank» has adopted the WCD guidelines on large dams in its investment policies / decision making
• «Bank» has undersigned the UNEP-FI statement on sustainable finance, and what concrete steps are taken towards implementation
• «Bank» is part of the SPI-Finance project and / or reports according to the Global Reporting Initiative (GRI) guidelines
• «Bank» loan / investment policies comply with OECD guidelines for multinational enterprises

Procedure and timeline
Please send confirmation of receipt of this request letter by Friday January 24 latest to AIDEnvironment.
For AIDEnvironment to be able to process your inputs in the report for WWF all materials need to be at their office by Friday, February 14. Materials received after this date will not be included in the analysis. We may get back to you for clarifications until February 21. If you have any questions on this research, please contact Wolfgang Richert at AIDEnvironment (see the address below).

The information provided by you will be used to compliment research carried out by WWF thus far and may be used publicly. If you feel there is relevant information or policy, which you do not feel comfortable with making public at this time, please indicate this and WWF will be happy to discuss this with you directly on a confidential basis.

Yours sincerely

Dr. Ute Collier
Dams Campaign Leader

All responses to this letter should be sent to: AIDEnvironment
Attn. Mr. Wolfgang Richert
Donker Curtiusstraat 7- 523
NL-1051 JL Amsterdam
The Netherlands
Email: richert@aidenvironment.org
Phone + 31 20 68 68 111
Fax + 31 20 68 66 251
Appendix 4  Replies by banks
4.1 ABN AMRO Bank

Dear Ms. Richter,

Thank you for your letter dated January 17, 2003 and for your interest in ABN AMRO's environmental and social policies and practices (particularly those relevant to the water sector investments). Please find enclosed our response to the questions raised in your letter.

1. Has ABN AMRO adopted WCD guidelines on large dams in its investment policies/decision making?

ABN AMRO has not formally adopted the WCD guidelines on large dams in its investment policies, but is aware of the guidelines. The bank has a very conservative portfolio when it comes to providing finance to dams, as we are aware of the environmental and social implications dams can have. For that reason, arranging finance concerning dam projects is subject to strict environmental and social assessment.

In general terms, concerning its investment policies and practices, last year ABN AMRO has further strengthened its support to the business in dealing with environmental and social issues by expanding its Environmental and Social Risk Management Unit. All high-risk projects (e.g. World Bank Category A) must have an EIA / SIA done by an independent third party consultant. In general, ABN AMRO uses the World Bank standards as a baseline. In addition all projects must comply with our forestry policy (will be enclosed). The policy was the result of intensive stakeholder management and dialogues. Currently the bank is working on policies for the mining and the oil and gas sector. After these policies have been introduced and implemented, we will assess other "sensitive sectors" part of which is providing finance to dam projects.

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2. Has ABN AMRO undersigned UNEP-FI statement on sustainable finance, and what concrete steps are taken towards implementation?

ABN AMRO has not undersigned UNEP-FI statement on sustainable finance. The bank is however member of the World Business Council for Sustainable Development. Together with Allianz, the German insurance company, ABN AMRO is co-chairing a project "Sustainability in the Finance Sector". The overall objective of this initiative is to further promote the principals and practices of sustainable development within the financial sector as a whole, and more specifically, within our individual businesses.

3. Is ABN AMRO part of the SFI-Finance project and/or reports according to the Global Reporting Initiative (GRI) guidelines?

ABN AMRO is not part of the SFI Finance project. However, we are taking SFI indicators (which are endorsed by the GRI) into account for our Sustainability Report to be published in 2004.

4. Do ABN AMRO's loan/investment policies comply with OECD guidelines for multinational enterprises?

Our loan/investment policies do comply with OECD guidelines for multinational enterprises.

We hope to have informed you sufficiently. Please do not hesitate to contact us for further questions and/or information.

Kind regards,
ABN AMRO Bank N.Y.

[Signatures]

Paul Madden, Senior Vice President
Monika Veric, Reputation Manager

* Enclosure
ABN AMRO Risk Policies

Forestry & Tree Plantations

1. ABN AMRO aims to promote sustainable practices for both the bank and its clients that will mutually enhance the profitability, and minimize any negative environmental, social and reputational impacts of our financing activities. In pursuit of this objective, ABN AMRO applies the following policies:
   a. ABN AMRO does not finance projects or operations, which will result in resource extraction from, or the clearing of, either primary or high conservation value forests.
   b. Given the benefit of mining productive already denuded or degraded land, ABN AMRO will finance projects on previously cleared forest land, only after five years have passed and only if no direct link to the original deforestation can be demonstrated.
   c. ABN AMRO does not finance companies or projects that are involved in, collude with or purchase timber from illegal logging operations.
   d. ABN AMRO does not finance companies that do not demonstrate an explicit policy and practice of respecting human or Indigenous rights related to forest resource extraction or plantation management.
   e. ABN AMRO does not finance companies without an explicit policy and practice against the uncontrolled and/or illegal use of fire in their forestry or plantation operations.
   f. ABN AMRO will not finance companies or projects that contravene any relevant binding international environmental agreement to which the member country concerned is a party or that violates local, state or national environmental, labour or social laws.
   g. Exceptions to the above policies may only be given with QRC level approval.

2. In addition to the above mentioned policies and financing decisions for companies or projects involved in the extraction of forest resources or the establishment / management of tree plantations will be evaluated against the following criteria:
   a. Has a proper assessment of environmental and social impacts been completed appropriate to the size and nature of the financing? If so by whom? Please provide assessment document.
   b. Can the company prove legal title to the land and have all relevant permits and approvals been acquired?
   c. If the operation / project is on already denuded or degraded land how long ago was the land cleared and by whom?
   d. Does the company / project have policies and procedures in place to minimize and monitor the proper use and disposal of chemicals, biological control agents and liquid, air and solid non-organic wastes?
   e. Does the company / project have a forestry management plan, a biodiversity action plan and soil and water management plans? If so please provide copies.
   f. Does the company / project provide adequate documentation to enable monitoring and certifying organizations to trace the origins of each product, known as the "chain of custody"?
   g. Does the company recognize and respect the legal and customary rights of Indigenous local peoples to own, use and manage their lands, territories and resources?
   h. Does the company / project with communities within or adjacent to the plantation / forest management area provide opportunities for employment, fair compensation, right to organize and the adequate health and safety of affected local peoples?
   i. Does the company / project provide for informed consultation with affected local peoples and adequate compensation in the case of relocation?
   j. Does the company / project engage in independent 3rd party monitoring or external certification of the plantation / forest management operation appropriate to the scale of the operation? If so, by whom? If not are there plans to obtain certification in the future and if so, when?
   k. Are there any groups (NGO's, local groups) that are in opposition to the project / company's activities? If so, who, and what steps are being taken to resolve these disputes?

Definitions not given in Annex 1
3. The above criteria must be addressed in all new proposals submitted to Risk Management where an impact on forests may be an issue. This may include but not be limited to financing of timber, pulp & paper, timber and agricultural plantations, mining and oil & gas pipeline companies / projects. In case of already existing relationships the policy should be addressed in the semi- or annual review. The policy does not apply to financing of non-related sister companies as long as the legal counter party is not involved in resource extraction.

4. Risk Management may request that certain conditions be met relative to the above criteria in order to approve financing. In such cases, loan documentation should include these conditions in our "understandings with the client" with the understanding that documented non-compliance and failure to adhere to these conditions would be considered an event of default.

5. Loan documentation should strive to allow a bank approved independent audit of a company's / project's performance with respect to environmental and social issues.

6. ABN AMRO will do its best to ensure that proper due diligence is performed and that compliance with these policies is achieved. However we recognize that in some circumstances decisions will be taken based on the best information available at the time and based on the good faith that information presented to us was accurate. As such we will not be held liable if information after the fact demonstrates that a breach of policy occurred. In all cases this policy is to be considered an internal guideline and not as a legal or otherwise binding commitment to certain action.
Annex I – Definitions

The following definitions apply to this policy:

1. Primary forest is defined as relatively intact natural forest that has been essentially unmodified by commercial scale human activity for the previous 80 years. Exceptions to this policy may be considered in cases where extraction is part of a carefully planned, responsible national forest management program or where the company is FSC certified for operations in that forest.

2. High Conservation Value Forests are defined as those that possess one or more of the following attributes:
   a) forest areas containing globally, nationally or regionally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape-level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
   b) forest areas that are in or contain rare, threatened or endangered ecosystems
   c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection)
   d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

3. Illegal logging is defined as logging:
   - outside a concession area
   - in excess of quota
   - in a protected area
   - without appropriate permits
   - without complying with bidding regulations
   - without submission of required management plans
   - in prohibited areas such as steep slopes, river banks, and water catchments
   - protected species (as defined by CITES or other international law)
   - with duplicate or false licenses
   - using grading or ring-barking to kill trees so they can be logged legally
   - that conflicts with local entrepreneurs in buying logs from protected areas
   - removing of understorey sized trees from public forests
   - reporting high volumes extracted from forest concessions to mask that part of the volume is from non-authorised areas outside of the concession boundaries
   - using bribes to obtain logging concessions
   - using deceptive transfer pricing and other illegal accounting practices to distort prices, volumes, cash flows and debt service levels (for example some companies will inflate the price of imported inputs such as machinery and deflate prices and volumes of their exports to reduce nominal profits, their tax liability with the host country and to illegally transfer funds abroad)
   - that engages in the illegal transport and trade of timber or the smuggling of timber
   - that is processed with out the required licences and that is not in compliance with environmental, social and labour laws

4. Examples of such international agreements are CITES, ILO Conventions and the Convention on Biological Diversity.

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1 Based on the FSC definition.
2 Based on the World Forest Convention as published in the WB CEO forum on forests.
5. Policies and procedures in place to reduce the level of wastes would include among others:

For Pulp and Paper Operations:
- The use of dry debarking processes.
- Prevention and control of spills of black liquor.
- The preference of total chlorine free processes but at a minimum the use of elemental chlorine free bleaching systems.
- Reduction of the use of hazardous bleaching chemicals by extending cooking and oxygen delignification.
- Aim for zero effluent discharge where feasible. Reduce wastewater discharges to the extent feasible.
- Incinerate liquid effluents from pulping and bleaching process.
- De-water and properly manage sludges.
- Reduce the odor from reduced sulfur emissions by collection and incineration and by using low-odor recovery boilers fired at over 75% concentration of black liquor.

For Vegetable Oil Operations:
- The preference of citric acid to phosphoric acid in degumming operations.
- The preference of physical refining over chemical refining.
- Maintenance of hexane levels, if used, below 150 mg/l m³.
- Recirculate cooling waters.
- Collect wastes for use in by products (animal feed) or as fuel.

For Wood Products Operations:
- Do not use pentachlorophenol, lindane, tributyltin, copper chrome arsenate as a preservative given that less toxic alternatives are available for wood treatment.
- Use of pressurized treatment processes.
- Recycle solvent vapors where feasible or destroy them in a combustible device or a bio-oxidation system.
- Manage contaminated soil and sludge as hazardous wastes.

For Plantations:
- A no burn policy / practice.
- All hazardous materials, process residues, solvents, oils and sludge from raw water; process wastewater and domestic sewage treatment systems must be disposed of in a manner to prevent the contamination of soils, groundwater and surface waters.
- Transformers or equipment containing polychlorinated biphenyl should not be used.
- Preference for biological and non-chemical pest control systems (e.g. barn owls for rat control).

Chemicals, biological control agents and solid non-organic wastes includes among other things: NO₃, VOC (volatile organic compounds), total reduced sulfur (TRS), AOX (absorbable organic halogens), BOD (biological oxygen demand), COD (chemical oxygen demand), chlorine dioxide and elemental chlorine, polychlorinated biphenyl (PCB), and chromated copper arsenic (CCA).

6. The term local peoples describes the broad group of people living in or near a forest or plantation, with some significant level of dependence on it. The term includes forest dwellers, indigenous forest-adjacent populations and recent immigrants.
4.2 Barclays

Date sent: Fri, 14 Feb 2003
Subject: WWF Living Waters Programme

Mr Richert,

As requested by WWF International, we are writing to you in relation to their Living Waters Programme.

Barclays has relationships with over a million companies in the UK and around the world and consequently we may be associated with many different types of business. Barclays aims always to behave in a consistent socially responsible manner and to conduct our business with integrity. Rather than practise blanket avoidance of whole business sectors on moral grounds, we adopt a case by case approach to the assessment of financial propositions - they are all examined on their individual merits. Barclays’ environmental policy is posted on our internet site (www.society.barclays.co.uk/barclays_environment_2001.pdf) and the bank's approach is detailed in our Social and Environmental Report 2001 (www.society.barclays.co.uk/social_report.pdf).

Barclays’ environmental risk assessment is managed on a day to day basis by our Environmental Risk Management Unit (ERMU). This team has been in place since 1992, includes a full time environmental consultant on secondment, and has acquired significant expertise over the past 10 years in managing the environmental risks associated with our clients’ activities. The team acts as a source of advice and guidance to all Barclays strategic business units and has ensured that environmental risk is now an integral part of our credit assessment process. The quality of Barclays’ environmental risk credentials was evidenced last year with the publication by fund managers, ISIS (formerly Friends Ivory Sime), of their 'Benchmarking Study: Environmental Credit Risk Factors in the Pan-European Banking Sector' (see http://www.friendsis.com/newsDetail.asp?newsID=19Barclays). Barclays was identified as a ‘race leader’ in terms of environmental risk management, citing ‘relatively mature and detailed review procedures’.

Barclays is aware of sensitivities surrounding projects such as large dams. Our policy requires that an Environmental Risk Assessment (EIA) be conducted on such projects and independently reviewed by specialist environmental consultants to rigorous terms of reference. Our EIA policy and supporting referral process was introduced and implemented across our business worldwide in 1997 - please see the attachment 'EIA Policy'. The policy is reviewed and reiterated annually by our Group Credit Risk Unit, and is managed on a day to day basis by ERMU. This policy is designed to ensure environmentally sensitive projects, with which Barclays is associated, are assessed and the environmental impacts quantified, mitigation measures identified and managed in accordance with stringent environmental criteria. In considering project finance proposals we require that, as a minimum, environmental and social issues are addressed in accordance with internationally recognised standards (e.g. World Bank standards). The bank's terms of reference used to commission specialist environmental consultants under our EIA policy includes specific reference to the World Commission on Dams (WCD) guidelines and the information provided is factored into our risk assessment process - extract ‘Confirmation the project is working to best practice, e.g. World Commission on Dams guidelines’.
In addition to Barclays' policies, further internal guidance on the environmental impacts and mitigation and management measures in relation to specific environmentally sensitive sectors/activities has been developed. This information has been cascaded throughout the Group worldwide and includes a Briefing Note on Dams and Reservoirs. The Briefing Notes are not available through public channels although we will gladly provide WWF with sight of the Dams and Reservoirs note should a meeting be arranged.

Turning to the bullet points in WWF’s letter, please see the comments above on WCD guidelines in relation to the first bullet point.

Second bullet: UNEP-FI statement on sustainable finance. Without wishing to provide commentary on Barclays' performance line by line against the aspirations set out in the UNEP Statement, reference to the Barclays environmental policy and the Social and Environment Report 2001 (both detailed above) will demonstrate the Bank's commitment to sustainable development, and provides insight to the range of areas in which sustainability issues are managed as key components of the business. (I would welcome your feedback on the report, possibly comparing and contrasting the Barclays report with others from the finance sector, and assessing the extent to which this addresses areas of interest to WWF and the wider stakeholder community.)

Not least of these activities is the Bank’s approach to environmental risk management, which is also referred to above. One additional point to make here is that ERMU is a part of the Barclays' credit risk management function within the organisation, recognising that environmental credit risk assessment is viewed and managed as a part of the mainstream lending business activity within Barclays.

Other topics which may help demonstrate the extent to which the UNEP-FI statement is taken seriously include our role in sharing best practice. In recent months Barclays has engaged in discussion, explaining our approach to environmental credit risk, to banks from Japan, Australia, South Africa, the U.S., France and the Netherlands. Further, through our representation on the International Advisory Board, we have supported a UNEP managed project looking at the means to encourage investment in cleaner production technologies in developing countries. (See http://www.financingcp.org/)

If a meeting is to be arranged with WWF, then further detail of our support for the UNEP-FI Statement can be discussed at that time.

Third bullet: SPI Finance project and GRI guidelines. The description of Barclays' environmental programme and the corresponding data (appearing in our Social and Environmental Reports) have been put together with reference to guidelines produced by the Global Reporting Initiative, an independent global institution set up to develop a generally accepted framework for sustainability reporting. In addition, Barclays is mindful of the SPI Finance project and indicators.

Fourth bullet: OECD guidelines for multinational enterprises. Barclays applies high standards of governance and good practice in all our business operations and reflects internationally acknowledged guidance, such as that provided by the OECD, in our policies and practices.

We will gladly meet with WWF to discuss the above in more detail and provide further clarification as necessary.

Regards,
Christopher Bray
Barclays Bank Plc - Head of Environmental Risk Management Unit
Dear Mr. Richert,

Further to your letter of 24 January 2003, we would like to thank you first of all for having offered us the opportunity to share our policies relevant to water sector investments with WWF, and more particularly with respect to dams.

Although we are sure that this program is of great interest, we regret to inform you that we have to decline your offer for the time being.

Thanking you again for your interest in our institution, we remain,

Yours sincerely,

Jean Luc POTHAET
Directeur du Secrétariat central

AIDEEnvironment
Attn. Mr. Wolfgang Richert
Donker Curtiusstraat 7 – 523
NL-1051 Jl Amsterdam
The Netherlands
Dear Mr. Dros,

Please find below our answers to the specific questions you raised in your letter to Mr. Bisang. Please note that we do have specific environmental risk policies and guidelines which are also applied to hydropower financing. Those guidelines are confidential and cannot be shared.

- Credit Suisse has adopted the WCD guidelines on large dams in its investment policies / decision making NO. In general we do not finance large dam projects.
- Credit Suisse has undersigned the UNEP-FI statement on sustainable finance, and what concrete steps are taken towards implementation. Please refer to the environmental and sustainability reports published by Credit Suisse since 1995 (http://www.credit-suisse.com/sustainability/).
  - Since 1997 we are ISO14.001 certified.
- Credit Suisse is part of the SPI-Finance project and / or reports according to the Global Reporting Initiative (GRI) guidelines. SPI-Finance: yes, we are project member. SPI-Finance is a sector supplement to GRI.
- Credit Suisse loan / investment policies comply with OECD guidelines for multinational enterprises - zu 2: ISO 14001 as of 1997, environmental reporting as of 1995. Yes

Best regards,

Bernd Schanzenbaecher
CREDIT SUISSE GROUP
Environmental Management Services / GPE
4.5 Deutsche Bank

Subject: Antwort: (Fwd) request from WWF
Date sent: Thu, 20 Feb 2003

Dear Mr. Dros,
dear Mr. Richert,

I'm sorry to tell you, that we are not able to provide you with our guidelines or criteria, because they are strictly confidential.

So far as I'm informed, Deutsche Bank has only one dam-project in its portfolio which was financed many years ago. The WCD guidelines are not an explicite part of our internal guideline, but would be considered if we would finance a dam.

Deutsche Bank has signed the "UNEP Statement by Banks on the Environment and Sustainable Development" and was already in 1992 part of the group which developed these guidelines. For Deutsche Bank these guidelines are the basic principles for its "Principles behind Deutsche Bank's policy regarding the environment and sustainability".

Deutsche Bank is part of the SPI-project and as well of the GRI (Member of the Group of directors). We are currently developing our CSR-report, which will take the GRI-guidelines and SPI-indices into account.

I'm not exactly familiar with the OECD guideline for multinational enterprises, so I can not really say, if our policies comply with these guidelines. If we - for example - make an export finance we do it under coverage. In the context of this coverage OECD-guidelines are adopted. According to experience the policies of Deutsche Bank frequently exceed these guidelines.

I hope I could help you with these information. Please contact me if you have any further questions.

Best regards

Barbara Menrad

--------------------------------------------------------------------
Deutsche Bank AG Sustainability & Environmental Coordination A 20 - 09
4.6 Dresdner Bank

Dresdner Bank AG
Jürgen-Pontio-Platz 1, Frankfurt am Main

AIDEnvironnment
Attn. Mr. Wolfgang Richert
Donker Curtiusstraat 7-523
NL-1051 JL Amsterdam
The Netherlands

Sascha Lafeld
Corporate Sustainability
Head Climate Change-Strategy
Tel. (0 69) 2 63-58612
Fax (0 69) 2 63-55152
E-mail Sascha.Lafeld@dresdner-bank.com
Frankfurt am Main, 28. January 2003

Your request from 17.01.2003

Dear Mr Richert,

Beyond the confines of the alleged core business, corporate responsibility resp. environmental and social impacts of the financial sector became an issue throughout the last years that our sector has to face more intensively. As a member of the Allianz Group, Dresdner Bank has developed a wide-ranging approach for sustainability management which ranks among the best ten in the banking sector worldwide in the latest sustainability rating of Sustainable Asset Management (SAM).

Answering the four questions in your letter, I do not only provide informations concerning Dresdner Bank, but I enclose also material coming from other ‘family-members’ (Allianz Life, Hermes). The cooperation among the Allianz Group members (that includes also AGF/France, RAS/Italy, Cornhill/UK, Firemen’s Fund/USA etc., is constantly growing and therefore it would show only half of the picture if concentrating on Dresdner Bank only. Anyway, I have enclosed also information material to give you the Bank’s perspective only.

Question 1: WCD-guidelines

Dresdner Bank has a detailed policy concerning environmental and social risks in investment policies (see question 4). Talking concretely about the WCD, our ‘sister’ Hermes is thoroughly considering these guidelines in their project financing activities: Quote form their Environmental Guidelines (page 4, see annex):

"The questions to be answered by the applicant will be posed on a case-by-case and project-related basis and will be updated according to the latest experience and in the light of current knowledge, e.g. the report of the World Commission on Dams (WCD). The answers of the applicant will be analysed and will be taken as a basis for the decision."

Question 2: UNEP

Dresdner Bank was one of the first signatories of the UNEP-FI declaration in 1992. Since we belong to the Allianz Group, we represent the entire Group at UNEP. In 2000, we have commenced an active role in the UNEP-FI Climate Change Working Group and we have been heavily involved in the development of the "UNEP-FI Climate Change and the Financial Sector" Study published in late 2002 (see annex). Concerning the concrete implementation of the UNEP-FI declaration see the info-material enclosed.
Question 3: SPI and GRI

Within the Allianz Group we are very much aware of the developments around GRI and SPI. Allianz Life is member of the VJU in Germany which directly feeds know-how into the SPI-process. Moreover, Allianz Life was involved in the EPI process. GRI is our main guideline for reporting for the entire Allianz Group from 2003 onwards. So far, the SAM questionnaires have been our most important measure (Allianz Life and AGF share the second position in the SAM rating in the insurance sector). Currently, we are planning a workshop together with SAM and GRI people to make sure that they also get a sound message by the Allianz Group members (e.g. concerning harmonisation possibilities in reporting). We are currently working to set up an internet data-base for the entire Allianz Group to collect the data necessary in an electronic format.

Question 4: Loan/Investment policies

Environmental risks are of relevance to Dresdner Bank’s operations on many counts, for example in lending, in appraising credit collateral, in international project finance or in the development of financial solutions. The bank’s specialist unit Corporate Sustainability is, given its direct reporting line to the Chief Risk Officer in the management board, an interface for environmental risk management. Corporate sustainability supports the various risk units within the bank, for example with the loan counsellors’ manual “Environmental risks and lending operations”. Especially for international project financing activities, EIA’s are business as usual, the World Bank standards are our minimum-guideline to consider in any case.

Please find attached a ppt-presentation (in german only) that provides an overview on this issue from our perspective.

Please do not hesitate to ask in case further questions may arise,

Yours sincerely,

[Signature]
4.7 European Investment Bank

Subject: EIB contribution to survey on LD financing by global financial institutions
Date sent: Tue, 18 Feb 2003

Dear Jan Maarten Dros,

Further to our e-mail of 24 January 2003 and today's telephone conversation, we are sending you the EIB's contribution to AIDEnvironment's survey on the financing of large dams by global financial institutions.

As a general introduction, we would like to highlight the fact that, as the EU's long term financing institution, the EIB uses EU environmental policy and legislation as a reference for assessing the environmental acceptability of projects, including legislation on EIA, water (the principles of the Water Framework Directive), and the protection of birds and habitats.

The EIB publications on the Bank's website providing relevant information are the following: - Environmental Statement - Environmental Procedures - Sustainable Development - Climate Change - Renewable Energy - Project Cycle - Environmental Report 2001-2.

The following could be added to the information that is already available on the EIB's website:

* In line with best practice in financing LD projects, the EIB applies stringent requirements with regard to the project's justification, the EIA process and the management capacities of the project promoter. The Bank subscribes to the principles of the WCD recommendations on financing LDs within the context of its general policy on the environment. It recommends promoters of LD projects to take account of the WCD recommendations in their justification and design of the project, as well as in the area of mitigating measures.

* The EIB has financed a small number of dams only, following the publication of the WCD recommendations: Lesotho Highlands Water Project (for details see the Topical Project Brief on the EIB website) and the Naga Hammadi project in Egypt, to replace a 60-year old obsolete barrier.

* The EIB is currently formulating a specific policy on financing LDs, taking account of the WCD recommendations.

* The EIB has not signed the UNEP-F1 statement, nor does it formally subscribe to any particular reporting code, such as the GRI guidelines.
The Bank's lending policy and operations in general comply with the OECD guidelines for multinational enterprises. In this respect, you may want to consult a number of EIB publications on the Bank's website: Guide to Procurement, Code of Conduct of Good Administrative Behaviour, Information Policy Statement, Rules on Public Access to Documents, and the Tripartite Agreement, governing the cooperation between the EIB, Commission and European Court of Auditors in managing EU and EDF public funds involved in EIB lending and guarantee operations. Please feel free to contact us for any further details. On Thursday 20 February and Friday 21 February you can reach us on our mobile telephones: Peter Carter on +352 21 23 54 31 and Yvonne Berghorst on +352 21 45 90 56.

Yours sincerely,

Peter Carter  
Environmental Coordinator  
Projects Directorate

Yvonne Berghorst  
Senior Information Officer
Dear Mr. Richter,

Thank you for your letter on dam investment policies of January 17th providing us the opportunity to share our policies and guidelines to water sector investments. Hereewith you find our answers to your request.

- ING Bank has not adopted the WCD guidelines on large dams in its investment policies decision making.
- ING Bank has not undersigned the UNEP-FI statement on sustainable finance.
- ING Bank takes into account the Global Reporting Initiative (GRI) guidelines and the Financial Services Sector Supplement for Social Performance (SPI-finance) in the report ING in Society. The next issue of the report ING in Society 2002 will be published in June this year and as much as possible integrated the reporting guidelines of GRI and SPI-finance. The 2001 issue of the ING in Society report can be found on our internet website www.ing.com at 'ING in Society'.
- ING Bank has not undersigned the OECD guidelines for multinational enterprises. These are guidelines addressed to governments, not to companies.

If you have any further questions, please contact me at (+31) 020 541 5410 or e-mail pieter.kroon@ing.com.

We wish you much success with your research project and thank you very much for your interest in ING.

Yours sincerely,

Pieter Kroon
Head of Public Affairs ING Group

Amstel 630, 500, Amsterdam, The Netherlands
Tel: +31 20 54 15 13 16
Fax: +31 20 54 15 611
E-mail: pieter.kroon@ing.com
4.9 Japan Bank for International Cooperation

1 of 2

Subject:    environmental guidelines
Date sent:   Sat, 15 Feb 2003

Dear Ms Worm,

Further to the telephone conversation today, I would like to provide the following information regarding your question of 21 January 2003 and tentative answers. As I explained, our public documents regarding environment issues are basically in Japanese, therefore I would like to provide more information as much as possible next week.

Meanwhile, please find the following documents, which I believe helpful to understand our continuous efforts for protecting natural and social environments.

1. The Guidelines for International Financial Operations (for ex- Export Import Bank of Japan) Please check the address below, where you can find our guideline for export credit and other non-aid loans.
   The guidelines have three components, such as $B#I (J.General Principles, II.Environmental Checklists (14 project types), III. Monitoring Form(Sample: 14 project types)

2. The Guidelines for Overseas Economic Cooperation Operations (for ex-Overseas Economic Cooperation Fund) You can also find at the same address as descried below for aid loans. This guidelines consist of two parts, I. Purpose of the Guidelines and II. Check Items and Comments, which also have sub contents.

3. New Guidelines (for JBIC since 1 April 2002)
   Based on the above two guidelines, we are now establishing the New Guidelines, which have been already effective since 1st April 2002. We have been continuously making our efforts to establish the better guidelines and had so far 12 intensive public consultation meetings with various stakeholders, such as international NGOs, industries, academics and lawyers. All documents supplied at the meetings and the all discussion records are available right after each meeting on the web site (only in Japanese).

Please find attached the New Guidelines.

Check lists contain 26 categories so please find them at,

Followings are my tentative answers to your questions for your reference.

1. WCD guidelines on large dams
   We share the same philosophy in our New Environmental Guidelines.
   Please check "Part 2, 1. Environmental and Social Considerations Required for Funded Projects, and 2. EIA Reports for Category A Projects", and "Part 1, 7. Ensuring Appropriate Implementation of and Compliance with the Guidelines" for "alternatives", "social acceptability" and "ensuring compliance with guidelines".

2. UNEP F1 Statement
   JBIC has not singed the UNEP F1 Statement yet.
3. SPI Finance project/GRI guidelines
JBIC has not participated in SPI-Finance project and no reports based on GRI guidelines. However, JBIC has published "Environmental Report" in Japanese (English report is now in process) since 2002 based on the Japanese Government's Guideline and made them public.

4. OECD guidelines
JBIC established our environmental guidelines based on "Draft Recommendation on common approach on environment and officially supported export credits- Revision 6", which OECD/ECG defines.

I think I have basically answered to your questions, but please let us contact you again next week, hopefully with more details. Thank you very much for your attention with us and have a nice weekend.

Best regards,
Y. Hayakawa

************************************
Yukihisa Hayakawa
Japan Bank for International Cooperation
London Representative Office
************************************
Japan Bank for International Cooperation

2 of 2

Subject: RE: environmental guidelines
Date sent: Tue, 18 Feb 2003

Dear Ms Worm:

I am writing to provide you with additional explanation of our view on WCD Guidelines.

The recommendations of WCD report contain those that have not usually been implemented in the developed countries and will be difficult to implement from technical and economical point of views for the developing countries. Therefore, the chair of WCD summarized "Our guidelines offer guidance - not a regulatory framework. They are not laws to be obeyed rigidly ---". We also will use it as a valuable reference. Having said this, we consider that we can share some of the core values in the WCD report. Therefore, our new environmental guideline contains them. For example, "Considering alternatives", "Social Acceptability", and "Compliance with laws, standards and plans" etc. are written as environmental and social considerations required for funded projects in Part 2 - 1.and 2. of our environmental guideline. "Ensuring compliance with the Guidelines" are written in Part 1-7. of our environmental guideline.

I hope this be of help. Thank you for your attention on this matter.

Best regards,

Naoki Yoneda
Representative
Representative Office in London
Japan Bank for International Cooperation
4.10  Société Générale

1 of 2

Subject:    The World Wide Fund for Nature  
Date sent:   Fri, 31 Jan 2003

As a follow-on to the letter sent to Michel Laviale by the World Wide Fund for Nature, here 
attached are 2 documents:

- a press release from Societe Generale dated November 28, 2001, relating to the signing by 
  Societe Generale of the UNEP statement by Financial institutions on the environment and 
  sustainable development. (See attached file: 01.11.28cdp adhesion charte UNEP_va.PDF)

- an information note released by UNEP, dated January 20, 2003, relating to a UNEP and 
  Societe Generale sponsored meeting held in Paris at the Head office of Societe Generale, to 
  address finance, environment and sustainable development issues. (See attached file: 
  03.01.20 conf-pnue10.01.03.pdf)

Best regards

Pierre-Guillaume de Pompignan
Investor Relations Officer
Societe Generale
Trying to complete previous emails from Michel Laviale and PG de Pompignan, I would like to mention the following:

At Societe Generale, the decision making process for loan/investment includes a risk assessment procedure. Following the signature of the UNEP statement, the risk review guidelines were amended to take into account environmental risk issues. As large dams are concerned, the review includes compliance with international standards and with criteria set by COFACE, the French export finance entity, which has a policy very similar to that of the world bank.

Julien Vannier
Investor Relations Officer
Societe Generale
Dear Mr. Richert,

I refer to the request from Ute Coller, Dams Campaign Leader, WWF International (Netherlands) regarding UBS' policies and guidelines in dam investing. Please find below our answers.

1. "UBS has adopted the WCD guidelines on large dams in its investment policy / making" UBS has integrated environmental criteria into its Group Credit Policy Framework and its normal due diligence procedures. Therefore, UBS avoids transactions if there are environmental risks that cannot be properly assessed or which the counterparty is not addressing in an appropriate and responsible manner.

In 1999, UBS Warburg passed and implemented a 'Global Environmental Risk Policy' ensuring environmental-sensitive transactions go through an adequate level of environmental due diligence. Among other international environmental standards the World Bank's policies and guidelines are taken into consideration to assist in the evaluation of environmental performance in relation to transactions.

The financing of dams is a non-core business of UBS since the Bank sold its international trade finance business, including international project and export finance, to Standard Chartered in 1999. Furthermore, our general credit policy for Switzerland provides guidance if UBS should consider to offer export and project finance facilities to clients in Switzerland, and in the unlikely event of the financing of a dam, UBS would certainly take the WCD recommendations into consideration.

2. "UBS has signed the UNEP-FI statement on sustainable finance, and what concrete steps are taken toward implementation" In 1992, UBS was one of the first signatories of the UNEP bank declaration. Within UBS environmental policy we have put these challenges into operation in the areas of banking, in-house operations and environmental management. In addition, UBS is an active member of the UNEP Initiative Steering Committee.

Implementation of UBS's environmental policy is promoted by a professional environmental management system which is structured according to the ISO 14001 standard and by integrating it into business processes. In 1999, UBS obtained certification for its worldwide environmental management system. In 2002, UBS passed the ISO 14001 re-certification audit conducted by SGS International Certification Services AG.

3. "UBS is part of the SPI-Finance project and /or will report according to the Global Reporting Initiative (GRI) guidelines." UBS is part of the SPI finance project and was instrumental in developing the EPI- Finance 2000 and ViU reporting Standard. (See also attachment: UBS 2001: environmental performance in figures)

4. "UBS loan / investment policies comply with the OECD guidelines for multinationals" Our policies include aspects of the OECD Guidelines for example in the field of environmental protection, fighting money laundering (Wolfsberg Anti-Money Laundering Principles), fighting bribery and corruption, diversity and community affairs.
I hope we have answered your questions to your satisfaction,

With best regards,

Liselotte Arni

UBS AG
Financial Services Group
Risk & Policy Review
Group Environmental Management
4.12 Westdeutsche Landesbank

AIDEnvironmet
Attn. Mr. Wolfgang Richert
Donker Curtiusstraat 7-523
NL-1051 JL Amsterdam
FAX: +31 2068 66 251

Date February 14, 2003

Dear Mr. Richert,

We appreciate your interest in WestLB AG’s activities concerning environmental assessments in project financing.

Sustainability plays an important role in our decision-making processes, especially in project financing. By signing UNEP-FI, WestLB AG accepted the covenants of complying with the principles concerning economic and social aspects. Therefore, UNEP-FI forms the basis for our entire financing business. To demonstrate the importance of the covenants, we would like to provide you with some examples of implementing UNEP-FI:

- Environmental aspects are integrated in our credit risk strategy.
- Sustainability aspects are part of each individual credit analysis, including a Feasibility Study and an analysis of operational risks.
- In international project financing World Bank Standards are an integral part of financing contracts where suitable.
- Adherence to local law is a matter of course.

We are using internal and external knowledge to live up to those principles.

Yours sincerely,

WestLB AG
BU Communication/ Economics

Dr. Frank Börstemann

Marina Neuber
Subject: World Bank links for Dams
Date: 27 Feb 2003

Dear worm@aidenvironment.org,

please find below a brief description of the Dams Planning and Management Action Plan (DAMAP) to which Mr. Lintner is making reference.(See attached file: Status report Ju02.doc)

Please note that the above note was prepared for, and distributed at the 1st Form Meeting of the Dams and Development Project (DDP), Nairobi, July 2002.

The next DDF meeting is planned for July 4-6, 2003, again in Nairobi. The event will be preceded by a multistakeholder workshop on "Option Assessment". The World Bank will contribute to that workshop with one of the projects included in the DAMAP ("Stakeholders Involvement in Options Assessment").

For further information about the DDP, I recommend that you visit its web-site at: www.unep-dams.org.

Best wishes
Alessandro Palmieri
Dear "Worm,"

As per our discussion, please find below the links for the World Bank safeguard policies and the response of the World Bank to the Report of the World Commission on Dams.


We have a program of activities that are focusing on addressing a number of issues related to better evaluation, planning and management of dams that is being coordinated by Alessandro Palmieri in my group and I have requested that he send you some information on these activities.

I also wish to advise you that we are taking an active role in the Dams and Development Project that is being coordinated by UNEP. This is the follow-up to the work of the World Commission on Dams. Our representative on the Steering Committee for this activity is Alessandro Palmieri. Please advise Alessandro and/or me if you need information on this activity.

Best wishes,
Stephen

Stephen F. Lintner
Senior Technical Advisor
World Bank
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Appendix 6  UNEP-FI statement

6.1 UNEP Statement by Financial Institutions on the Environment & Sustainable Development

As Revised - May 1997

We members of the financial services industry recognize that sustainable development depends upon a positive interaction between economic and social development, and environmental protection, to balance the interests of this and future generations. We further recognize that sustainable development is the collective responsibility of government, business, and individuals. We are committed to working cooperatively with these sectors within the framework of market mechanisms toward common environmental goals.

1. Commitment to Sustainable Development
1.1 We regard sustainable development as a fundamental aspect of sound business management.
1.2 We believe that sustainable development can best be achieved by allowing markets to work within an appropriate framework of cost-efficient regulations and economic instruments. Governments in all countries have a leadership role in establishing and enforcing long-term common environmental priorities and values.
1.3 We regard the financial services sector as an important contributor towards sustainable development, in association with other economic sectors.
1.4 We recognize that sustainable development is a corporate commitment and an integral part of our pursuit of good corporate citizenship.

2. Environmental Management and Financial Institutions
2.1 We support the precautionary approach to environmental management, which strives to anticipate and prevent potential environmental degradation.
2.2 We are committed to complying with local, national, and international environmental regulations applicable to our operations and business services. We will work towards integrating environmental considerations into our operations, asset management, and other business decisions, in all markets.
2.3 We recognize that identifying and quantifying environmental risks should be part of the normal process of risk assessment and management, both in domestic and international operations. With regard to our customers, we regard compliance with applicable environmental regulations and the use of sound environmental practices as important factors in demonstrating effective corporate management.
2.4 We will endeavor to pursue the best practice in environmental management, including energy efficiency, recycling and waste reduction. We will seek to form business relations with partners, suppliers, and subcontractors who follow similarly high environmental standards.
2.5 We intend to update our practices periodically to incorporate relevant developments in environmental management. We encourage the industry to undertake research in these and related areas.
2.6 We recognize the need to conduct internal environmental reviews on a periodic basis, and to measure our activities against our environmental goals.
2.7 We encourage the financial services sector to develop products and services which will promote environmental protection.

3. Public Awareness and Communication
3.1 We recommend that financial institutions develop and publish a statement of their environmental policy and periodically report on the steps they have taken to promote integration of environmental considerations into their operations.
3.2 We will share information with customers, as appropriate, so that they may strengthen their own capacity to reduce environmental risk and promote sustainable development.

3.3 We will foster openness and dialogue relating to environmental matters with relevant audiences, including shareholders, employees, customers, governments, and the public.

3.4 We ask the United Nations Environment Programme (UNEP) to assist the industry to further the principles and goals of this Statement by providing, within its capacity, relevant information relating to sustainable development.

3.5 We will encourage other financial institutions to support this Statement. We are committed to share with them our experiences and knowledge in order to extend best practices.

3.6 We will work with UNEP periodically to review the success in implementing this Statement and will revise it as appropriate.

We, the undersigned, endorse the principles set forth in the above statement and will endeavour to ensure that our policies and business actions promote the consideration of the environment and sustainable development.

6.2 UNEP Financial Institutions Initiative Signatories

Below is a list of Signatories to the UNEP Statement by Financial Institutions on the Environment & Sustainable Development, as of February 2003

**Albania**
American Bank of Albania - Banka Amerikane e Shqiperise

**Andorra**
Banca Internacional D’Andora - Banca Mora
Credit Andorra

**Angola**
Banco Africano de Investimentos
Banco Nacional de Angola

**Argentina**
Banco Frances

**Australia**
National Australia Bank
Westpac Banking Corporation

**Austria**
Bank Austria
Bank Für Tirol und Vorarlberg AG
Bankhaus Carl Spengler & Co. AG
Creditanstalt-Bankverein
Österreichische Investitionskredit AG
Österreichische Kommunalkredit AG
Raiffeisen Zentralbank Austria AG

**Brazil**
Banco do Estado de Sao Paulo SA
Banco Nacional de Desenvolvimento Economic e Social
BBV Brasil

**Bulgaria**
Balkanbank Ltd.
Canada
Bank of Montreal
Canadian Imperial Bank of Commerce
Desjardins Group/Mouvement des caisse Desjardins
Export Development Corporation
Royal Bank of Canada
Scotia Bank (The Bank of Nova Scotia)
Toronto-Dominion Bank
Chile
Banco BHIF
China
Bank of Shangai
Colombia
Banco Ganadero
Cyprus
Bank of Cyprus
Denmark
Den Danske Bank, A/S
France
Banque Populaire du Haut-Rhin
Caisse des dépots
Dexia (note 1)
Société Générale Group
Germany
Bankhaus Bauer AG
Bankhaus C.L. Seeliger
Bankhaus Max Flessa & Co.
Bankverein Werther AG
Bayerische Handelsbank AG
Bayerische Hypo-und Vereinsbank
Bayerische Landesbank Girozentrale
Beneficial Bank AG
Bezirkssparkasse Heidelberg
BfG Bank AG
B. Metzler seel. Sohn & Co. KgaA
Commerzbank AG
Conrad Hinrich Donner Bank AG
DEG - German Investment and Development Company
Degussa Bank GmbH
Delbrück & Co., Privatbankiers
Deutsche Ausgleichsbank
Deutsche Bank AG
Deutsche Bank Saar
Deutsche Pfandbrief-und Hypothekenbank AG
Deutsche Postbank AG
Dresdner Bank AG
DZ Bank
Eurohypo AG,
Europäische Hypothekenbank der Deutschen Bank
Fürstlich Castell'sche Bank, Credit-Casse
Hamburgische Landesbank Girozentrale
Hesse Newman Co Bank (BNL Group)
HKB Hypotheken- und Kommunalkredit Bank
Investitionsbank des Landes Brandenburg
Kreditanstalt für Wiederaufbau
Kreissparkasse Düsseldorf
Kreissparkasse Göppingen
Landesbank Baden-Württemberg
Landesbank Schleswig-Holstein Girozentrale
LBS Badische Landesbausparkasse
Merck Finck & Co.
M.M.Warburg & Co.
Sal. Oppenheim jr. & Cie
SchmidtBank KGaA
Schröder Münchmeyer Hengst AG
Schwäbische Bank AG
Service Bank GmbH & Co. KG
Sparkasse Heidelberg (note 2)
Sparkasse Leichlingen
Sparkasse Staufen
Stadtsparkasse Hannover
Stadtsparkasse München
Stadtsparkasse Wuppertal
UmweltBank AG
Vereins-und Westbank AG
Volksbank Siegen-Netphen eG
WestLB

Greece
Commercial Bank of Greece

Hungary
Budapest Bank RT
National Savings and Commerical Bank Ltd.

Iceland
Landsbanki Islands

India
Bank of Baroda

Ireland
Bank of Ireland Group

Italy
Banca Monte dei Paschi di Siena S.p.A
Credito Italiano
Istituto Nazionale di Credito Agrario S.p.A.
SanPaolo IMI S.p.A

Japan
Development Bank of Japan
Good Bankers Co. Ltd.
Nikko Asset Management Co. Ltd.
Nikko Cordial Corporation
Shiga Bank
Sumitomo Mitsui Banking Corporation

Jordan
Arab Bank, PLC
Export Bank of Africa Ltd.
Middle East Investment Bank, S.G. Group

Kenya
Kenya Commercial Bank Group

Kuwait
National Bank of Kuwait SAK
Mexico
Banco National de Obras y Servicios Publicos SNC
BBV Probursa

Morocco
BMCE Bank

The Netherlands
Algemene Spaarbank voor Nederland
FMO - Netherlands Development Finance Company
Rabobank
Triodos Bank

Nigeria
FSB International Bank plc

Norway
Den norske Bank ASA

Peru
Banco Continental

The Philippines
Bank of Philippine Islands
Development Bank of the Philippines
Global Business Bank
Land Bank of the Philippines
Metropolitan Bank and Trust Company
Philippine Bank of Communications (PB Com)
Planters Development Bank
Rizal Commercial Banking Corporation

Poland
Bank Depozytowo-Kredytowy SA
Bank Gdanski SA
Bank Ochrony Srodowiska
Bank of Handlowy W. Warszawle SA
Bank Polska Kasa Opieki SA
Bank Przemystowo-Handlowy SA
Bank Rozwoju Eksportu SA
Bank Slaski SA
Bank Zachodni SA
National Fund for Environmental Protection and Water Management
Polski Bank Inwestycyjny SA
Pomorski Bank Kredytowy SA
Powszechna Kasa Oszczednosci - Bank Panstwowy
Powszechny Bank Gospodarczy SA w lodzi
Powszechny Bank Kredytowy SA

Portugal
Banco Comercial Português (note 3)
Banco Portuges do Atlantico SA
IPE Capital, SA

Puerto Rico
BBV Puerto Rico

Romania
Romanian Commercial Bank SA

Russia
Econatsbank

Slovenia
Kreditna banka Maribor d.d.
Spain
Banca Catalana SA
Banco Bilbao Vizcaya SA
Banco del Comercio S.A
Banesto, Banco Espagnol de Credito
BBV Privanza, Banco SA
Caixa Catalunya
Finanzia, Banca de Credito SA
Santander Central Hispano (note 4)

Sweden
Ekobanken-Din Medlemsbank
JAK- Jord, Arbete, Kapital
Nordea AB (Nordic) (note 5)
Skandinaviska Enskilda Banken
Svenska Handelsbanken
Swedbank AB

Switzerland
Bank Sarasin & Cie
Banque Cantonale de Geneve
Basellandschaftliche Kantonalbank
Black Emerald Group
Credit Suisse Group
EPS Finance Ltd.
Luzerner Kantonalbank
Sustainable Asset Management
UBS AG
Zurcher Kantonalbank

Thailand
Thai Investment and Securities Co. Ltd

Turkey
Finansbank
Garanti Leasing

Uganda
Uganda Commercial Bank

United Kingdom
Abbey National Plc.
Barclays Group Plc.
CDC Group Plc.
Cooperative Bank
Friends Provident Life Office
HSBC Holdings Plc.
ISIS Asset Management (note 6)
Lloyds TSB Bank
NatWest Group
Prudential Plc.
Royal Bank of Scotland Plc.
Standard Chartered Plc.
Woolwich Plc.

United States of America
Citigroup
Community Capital Bank
EBI Capital Group LLP
FleetBoston Financial
Innovest Strategic Value Advisor Inc.
Republic National Bank
Venezuela
Banco Provincial
Corporacion Andina de Formento

Associate Members
Coopers & Lybrand, United Kingdom
Ecossecurities, United Kingdom

Number of Signatories: 196 plus 2 Associate Members in 47 Countries

Notes:

1. Dexia - Credit Local de France, France
2. Bezirkssparkasse Heidelberg changed its name to Sparkasse Heidelberg
3. Banco Bilbao Vizcaya changed name in 2001 to Banco Comercial Português, Portugal
4. Banco Santander and Banco Central Hispano merged in 1999
5. Former signatories KOP, Finland (Nordea Bank Finland) and Uni Bank, Denmark (Nordea Bank Denmark) joined together to form Nordea AB, Sweden (Nordic)
6. Friends Ivory & Sime Trust Company, United States of America no longer exists, Parent company is ISIS Asset Management
Appendix 7  World Commission on Dams Guidelines

Figure 7.1 on page 202 of the WCD Report, as adapted to reflect accompanying text on pages 279-307.

In November 2000 the World Commission on Dams (WCD) reported back on its investigation of dams and their impacts, positive and negative. The first objective which the WCD had set for itself was “to review the development effectiveness of large dams and to assess alternatives for water resources and energy development”. The WCD Report provided the first ever independent study of large dams involving contributors from around the world, from different disciplines and backgrounds, who carried out a wide range of investigations - including 8 detailed studies of large dams, a cross-check survey of 125 existing dams, country reviews for India and China, a briefing paper for Russia/the Newly Independent States, 17 thematic review papers, as well as public consultations and 900 submissions - over two years.

Benefits and Costs of Dams
This Report confirmed that dams have made an important contribution to human development, providing significant benefits. Large dams provide water storage across seasons/years for domestic and productive uses, and a means to meet energy needs, through supply of hydro-power. The WCD also concluded, however, that large dams constructed to-date had yielded such benefits ineffectively and inconsistently; many large dams had been built which were not meeting their economic and technical targets. “In too many cases an unacceptable and often unnecessary price has been paid to secure…benefits”; ecologically, large dams have caused “significant and irreversible loss of species and ecosystems” and an “estimated 40-80 million people have been displaced by reservoirs”. Not only, observed the WCD, has the social and environmental price which has been paid been unacceptably high, but also such a price is “often unnecessary” to secure the benefits.

Responding to Water and Energy Needs
As the WCD Report emphasised, the fundamental decisions are not about dams as such, but about alternative ways of responding to water and energy needs. A key recommendation of the WCD Report is to place consideration of dam projects in the context of a bigger planning cycle for management of water resources and energy development. “Non-dam options” need to be explored properly, as well as proposed dam projects. Major infrastructure projects, once set in motion, tend to acquire substantial “momentum”, so that it is critical to determine strategic direction and goals before a particular project is begun. That requires, says the WCD, broad study and open debate as to who needs/who will receive access to such water and energy, and who will pay the costs of delivering improved services, either financially or in terms of changes to lives and livelihoods.

Matching Needs and Benefits
In many cases a significant mismatch between those who had benefited from large dams, and those who had been disadvantaged by them was noted by the WCD, the costs, it said, often being “disproportionately borne by poor people, indigenous peoples and other vulnerable groups”. “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, or the social and economic benefits from these”. Lack of equity in the distribution of benefits, reported the WCD, has “called into question the value of many dams in meeting water and energy development needs”.

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Assessing Impacts
The WCD’s investigations revealed “pervasive and systematic failures to assess the range of potential negative impacts and implement adequate mitigation, resettlement and development programmes for the displaced.” “Planning and appraisal for large dams was confined primarily to the narrow application of economic cost-benefit analyses” with “historically, social and environmental impacts left out”. Strategic and project level assessments should routinely include social and environmental aspects.

“Improving Performance, Avoiding Conflicts”
The WCD points to the controversies raised by many existing dam projects and observes that conflicts will only be avoided in future if changes are made. Large infrastructure projects are costly, with long-lasting significance and “epochal” consequences for countries and their people. It is no longer acceptable or feasible for large projects to be developed as in the past, often imposed by a few on the many. “Business as usual is not possible”; new norms and “societal expectations” have emerged based on human rights conventions and the Rio/UNCED Principles. The aim should be to achieve cooperative, rather than conflictual, water relations. As Professor Kader Asmal, WCD Chair, states in his Preface: “Some believe water scarcity inevitably locks peoples, regions and nations in a fierce, competitive struggle…Our Commission and through it, this Final Report, contradicts that sentiment.”

A New Framework for Decision-Making
The WCD proposes a substantially expanded basis for deciding on proposed water and energy development projects, “A New Framework for Decision-Making”. This responds to the second of the two objectives which the WCD had set for itself, namely “to develop internationally acceptable criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dam projects”. The WCD framework is “new” in that it is intended to “innovate and improve on the body of knowledge on good practices and add value to guidelines already in common use”. The WCD is fully aware that this will entail in many cases raising existing standards: “by raising the bar higher, as we do, a government must exercise more energy and creativity to reach a sustainable result”.

Supporting Decision-Making
The subject of this second part of the WCD Report is on planning/project processes. The WCD’s intention is to provide a decision-making aid, to add to existing “decision-support instruments” for water and energy projects, not to make or prejudice future decisions on dams. Substantive decisions are for others to make: “The decision to proceed with a large dam, the way the decision was made, the opinions and perspectives that were heard are at the heart of the current debate about dams. Our Report is about improving the way such decisions are made”.

Policy Framework
The WCD offers a “framework [which] will allow states to take informed and appropriate decisions, thereby raising the level of public acceptance and improving development outcomes”. This policy framework is outlined in Table 1 (Figure 7.1 on page 202 of the WCD Report adapted to reflect accompanying text on pages 198-202).

First, the “normative development” context is noted, based on the new norms referred to above.
Then five “Core Values” are proposed, namely equity, efficiency, participatory decision-making, sustainability and accountability, which should, the WCD suggests, be espoused by water and energy projects, since improvement of development process and outcomes starts with an “understanding of shared values, objectives and goals”. The Core Values, argues the WCD, provide the “essential tests that must be applied to water and energy development” (page 199).

The WCD combines this with a “Rights and Risks” approach for negotiated decision-making. Negotiating outcomes, recommends the WCD, will greatly improve the development effectiveness of water and energy projects by eliminating unfavourable projects at an early stage, and by offering as a choice only those options that key stakeholders agree represent the best ones to meet the needs in question. Instead of the traditional “balance sheet” approach of assessing costs/benefits of a project which is “inadequate for effective development planning and decision-making”, this rights and risks approach developed by the WCD “provides a principled basis for mediating development choices among competing interests”. By recognising rights and assessing risks (particularly rights at risk) in the planning and project cycles, it offers a means of applying the five Core Values to decision-making on water and energy resource management. “Clarifying the rights context for a proposed project is an essential step in identifying those legitimate claims and entitlements that may be affected by the project or its alternatives. It is also a pre-condition for effective identification of legitimate stakeholder groups that are entitled to a formal role in the consultative process”.

Risk Takers, and Risk Bearers
A key finding of the research carried out by the WCD was insufficient attention to “risk bearers”, eg. local people who will be affected by a project, as compared to “risk-takers”, eg. project promoters and government. In the past, the WCD states, “many groups have not had an opportunity to participate in decisions that imply major risks for their lives and livelihoods, thus denying them a stake in the development decision-making process commensurate with their exposure to risk”. Furthermore, many have had risks imposed on them involuntarily; involuntary (and voluntary) risk-bearers should be engaged by risk takers in a transparent process to negotiate equitable outcomes. Hence, the above WCD Policy Framework “requires introducing new voices, perspectives, criteria into decision-making, as well as processes that will build consensus around the decisions reached.” The “new voices” are those of people previously excluded from debate; the “new perspectives” go beyond the “traditional boundaries” of disciplines.

Agenda for Implementation
Having set out its recommended norms, values and approach, the WCD then proposes an “Agenda for Implementation” comprising seven “Strategic Priorities” and twenty-six Guidelines for Good Practice.

The headings of the Strategic Priorities are listed in Table 1. namely: Gaining Public Acceptance, Comprehensive Options Assessment, Addressing Existing Dams, Sustaining Rivers and Livelihoods, Recognising Entitlements and Sharing Benefits, Ensuring Compliance and Sharing Rivers for Peace, Development and Security.

Each Strategic Priority is supported by a Key Message and a set of Policy Principles; these are together set out in full in Table 2.

The headings of the twenty-six Guidelines are listed in Table 3. The full text of the Guidelines occupies more than 25 pages in the WCD Report, describing (on pages 279-307) “how to assess options and plan/implement dam projects to meet WCD criteria”.

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Creating a Basis for Best Practice on Existing Norms
This policy framework is intended by WCD as a practical guide for future decision-making, to “form a basis for best practice in water and energy development”. As the WCD concedes, water decisions are complex: no simplistic solutions exist for complex situations, and “no typical dams exist”. Chosen projects will be a function of negotiated agreements and resolution of sometimes competing interests, through a process of “bringing to the table all those whose rights are involved and who bear the risks associated with different options, thereby creating positive conditions for resolution”

“Making Water Decisions Easier”
The WCD intends the lessons learnt from its analysis of large dams to apply to planning and implementation of water and energy projects generally, and hopes that its Policy Framework will be seen as relevant also for other major infrastructure projects (in the Commissioners’ Foreword, on page x of the WCD Report). The WCD Policy Framework will “…show clearly how, where and why decisions can either work well or fail to deliver. In so doing it aims to help make water decisions easier, not more difficult”.

This briefing has been prepared by Peter Newborne, Independent Consultant on Water Programmes and Policy, and Research Associate to the Water Policy Programme at the Overseas Development Institute-ODI.
### TABLE 1

**Outline of the POLICY FRAMEWORK proposed by the WCD including the “Core Values”**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Universal Declaration of Human Rights</td>
<td>United Nations Declaration on Right to Development</td>
</tr>
</tbody>
</table>

These three Declarations "together make up an internationally accepted framework of norms empowering a concept of development that is economically viable, socially equitable and environmentally sustainable".

#### VALUES: WCD Core Values and Shared Understanding

Improving development process/outcomes starts with an "understanding of shared values, objectives and goals"

- Five "CORE VALUES"
  - Equity
  - Efficiency
  - Participatory Decision-Making
  - Sustainability
  - Accountability

#### RIGHTS and RISKS Approach

Tool for Negotiated Decision-Making

"provides a principled basis for mediating development choices among competing interests"

#### AGENDA for IMPLEMENTATION

Seven "STRATEGIC PRIORITIES"

- Gaining Public Acceptance
- Comprehensive Options Assessment
- Addressing Existing Dams
- Sustaining Rivers and Livelihoods
- Recognising Entitlements and Sharing Benefits
- Ensuring Compliance
- Sharing Rivers for Peace, Development and Security

- each supported by a "Key Message" and "Policy Principles"

- Twenty-six "GUIDELINES for Good Practice"

- describing how to assess options and plan/implement dam projects to meet WCD criteria

(see pages 379-397 of the WCD Report)

Source: Figure 7.1 on page 302 of the WCD Report, as adapted to reflect accompanying text on pages 279-107
### TABLE 2

The “STRATEGIC PRIORITIES” proposed by the WCD
Sevea Strategic Priorities, each with Key Message and numbered Policy Principles

#### Strategic Priority 1: Gaining Public Acceptance

Public acceptance of key decisions is essential for equitable and sustainable water and energy resource development. Acceptance emerges from recognizing rights, addressing risks, and safeguarding the entitlements of all groups of affected people, particularly indigenous and vulnerable groups. Decision-making processes are used to ensure informed participation by all affected groups, to result in the demonstrable acceptance of key decisions. Where projects affect indigenous and vulnerable groups, such processes are guided by their free, prior and informed consent.

1.1 Recognition of rights and assessment of risks are the basis for the identification and inclusion of stakeholders in decision-making on energy and water resource development.

1.2 Access to information, legal and other support is available to all stakeholders, particularly indigenous and vulnerable groups.

1.3 Demonstrable public acceptance of all key decisions is achieved through agreements negotiated in an open and transparent process conducted in good faith and with the informed participation of all stakeholders.

1.4 Decisions on projects affecting indigenous and vulnerable groups are guided by their free, prior and informed consent achieved through formal and informal representative bodies.

#### Strategic Priority 2: Comprehensive Options Assessment

Alternatives to dams do often exist. To explore these alternatives, needs for water, food and energy are assessed and objectives clearly defined. The appropriate development response is identified from a range of possible options. The selection is based on a comprehensive and participatory assessment of the full range of policy, institutional, and technical options. The assessment process, social and environmental aspects have the same significance as economic and financial factors. The options assessment process continues through all stages of planning, project development, and operations.

2.1 Development needs and objectives are clearly formulated through an open and participatory process before the identification and assessment of options for water and energy resource development.

2.2 Planning approaches that take into account the full range of development objectives are used to assess all policy, institutional, management, and technical options before the decision is made to proceed with any programme or project.

2.3 Social and environmental aspects are given the same significance as technical, economic and financial factors in assessing options.

2.4 Increasing the effectiveness and sustainability of existing water, irrigation and energy systems is given priority in the options assessment process.

2.5 If a dam is selected, a comprehensive options assessment process, social and environmental principles are applied in the review and selection of options throughout the detailed planning, design, construction, and operation phases.

#### Strategic Priority 3: Addressing Existing Dams

Opportunities exist to optimize benefits from many existing dams, address outstanding social issues and strengthen environmental mitigation and restoration measures. Dams and the context in which they operate are not seen as static over time. Benefits and impacts may be transformed by changes in water use priorities, physical and land use changes in the river basin, technological developments, and changes in public policy expressed in environment, safety, economic and technical regulations. Management and operation practices must adapt continuously to changing circumstances over the project’s life and must address outstanding social issues.

3.1 A comprehensive post-project monitoring and evaluation process, and system of long-term periodic reviews of the performance benefits, and impacts for all existing large dams are introduced.

3.2 Programmes to review, improve and optimize benefits from existing large dams are identified and implemented. Options to consider include rehabilitation, modernization and upgrading equipment and facilities, optimising and introduct new-operation measures to improve the efficiency of delivery and use of services.

3.3 Outstanding social issues associated with existing large dams are identified and analysed, processes and mechanisms are developed with affected communities to remedy them.

3.4 The effectiveness of existing environmental mitigation measures is assessed and unachieved impacts identified, opportunities for mitigation, restoration and enhancement are recognized, identified and acted on.

3.5 All large dams have formalised operating agreements with time-bound licence periods, which re-planning for water resources programs result in major physical changes to facilities or decommissioning, may be negotiated, a full feasibility study and environmental and social impact assessments undertaken.

#### Strategic Priority 4: Sustaining Rivers and Livelihoods

Rivers, wetlands and aquatic ecosystems are the biological engines of the planet. They are the basis for life and the livelihoods of local communities. Dams transform landscapes and create risks of irreversible impacts. Understanding, protecting and restoring conditions at river basin level is essential to foster equitable human development and the welfare of all species. Options assessment and decision-making around river development prioritizes the avoidance of impacts, followed by the minimization and mitigation of harm to the health and integrity of the river system. Avoiding impacts through good site selection and project design is a priority. Relieving tail-end environmental flows can help maintain downstream ecosystems and the communities that depend on them.
4.1 A basic understanding of the ecosystem's functions, values, and requirements, and how community livelihoods depend on and influence them, is required before decisions on development options are made.

4.2 Decisions on ecosystem, social, and health issues are an integral part of project and catchment management and operation of dams. Compliance with relevant regulations, criteria, and guidelines, and project-specific negotiated agreements is secured at all critical stages in planning and implementation.

4.3 A national policy is developed for maintaining selected rivers with high ecosystem functions and values in their natural state. When reviewing alternative locations for dams on undeveloped rivers, priority is given to locations on tributaries.

Strategic Priority 5: Recognising Entitlements and Sharing Benefits

Joint negotiations with adversely affected people result in mutually and legally enforceable mitigation and development provisions. These provisions recognize entitlements that improve livelihoods and quality of life and assist people who are beneficiaries of the project. Successful mitigation, resettlement and development are fundamental commitments and responsibilities of the State and the developer. They bear the costs to satisfy all affected people that moving from their current location and resources will improve their livelihoods. Accountability of responsible parties to agreed mitigation, resettlement and development provisions is ensured through legal means, such as contracts, and through accessible legal recourse at national and international level.

5.1 Recognition of rights and measurement of benefits is the basis for identification and inclusion of adversely affected stakeholders in joint negotiations on mitigation, resettlement and development-related decision making.

5.2 Impact assessment includes all people in the reserve, upstream, downstream, and in catchment areas where properties, livelihoods and natural resources are affected. It also includes those affected by dam-related infrastructure such as roads, transmission lines and resettlement developments.

5.3 All recognized adversely affected people negotiate mutually agreed, formal and legally enforceable mitigation, resettlement and development entitlements.

5.4 Adversely affected people are recognized as first among the beneficiaries of the project. Mutually agreed and legally-protected benefit sharing mechanisms are negotiated to ensure implementation.

Strategic Priority 6: Ensuring Compliance

Ensuring public trust and confidence requires that governments, developers, regulators and operators meet all commitments related to implementation of compliance with applicable regulations, criteria, and guidelines, and project-specific negotiated agreements is secured at all critical stages in planning and implementation.

A set of mutually reinforcing incentives and mechanisms is required for social, environmental and technical measures. These should involve an appropriate mix of regulatory and non-regulatory measures, incorporating incentives and sanctions.

Regulatory and compliance frameworks use incentives and sanctions to enforce effectiveness where flexibility is needed to accommodate changing circumstances.

6.1 A clear, consistent and common set of criteria and guidelines to ensure compliance is adopted by sponsoring, contracting and financing institutions and compliance is subject to independent and transparent review.

6.2 A Compliance Plan is prepared for each project prior to commencement, setting out how compliance will be achieved with relevant criteria and guidelines and specifying binding arrangements for project-specific technical, social and environmental commitments.

6.3 Costs for establishing compliance mechanisms and related institutional capacity, and their effective application, are built into the project budget.

6.4 Compliance practices are avoided through enforcement of legislation, voluntary integrity pacts, donor grants and other mechanisms.

6.5 Incentives that reward project proponents for adhering to criteria and guidelines are developed by public and private financial institutions.

Strategic Priority 7: Sharing Rivers for Peace, Development and Security

Storage and diversion of water on transboundary rivers has been a source of considerable tension between countries and within countries. As specific interventions for diverting water, dam construction requires cooperation. Consequently, the use and management of water increasingly becomes the subject of agreements between States to promote mutual self-interest for regional cooperation and peaceful collaboration. This leads to a shift in focus from the narrow approach of allocating a finite resource to the sharing of rivers and their associated benefits in which States are innovative in defining the scope of issues for discussion. External financing agencies support the principles of good faith negotiations between riparian States.

7.1 National water policies make specific provisions for basin agreements in shared river basins. Agreements are negotiated on the basis of good faith negotiations between riparian States. They are based on principles of equitable and reasonable utilization, no significant harm, prior informed consent and the WCD's strategic priorities.

7.2 Riparian States go beyond looking at water as a finite commodity to be divided and comparatively an approach that equitably allocates the water, but the benefits that can be derived from it. Where appropriate, negotiations include benefits outside the river basin and other sectors of mutual interest.

7.3 Dispute resolution is not based on the riparian States' cases as a solution that is upheld by an independent panel. Intractable disputes between countries are resolved through various means of dispute resolution, including in the last instance, the International Court of Justice.
### TABLE 3

Headings of the “GUIDELINES” proposed by the WCD
Twenty-six Guidelines for Good Practice, itemised under the Strategic Priorities

<table>
<thead>
<tr>
<th>Strategic Priority 1: Gaining Public Acceptance</th>
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<tbody>
<tr>
<td>1. Stakeholder Analysis</td>
</tr>
<tr>
<td>2. Negotiated Decision-Making Processes</td>
</tr>
<tr>
<td>3. Free, Prior and Informed Consent</td>
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<table>
<thead>
<tr>
<th>Strategic Priority 2: Comprehensive Options Assessment</th>
</tr>
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<tbody>
<tr>
<td>4. Strategic Impact Assessment for environmental, social, health and cultural heritage issues</td>
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</tbody>
</table>
| 5. Project-level Impact Assessment for “
| 6. Multi-criteria Analyses |
| 7. Life Cycle Assessment |
| 8. Greenhouse Gas Emissions |
| 9. Distributional Analysis of Projects |
| 10. Valuation of Social and Environmental Impacts |
| 11. Improving Economic Risk Assessment |

| Strategic Priority 3: Addressing Existing Dams |
| 12. Ensuring Operating Rules Reflect Social and Environmental Concerns |
| 13. Improving Reservoir Operations |

| Strategic Priority 4: Sustaining Rivers and Livelihoods |
| 14. Baseline Ecosystem Surveys |
| 15. Environmental Flow Assessment |
| 16. Maintaining Productive Fisheries |

| Strategic Priority 5: Recognising Entitlements and Sharing Benefits |
| 17. Baseline Social Conditions |
| 18. Impoverishment Risk Analysis |
| 20. Project Benefit-Sharing Mechanisms |

| Strategic Priority 6: Ensuring Compliance |
| 21. Compliance Plans |
| 22. Independent Review Panels for Social and Environmental Matters |
| 23. Performance Bonds |
| 24. Trust Funds |
| 25. Integrity Pacts |

| Strategic Priority 7: Sharing Rivers for Peace, Development and Security |

Source: WCD Report, Chapter 9, page 278. For full text, see pages 279-307.
Appendix 8  Sector Initiatives

The following sections describe private or financial sector initiatives towards achieving sustainable development with specific emphasis on environmental and social aspects.

UNEP Finance Initiatives (UNEP-FI)

Since its inception, UNEP has worked closely with the industry sector in developing environmental management strategies. In 1991, UNEP started working with a small group of commercial banks to try and catalyse the awareness on the environmental agenda in the banking sector. In May 1992 the "UNEP Statement by Banks on the Environment and Sustainable Development" was launched in New York. In 1995, it forces were joined with the Insurance Sector to launch the "UNEP Statement of Environmental Commitment by the Insurance Industry".

At the moment 275 financial institutions have undersigned these two statements that focus on the commitment of financial institutions towards environmental sustainability in three key areas:

1. Internal operations, looking at issues such as energy usage, resource throughput, and waste output.
2. A recognition that identifying and quantifying environmental risk should be part of the normal process of risk assessment and management.
3. It promotes the development of products and services, which will actively promote environmental protection. This is particularly relevant to asset management tools.

The signatories of the statements are also demanded to have an active role as a leader in promoting environmental responsibility in the financial sector. Furthermore, it expects signatories to conduct internal reviews, measure their activities against their environmental goals, share information with customers and other stakeholders, support research, engage in dialogue with other financial institutions, share best practice with them and work with UNEP to review their success in implementing the Statements.

The following articles from the UNEP Statement by Financial Institutions on the Environment & Sustainable Development are most relevant for this study:

Article 2. Environmental Management and Financial Institutions
2.1 We support the precautionary approach to environmental management, which strives to anticipate and prevent potential environmental degradation.
2.2 We are committed to complying with local, national, and international environmental regulations applicable to our operations and business services. We will work towards integrating environmental considerations into our operations, asset management, and other business decisions, in all markets
2.3 We recognise that identifying and quantifying environmental risks should be part of the normal process of risk assessment and management, both in domestic and international operations. With regard to our customers, we regard compliance with applicable environmental regulations and the use of sound environmental practices as important factors in demonstrating effective corporate management.

Article 3. Public Awareness and Communication
3.1 We recommend that financial institutions develop and publish a statement of their environmental policy and periodically report on the steps they have taken to promote integration of environmental considerations into their operations.
3.2 We will share information with customers, as appropriate, so that they may strengthen their own capacity to reduce environmental risk and promote sustainable development.
3.3 We will foster openness and dialogue relating to environmental matters with relevant audiences, including shareholders, employees, customers, governments, and the public.

Compliance to the UNEP Finance Initiatives’ statements is voluntary, as is the payment of a membership fee to the UNEP-FI secretariat. Private sector banks and insurance companies dominate the steering committee and working groups of the Finance Initiatives. The achievements of UNEP-FI therefore depend to a large extent on the voluntary contributions of a few front-running companies in the working groups and regional task forces. NGOs have complained about the limited involvement of civil society groups in UNEP-FI and the voluntary nature of the initiatives. In ten years no structural monitoring of progress by the signatories has been carried out and there are no sanctions to non-compliance with the UNEP-FI declaration.\textsuperscript{237} There have also been complaints from frontrunners in the financial industry itself (such as Barclays and Swiss Re) about ‘free riding’ by signatories. On the other hand, some banks with relatively strict environmental policies have decided not to sign up to the UNEP-FI statement because they disagree with its aspirations.

Under this pressure UNEP-FI is currently demanding from its signatories to comply with environmental reporting guidelines that UNEP is developing in conjunction with the Global Reporting Initiative, and to attend UNEP training events. Members may also have to log details of their sustainability initiatives on a secure website.\textsuperscript{238} Another instrument to weed out free riders is to make the payment of membership fees mandatory. So far, UNEP-FI has not yet de-listed any members but has indicated it may end up with only 95 members out of the current 300.

UNEP Finance Initiatives (UNEP-FI) has contributed to the issue of sustainable development by putting sustainability issues on the agenda of mainstream financial institutions. Its main function is communication rather than policy development or enforcement. A practical problem here is that prominent ‘front runners’ in UNEP-FI are not doing nearly enough to substantiate their claims that they contribute to sustainable development – and thus have little to show to the ‘laggards’. Many ‘committed’ banks use UNEP-FI in this sense as a marketing tool.

Banks that claim to be responsible financiers because they undersigned the UNEP-FI statement implicitly state that UNEP-FI monitors and enforces compliance to the statement, which it doesn’t. In order to become trustworthy, banks should make themselves accountable to society (i.e. NGOs) directly, and not pass the responsibility to either borrowers (as the World Bank does) or unaccountable sector initiatives.

World Business Council for Sustainable Development (WBCSD)

World Business Council for Sustainable Development (WBCSD) was set up in 1991 to get the business community involved in the Rio Earth Summit. The following year it has grown into the leading advocate for sustainability in the business community. The WBCSD’s work program focuses on issues where business’s involvement can make a difference. It works on various areas of policy research and sets up specific initiatives to investigate how some sectors can become more sustainable. Members of the WBCSD include CEOs of 160 of the world’s biggest and most influential companies. The central slogan of the WBCSD is; “Our activities reflect our belief that the pursuit of sustainable development is good for business and business is good for sustainable development”\textsuperscript{239}.
Global Compact

Announced by United Nations Secretary-General Kofi Annan at the World Economic Forum in Davos, Switzerland, in January 1999, and formally launched at United Nations Headquarters in July 2000, the Global Compact calls on companies to embrace nine universal principles in the areas of human rights, labour standards and the environment. It brings companies together with United Nations organisations, international labour organisations, NGOs and other parties to foster partnerships and to build a more inclusive and equitable global marketplace. It aims, in the words of Kofi Annan, “to contribute to the emergence of shared values and principles, which give a human face to the global market” and challenge business leaders to enact nine core principles enshrined in the UN Global Compact. These nine core principles in the areas of human rights, labour, and the environment are derived from universal consensus based on the following declarations:

1. The Universal Declaration of Human Rights
2. The International Labour Organisation’s (ILO) Declaration on Fundamental Principles and Rights at Work
3. The Rio Declaration on Environment and Development

The Global Compact is supported by several core UN agencies, namely United Nations Environment Programme (UNEP), the International Labour Organisation (ILO), Office of the High, Commissioner for Human Rights (OHCHR), the United Nations Development Programme (UNDP), as well as the United Nations Department of Economic and Social Affairs (UNDESA), the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Industrial Development Organisation (UNIDO).

The first session of Global Compact Policy Dialogue 2002 on the theme “Business and Sustainable Development” was held at the UN Headquarters in New York on 26 – 27 February 2002. The eighty participants in the meeting included representatives of forty companies from a variety of sectors, notably energy, water, finance, information and communications technology (ICT), transport, retail, mining, chemicals and pharmaceuticals. It also included representatives of seven business associations and twelve NGOs.

OECD Guidelines

The Organisation for Economic Co-operation and Development (OECD) has adopted guidelines for Multinational enterprises in 1976. Since 1976 these guidelines have been updated regularly. These guidelines for multinational enterprises are non-binding recommendations to enterprises, made by the 37 governments (which comprise all 30 OECD member countries, and seven non-member countries: Argentina, Brazil, Chile, Estonia, Israel, Lithuania and Slovenia) that adhere to them. They provide voluntary principles and standards for responsible business conduct in a variety of areas including employment and industrial relations, human rights, environment, information disclosure, competition, taxation, and science and technology. The aim of the principles is to help Multinational Enterprises (MNEs) operate in harmony with government policies and with societal expectations. These guidelines have however, as a non-enforceable gentlemen’s agreement, little impact in practice on MNEs with respect to protecting human rights and the environment.

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Global Reporting Initiative (GRI)

The Global Reporting Initiative (GRI) is an international multistakeholder effort to create a common framework for voluntary reporting on economic, environmental, and social impacts of organisation-level activities. GRI's mission is to elevate the comparability and credibility of sustainability reporting practices worldwide. The GRI incorporates the active participation of businesses, accountancy, human rights, environmental, labour and governmental organisations. The GRI is a multistakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines.

Started in 1997 by the Coalition for Environmentally Responsible Economies (CERES), the GRI became independent in 2002, and is an official collaborating centre of the UNEP and works in cooperation with UN Secretary-General Kofi Annan’s Global Compact. The so-called ‘2002 Sustainability Reporting Guidelines’ represent the foundation upon which all other GRI reporting documents are based, and outline core content that is broadly relevant to all organisations regardless of size, sector, or location. All organisations seeking to report using the GRI framework should use the guidelines as the basis for their report supported by other GRI documents as applicable.

The indicators currently recommended by the Global Reporting Initiative and associated SPI and EPI finance projects are insufficient to allow for monitoring of banks' practices. The guidelines can be used as a reference when establishing monitoring instruments as part of bank policy implementation.

The value of initiatives for better sustainability criteria is not the criteria themselves but their application and implementation. This study shows that the investigated initiatives fail in this respect and challenges their value.
Appendix 9  Notes

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