

# **Dammed if You Do – Damned if You Don't**

Chinese Financed Infrastructure Projects in Sudan

CMI – BADS

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*My friend was visibly shaken. He had just learnt that he had lost one of his clients to Chinese competitors. 'It's amazing,' he told me. 'The Chinese have completely priced us out of the market. We can't compete with what they're able to offer.'*

*There's nothing surprising about, of course; manufacturing jobs are lost to China every day. But my friend is not in manufacturing. He works in foreign aid.*

*(Naím 2007)*

Map of Dams and Hydroelectric Schemes in Sudan



Source: UNEP

## Acronyms and abbreviations

<b>ANOC</b>	Asian National Oil Company
<b>AU</b>	African Union
<b>CNPC</b>	China National Petroleum Company
<b>CPA</b>	Comprehensive Peace Agreement
<b>DAC</b>	Development Assistance Committee
<b>DIDP</b>	Development Induced Displaced People
<b>DIU</b>	Dam Implementation Unit
<b>ECA</b>	Export Credit Agency
<b>EIA</b>	Environmental Impact Assessment
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>GNPOC</b>	Greater Nile Petroleum Company
<b>HIPC</b>	Heavily Indebted Poor Country
<b>IFI</b>	International Finance Institution
<b>IMF</b>	International Monetary Fund
<b>IRN</b>	International Rivers Network
<b>LOHAP</b>	Leadership Office of Hamdab Affected People
<b>MDPIU</b>	Merowe Dam Project Implementation Unit
<b>MOD</b>	Movement of the Displaced
<b>MOU</b>	Memorandum of Understanding
<b>NEPAD</b>	New Partnership for Africa's Development
<b>NIF</b>	National Islamic Front
<b>NOC</b>	National Oil Company
<b>NGO</b>	Non-Governmental Organisation
<b>ODA</b>	Official Development Aid
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OMCT</b>	Organisation Mondiale Contre la Torture (World Organisation against Torture)
<b>PRC</b>	People's Republic of China
<b>PSDP</b>	Private Sector Development Programme
<b>ROC</b>	Republic of China
<b>SAF</b>	Sudan Armed Forces
<b>SAP</b>	Structural Adjustment Programme
<b>SLA</b>	Sudan Liberation Army
<b>SPLA</b>	Sudan People's Liberation Army
<b>SPLM</b>	Sudan People's Liberation Movement
<b>SSLM</b>	Southern Sudan Liberation Movement
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Programme
<b>US</b>	United States of America
<b>WCD</b>	World Commission on Dams
<b>WTO</b>	World Trade Organisation

## 1. Introduction

This paper will look at the emerging role China is playing as a facilitator for development in Africa. In the era of globalisation the world experiences a new form of cooperation; that between countries in the developing world. The 2006 UN World Investment Report shows a massive growth (from 2 billion US in 1985 to 60 billion in 2004) in investment flows between developing countries (UN 2006) and the tendency does not seem to end any time soon. The substantial rise in trade and investment between countries in the developing world ranges from building textile plants, mobile phone networks, roads and power plants and is in many instances supported by state-owned credit agencies. An example is the Chinese export/import bank Ex-Im which actually now the largest export credit agency in the world surpassing the World Bank when it comes to financing infrastructure in Africa. In 2006 Ex-Im approved a total of 36 billion US dollars in loans, many of which have been to countries in the developing world, as concessional loans under the Chinese Government in the nature of official government assistance. (Bosshard 2007)

The expansion of the cooperation between developing countries has some implications for the areas of which we speak. Many countries in Africa are in urgent need of investment in infrastructure and consumer goods produced in emerging economies are often more affordable than those from developed countries. Last but not least some developing country governments have reduced the conditions concerning the economic policies of the borrowers as opposed to the loans provided by developed country institutions. However, many studies of development assistance have shown that projects of this character have to be part of a wider social, economic and environmental strategy in order to create the wanted sustainable effect. The Development Assistance Committee (DAC), which is the institution overseeing the OECD countries' operations in developing countries, have set a series of guidelines in relation to development assistance ([www.oecd.org/dac/guidelines](http://www.oecd.org/dac/guidelines)). Many non-OECD countries do not accept these guidelines when operating in projects, and quite understandably since they have not taken part in formulating the criteria set for the guidelines. Nevertheless they are often criticised for not applying these 'best practises' formulated by the DAC.

One country that is often criticised when operating overseas is China. With its economic growth has come a rise in the need for natural resources and Africa has a sizeable stock of the resources that China needs. In return China provides technical and financial resources without the same amount of conditionalities set by the DAC, such as good governance, stability and the fight

against terrorism. China is not as much focussing on 'getting institutions right' when engaging in development project but more on 'getting things done'.

## **1.1 Research Question**

An example of a project in which China is involved is the building of the Merowe Dam in Northern Sudan. Since the peace agreement in 2005 foreign aid and especially private investment is growing in Sudan. Especially China is investing massively in the extractive industries, which has created an urgent need for a bigger and more reliable infrastructure in the areas in which they operate. The Merowe Dam in the North of Sudan is one of the largest hydropower projects that are being developed in Africa. It is being constructed by CCMD, a consortium of the China International Water and Electric Company, and the China National Water Resources and Hydropower Engineering Corporation. The contract is a massive investment providing energy to an area where capacity has been very small. The environmental implications are severe and the project was set to displace over 70.000 people. It seems that a satisfactory Environmental Impact Assessment was never completed and that civil society never played an active role in defining priorities, assessing options etc. China's Exim Bank is largely providing loans for the project. When presented for the draft for the project, the World Bank turned it down immediately since no proper impact assessment was done on the project. In this context it is interesting to see if the project complies with the DAC standards and the theory for 'best practises' when engaging in development projects. One main difference being the lack of conditionalities set by China when involved in development assistance. Institutions such as the IMF and the World Bank have often blamed recipient governments for aid programmes not working resulting in demands such as compliance with human rights, democratisation and environmental standards.

In some instances one could argue that the countries in the most severe need of official development assistance (ODA) are those not complying with the standards set by Western (DAC) development institutions. This is where China comes in as a major player in today's development arena. Its policy of non-interference combined with its urgent need for natural resources means that it is willing to operate in fragile states to which the West turns its back because of lack of stability and concern for human rights. This raises the following research questions:

*How does the nature of Chinese development projects challenge the Western development model in the case of the Merowe Dam?*

*What are the economic, social and environmental repercussions for the recipient country in this particular case?*



## 1.2 Methodology

The paper will be a single case, explanatory desk study, based on reviewing and analyzing the current literature on development in the West with a particular focus on infrastructure projects and dams, and the reports written on the project in order to make an assessment of the Merowe Dam against the present view on development assistance. This will be in order to make a critical review of the development theory in the context of the Chinese development model and the implications not only for the recipient country but also for the development agenda in general.

According to Robert Yin, case study research has a distinct advantage in answering a 'how' or a 'why' question with regards to a contemporary set of events (in a real-life context) over which the investigator has little or no control and when one wants to cover contextual conditions, as is the case. (Yin 1994) When conducting a case study there are several possible sources of evidence, Yin lists six types of sources: *Documentation, Archival Records, Interviews, Direct Observation, Participant Observation, and Physical Artefacts*. This study will mainly be based on documentation and participant observation, i.e. observations from NGO members and environmentalist who have been at the site for evaluation. One weakness associated with participant observation as a source of evidence is that there is the risk of a bias due to the investigator's manipulation of events. In the case of the Merowe Dam, most work is published by institutions with some stake in matter. For NGO's their conclusions are characterised by a bias towards information available on negative impact and for institutions involved in building the dam the bias is highly towards the positive impact. Therefore it can be difficult to make an objective assessment.

Interviews and direct observation would have been other appropriate measures for sources of evidence. However, already in the initial phase of the project it became very clear that very few stakeholders were willing to collaborate. Direct observations would have been time and money-consuming as well as difficult since Denmark does not currently have diplomatic relations with Sudan, thus making it difficult to travel between the two countries. Had it been possible to go, it is also questionable how much I would have permission to actually observe. The possibilities of implementing a quantitative approach are somewhat limited due to the lack of potential for source material. One could have applied a more comparative approach; a collective case study, but this would have required more extensive research beyond the scope of this paper. Nevertheless the study will include the case of the Jonglei Canal as a previous example of a Western based hydroproject in Sudan, thus providing the ground for some degree of comparability.

The case of the Merowe Dam has been chosen because of its many aspects; many case studies have been made about the Sudanese oil sector since it has great importance in the global economy (Patey 2006, Taylor 2006, Friedman 2006, Large 2008). But so has water; as water, by some scholars (Boesen and Lauridsen 2007) is considered a global public good especially today where climate change and other global environmental issues rank high on the international agenda. Furthermore watershed management and hydro politics are issues associated with issues like displacement as is oil management.

Talking about 'China' in 'Africa' is associated with some degree of ambiguity since both *China* and *Africa* can mean many things. On a general note China is used in this study meaning People's Republic of China (PRC), i.e. mainland China with the capital Beijing, not to be confused with Republic of China, commonly known as Taiwan. If the China in question is not PRC it will be emphasized. 'Africa' is even more difficult to generalize, as it refers to an entire continent. Nevertheless most African countries have a great deal in common as they have, since independence, suffered from instability, poverty, violence and repressive regimes. Another common feature is that of post-colonial cooperation with China, as we will return to later in the paper.

## **2. Traditional Development Assistance in Africa**

When referring to 'traditional' donors it is those that for the past decades have dominated the development assistance arena i.e. the richest countries in the world, members of the Economic Co-operation and Development (OECD) and their development institution, the Development Assistance Committee (DAC). Through history development thinking and the concept of aid have been changing. The origins of aid can be traced back to the 19<sup>th</sup> century (Hjertholm and White 2000) but it only became a significant feature in international relation post World War Two often associated with the Marshall Plan i.e. the U.S primary plan for post war rebuilding. As African countries gained independence and multilateral institution emerged, the role of colonial ties were no longer the sole basis for development assistance. Negotiations after the war with the objective of the creation of a new economic order resulted in the formation of multilateral institutions such as the IMF in 1947 and the International Bank for Reconstruction and Development (later known as the World Bank) in 1946.<sup>1</sup> Ever since the Second World War, development strategies employed in post-colonial Africa have been concerned with increasing aggregate national income and GDP became the overall indicator for development. Thus, for many years there was a tendency to reduce the notion of development to an

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<sup>1</sup> The history of the two institutions can be explored further at their websites: [www.worldbank.org](http://www.worldbank.org) and [www.imf.org](http://www.imf.org)

economic one and therefore focusing on economic growth as the objective for development strategies with the assumption that an increase in social developmental factors as employment and living standards would follow. (Adelman 2000)

During the 1950's the general strategy of aid was to emphasise the role of investment in order to provide a 'big push' to get economic development started. One of these one-sided models developed in this period was the model for economic growth developed by American economist Walt Whitman Rostow in his 'non-communist manifesto'. Here he argues (with a very strong bias in favour of Western modernisation and free markets) that modernisation develops through five stages. His model is often referred to as the 'take-off' model given that the economic take-off only happens when a number of preconditions are achieved. (Martinussen 1997) Economic growth was perceived as attained by imitating Western modernisation i.e. the way in which industrialised countries have developed, following a linear pattern for development and investment enabling the 'take-off'. A strong role of the state and a large public sector were imperative in order to make the massive investments work in weak markets and there was a large faith in governments being able to plan these investments successfully (i.e. five year planning etc.) Other one sector models as the Harrod-Domar model with investment as the only element were recommended by scholars during the 1950's. The model had a particular focus on industrialisation and the creation of enabling features for the industry such as investment in physical infrastructure. Breaking out of poverty demanded creation of strong incentives to invest and an increase in mobilisation of investible funds through massive and balanced capital investments which lead to the need for strong an actively involved state for planning but also for optimising utilisation of foreign aid. (Riddell 1987) Behind both lay the assumption that an increase of goods supplied would automatically create increased demand through capital accumulation, i.e. 'trickle down' and generate poverty reduction. The strong focus on industrialisation and the neglect of agriculture was followed by a shift to a more dualist view on development assistance and the recognition that the backward agricultural sector and the modern industrial sector were interlinked. Moreover there was a growing acknowledgement among theorists of the need to take balance-of-payments into the equation. (Riddell 1987)

When realising the failure of GDP oriented development strategy, the process of economic *vis a vis* social development became subject to further examination and for example, employment became an issue in its own right next to GDP growth. Numerous other matters became acknowledged in this period as theories on development realised that aggregate growth in GDP should not be the exclusive objective for aid. Concerns for employment, income distribution, poverty, migration and balance of payments came in focus and in this period of time there was an increase in focus on the

interrelationship between economic, social and demographic variables. Both academia and donor institutions shifted the focus from aggregate growth to poverty reduction and the primary objective for aid became raising the standard of living of the poor. This meant a shift away from investing in physical infrastructure towards rural development and social infrastructure and additionally aid became a combination of capital and technical assistance.

A trend that emerged from this shift in donor and scholarly focus was that participation and involvement came to be perceived as imperative for sustainability. These concepts called for governments playing a role in their national development. One of the major architects behind post-war macro economy, John Maynard Keynes, argued that public sector policies were necessary since private sector development in some instances led to insufficient or unequal development and especially stressed government investment and reduction in interest rates as main factors for strengthening output and employment. (Adelman 2000)

However, with the intense increase in market orientation in the 1980's, the concept of 'rolling back the state' and the focus on a more market-based adjustment came and financially based programmes and debt relief became tools of development assistance. Because of the debt crisis during the 1980's the international financial system was questioned and there was a call for achieving balanced budgets and balances of payment. The concept of Structural Adjustment Programs (SAP's) emerged as a reaction to the debt crisis where lenders such as the IMF and the World Bank set conditionalities on loans in order to reduce the receiving country's fiscal imbalances. Thus the main objective for third world governments and development institutions became promoting adjustment to promote macroeconomic stability by reducing deficits in balance of payments and budget. The new focus on the link between trade and growth meant that the centre of attention of development theory became on developing a neo-institutional framework for minimising the role of the state and at the same time promote a 'level playing field' for the market. This was somewhat contradicting with the call for rolling back the state.

The beginning of the 1990's was still characterised by adjustment and stabilisation as the main objectives. The decade was mostly characterised by aid fatigue caused by the lack of breakthrough for development institutions, creating a lack of confidence in their ability to make an actual difference in the development area. Furthermore the fall of the Soviet Union removed some incentives for providing aid. The Cold War objective for providing aid was gone, i.e. that of using aid as an instrument to stimulate international political support from the receivers, thus making receivers allocate their political support.

In the late 1990's the recognition of the importance of strong governments in relation to development gained momentum and the state was brought back in. Good governance and the concept of a 'level playing field' became a new focus entailing a fundamental recognition of both the appropriate role of the state and of the market. Aid moved towards sector support and through bringing the state back in, however the private sector started being recognised as an engine for development and economic growth. (Hjertholm and White 2000)

The shift from project-oriented aid (support for smaller projects) to wide sector-based programme aid (support for sector investment, sector budgets) was based on the recognition that few of the smaller projects through history have shown the desired results and realising the importance of the shared responsibility by both donor and recipient governments. (Andersen 2000) This is for several reasons; recipient and donor countries do not necessarily agree upon the objectives for development assistance and even different stakeholders within one country pursue different objectives for foreign aid. Engaging all stakeholders is increasingly recognised as a precondition of successful programmes. Another important implication in relation to development assistance is how aid programmes in many cases also respond to the needs and interest of donors and the tendency of some donors to use programme aid to their own commercial and economic interests, not to mention the 'feel good' factor.

## **2.1 Western Aid Conditionality and the Concept of Good Governance**

In the late 1990's a new focus emerged among scholars on the recipient country's ability to manage aid, and their willingness to cooperate in terms of putting development assistance to use. Especially a study conducted in the last half of the 90's on the relationship between foreign aid, economic policies and growth conducted by World Bank economists Burnside and Dollar came to influence the development arena. In their studies they found that *'aid has a positive impact on growth in a good policy environment'* (Burnside and Dollar 2000) This led donors to believe that the least developed countries labelled 'difficult partners' or 'countries under stress' lack the ability to manage aid properly, despite massive flows in aid, because of their weak institutional and policy performance base and their chronic vulnerability to unrest, conflict and state failure. (Rogerson et al. 2004) The World Bank claims in "Assessing aid – what works, what doesn't and why?" that aid should be concentrated on countries, which show willingness, good governance i.e. free markets, democracy and so on. (WorldBank 1998) This view that aid is only effective where policies are good has recently been challenged by other development scholars. (Easterly 2007, Tarp 2000, Folke and Nielsen 2006)

It is clear, as stated by Folke and Nielsen, that this heavy ideological bias means that it becomes difficult to support the very poor as poverty is often caused by bad governance. Or put in a different way, the countries in which aid works the best are probably those in the least need of it. (Folke and Nielsen 2006) The focus on the issue of good governance has massive implication for aid allocation and when looking at the theory behind this practice one finds that aid only works in countries with good governance, meaning sound economy, level playing fields, democracy and balanced budget. At the same time one finds that according to the very same scholars the countries in poverty find themselves in that particular state because of the lack of good governance.

However, despite the critique of governance conditionality it still seems to have an effect on the general allocation of ODA from DAC countries. When looking at the current strategies for aid assessment provided by official aid agencies, the massive focus on the issue of good governance continues. Especially the 'war against terror' is playing a prominent role in governments' rhetoric in relation to aid distribution, but it seems that little has changed in practice. Even though the concept was at least a decade old at the time there has been a growing focus on good governance since 9/11 and it continues to be an issue. Notwithstanding that one has to recognise that the relationship between political conditionalities and democratisation is a complex one (as is the link between democratisation and terror prevention) it has yet to be proven that the former leads to the latter (Møller 2007c). The only repercussion one finds well established in the western aid conditionality is that of the neglect of countries not being able to live up to western standards.

*'So far attention has repeatedly been focused on terrorism and the Middle East, but other scenarios are possible. It is the misfortune of some of the poorest regions of the world that their suffering is NOT yet considered to be contagious, at least not over very long distances.'*  
(Rogerson et al. 2004)

Another reason for donor agencies to focus on good governance was that of assigning high importance to the private sector in relation to development. The increase during the 1990's in assuming the private sector an engine for growth and a seedbed for entrepreneurial development means stronger focus on engaging private companies in development assistance. Private Sector Development programmes (PSD's) have become a central concern of donors and the overall consensus since the late 90's has simplistically been of the following logic:

- The main objective of the programmes is poverty reduction.

- Economic growth is central to development.
- The best way to achieve economic growth is through the private sector.
- In relation to strengthening the private sector and ensuring that economic growth contributes to poverty reduction, governments play a significant role.

The latter condition leads donors to focus their assistance on those countries where an 'enabling environment' exists i.e. where good governance is found. (Schulpen and Gibbon 2002)

## **2.2 Bringing Infrastructure Back on Track**

During the last decade there has been a substantial shift towards more aid allocated for social infrastructure and services including education, energy, health and water supply. (Hjertholm and White 2000) One reason from a microeconomic perspective is the issue of the fungibility of aid<sup>2</sup>. In reviewing the fungibility and allocation of aid, studies have shown aid to the energy, communication and transport sectors to be less fungible than that of health, industry and agriculture-related projects as it makes public goods available that would otherwise not have been provided for. (Loxley and Sackey 2008) From a macroeconomic perspective, the development of infrastructure is an important step in order to create an enabling environment for private businesses to grow. Especially building of roads, airports and the development of access to water and electricity is to be considered areas that open up for commercial activities.

As has unfortunately been the case in many countries in Africa, conflict and civil unrest often cause substantial damage to infrastructure. It is often argued that building up infrastructure is particularly important in post-conflict times. (Addison 2000) The problem is more serious in developing countries. Extremely high transport cost due to lack of infrastructure is a significant impediment for trade which restricts economic development in such countries and furthermore governments in developing countries have limited funds for investment in infrastructure. Additionally aid from neighbouring countries potentially promotes improvement of infrastructure on a regional level, which may benefit not only the recipient but also the donor as a user of the infrastructure. If the

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<sup>2</sup> The concept of fungibility is a question of substitutability. Suppose an aid donor provide financial support for building a hospital in a developing country. If the recipient government would have built the hospital anyway, the aid received will release resources for the government to finance some other expenditure or tax reduction. In that case, aid is fungible.

benefits for the donor exceed the financial burden of aid, aid policy could be pareto-improving<sup>3</sup>, which may raise public support for providing aid. Not all scholars agree on the concept of allocating aid for infrastructure projects. Ravi Kanbur, who presents a rather pessimistic view on aid, states that *'roads are back in fashion, but it should not be forgotten that billions of dollars in aid, and in local resources, have been poured into African infrastructure – but it has all been washed away'* (Kanbur 2000)

Many institutions have increased their focus on bringing infrastructure back on the agenda in Africa. In relation to the main point of interest in this paper; the building of dams, the increased attention reflects that of the general arena on infrastructure. Since less than 25 percent of the African population has access to electricity, electrification is considered one of the biggest obstacles to development on the continent especially in relation to attracting foreign investors and industrial development. Hydropower dams are one way to provide electricity to the poor and since electricity potentially helps to facilitate growth in industry, this can lead to growing employment in the region. (CommissionforAfrica 2005)



Source: [www.nasa.gov](http://www.nasa.gov)

## 2.3 Our Common Interest

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<sup>3</sup> The Pareto distribution principle (not to be confused with the principle of *Pareto optimum*), also referred to as the 80-20 rule, describes a situation where around 80% of the result is derived from 20% of the causes.



In the beginning of 2004 the British Prime Minister established the Commission for Africa in order to examine current trends and create momentum for African development and in order to formulate clear recommendations for Western countries especially in relation to the coming G8 summit. The report was seen as a blueprint for action at the G8 summit the year of its release in March 2005. This was one of the first Western based reports to bring back infrastructure into the development agenda as the main driver for development and poverty alleviation in Africa, committing to a massive increase in funds allocated directly at improving infrastructure on the continent and is symptomatic of this renewed belief in infrastructure.

The Commission had seventeen members working independently, of which nine were African. When established the commissioners agreed on five principle objectives for drawing up the report:

- To generate new ideas and action for a strong and prosperous Africa, using the 2005 British presidencies of the G8 and the European Union as a platform;
- To support the best of existing work on Africa, in particular the New Partnership for Africa's Development (NEPAD) and its 'mother ship' the African Union, and help ensure this work achieves its goals. Launched in late 2001, NEPAD's purpose was to deal with the continent's development challenges and unite African leaders to eradicate poverty and promote African development; the NEPAD engages in areas such as promotion of infrastructure projects and poverty alleviation projects. ([nepad.org](http://nepad.org))
- To help deliver implementation of existing international commitments towards Africa;
- To offer a fresh and positive perspective for Africa and its diverse culture in the 21st century, which challenges unfair perceptions and helps deliver changes; and
- To understand and help fulfil African aspirations for the future by listening to Africans

One of the key findings in the report is that insufficient infrastructure is a key barrier to growth and poverty reduction. The lack of proper infrastructure has repercussions for the every-day life of people across the continent but also for the general investment climate. Reducing the costs in relation to this lack of proper infrastructure means potential for business and market access and advances in

agriculture and trade. This will from a demographic perspective mean potential for job creation and human development in general.

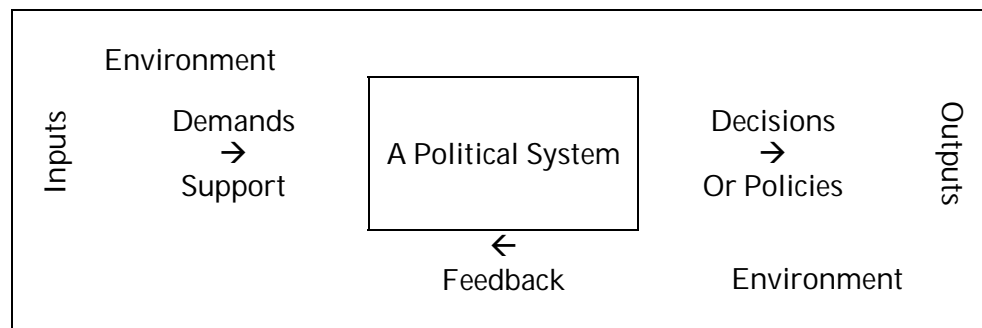
Western countries have, according to the development strategy of the time, reduced the share of resources allocated to infrastructure projects during the 1980's and 1990's according to the reliance on the private sector as the main facilitator for development. The Commission admits this being a big mistake and now acknowledges the need to bring the state back in. They estimate that the private sector is unlikely to finance more than a quarter of the major investments needed for infrastructure and therefore suggests additional support for public spending. The nature of the funding should involve public and private participation and a number of factors in order to achieve the highest possible outcome are outlined.

*'The new funding must be used in a way that reflects the lessons learnt of the past that have led to substantial improvements in the economic rate of return of infrastructure projects. In particular, the funding should: support operation and maintenance costs, as well as institutional innovations such as those that involve users in maintenance and delivery; ensure good governance and transparency in procurement, to combat currently high levels of corruption; build national, municipal and regional capacity to plan and implement projects in line with economic, social and environmental good practice...'(Commission for Africa 2005)*

Lastly it is stated that African governments have a responsibility to integrate infrastructure projects in their poverty reduction strategies including maintenance, fighting corruption, involving the private sector where it can add value and engage poor people in prioritising projects. As stated in their main objectives the Commission put an emphasis on helping NEPAD and the African Union to achieve their goals. The report's focus on infrastructure is much in line with these institutions' own objectives for development. Especially NEPAD also considers infrastructure the main component of African development.

*'If Africa had the same basic infrastructure as developed countries, it would be in a more favourable position to focus on production and on improving productivity for international competition. The structural gap in infrastructure constitutes a very serious handicap to economic growth and poverty reduction. Improved infrastructure, including the cost and reliability of services, would benefit both Africa and the international community, which would be able to obtain African goods and services more cheaply.'*(NEPAD 2001)

However, institutions as NEPAD and the Commission for Africa with a strong focus on infrastructure can be criticised for over-emphasising efforts on energy projects for economic growth through industrial development, neglecting the efforts needed regarding rural energy and development programmes, directly addressing poverty reduction. With regards to ensuring that development activities reaches all levels needed for reducing poverty, political life is by Easton formulated in his very primitive, albeit recognised system of interrelated activities that all more or less influence authoritative decision formulation and execution. What keeps this system going are inputs in the nature of demand and/or support which through the system will be converted into outputs in the nature of decisions or politics.



Source: (Easton 1957)

These inputs do have great importance with regards to the allocation of resources (the outputs) or for the 'authoritative allocation of values', thus regarding distribution as the primary purpose of the state or more broadly speaking: who gets what? (Mitchell 1961) The principle of authoritative allocation of values are just one (albeit quite important) of the many issues related to building of large dams.

### 3. Large Dams

There are many issues related to the building of large dams seeing that it is both a matter of bringing electricity to the region, a general matter of hydro politics plus an issue concerning the social, economic and environmental costs and benefits of the projects. Large dams are some of the largest, longest –term investments that governments and private developers can make. Especially in the case of Africa, export credit agencies play a major role in financing the projects. Western donors' commitment to give renewed priority to the development of infrastructure and energy projects in the

area and the increased Chinese engagement in the field means that large hydro projects are expected to be part of the development strategy for Africa, by increasing electricity supply. In 2000 19 % of the world's energy supply was generated by dams that also irrigated more than 30 % of the irrigated land. Nevertheless this have led to more than 40 million people displaced by dams, water pollution, degradation of ecosystems, and contribution to the extinction of more than 9.000 fish species to name a few of the negative consequences associated with the building of large dams. (WCD 2000) Hence, the concept of dams presents massive issues, since both the positive and negative impacts often are of a somewhat irreversible nature. Hence, construction of large infrastructure schemes is associated with many consequences, both costs and benefits and is thus a matter of a trade off between the two.

**Potential costs associated with dam building:**

<b>Environmental Costs</b>	<b>Economic Costs</b>	<b>Social Costs</b>
Increase in waterborne diseases	Debt burden	Displacement
Reservoir Evaporation	Increased Poverty	Increased Poverty
Water Loss due to Irrigation Schemes	Aid Dependence	Destruction of Cultural Heritage

**Potential benefits associated with dam building:**

<b>Environmental Benefits</b>	<b>Economic Benefits</b>	<b>Social Benefits</b>
Electricity Generation with Less Pollution	Municipalities and Industry Development	Irrigation as Provider of Food
Water Management/Flood Protection	Regional Development	Job Creation
Irrigation Possibilities	Fostering Industry	Meeting Energy Needs
Fisheries Development	Income Generation	Raising Living Standards
	Export Earnings	Meeting Water Needs
	Creation of Tourist Facilities	

Given that many developing countries suffer from water scarcities and lack the ability to manage their own resources, the external aid and expertise are crucial for development of the area in order to control the conflicts that can potentially arise as a result. Some authors even suggest that the renewable resource most likely to motivate an interstate resource war is river water (Homer-Dixon 1994). Dam building is highly dependent on decision making and political and economic power and

not just about environment and human rights but about wider geo-politics; Projects are not known for considering the energy needs of the rural majority and Africa's climate is already very variable and difficult to predict, thus the geo-politics in relation to dam building is very much a matter of who controls the resources. One quarter of African countries are to be considered water-stressed or water-scarce<sup>4</sup>, a number that is expected to increase (according to UNEP this number could double by 2025 making it close to half of all countries in Africa), thus making healthy rivers an even more precious resource than it is today. (Hathaway and Pottinger 2008)

Over-dependence on hydro-power can lead to higher vulnerability to climate change as a kind of Dutch disease in the electricity field<sup>5</sup>. Bringing other sources for supply into the energy mix and thus bringing diversity to the sector is important and countries should therefore not prioritise hydro-power projects over other means of electricity.

A matter often associated with dam building is that of development induced displacement often referred to as involuntary resettlement. In general the causes of development-induced displacement include: construction of urban infrastructure, transportation (roads, highways, canals) energy (mining, power plants, oil exploration and extraction, pipelines), agricultural expansion, parks and forest reserves, population distribution schemes, and water supply (dams, reservoirs, irrigation)(Robinson 2003) The concept of development-induced displacement is a paradoxical one since development presumably is about increasing people's well-being, opportunities and freedom. Therefore the matter of resettlement is imperative when engaging in dam building. Unfortunately there is a general lack of empirical evidence on the long term effects, especially on the rural poor. Nevertheless the general history of dam building in Africa has shown so poor performance and net effects that it hardly can be described as satisfactory, making a pressing need for developing knowledge in both assessments of former projects but especially for setting standards when engaging in new ones.

As aforementioned there is a modest amount of literature on the building of dams and there is a general lack of empirical studies on the effects of dam building, especially on the long term impact. The two main authors on dams and development are American professor in social anthropology Thayer Scudder who is a former commissioner for the World Commission on Dams and World Bank sociology professor Michael Cernea. Both scholars, seeing as they are both sociologists, mostly deal with the resettlement issues related to dam building. Michael Cernea's model of Impoverishment Risks

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<sup>4</sup> A water stressed country has a water availability of less than 1,700 cubic metres per person per year, and a water scarce one less than 1,000 cubic metres per person per year.

<sup>5</sup> Dutch Disease (also referred to as the Resource Curse) refers to an economic model explaining how reliance on natural resources potentially can lead to a decline in the manufacturing sector, making the economy more vulnerable to fluctuation in certain commodity prices.

and Reconstruction developed in the 1990's is especially considered one of the major contributions to resettlement theory. (Robinson 2003, Scudder 2006) Cernea proposes a model where he identifies eight interlinked potential risks essentially associated with displacement:

- *Landlessness*: Expropriation of land removes the main foundation upon which people's productive systems, commercial activities, and livelihoods are constructed. This is the principal form of de-capitalization and pauperization of displaced people, as they lose both natural and human-made capital.
- *Joblessness*: The risk of losing wage employment is very high both in urban and rural displacements for those employed in enterprises, services, or agriculture. Yet, creating new jobs is difficult and requires substantial investment. Unemployment or underemployment among resettlers often endures long after physical relocation has been completed.
- *Homelessness*: Loss of shelter tends to be only temporary for many resettlers; but, for some, homelessness or a worsening in their housing standards remains a lingering condition. In a broader cultural sense, loss of a family's individual home and the loss of a group's cultural space tend to result in alienation and status deprivation.
- *Marginalisation*: Marginalization occurs when families lose economic power and spiral on a "downward mobility" path. Many individuals cannot use their earlier acquired skills at the new location; human capital is lost or rendered inactive or obsolete. Economic marginalization is often accompanied by social and psychological marginalization, expressed in a drop in social status, in resettlers' loss of confidence in society and in themselves, a feeling of injustice, and deepened vulnerability.
- *Food Insecurity*: Forced uprooting increases the risk that people will fall into temporary or chronic undernourishment, defined as calorie-protein intake levels below the minimum necessary for normal growth and work.
- *Increased Morbidity and Mortality*: Massive population displacement threatens to cause serious decline in health levels. Displacement-induced social stress and psychological trauma are sometimes accompanied by the outbreak of relocation related illnesses, particularly parasitic and vector-borne diseases such as malaria and schistosomiasis. Unsafe water supply and improvised sewage systems increase vulnerability to epidemics and chronic diarrhea, dysentery, and so on. The weakest segments of the demographic spectrum—infants, children, and the elderly—are affected most strongly.

- *Loss of Access to Common Property*: For poor people, loss of access to the common property assets that belonged to relocated communities (pastures, forest, lands, water bodies, burial grounds, quarries, and so on) result in significant deterioration in income and livelihood levels.

- *Social Disintegration*: The fundamental feature of forced displacement is that it causes a profound unraveling of existing patterns of social organization. This unraveling occurs at many levels. When people are forcibly moved, production systems are dismantled. Long-established residential communities and settlements are disorganized, while kinship groups and family systems are often scattered. Life-sustaining informal social networks that provide mutual help are rendered non-functional. Trade linkages between producers and their customer base are interrupted, and local labor markets are disrupted. Formal and informal associations, and self-organized services, are wiped out by the sudden scattering of their membership. Traditional management systems tend to lose their leaders. The coerced abandonment of symbolic markers (such as ancestral shrines and graves) or of spatial contexts (such as mountains and rivers considered holy, or sacred trails) cuts off some of the physical and psychological linkages with the past and saps at the roots of the peoples' cultural identity. The cumulative effect is that the social fabric is torn apart.

A critique of the Cernea model is that eight risks are not to be considered a magic number and other risks have continuously been added. These include *educational risks, the risks of human rights violations, risks of loss of society's resiliency (especially in cases where indigenous or tribal peoples lose access to natural resources)*(Scudder 2006) In many instances the risks added are meagre elaborations of concepts that one could fit under the eight risks firstly formulated but this shows that the framework is not to be considered a static model for benchmarking, but should work as guidelines in a contextualised process. Thayer Scudder has developed a framework to describe the success criteria for dam induced displacement consisting of a four stage model. These stages are:

1) *Planning and Recruitment Stage* (focusing in the pre-resettlement period, giving special attention to early involvement of the people affected)

2) *Adjustment and Coping Stage* (originally labelled 'the transition stage' as it focuses on the actual transition from one habitat to the other)

3) *Community Formation and Economic Development Stage* (here Scudder emphasises the need for a change in the behaviour of resettlers which is highly dependent on their development opportunities)

4) *Handing Over and Incorporation Stage* (this stage involves handing over assets to settler institutions, bringing the resettlement process to a successful end) (Scudder 2006)

Development frameworks involving stages are often criticised for using a static model for describing a dynamic process. This is also the case with Scudders four stages model. Firstly, dam induced displacement is such a complex matter that the dynamics of the matter calls for a model with a far less static use, but this maybe explains Scudders need to operate on such a high level of generalisation, thus opening the model up for a broad contextual employment. Secondly, resettler behaviour can (and potentially will) vary according to culture and gender issues to such a degree that a framework trying to predict the behaviour of the displaced seems somewhat naïve. Thirdly, the institutional and political context is not taken into consideration. Given that institutions presumably have the last say in these matters it presents quite a deficit in assessing project outcomes. Scudder admits that his four stages model is lacking in some aspects and proposes an extended framework of his four stages in combination with Cerneas model for impoverishment risks and reconstruction. Since Cernea also seems to forget many of the deciding factors, Scudder proposes additional matters to be considered, including unexpected events, the complexity of resettlement, the wider political economy and the institutional context in which displacement occurs, the role of political leaders within populations undergoing displacements, gender issues and human rights and concepts and symbols of cultural importance. Initially he ends up with a framework where he is wearing both belt and braces, albeit not being able to do much more than describing events as they occur.

Another important aspect of development induced displacement is the concept of public goods and the NIMBY (Not In My Backyard) principle. The main difference between a public good and a private good is that public goods as opposed to private are characterised by nonrivalry in consumption and nonexcludability. A good (and extensively used) example of a public good is peace; when present it can be 'consumed' by all citizens and its use by one side of the population does not distract from its benefits to other parts of the population. However, as Bjørn Møller argues in the case of peace as a global public good (Møller 2007a), very few goods are either public or private, as many goods are marked by a more complex mix in benefits as an example caused by externalities from corporate activities. The degree of excludability and rivalry characterises the nature of the public good, whether pure or impure. (Kaul et al. 1999)



## Private and Public Goods

	Rivalrous	Nonrivalrous
Excludable	Private Good	<b>Network Club Good (Mostly Nonrivalrous inside the Club)</b>
Nonexcludable	<b>Good Subject to Congestion or Depletion, yet Accessible to All. Some Global Commons</b>	<b>Pure Public Good Existence Value Some Global Commons</b>

Public goods are in bold.

Public goods are often subject to both market failure and government failure and cooperation is often brought about by civil society because of public concern (about issues such as pollution and especially relevant in this case; displacement). In many years public goods were considered national by nature, but it becomes clear (as the concept of globalisation gains momentum in research) that a public good that brings about benefits globally (i.e. through cross-border externalities) can be considered global public good. Goods that will not be provided for automatically by the market because of the lack of collective action, i.e. the nonexcludable and nonrivalrous nature makes engagement from the public sector or other institutions necessary in order for the goods to be provided for. Thus, a development programme can be considered a global public good if poverty alleviation on a local level potentially could prevent conflict, thus contributing to international peace, reduce environmental degradation and improve global health conditions. In some instances the concept of global public goods are used by scholars as a new approach to aid, where donors ensure that aid really delivers public goods that otherwise will not be provided for by markets or local governments in the absence of aid. (Cook and Sachs 1999) Integrated in the concept of public goods are also its counterpart; the public bad. With regards to public goods, it in some instances implies costs for some people, while only benefits for others. Here the NIMBY principle becomes relevant. Often, the behaviour, the motives and the preferences of people affected are reduced to the simple protection of 'their backyard' drawing on the NIMBY concept as an explanation for opposition. There is a divergence between the costs at the local level and the benefits on a more general public level i.e. the divergence between the public good (or bad) and the costs borne by the population hosting the scheme. Essentially the NIMBY concept is the recognition that only the communities close to the scheme will bear the costs of the scheme, while others will enjoy the benefits – the public good. Therefore concepts as compensation (and other entitlements) and distribution of benefits becomes of importance. An active public involvement together with mitigation and compensation actions during a siting decision process is potentially a useful and successful strategy for avoiding NIMBY opposition. In an instance

where people affected by the scheme recognise the public good, thus willing to bear the costs, their access to the public good associated with their 'private bad' should be of some sort of congruence. Unfortunately, in many instances, the communities bearing the costs have limited access to the public good in question. As stated by Lyla Metha on the subject of public goods in water management:

*'Goods may be public in theory but not in practise'(Metha 2003)p. 559*

As water in some instances can be considered global public goods, water management becomes an issue of international nature, thus creating a need for international institutions to engage in the matter, creating a set of international norms and guidelines. The following are some of the international agreements concerning water management.<sup>6</sup>

- The Convention and Statute on the Regime of Navigable Waterways of International Concerns (Barcelona 1921)
- The Convention relating to the Development of Hydraulic Power affecting more than one State and Protocol of Signature (Geneva 1923)
- The African Convention on the Conservation of Nature and Natural Resources (Algiers 1968)
- The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar 1971)
- The United Nations Convention to Combat Desertification (Paris 1994)

Furthermore institutions such as the World Bank, the OECD, UNEP and the World Water Council have formulated guidelines concerning water management. However it was only recently that an international institution for providing regulation on issues related to dams was established.

### **3.1 The World Commission on Dams**

During the 1980's and the 1990's the dissatisfaction from the dam affected communities made them raise their voice against the uneven distribution of resources and the marginalisation of the people affected, setting off a public campaign against the World Bank and other development institutions funding dam construction. As a result of this public scrutiny, the World Commission on Dams was established in May 1998 with prominent support from the World Bank and other

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<sup>6</sup> I here list institutions engaging in freshwater regulation as issues with regards to saltwater management include many other aspects of water management (e.g. state's share of oceans, rights to waterways and issues concerning piracy) which are beyond the scope of this paper. The conventions mentioned are from International Freshwater Treaties Database at [www.transboundarywaters.orst.edu](http://www.transboundarywaters.orst.edu)

institutions with the mandate to develop internationally accepted standards, guidelines and criteria for decision-making when planning and constructing dams.

The overarching purpose of the Commission was to

*(a) review the development effectiveness of dams and assess alternatives for water resources and energy development, and*

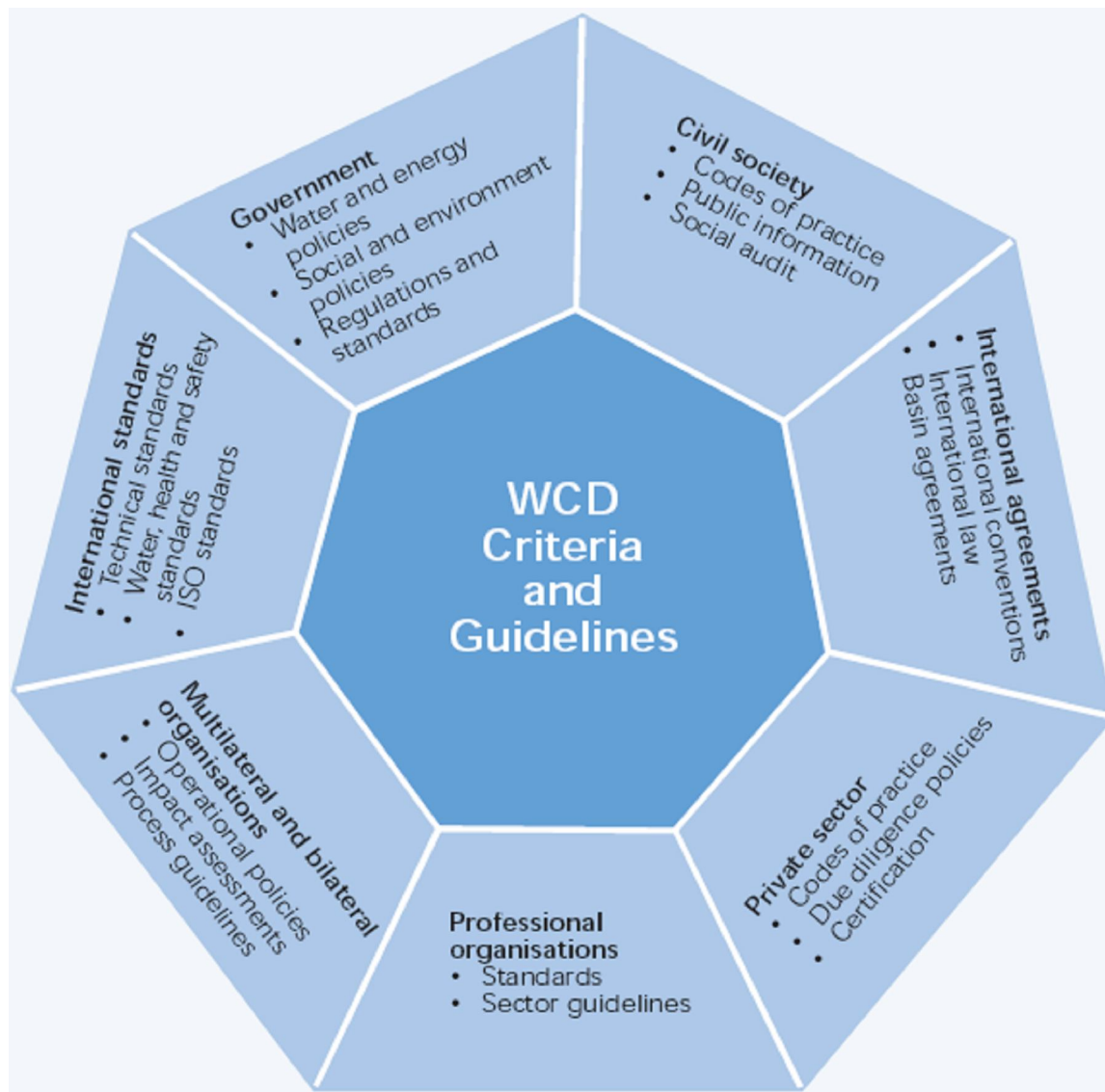
*(b) develop internationally accepted standards, guidelines and criteria for decision-making in the planning, design, construction, monitoring operation and decommissioning of dams. (WCD 2000)*

For the next two years, the commission, consisting of twelve commissioners from varying backgrounds, composed a report called 'Dams and Development' trying to establish guidelines and a framework for decision-making in relation to dam building. In their report the WCD set down a framework for decision-making built upon seven strategic priorities and five core values. The five core values were formulated early in the process of the making of the report in order to improve the decision making process.

1. Equity
2. Efficiency
3. Participatory decision-making
4. Sustainability
5. Accountability

These five values were formulated at an early stage in the process and run through the entire report as they were considered the focus of concern in enabling all stakeholders to test decisions related to water and energy development. However, the concepts and their meaning are not elaborated on in the project even though they constitute the basis for the guidelines. Engaging all stakeholders involved was by the WCD considered to be the single most important factor in understanding and circumventing conflicts associated with dam construction.

Stakeholders formulated by WCD and the decision support instruments the guidelines support.



Source: WCD

The WCD five core values form the basis for the more detailed framework and guidelines and based on these core values the WCD framework puts forward 26 recommendations grouped under seven priorities. The WCD developed what they call a 'Rights and Risks' approach as a basis for identifying all legitimate stakeholders involved, thus recognising their rights and assessing risks in the

planning of the particular project. This provides a more normative framework as the traditional balance sheet of assessing costs and benefits proves to be inadequate. History of dams has shown the these projects involve massive trade-offs thus making a 'Rights and Risks' approach imperative for integrating the economic, social and environmental elements from the process of options assessment to ultimately implementing the project. Often stakeholder engagement is used as a tool for 'informing' parties involved about a project already planned and it is in very rare cases that stakeholders are actually empowered to make final decisions on whether to build a dam or not, let alone on how it will ultimately affect them. In their recommendations for a new policy framework the WCD report formulates seven strategic priorities as guidelines for key decision points in the planning and carrying out dam projects. Under each strategic principle a set of policy principles are formulated in order to reach effective implementation. The following are from the summary of the framework pp xxxiv-xxxv of the WCD report:

1. Gaining Public Acceptance:

Public acceptance of key decisions is essential for equitable and sustainable water and energy resources development. Acceptance emerges from recognising rights, addressing risk, and safeguarding the entitlements of all groups of affected people, particularly indigenous and tribal peoples, women and other vulnerable groups. Decision making processes and mechanisms are used that enable informed participation by all groups of people, and result in the demonstrable acceptance of key decisions. Where projects affect indigenous and tribal peoples, such processes are guided by their free, prior and informed consent.

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. In 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.

3. Addressing Existing Dams:

Opportunities exist to optimise 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 water use priorities, physical 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.

4. Sustaining Rivers and Livelihoods:

Rivers, watersheds 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 ecosystems 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 prioritises the avoidance of impacts,

followed by the minimisation 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. Releasing tailor-made environmental flows can help maintain downstream ecosystems and the communities that depend on them.

5. Recognising Entitlements and Sharing Benefits:

Joint negotiations with adversely affected people result in mutually agreed and legally enforceable mitigation and development provisions. These recognise entitlements that improve livelihoods and quality of life, and affected people are beneficiaries of the project. Successful mitigation, resettlement and development are fundamental commitments and responsibilities of the State and the developer. They bear the onus to satisfy all affected people that moving from their current context 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 the national and international level.

6. Ensuring Compliance:

Ensuring public trust and confidence requires that the governments, developers, regulators and operators meet all commitments made for the planning, implementation and operation of dams. Compliance with applicable regulations, criteria and guidelines, and project-specific negotiated agreements is secured at all critical stages in project 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 ensure effectiveness where flexibility is needed to accommodate changing circumstances.

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, dams require constructive cooperation. Consequently, the use and management of resources increasingly becomes the subject of agreement 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.

The report was very much needed since there has been a general lack of systematic empirical evidence on long term effects on issues as welfare, health and environment especially in the developing world. Though widely agreed that dam building is an important part of development, verification of how these projects affect environment, economy and individual wellbeing remains limited. Evidence from case studies show that dams significantly increase rural poverty in districts where they are located due to insufficient compensation and a general failure of state-level redistributive institutions which appear to play an important role in the distribution of gains.(Duflo and Pande 2007) There seems to be pronounced differences between the estimated and actual average people displacements associated with the building of dams. In many cases large dams are powering multinational companies in extractive industries, providing limited local benefits, leaving the majority of citizens without

electricity, albeit bearing most of the costs associated with the project. Most projects do not have the direct aim of fulfilling the energy needs of the rural majority even though it would seem to be the main objective for engaging in these projects in the first place. (Pottinger 2007) Also resettlement and compensation is shown often to be inadequate at best and many impacts caused by dams have proved to be left unaddressed. Often projects turn out to be less sustainable than anticipated due to delays and cost overruns and many of the social and environmental impacts of hydropower activities are irreversible. Nevertheless the WCD describes hydropower as a comparatively clean, low-cost renewable energy source. In this regard, it is an interesting thought, how the WCD report would have looked, had it been published today in a time where climate change and environmental issues have become main issues in most international agendas and institutions in any regard are urged to consider alternative sources for energy in a way that seems to have an 'at all costs' sound to it.

The WCD does not provide a check-list for dam building which would also have been unrealistic and not in accordance with the need for operating within a contextual framework. Nevertheless this means that implementing the WCD priorities is a slow and dense process. China who, as we know, is one of the major dam builders of the world, not to mention the biggest player on the African continent was quick to reject the report. But they were not alone; Turkey and Spain were highly sceptical and institutions such as the International Hydropower Association claimed that too little emphasis were placed on the advantages associated with dams, thus hindering construction of large dams in the future. (Scudder Unpublished) Some agencies financing dam building projects bring their own standards, while others have minimal or none (this has been the case for both the European Investment Bank and China's Ex-Im). Some African countries such as South Africa and Uganda have started discussing the implementation of the WCD recommendations but there is still a long way before the WCD guidelines (that are now close to a decade old) become international standards for best practise for dam building. (Pottinger 2007) Thus the WCD recommendations, criteria and guidelines need to be more extensively supported in the global development arena in order for it to be a global standard upon which development-outcomes can be measured, at the same time the normative nature of the framework leads one to question if the principles can be operationalised, let alone instrumentalised. This is particularly important regarding the often irreversible nature of the repercussions for the millions of people affected by dam building.

### 3.2 The Words are Buzzing

The sound of the WCD framework is a normative one. Words like ‘participation’, ‘empowerment’ and ‘sustainability’ are – as in most development research – used heavily. But narratives used in this way become toneless. Their appearance becomes general consensus albeit still normative by nature, hence at risk of losing its meaning as it is part of a normative framework backed with a moral imperative. As stated by Cornwall and Brock:

*They (the buzzwords) connote warm and nice things, conferring on their user that goodness and rightness that development agencies need to assert the legitimacy to intervene in the lives of other. (Cornwall and Brock 2005)*

The WCD falls in line with the general development discourse where international development is a measurable moral goal that the governments of all countries should strive towards. Buzzwords are useful because they are vague words, thus giving the development agency an opportunity to speak in unclear terms, not taking immediate responsibility for their discourse and the subsequent discourse, since words such as participation, empowerment and sustainability are difficult to argue with albeit impossible to fully explain without the given context in which they are used. It is interesting though, how the general discourse of the WCD would have been, had it been written in these times of massive focus on climate change and environment. Other buzzwords would, unquestionably, have been used. As mentioned above the concept of public goods can in some instances be used for explaining an approach for aid, as donors, through aid, can ensure the delivery of public goods (e.g. infrastructure) that otherwise will not be provided for by markets nor local governments. This can in particular be the case in fragile states where commercial forces and state capacity is insufficient. A major player in providing for both social and economic infrastructure to fragile states, are the DAC countries. The following are DAC expenditure on ODA in some of the areas that in some instances may be considered public goods.



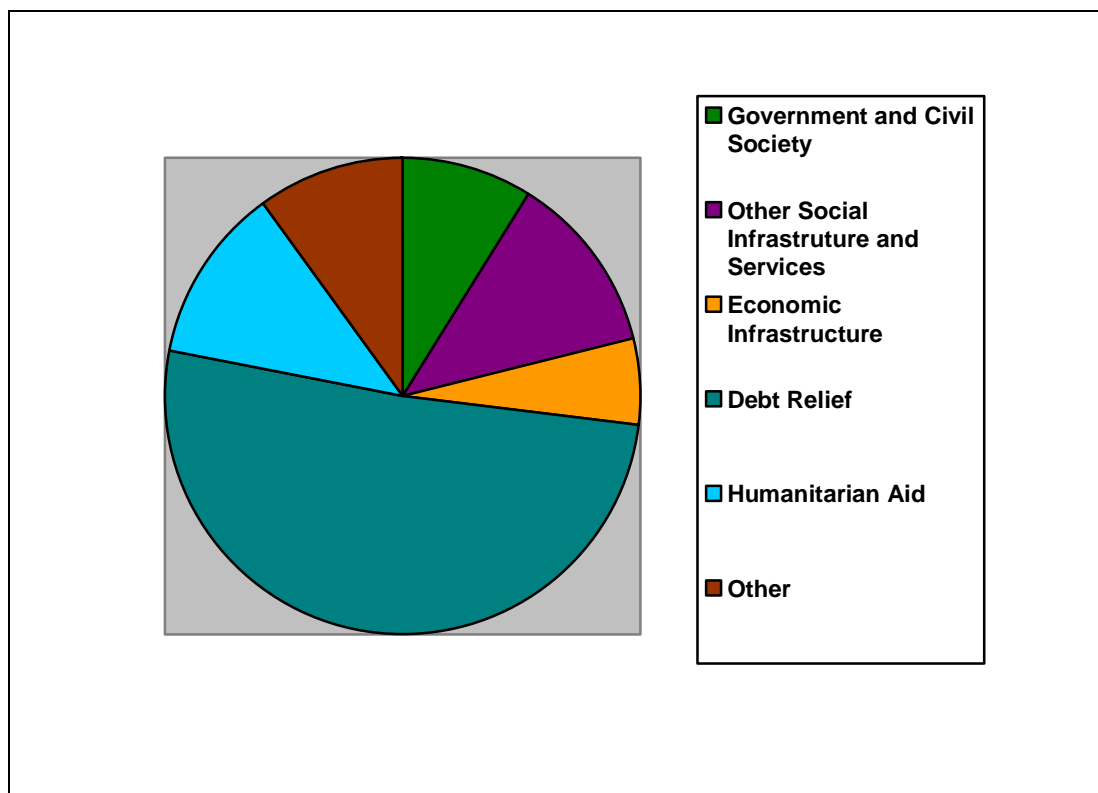
### DAC ODA by Sector, million \$US

Sector	2006	2007
<b>Social Infrastructure, Total</b>	32,666.57	37,598.57
Education	7,848.44	8,430.38
Health	4,463.30	4,338.61
Water Supply and Sanitation	3,878.09	4,360.28
Government and Civil Society	8,073.36	11,565.24
<b>Economic Infrastructure, Total</b>	11,087.56	11,793.81
Transport and Storage	4,228.38	3 861.54
Energy	3 797.94	3 834.33

Source: [www.oecd.org/dac/stats](http://www.oecd.org/dac/stats)

However, as the table shows, it is still a quite small amount of ODA from the DAC countries that is spent on public goods in states where neither the market nor the state manage in providing for goods to be considered public.

**DAC Bilateral ODA Commitments to Fragile States by Sector 2005/6<sup>7</sup>**



Source: [www.oecd.org/dac/stats](http://www.oecd.org/dac/stats)

<sup>7</sup> The fragile states in question are Afghanistan, Angola, Burundi, Cambodia, Cameroon, Central African Rep., Chad, Comoros, Congo, Dem. Rep., Congo, Rep., Cote d'Ivoire, Djibouti, Eritrea, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Liberia, Mauritania, Myanmar, Niger, Nigeria, Papua New Guinea, Sao Tome & Principe, Sierra Leone, Solomon Islands, Somalia, Sudan, Tajikistan, Timor-Leste, Togo, Tonga, Uzbekistan, Vanuatu, Yemen, and Zimbabwe.

## 4. Chinese Development Assistance in Africa

Another player in ODA for infrastructure in fragile states is China, a country often referred to

### **Eight Principles for China's Aid to Foreign Countries 1964**

1. The Chinese Government always bases itself on the principle of equality and mutual benefit in providing aid to other countries. It never regards such aid as a kind of unilateral alms but as something mutual.
2. In providing aid to other countries, the Chinese Government strictly respects the sovereignty of the recipient countries, and never attaches any conditions or asks for any privileges.
3. China provides economic aid in the form of interest free or low-interest loans and extends the time limit for repayment when necessary so as to lighten the burden of the recipient countries as far as possible.
4. In providing aid to other countries, the purpose of the Chinese Government is not to make the recipient countries dependent on China but to help them embark step by step on the road of self-reliance and independent economic development.
5. The Chinese Government tries its best to help the recipient countries build projects which require less investment while yielding quicker results, so that the recipient governments may increase their income and accumulate capital.
6. The Chinese Government provides the best-quality equipment and material of its own manufacture at international market prices. If the equipment and material provided by the Chinese Government are not up to the agreed specifications and quality, the Chinese Government undertakes to replace them.
7. In providing any technical assistance, the Chinese Government will see to it that the personnel of the recipient country fully master such technique.
8. The experts dispatched by China to help in construction in the recipient countries will have the same standard of living as the experts of the recipient country. The Chinese experts are not allowed to make any special demands or enjoy any special amenities.

as a new actor in Africa. But even though China is currently playing a growing role in Africa's future development, their presence on the continent is far from new. China has had a role in Africa for a very long period and the present nature of the Sino-African relation can at the least be traced back half a century, the most known event being the Bandung Conference of 1955 where representatives from twenty-nine governments of Asian and African nations gathered in Bandung, Indonesia to discuss peace and the role of the Third World in the Cold War, economic development, and decolonization. Especially the issue of anti-colonialism and the struggle for independence became an area in which China and African states were likeminded. As stated by China's Premier Zhou Enlai on his African tour in 1964, the cooperation was a matter of 'the poor helping the poor'. (Mohan and Power 2008) China considered the engagement in Africa of high diplomatic importance and though the initial Chinese aid for Africa was given to countries stated socialist it was already then remarkably less important than the recipient country's agreement

that Beijing (and not Taipei ) was China. (Taylor 2006) Although Taiwan has deployed aid since the 1960s as an inducement to maintain or establish official African ties with Taipei it is probably true that most Africans do not care much who is the 'real' China or with whom official diplomatic ties should be established and most would probably engage with both, did they have the possibility. The importance of aid recipients' recognition that Beijing represented the 'one China'<sup>8</sup> has not changed considerably

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<sup>8</sup> The 'one-China' principle was one used since 1949 by both Taipei and Beijing, paradoxically making them agree upon the notion that there is only one China, albeit totally disagreeing on *which* China.

since the Maoist Period and in 1971 Beijing had won diplomatic recognition in 1971 by 16 African countries. This, in combination with support from Washington, helped China to regain its seat in the UN. During this period the nature of Chinese aid was that of support to independence movements, post-colonial reconstruction in the form of technical training and infrastructural projects, but as the Cultural Revolution emerged in the country it set back the efforts of developing the African continent.

After the Communist Party gained control in 1949, the Soviet Union was quick to recognise the new regime, and initially, the two countries managed to cooperate. But it did not last long until China became unsatisfied with playing the role of the second most powerful communist country in the world and cooperation turned into competition that developed into a rivalry turning the Soviet Union from China's comrade in ideology to enemy number one. With the loss of the prospect for China to be the leader of world communism, China started pursuing the role as leader of the Third World. This new foreign policy strategy and the poor Sino-Soviet relation meant that China had the argument and incentive even to cooperate with the U.S in order to fight the Soviet Union and promote Third World objectives. (Møller 2007b) The Bandung meeting became the touchstone for a new era of Third Worldism initiating the idea that the Third World generates unity in order to issue post-colonial development and growth. (Berger 2004) Many scholars consider the last decade of the Maoist rule somewhat of a failure in Chinese development assistance in Africa but as an example the massive project of building the Tazara railway (1967-1975) in a period where China found itself in state of political instability must be considered a rather large achievement. And by the year of finishing the project, China actually was engaged in more development programmes than was the U.S (Brautigam 2008) As seen in the history of traditional donors to Africa, there was a shift in the character of Chinese aid when the country started its reforms by the opening of the economy and also here a faith in the market as a strong factor in development policies matured. Under Deng Xiaoping in the post-Mao period a gradual transition towards a market economy began, opening up the economy for foreign direct investment stressing that this was with the primary objective of securing China's own economic development. In this circumstance, the policy of non-interference was strengthened regarding foreign aid and African countries were encouraged to implement development policies fitting to their own particular conditions. Among other things this meant that Chinese construction companies already present in Africa were endorsed to bid on infrastructure projects and, as we shall see, this transfer had repercussions for the role of Chinese companies present in Africa today. As stated by Brautigam

*'In Africa today, the proliferation of Chinese companies is partly due to the earlier roles many of them played in carrying out aid projects for the Chinese government.'*

In the end of the 1980's a number of factors were to influence China's policy for foreign aid. Tiananmen Square caused massive critique of China and by the end of the 1990's seven African countries had re-established relations with Taiwan due to international pressure. This immediately led to China suspending diplomatic ties, and many African countries kept their support for the Chinese perception of the 'one-China' policy, fearful that Beijing would cut off development assistance. During the 1990's Chinese aid to Africa grew substantially as a direct effect of China's own massive economic growth and the consequential rise in the need for more energy and raw materials. (Mohan et al. 2008) China's growing dependence on imported oil since 1993, where China no longer was able to be self-sufficient, is a major concern for the country and thus the concept of Sino-African relations has gained new strategic importance in an energy security context. (Taylor 2009)

Today, Chinese development assistance in Africa is, besides its oil diplomacy, very much influenced by two concepts that have affected China's operations in Africa for a while. Firstly the insistence on the recipient country accepting the 'one-China' principle and secondly the concept of 'non-interference' in state sovereignty, the latter being cause of scrutiny and criticism from traditional donors. One could actually argue that they both are part of the one condition of not interfering in intra state matters, as China considers the 'one-China' issue as being an internal matter.

#### **4.1 Chinese Aid Conditionality and the Concept of Non-Interference**

While there is an increased focus in the West on rogue states, axes of evil and states producing terrorist, Beijing has a quite different view on the subject. Chinese ODA is not linked to the DAC guidelines regarding corruption and good governance, and as China is not a member of the OECD it would be a lot to ask. Many criticise Chinese aid for its unconditional nature but it would be misleading; Chinese ODA is not to be considered unconditional. As much as 70 percent of all public enterprise investment is conducted by Chinese companies and Chinese Exim Bank rules state that at least 50 percent of materials related to investment projects must be sourced from China. Additionally comes the before mentioned conditionality associated with the 'one China' principle. (Mohan et al. 2008) It is therefore misleading to say that Chinese ODA is un-conditional. China simply has a different set of conditionalities linked to their development assistance, different from that of Western development institutions.

Another important factor characterising ODA from China is the concept of non-interference which for decades has been the cornerstone of Chinese foreign policy which is derived from an

argument about respect for national sovereignty and domestic affairs. This is somewhat appealing to many African leaders who have seen the criticism of their regimes as an ethnocentric consequence of Western dominated definitions of human rights and democracy and China uses any opportunity to draw a parallel of understanding between Africa and China, emphasising their own experience with Western oppression through history, not to forget that the lack of interference in governance is in the self-interest of any leader whose rule is under scrutiny and criticism for whatever the reason. (Taylor 2006) As mentioned above the critique of Chinese engagement in African development is often based on the lack of conditionality of good governance and respect for human rights. Consequently China has taken the advantage of Western conditionality and tie up with resource rich African countries to which the West has closed its doors due to records of poor adherence to human rights, political instability and bad governance. The Chinese model serves as an appealing alternative dismissing the view that democracy is a precondition for development. DAC countries fear that their efforts to improve governance and human rights will be undermined by the new possibilities for funding provided by countries such as China. One could reasonably question whether these efforts have had any result and to what extent Chinese ODA will have any effect on the democratisation of the world. The Chinese concept of non-interference could, roughly spoken, be described as being diametrically opposed to the Western conditionality of 'good governance' but the main question is, as China integrates more heavily into the global order, how long it will be able to stronghold the insistence on non-interference and state sovereignty without having to face the responsibilities related to increased global presence. Furthermore China will have a large advantage of promoting stability in regions where they have expectations of long-term engagement. Consequently China may engage in promoting good governance in regions where they operate assuming that they consider the concept of good governance related to stability.

## **4.2 The Nature of Chinese Aid**

Another worry by the DAC countries is that of the nature of Chinese ODA. Most development assistance from Beijing is in the form of soft or concessional loans. The concern is that the Heavily Indebted Poor Countries (HIPC 's) that benefit from Western debt relief will generate substantial debt again elsewhere. (Young 2008) China is as before mentioned not member of the DAC and does not follow their guidelines for ODA and moreover has not itself followed the same path for its own massive development as has the West. Some even mention Chinese aid as following a 'Beijing Consensus' as opposed to the neo-liberal 'Washington Consensus' initiated in the late 1980's. (Taylor 2009) Chinese

aid is quite difficult to measure, since the country itself does not distinguish between investment and development aid does not use the same benchmarks for aid as does the West, some even consider the level of Chinese aid to Africa somewhat of a state secret. (Mohan et al. 2008) The border between Chinese investment and aid is somewhat blurred, where the DAC guidelines for ODA assumes a separation from investment, being something implicitly different, not involving profit. The difficulty of measuring Chinese aid means that there is quite some difference regarding the assumed size of Chinese aid flows to Africa moving from three times that of the rich countries (DAC net official ODA in 2008 was, according to their own statistics, close to US\$ 120 billion) to figures below \$1 billion. (Brautigam 2007) The strong link between Chinese foreign policy objectives and investment in Chinese enterprises means that development aid, especially concerning infrastructure projects often is in combination with Chinese investment in extractive industries, actually most loans granted are approved by the Chinese Ministry of Commerce, which shows the business like nature of the aid provided.

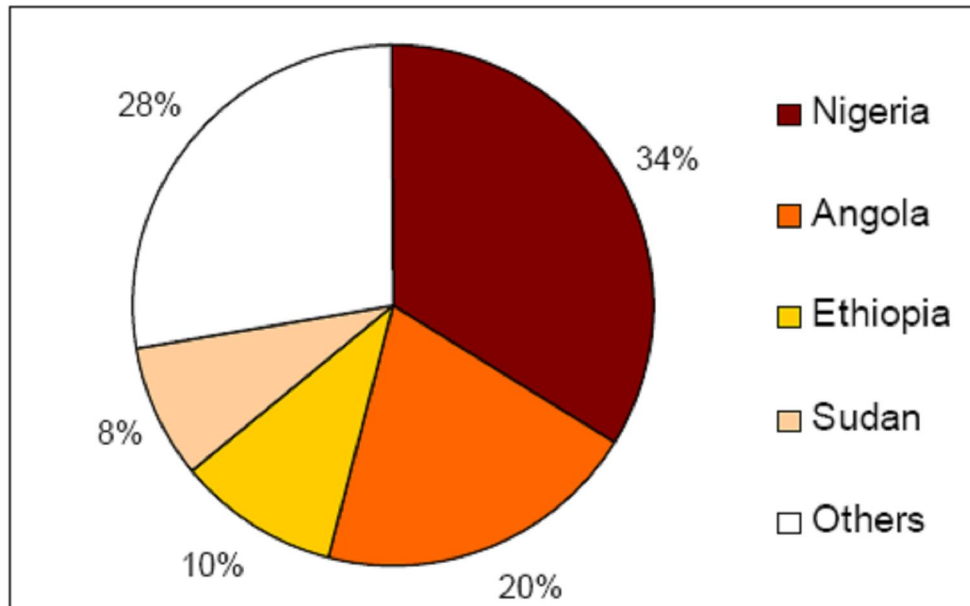
Chinese aid to Africa is mostly delivered in three different ways; grant aid, interest free loans and concessional loans, though debt relief also is gaining momentum as a way to prolong cooperation with African countries. Most of the loans are granted by the China Exim Bank that has approved at least \$6.5 billion in loans for Africa most of which has been for infrastructure investment. China Exim Bank often focuses on projects on infrastructure related to extractive industries and transportation of energy and mineral resources of strategic importance for China's economy and thus the Bank's loans in particular of a concessional nature, are both of political and economic character. (Bosshard 2007) As the model from the World Bank shows, the countries with which China has committed to building infrastructure are mostly countries with substantial resource supplies. China has during the last couple of years become one of the primary financers of infrastructure projects in Africa and by far the investments are much needed. Today China is carrying out ODA in at least 35 countries, building hospitals, dams, government buildings and even bringing back Western white elephants to life.<sup>9</sup>(Bosshard 2007, Taylor 2006) And, as stated by the World Bank in their 2008 report on Chinese financed infrastructure in Africa:

*'South-south resource flows, where China by far is the biggest player, on financing infrastructure in Africa are now comparable in scale with that of ODA from DAC' (Foster 2008)*

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<sup>9</sup> White elephants refer to large scale projects such as factories and power plants that have ended operations due to lack of maintenance and supervision.

### Confirmed Chinese infrastructure commitments in Sub-Saharan Africa 2001-2007



Source: World Bank – PPIAF Chinese Project Database, 2007

Though often subject for much scrutiny, Chinese aid in areas such as rural development and small scale technology transfer seems to have much to offer taking into consideration that China is a developing country itself and thus has the direct hands-on experience. This combined with the different conditions set by China and growing realisation that Western aid has not succeeded in eradicating poverty and economic marginalisation provides somewhat of an incentive to many African governments to engage with China as a new and (perhaps) better alternative. Furthermore Chinese aid seems to be carrying out projects in a much quicker pace with less transaction costs involved. Firstly because the standards set concerning housing, salary and benefits are lower than those from Western institutions, secondly because Chinese investments are carried out quicker due to the lack of conditionalities concerning governance and transparency. (Brautigam 1998) As stated by Sierra Leone's ambassador to Beijing:

*'We like Chinese investment because we have one meeting, we discuss what they want to do, and then they just do it... There are no benchmarks and preconditions, no environmental impact*



*assessment. If a G8 country had offered to rebuild the stadium, we'd still be having meetings about it'*  
Cited in (Hilsum 2005)

#### **4.3 The Export-Import Bank of China**

The bank was established in 1994 and has the aim to *implement the state policies in industry, foreign trade, diplomacy, economy and finance*'. It is fully state owned and is a government policy bank under the direct leadership of the State Council of China. China's Ex-Im bank is the sole operating bank for Chinese Government Concessional Loans supporting projects in developing countries covering such sectors as agriculture, transport, telecommunications, power plants, culture, education and medical care. The bank is a very important strategic tool for Chinese foreign policy and is stated to be contributing to *'the wide strategic partnership between China and other developing countries based on mutual trust, mutual benefit and common development for win-win result'*<sup>10</sup> The concessional loans are low interest loans used as an instrument for financing development projects often in combination with export buyer's – and sellers credits. Often it also is a way of supporting Chinese state owned construction companies through their work for projects in developing countries financed by the Bank and according to the Bank's requirements for concessional loans, Chinese contractors must be awarded the project financed by the loan. This proves as mentioned before that it would be misleading to view Chinese aid as un-tied but shows at the same time that these projects carried out by mainly Chinese expatriates does not help create local employment and transfer of technology but rather seems to be facilitating employment for Chinese, coming from a country with high unemployment themselves thus targeting the projects at reducing Chinese unemployment rather than local African unemployment. It is as mentioned above not clear what the scope of these projects actually is, but it seems that China Ex-Im bank has outgrown the World Bank and other credit agencies. (Bosshard 2008) Many projects financed by the Bank are to countries considered pariahs by the West that do not live up to the standards of good governance and human rights. The concessional loans are often seen as a policy tool in China's energy security strategy especially regarding resource rich countries with major needs in infrastructure where the proven resource reserves are used as collateral. Almost 80 % of the projects financed by the Bank have been in relation to infrastructure projects.

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<sup>10</sup> Information about China's Ex-Im Bank is drawn from the Bank's webpage [www.eximbank.gov.cn](http://www.eximbank.gov.cn) and its annual report from 2007 [www.english.eximbank.gov.cn/annual/2007.pdf](http://www.english.eximbank.gov.cn/annual/2007.pdf) (accessed 10-12-2008)

On may 21<sup>st</sup> the Chinese Ex-Im Bank and the World Bank signed a Memorandum of Understanding (MOU) with the intention of improving cooperation between the two institutions with a special focus on three countries in Africa namely Ghana, Mozambique and Uganda albeit the full content of the MOU has yet to be disclosed. (Davies 2008)

## 5. The Sudan

Sudan is a country in north-eastern Africa and both the largest country (in territory) in Africa and in the Arab world. It was the first African country under British rule to gain independence after which a series of conflicts and civil wars have erupted first of which actually happened just months before Sudanese independence on January 1st 1956. (Johnson 2003) p. 26 The root causes for the conflicts in the country are many, complex and beyond the scope of this paper since the country contains more than 500 ethnic groups and is too religiously and culturally rich for the conflicts to be narrowed down to narrow Western paradigms of North-South, Christian-Muslim or Arab/African. It is however important to stress the complexity of the conflict, often simply described as merely a conflict between the Christian South and the Muslim/Arab North. (De Waal 2007) The first war started as a result of protests by the mainly Christian/African Southern Sudan against the mainly Arab/Muslim Northern Sudan regarding the arrangements made concerning the future of post-colonial Sudan, which resulted in the first North-South civil war.

The war lasted 17 years and ended with the Addis Ababa agreement in 1972 between the Khartoum government and the Southern Sudan Liberation Movement (SSLM) where it was agreed that the South could set up its own regional government with funds provided from national treasury cooperating with the central government in Khartoum. It is quite important in this matter to note that the South, even though oil was not discovered at the time, was the main source of wealth e.g. ivory, timber and water and was the reason why Sudan was described as being 'the bread basket of the Arab world'. During the first period of independence there was a growing rise in political Islam in the region and during the 1960's most major Islamic parties in the North started uniting in what essentially became the National Islamic Front in 1965. (Johnson 2003) p. 41

During the following period of relative calm, many development projects were carried out by Western institutions such as the World Bank and the IMF, but it was quickly apparent that it was mostly to the benefit of the North.

One example was the project of the Jonglei Canal (elaborated on later in the paper) that was designed to collect water from the swamps in the South and channel it towards the North. This project

was largely perceived by the South as a symbol of the North's intentions of extracting resources from the South, purely for the benefit of the North with no apparent positive impact on the local community. Additionally the discovery of oil potential in the mid 1970's in the South bore proof in an early stage that the central government of Khartoum planned to channel the resources directly towards the North, denying the southerners the immediate benefits related to extraction such as employment and economic development. (Jok 2007) New organisations developed in the South due to the growing discontent. One of these was the Sudan People's Liberation Army and its political division Sudan People's Liberation Movements both often referred to as SPLA/M. It was formed in 1983 by rebellious

#### **The Comprehensive Peace Agreement**

On January 9th 2005 the CPA (also called the Naivasha Agreement) was signed after nearly three years of negotiation. The CPA was an agreement between the Government of Sudan and SPLA/M and was by a series of protocols meant to mark the end of the second Sudanese civil war.

The following are a brief descriptions of the protocols signed:

The Machakos Protocol signed in Machakos July 20th 2002 as a general agreement on the unity of Sudan, governance and the rights of the Sudanese people (including the right to self-determination for the people of Southern Sudan)

The Protocol of Power Sharing signed in Naivasha May 36th 2004 reflecting the unity of the country in combination with recognition of the diversity of the South Sudanese people, formulated the powers of the national government as well as the government of Southern Sudan.

The Protocol of Wealth Sharing signed in Naivasha January 7th 2004 an agreement on sharing and allocation of Sudanese wealth emanating from the resources of the country where the government of Sudan is obligated to provide transfers to the government of Southern Sudan on the premise that all parts of the Sudan (especially war affected areas) are entitled to development. Furthermore an independent National Petroleum Commission is established.

The Protocol of the Resolution of the Abyei Conflict signed in Naivasha May 26th 2004

The Protocol of the Resolution of the Conflict in Southern Kordofan and Blue Nile States signed in Naivasha May 26th 2004

Security Arrangements signed in Naivasha September 25th 2003 on a ceasefire and on the status of the two armed forces and the formation of the future army of Sudan

Permanent Ceasefire and Security Arrangements Implementation Modalities and Appendices signed in Naivasha December 31st 2004 on the elements for disarmament, demobilisation and sustainable peace between the SPLA and SAF

Implementation Modalities of Previous Protocols all signed in Naivasha December 31st 2004

soldiers from the Sudanese Army and members of the Southern Sudan Liberation Movement (SSLM), refusing to serve in the North. During the period 1982-83 many soldiers deserted to join the movement and by July 1983 where the SPLA/M issued their Manifesto, a large army consisting of soldiers from the South was formed and soon the September Laws from Addis Ababa was dismissed and the conflicts of the first civil war resumed, but more violent and complex than ever. As described by Douglas Johnson in his book about the root causes for Sudan's civil war, the second civil war actually consisted of multiple civil wars. (Johnson 2003) The second civil war(s) continued until the Comprehensive Peace Agreement was signed in Nairobi in January 2005 by SPLA/M and the Government of Sudan. But the peace agreement did not put an end to conflict in Sudan; the conflict in Darfur is still ongoing and has, as argued by many authors, (Johnson 2003, Jok 2007, De Waal 2007, Cheadle and Prendergast 2007) been simmering beneath the surface for quite a long period of time. The

conflict is, as all previous conflict in the country, a complex one, rooted in regional discontent over land distribution, water and other resources combined with misgovernment in the area.

Darfur is located close to Chad's civil war and as unrest grew in the region, local tribesmen acquired weapons in order to defend their land and herds. The government in Khartoum did not manage to solve the numerous local conflicts; on the contrary they boosted the unrest by providing more military equipment to the locals. In 2003 a group of Darfurian groups gathered in discontent over the marginalisation of the region, formed the Sudan Liberation Army (SLA) and initiated a guerrilla war. (De Waal 2007) In the war against the rebel groups Khartoum teamed up with local Arab tribesmen, who instead of fighting the rebels cleared their path whenever they went, shooting down civilians, looting and burning down homes. Within a short time these raiders were given the name 'Janjaweed' or 'Devils on Horseback'. The war in Darfur was declared genocide by the US and a number of human rights agencies in 2004, albeit still sometimes presented simplistically as a war between Arabs and Africans. When the conflict in Darfur came to international attention in early 2003 its nature surprised many observers seeing that there has been a general agreement that conflicts in Sudan in general were a matter of North–South disputes between Christians and Muslims, however in the case of Darfur virtually all implicated are Sunni Muslims and it was ultimately obvious that the narrow Western perception of the conflict was too constricted to appropriately explain the state of the region. (Jok 2007) An estimated 40 % of the population live below the poverty line.

## **5.1 China and Sudan**

One of the relationships that have drawn most negative attention especially regarding the non-interference policy from the West is that between China and Sudan and one of the aspects of Sino-Sudanese relations that generates most concern in the international community is that of the extensive Chinese engagement in Sudanese oil markets. China is no new player in Sudan as diplomatic relations between the two countries were established as early as in 1959. The relationship between the two countries has been influenced the Chinese policy of non-interference since Sudan's independence in 1956. The Sudanese government in Khartoum was supported by Chinese government through the post-independence civil war, that ended in 1972 and the continuing civil wars in the South a decade later and most recently in the Darfur conflict since 2003.

China is massively involved in the Sudanese oil industry and is now Sudan's largest investor where China has seen the opportunity operating in a country where Western countries have been disinclined to do business. (Taylor 2006) Many Western companies from Canada, the U.S. and Europe

have been operating in the Sudanese oil industry but a combination of political and financial pressure from NGO's and civil society but mainly from Washington meant a Western moving away from engaging in the country and opening up for Asian oil companies from Malaysia, India and most of all China who were more than willing to stepping up operations in the country. The issue of governance and human rights aside, the increased Chinese interest in Sudanese oil also threatens to increase Sudanese dependency on oil where over reliance on one particular commodity as oil potentially can result in Dutch disease.

The national oil company (NOC) China National Petroleum Company (CNPC), which is China's arm in securing oil overseas, was granted its first concession in Sudan 1995, but only started operating in Sudan in 1997 as a member of the Greater Nile Petroleum Company (GDPOC) where it holds a 40 % interest. Since then the CNPC expanded its operations and acquired more concessions in Sudan now also being part of other consortiums. (Patey 2006)

Another aspect of Sino-Sudanese relation subject to international scrutiny is that of arms trade. The issue of Chinese arms sales to Sudan is somewhat complex since it is likely that a large part of the Chinese manufactured weaponry discovered in Sudan have been channelled to the country through middlemen via the global arms market (Taylor 2009). Nevertheless since the U.N. instituted a mandatory arms embargo on weapons transferred to Darfur in 2004, China has been Sudan's largest supplier of small arms. (HumanRightsFirst 2008) The resolution does not prohibit Chinese arms sales to the Government of Sudan and Beijing has states that it has told Khartoum not to use Chinese military equipment in Darfur. The resolution, however, prohibits the government in Khartoum of transferring arms to the Darfur region and observers on the ground in Darfur have reported seeing Chinese weaponry in the area. (Andersson 2008, HumanRightsFirst 2008) With regards to Darfur, the conflict became an issue that really challenged the Chinese concept of non-interference and respecting state sovereignty. Of the 21 resolutions proposed in the U.N. concerning Darfur, China initially omitted their vote of six votes since it contradicted with their policy of not intervening in inter-state matters. On one occasion China even threatened with a veto, as they found the tone against Sudan in what they considered internal affairs and matters for Sudan to mend on a state level, to be too harsh. China supported the contribution from the African Union (AU) from the beginning as it was accepted by the government in Sudan. But in late 2006 and 2007 China changed behaviour towards Khartoum, as the U.N. unanimously passed a resolution giving the U.N. mandate for inserting peacekeeping troops in Darfur in collaboration with the AU.(Holslag 2008)

### Chinese Financing Commitments in Infrastructure Projects in Sudan , 2001-2007

Year	Status	Project	Sector	Chinese Financier	Contractor	Added Capacity	Project Cost (US\$m)	Chinese Commitments (US\$m)
2001	Completed	Construction of the El-Gaili Combined Cycle Power Plant Phase 1	Electricity	Ex-Im Bank, China	Harbin Power Equipment Company Limited	200 MW	150	127.5
2003	Construction	Construction of the Merowe Hydroelectric Dam	Electricity	Ex-Im Bank, China	China Hydraulic and Hydroelectric Construction Group (Sinohydro Corp.)	1,250 MW	1,200	400
2004	Construction	Construction of the Bridge between Khartoum and the Sudanese-Egyptian Border	Transport	China National Petroleum Corporation (CNPC)	Jilin Province International Economy & Trade Development Corporation (JIETDC)	0.44 km	20	10
2005	Agreement	500 MW Coal fired Power Plant in Port Sudan; 320 MW gas Fired Power Plant in Rabak; 300 MW Gas Fired Al Fula Plant	Electricity	Ex-Im Bank, China	Shandong Electric Power Construction Corporation	820 MW	-	512
2005	Agreement	Sudan Telecom Purchasing Equipment from ZTE	Telecom	Ex-Im Bank, China	Zhong Xing Telecommunication Equipment Company Limited (ZTE)	-	-	200
2006	Construction	NEC Transmission Line	Electricity	Ex-Im Bank, China	China National Machinery & Equipment Import & Export Corporation (CMEC)	340 km	81	81
<b>Total</b>								1,330.5

Source: World Bank – PPIAF Chinese Projects Database , 2007

## 5.2 Water in Sudan

Besides oil, Sudan has large water reserves, but as is the case with oil, the country does not have the capacity needed to manage these resources themselves. Thus, water is another infrastructural area where investment is needed, and where China has made massive commitments.

Almost two-thirds of the Nile basin is found in Sudan but the water level fluctuates substantially, the distribution of water is very fragmented and many Sudanese people suffer from shortages both regarding clean water for drinking and water for irrigation in an agricultural context. Actually there does not seem to be a water shortage as such in the country; however the unsustainable patterns of water utilisation can potentially create a *pseudo-state* of scarcity within this abundant water base. As stated by Goldsmith: *'Its not that there is not enough – its that people do not have enough'* (Goldsmith et al. 2002) In the case of Sudan however, the state of scarcity can also be caused by the vast geographical space.

The new planned and ongoing projects relating to dam building are by the United Nations Environment Programme (UNEP) considered the single most critical issue regarding water resources in Sudan today. (UNEP 2007) As aforementioned the electricity generation only reaches a mere fragment of the population and the country's grid is characterised by numerous blackouts. As mentioned, electrification is a vital component in general development and vital for human development since education, sanitation and health but also industrialisation and the employment it brings is dependent on the level of electrification. However it seems that the national approach to managing water resources in the country is based largely on resource exploitation and biased towards mega projects. Sudan has some of the most extensive wetlands on the continent, but major infrastructure projects related to oilfields, dams, roads and housing schemes propose a threat for the wetlands. Insufficient water management means that in many areas stagnant waters increase the risk of disease spreading. This is especially the case in crowded areas like camps for internally displaced people (IDPS). Furthermore biological water pollution from sewage and waterborne diseases is by the UNEP considered the most serious threat to health in Sudan.

In a country like Sudan marked by decades of internal conflict, scarcity with regards to water may propose a threat for stability. As stated by Bjørn Møller *'Presumably, just as armed conflict may be waged over natural resources such as oil... it is entirely conceivable that they may be waged over the control of water'* (Møller 2005) An example of a conflict caused by water is the Jonglei Canal (that, according to some scholars supposedly was the final drop to initiating the second civil war

(Johnson 2003)) in Southern Sudan. The case of the Jonglei Canal shows how an insufficient approach to water management and the lack of proper stakeholder involvement can lead to conflict. (Goldsmith et al. 2002)

## 6. The Jonglei Canal

When speaking about the initial stages of the Jonglei Canal it is worth mentioning that though Sudan was under British rule from the late 19<sup>th</sup> century until its independence, Britain was not the only country administrating Sudan. Britain cooperated with Egypt who was also to be considered part of the Sudanese colonial power. But the cooperation did not always work as intended. The two countries often found themselves in situations where their interests were conflicting and this led to many disagreements regarding the administration of Sudan often being related to the use of the water of the Nile. Britain put much pressure on the Sudanese government for building dams and large irrigation schemes mainly to support the production of cotton for export, thus stressing Egypt, a country nearly fully dependent on the Nile for fresh water supply and irrigation. In order to settle the disagreements over the Nile waters the Nile Basin Initiative was launched in 1929 and ultimately led to an agreement in 1959 on the sharing of the River Nile and regulation of the share of the water. (Lako 1985)

As has been the case in many other areas of Sudanese past (and present) the Jonglei Canal was a project that was highly influenced by foreign parties, promoting their own interests, with little regard for regional effects whether creating possible spillovers or avoiding harmful or damaging consequences for the local community. Especially Egypt was very much interested in carrying through the projects, securing their extra share of the water resources and therefore offered to carry half of the costs involved actually the wording of the agreement stated that *the cost of the project and water benefit are to be shared equally between the Sudan and Egypt.* (Ahmad 2008) This meant that Khartoum (and Britain initially) showed to be more concerned with extracting the resources of Southern Sudan, channelling it downstream for their own benefit, than the socio-economic development of the area.

The purpose of the Jonglei Canal was to allow the Nile from the Sudd. As much as 50% of the Sudd waters are lost due to evaporation and the main role of the Canal was to discharge water to the main river for the benefit of Northern Sudan and Egypt. Initially the planning of the building of the canal reflected British interests and their wish to control the Nile waters. Through already initiated in the late 19<sup>th</sup> century, the first comprehensive large-scale plan was developed in the period 1946-48 by the Jonglei Investigation Team and was mainly about how best to bring the water of the Sudd



northwards. But the project underwent changes and modifications. After Sudanese independence the purpose of the assessments made by the Jonglei Investigation Team changed from being to ensure that the project secured Egyptian water access, to securing intra-state water, albeit with Northern Sudan as main benefactor. A number of development programmes were planned; increasing the area under agricultural production, introduction of new crops and creation of forest belts, improvement of present traditional livestock resources through provision of animal vaccines and drugs, improvement of social services. (Lako 1985) A report issued in 1975 by the Sudanese government stated that the Canal would bring about many benefits, such as providing water for livestock and wildlife, prevent diseases and improve infrastructure in the area. The report did not touch upon potential side-effects. (Ahmad 2008) The Jonglei wetlands is part of the vast swamp area in Southern Sudan, also referred to as Bahr al Jebel, one of the largest wetland areas in the world. The area inundates more than 8.000 square kilometres, a number that varies depending on the river discharge and the amount of rainfall. The outbreak of the second civil war and SPLA's attacks on the canal led to putting the project to a halt in 1984 and when the project stopped 260 km of the planned 360 were excavated. Though the Jonglei Canal was not a dam project, it is arguable to look at the project through the WCD framework in order to make an assessment of the project, especially for later comparative purposes. The project team included multinational contractors and financiers (especially from Egypt and France) all backed by the Khartoum government. It was a European consortium that set up in Southern Sudan in order to supply a French company who owned 'Lucy' that at the time was the biggest excavator in the world thus led to little labour was being used in the actual digging.

### **Gaining Public Acceptance:**

Benefits proposed to the locals were; improved transport, cash crop production schemes, drinking water and drainage. With some hesitation the Southern Sudanese Government (constituted at the Addis Ababa Agreement from 1972 to the outbreak of the second civil war) agreed not to oppose the project but from that point and onward the support for the project became somewhat a precondition for Southern politicians wishing to develop their political career both locally and on a national level. Thus the local commissioners with the last say in the project did not take local concern seriously.

Furthermore demonstrations against the project were stopped immediately by local police and participants were in some instances forced to leave the country. (Johnson 2003) p. 48.

Lack of transparency surrounded the project and when consulting the public, the government's commitment to engage in socioeconomic development in the Jonglei area proved to be pure pretence. The people mostly affected by the Jonglei project were the Dinka. The Dinka are Nilotic people, at the time numbering to about two million. They live as transhumant pastoralists<sup>11</sup> and the land conditions in the area leads to a mixed economy of cattle herding, cultivation, fishing and hunting and gathering – dependent on the season. The Dinka have developed a political and social system of their own suited to their way of life where important decisions regarding war or reconciliation are made. The government (and the British before them) hoped to engage the Dinka into the modern economic and social system assuming that they were dissatisfied with their existing way of life and that the Dinka did not necessarily know what the best for them was. As stated by a government official in this regard: *'If we have to drive our people to paradise with sticks, we will do so for their good and the good of those who will come after us.'* (Lako 1985)

This transformation inevitably would mean a drastic change of these societies' social and economic basis. In order to 'make the Dinka understand' the benefits of the canal, a massive 'enlightenment' campaign was conducted in the village areas. Many of the Dinka expressed some kind of indifference towards the proposed improvements and many feared that one main consequence of the building of the canal would be breaking down their own political and social system. An example of the lack of public acceptance gained is this statement by Deng-Athoi Galuak who lived in the area as a child:

*'As an innocent young kid, I vividly remembered hearing a weird and unusual noise in 1983. That noise was gigantic France cranes ripping through the ground in the heartland of our village. The canal divided our historic town ... into segments. Most poignantly, our people were divided, leaving the rest on one side and others on second side. As a young kid, we watch France cranes digging through the ancestral ground, we thought it was fun! Our elders couldn't take. I saw people watching tearfully. I thought they were crazy. But they weren't. Our land was invaded by Egyptian and France civilization. How frighten it was! Older people were horrified. They were helpless because they couldn't do anything. All they can do is to watch and cry. It was horrible and terrifying.'*<sup>12</sup>

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<sup>11</sup> Transhumant pastoralists are people who move with their livestock, according to seasons most typically over shorter distances than nomads.

<sup>12</sup> <http://www.sudantribune.com/spip.php?article17304> (accessed 02-02-2009)

### **Comprehensive Options Assessment:**

Briefly the purpose of the project was to reduce the loss of water in the Sudd through the construction of the canal. There is no doubt that the canal was planned (and to some extent constructed) for the benefit of users downstream<sup>13</sup> of the Southern region. There is no evidence showing that alternative options were taken into consideration. Even so, the very long process, from initiating the project to its actual beginning involved much research in many areas, so an options assessment cannot be considered fully neglected.

### **Addressing Existing Dams:**

Since this was in a period in Sudanese history defined by underdevelopment in the region there were not many existing opportunities for optimising effects from other sources for water canalisation, as these sources were limited. It seems that management to some degree was able to adapt to changing circumstances as the project evolved, albeit not being able to ultimately adapting to the change the outbreak of the second civil war involved.

### **Sustaining Rivers and Livelihoods:**

The Jonglei Canal highly interfered with the ecosystem in the wetlands and would have triggered massive environmental consequences, had it been finished. Most of the planned crossing points for cattle were cancelled and many fishing sites and *toic*<sup>14</sup> grazing lands were lost. This shows an unsustainable attitude towards sustaining the livelihoods of the Dinka community. Furthermore the precipitous slopes across which people had to move with their cattle and the resulting loss of uncountable numbers of game animals led to massive risks for their herds. As abovementioned most local stakeholders were transhumant pastoralists and had little knowledge and acceptance of the project. Therefore they had little chance of predicting the repercussion of the projects on the river and consequently on their livelihood. Vast trenches of collapsing canal banks creating pools for malarial mosquitoes and new vectors of the parasitic disease bilharzia. The trenches also proposed a danger for people working along the banks since local habitations along the eroding banks of the canal were flooded. (Burton 1991) Hundreds of families were forced to leave their homes and a Compensation Committee was created in order to assess the costs of displacement and the subsequent resettlement. Compensation was only in monetary terms and affected families had to find new sites for housing and

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<sup>13</sup> As the Nile is the only river that runs from South to North it is important to point out that downstream means Northwards and upstream Southwards. This is worth bearing I mind throughout the rest of the paper.

<sup>14</sup> *Toic* areas are areas that are inundated by main rivers or inland waters, thus retaining enough moisture to support cattle grazing through rainy seasons.

cultivation themselves. Government promised new wells and water points in resettlement areas all of which never became a reality.

### **Recognising Entitlements and Sharing Benefits:**

Regional government showed a remarkable lack of involvement in what was the biggest infrastructure project ever made in the region and did not insist on engagement and participation in the decision process. (The question is of course whether that would have been granted, had they asked) As stated by Johnson:

*'It (the regional government) did not oversee or review the plans and insist on its own development priorities being included. It allowed the future of the peoples of the Jonglei area to be decided by national priorities as defined by the central government. (Johnson 2003)*

A number of cross-drainage works were planned to siphon off water where the canal crossed, crossing points were planned for humans and animals, and ferry boats and cattle ramps would be provided. The Dinka were told that the canal would help provide them water during periods former characterised by drought and that veterinary services would be provided. Hunger would cease to exist and the project was often referred to as a new Gezira scheme, a scheme that was undertaken in the North, introducing new commercial crops and modern irrigation. No new methods of agriculture and new crops were ever introduced in association with the Jonglei Canal. Health and education was included in the development programmes associated with the project. Easier and better roads were promised. All these contentions by the government were highly contradictory to the general impression by the local Dinka. Many of them had just heard about the project from people passing by from Khartoum and practically none of the improvements promised became reality, to largely due to the fact, that the Canal was never finished. (Lako 1985)

### **Ensuring Compliance:**

It seems that little effort was made in order to ensure public trust and despite the effort made by the Jonglei Investigation Scheme, many decisions were made en route and it seems that the authorities would rather have the problem arise before the took action into consideration. Compliance with applicable regulations, criteria and guidelines, are hard matters to come by in a time not characterised by any of the three concepts. Lack of transparency regarding the budget of the project, fell under the national budget, thus the actual costs are not possible to know. But it seemed that the

actual costs of the project rose during the development. (Lako 1985) When the second civil war broke out in 1983, of all the socio-economic projects promised by the government, only a few schools and rainwater reservoirs were constructed. It seems unlikely that the Government of Sudan had lived up to their socio-economic promises had they finished the canal.

### **Sharing Rivers for Peace, Development and Security:**

The crossing points made led to overgrazing in some areas and the developed possibilities for crossing meant that diseases (both for human and cattle) spread more easily and became difficult to control. (Lako 1985) The economic precautions such as the building of roads and bridges were either neglected or done cheaply thus resulting in so poor quality that repair was needed almost immediately albeit not conducted. Pipelines for water use were not laid during construction and sanitation never became operational. Generally little attention was given to the effects on the local environment both in social, environmental and economic terms. As an example no attention was made to the fact that during dry season, the local people would have little water availability for their cattle herds. Rather the government officials focused on the benefits for national economy and how the local transhumant pastoralists would gain from permanent settlement. (Burton 1991)

Today 'Lucy' still stands there after Sudanese rebels sabotaged it during the second civil war and the excavator is most probably beyond repair. She went from being one of the largest drillers of the time and a hope for development in the country, to being a giant white elephant standing as a million dollar monument of the failing project. (UNEP 2007)



Source: UNEP

## 7. The Merowe Dam

The original purpose of the Merowe dam was that of protecting Egypt from flooding and droughts, but after gaining independence, Egypt built the Aswan High Dam in the 1960's on the first cataract on the Nile i.e. on Egyptian land instead, thus putting the Merowe plans on a stand still. Initially the plans for building the Merowe Dam were resumed in 1979, but a combination of the outbreak of the second civil war and Sudan's lack of funding opportunities put it to a halt once more. After the peace agreement in 2005 and the finding of massive oil reserves, Sudanese creditworthiness (and worthiness for aid) improved albeit not from Western states, as a result of the country's oil exports. (Moussa and Bethmann 2007) Sudan was, after being turned down by several Western international finance institutions (IFI's) and export credit agencies (ECA'S), able to obtain technical and financial assistance mainly from Chinese government and from Arab development funds. (Ellis 2007) As stated on their webpage the Dam Implementation Unit knocked on all doors in search for funds before they succeeded in obtaining funding from China, among others. It approached countries such as Malaysia, China, Canada, Arab Countries and European Countries. As an example the project was turned down by COFACE, the official French export credit agency, because of the project's potential environmental and social impacts.

### Funding for the Merowe Dam Project

Investor	Fund (in million US\$)
Government of Sudan	575
Government of China	520
Arab Fund for Economical and Social Development	250
Saudi Fund for Development	200
Abu Dhabi Fund for Development	150
Kuwaiti Fund for Economical Development	150
Sultanate of Oman	106
State of Qatar	15
Total	1966

Source: <http://www.merowedam.gov.sd/en/funding.html> (accessed 25-01-2009)

The Sudanese electricity generation capacity is very small, only enough to provide less than 1 million people (out of a population of 40 million) with electricity. Of this, close to 70% of the electricity generated is consumed in the Khartoum area which means that most rural areas do not have access to electricity. (Bosshard and Hildyard 2005) The Merowe Dam is the largest hydroelectric project under construction on the continent since construction of the Aswan high dam in the 1960's. The dam is being constructed on the fourth cataract of the Nile some 250 kilometres north of Khartoum, and will be completed in late 2009. The 67 meter dam will create a reservoir with a length of 174 kilometres and a surface area of 400-800 square kilometres. The dam is expected to double Sudan's electricity generation capability, will include an irrigation component and will cost close to 2 billion \$ most of which is financed by China's Ex-Im bank through concessional loans. Construction will mainly be conducted by Chinese contractors but also Western companies such as German Lahmeyer International who oversees the general construction and French Alstom who supplies electro-mechanic equipment are involved in the project. The work on the dam began in late 2003 less than a year after the contracts were signed and the dam was inaugurated on March 3<sup>rd</sup> 2009. On a general note it seems that the project violates at least five of the seven WCD guidelines:

### **Gaining Public Acceptance:**

The Environmental Impact Assessment developed by Lahmeyer in 2002 has not been made available for public review. Therefore a chance was missed for involving major stakeholders and the general public in a discussion of the quality of the information and the assessments of the report. In addition, it seems that no formal peer review of the report was carried out by qualified environmental assessment specialists, prior to the submission to the Sudanese Government. It actually seems that most stakeholders have been identified, but the approach has been of a top-down nature and has in many instances failed to include those whose rights are at risk and no stakeholder forum has been set up. In many instances stakeholders have been intimidated in order to prevent them from showing their discontent with the scheme. It does not seem that any good faith negotiations have been undertaken. Public acceptance of the project was initially attained, but the Dam Implementation Unit (DIU) did not manage to maintain this acceptance throughout the process.

### **Comprehensive Options Assessment:**

There seems to have been some kind of identification of needs and objectives in the process. However the participatory aspect of the assessment is lacking throughout the course. Since the project has been so many years on its way, it is only fair to assume that policy, institutional and technical

options are assessed to some degree, but it seems that all assessments are limited to technical alternatives.

### **Addressing Existing Dams:**

There are no existing dams in the area with which the government of Sudan could attain major levels of electrification by optimising its benefits.

### **Sustaining Rivers and Livelihoods:**

A basin wide study was made in the Lahmeyer EIA, that has been described as a mere desk study based on very broad and out-of-date literature. (Hildyard 2008b) A precautionary approach to avoiding negative impacts on eco-systems and in relation to social and health issues have been considered to some extent, albeit insufficiently. The WCD states that the strategic impact assessment should be independent, but since the EIA is undertaken by Lahmeyer who has a financial stake in the matter, this is not the case. Baseline data is inadequate for identifying all endangered species and downstream impacts are inadequately assessed.

### **Recognising Entitlements and Sharing Benefits:**

The EIA fails to address most downstream issues and issues related to livelihoods and related infrastructure. Those affected by inundation and adversely affected communities of their land appear to have been excluded from resettlement planning and decision making. Many promises on entitlements have been broken and according to some reports, poverty levels have increased in resettlement areas. Communities affected have proposed benefit sharing, however this has not been addressed by the DIU. No mitigation, resettlement or development action plan have been developed or agreed with affected communities.

### **Ensuring Compliance**

Since no compliance plan has been disclosed, the extent of compliance is unknown. However, as aforementioned there are many instances where entitlement promises have been broken.

### **Sharing Rivers for Peace, Development and Security:**

Egypt stands in support of hydropower development in the Nile upstream in Sudan, since Sudanese hydropower help reduce the sediment reaching Lake Naser (the lake created by the Aswan High Dam) and at the same time does not decrease the water flow. (Swain 2008) Another reasons why



Egypt has not opposed the project is that Sudan has until now not been using its full share of the waters, bound by the 1959 agreement. The project has no direct impact on water flows in Ethiopia, thus not creating any incitement for them to oppose the project.

The project has, as the Jonglei, been contemplated for a long period of time, actually since the early 20<sup>th</sup> century. In the 1990's Lahmeyer International asked the Institute of Environmental Studies in Khartoum to make a comprehensive environmental impact assessment (EIA) for the planned dam. This EIA was never completed and Lahmeyer initiated its own EIA on the Merowe Dam in 2002. The EIA is not public and I was turned down both by Lahmeyer and the official Merowe Dam Implementation Unit (DIU) when trying to retrieve a copy of the report.<sup>15</sup> Peter Bosshard and Nick Hildyard who have read the report describe it as:

*'.. short, superficial, and incomplete. It does not address major issues such as sedimentation. And since Lahmeyer has a vested interest in the project, the assessment cannot be considered independent.'*

However it is important to note that the Merowe Dam is the first large dam project in Sudan to include any form of environmental impacts assessment. (UNEP 2007)

It is quite difficult to make a proper assessment of the impacts of the Merowe Dam, including both the positive and the negative impacts of the project, since no official assessments are available and most supposedly independent assessments are made from institutions initially opposing the project, thus with a high focus on the negative impact of the project.

In the following I will try to include all aspects of the impact of the project, albeit one will have to keep in mind that it will be characterised by the bias towards information available on negative impact therefore making it difficult to make an objective assessment since all who writes about the subject have a stake in the matter.

## **7.1 Social Impact**

The expected amount of people the project will displace is between 50,000 and 70,000. Displacement is generally a massive issue in Sudan, development induced displacement just being one of them. Especially development induced displacement is to important to take into consideration since

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<sup>15</sup> Initially the Unit was called the Merowe Dam Project Implementation Unit (MDPIU) but changed name to the Dam Implementation Unit and will be referred to as the DIU onwards

internal displacement already is a large issue in Sudan. Other reasons for displacement in the country are:

- Military action with the clear *intent* to displace civilians a major cause of displacement in southern Sudan and Darfur
- People forced into flight by looting and terror
- Indiscriminate aerial bombings of villages
- Disruption of subsistence farming
- Chronic population drain from the south towards southern Kordofan and Darfur and further north to Khartoum
- Oil development induced displacement

All issues related to resettlement in the Merowe case are the responsibility of the Dam Implementation Unit, a government unit, reporting directly to the president. These issues include assessments of who are entitled to compensation and estimating compensation, reaching agreements with people affected and construction of new communities. None of the resettlement issues were included in the studies presented to the investors and are financially entirely the responsibility of the Sudanese government for whom the financial gains of the project is of most importance, thus making a case for 'bargain' solutions on resettlements. As stated by the Executive Director of the DIU:

*... it is not in our interest or in the country's interest to pay more reparations and compensations since this money comes from the national treasure and not from the funds financing the dam' (Moussa and Bethmann 2007)*

The DIU is by the World Organisation Against Torture (OMCT) described as '*... powerful... and notorious for its lack of transparency*' (OMCT 2007) The OMCT and Amnesty International have engaged in the Merowe Project because of several incidents of human rights violation, which we will return to later in the paper. It is important to note that the community affected by the building of the Merowe Dam was never opposing the scheme as such, and recognised the country's need for electricity generation even though they ended up discontented with the conditions of their resettlement. (Askouri 2007a) The Dam affected communities can be divided into three different groups according to location; the Hamdab, the Amri and the Manasir. Their course will be described in the following.

### **7.1.1.The Hamdab Community:**

The dam is being constructed at the fourth cataract of the Nile close to a small village called Hamdab. It was initially called the Hamdab Dam, but the name was changed, due to the Hamdab people's dissatisfaction with the name; they did not want the dam to be named after them, thus the dam is now named after Merowe, a city about 40 kilometres downstream from the construction site. The Hamdab community who represents approximately 8 % of the people affected by the project was the first to be engaged in a resettlement programme, since their villages were located directly on the island subject to the dam body. The Hamdab people did not initially oppose the project or their proposed resettlement. Their evacuation started in 2003 and was carried out in three stages, last of which was in spring 2005. During the first stage the DIU found new homes for the families, and provided hot meals through a catering company. This did not last for more than a couple of days as the resettlement started to reveal quite a few shortcomings. During the second and third stage of their resettlement, the efforts made by the DIU proved to be scanty and the Hamdab community ended up with a general disappointment with their new homes for several reasons:

- The area initially planned for resettlement was reduced and the layout of the new buildings for housing became more compact. Furthermore the resettlement site proved to be an actual desert location.
- The land provided for agriculture proved to be of poor fertility, some of it even unfruitful and in many instances, there was provided poor or no substitute for areas commonly used. Furthermore the subsidised fertilisers available were inadequate compared to the poor quality of the land provided. Additionally new costs emerged in relation to irrigation.
- Costs related to sand removal and land reclamation turned out to be the responsibility of the framers themselves.
- Inflation was not taken into consideration in relation to compensation payments.
- Loss of livestock and poultry as a consequence of the unfertile lands has not been compensated; this has direct implication for diet but also marginalising the women from the production process.
- Infrastructure needed (and promised) was not provided for and a promised irrigation system to provide free water supply for the first two years proved not to be operational.
- Unmarried men were not resettled, all though they lost their houses as well, and compensation generally was based on residence, not ownership.

- Democratically elected committees were overheard compared to more those more 'enthusiastic' about the project.
- The Hamdab people barely managed to leave their old homes before the area was demolished, thus not leaving room for any period of transition. (Moussa and Bethmann 2007)

All these insufficiencies has subsequently raised the poverty rate remarkably in the area since the population who mostly derived their livelihoods from agriculture no longer are able to cultivate their land in a scale suited for making a living. (Bosshard and Hildyard 2005)

### **7.1.2. The Amri Community:**

The Amri community represents 28% of the people affected by the Merowe Dam. They were not as 'friendly' to the project as the Hamdab people were at first, since they had witnessed the broken promises by the DIU. Therefore they were reluctant to agreeing on the details of their own resettlement before the DIU made strong promises with regards to the Amri rights concerning entitlements, the site of relocation and compensations. This eventually resulted in violent clashes between the locals and the DIU (with help from Sudanese police), causing the death of three civilians and an additional 12 wounded on April 22<sup>nd</sup> 2006. The resettlement site for the Amri people is called Wadi El Muqadam and is located in the Bayouda Desert. This resettlement site is, as the Hamdab resettlement area characterised by poor soil and unsatisfactory irrigation. Some records even show that as many as 800 families did not receive new housing, thus leaving them homeless. In several instances, the UN special Rapporteur on Adequate Housing, Miloon Kothari and Special Rapporteur on the Situation on Human ights in Sudan, Sima Samar, have on several occasions issued statements expressing their concern by the situation of the affected communities.<sup>16</sup>

In August 2006, some 2,200 families in Amri were given six days to evacuate their homes when government authorities began filling a reservoir that forced families to relocate as the reservoir would flood their area. They were reportedly not provided with shelter, food or medical care. Journalists who tried to visit the displaced were briefly detained and sent back to Khartoum.

### **7.1.3 The Manasir Community:**

The Manasir, the last and largest community affected by the Merowe Dam, represents the 64% of the affected people. The proposed relocation for the Manasir is essentially a desert area, thus

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<sup>16</sup> United Nations Press Release, August 17th 2006, August 27th 2007, and March 11th 2008,

making the community demur the new location, demanding to be resettled around the new lake created by the dam, a request that was immediately turned down by the DIU. As was the case with the Hamdab people the DIU ignored the elected commission, insisting to only negotiate with committees willing to cooperate. Due to their dissatisfaction by the DIU treatment, some of the Manasir people joint armed opposition with the Amri people and in 2004 four of the Manasir community leaders were detained for several months. (Askouri 2007b) Because of the risk of violent struggle erupting, the president assigned the resettlement issues to local government, thus relieving the DIU of the responsibility. Ultimately the Manasir began their own village construction and their request for resettlement along the banks of the lake was approved, notwithstanding that the discontent of the Manasir has yet to come to an end.

#### **7.1.4. Health Impacts**

Reservoirs created by dams provide large areas of stagnant water ideal for parasites and vectors to grow. In the case of Merowe, the size of the reservoir and the sedimentation it involves will present breeding ground for spreading diseases. As has been the case in the context of other dams built, standing waters generally increases the population of the vector snail, hosting schistosomiasis. Other diseases often related to dams are river blindness and rift valley disease. During digging and construction, breeding possibilities have been available in ditches, puddles and excavations, thus increasing the risk of infections among workers, and as the reservoir created by the dam fills with sediments, it potentially creates new reproduction areas for hosts of plasmodium causing Malaria, as disease that causes the death of 4.000 Sudanese people every month. On the other hand, the area surrounding Merowe has been one of insufficient medical services and lack of proper water supply and sanitation and dam building is often associated with development of sanitation and water availability in the area, which has large potential positive impact on health issues, associated with food and personal hygiene. Health impacts vary in terms of severity and timescales as some impacts are a concern during construction and other on a long term basis. An assessment made by Blue Nile Associates shows that there is both a positive and a negative aspect on the health impact from the Merowe Dam. There seems to have been a decrease in cases of river blindness, diarrhoea, and malnutrition. On the other hand cases of malaria, schistosomiasis and rift valley disease have increased. (Yamana 2004)

## 7.2 Environmental Impact

On March 23<sup>rd</sup> 2006 the Swiss Federal Institute of Aquatic Science and Technology (EAWAG) encouraged by the NGO International Rivers Network (IRN) issued an independent review of the Lahmeyer EIA of the Merowe Dam. Though engaging in the matter because of a request from the IRN, EAWAG emphasised the importance of IRN not influencing the contents nor the issues addressed in the report. EAWAG states that the Lahmeyer EIA for the project falls short in many areas and does not live up to European or international standards, such as the WCD guidelines (no references have been made to the WCD in the EIA) and that it should have drawn on existing literature on the subject in combination with lessons learnt from previous cases, the most obvious being the Aswan High Dam. In their independent review the EAWAG researchers conclude that the Merowe dam will act as an important sediment sink for the suspended load of the Nile River and may accumulate as much as 130 million tons of sediment annually. Sedimentation is major issue for the Merowe Dam Project and EAWAG estimates that the reservoir will lose its storage capacity within 150 years. High sedimentation rates in the reservoir due to massive erosion in Ethiopia leads to high burial efficiencies which will result in prevalence of anoxic condition within the sediment. Therefore, during decomposition of organic matter, both CO<sub>2</sub> and CH<sub>4</sub> (Methane) will be produced within the sediment of the Merowe Reservoir. According to the EAWAG report the total mass of organic matter contributing to greenhouse gas emissions will be an order of magnitude larger than estimated by the EIA. Therefore, it is estimated that the Merowe Dam will emit roughly the same amount of greenhouse gases as a natural gas project generating the same amount of electricity. According to EAWAG the EIA for the Merowe Dam Project provided a detailed overview of the technical, hydraulic and hydrologic framework, and discussed issues of resettlement and ecological and economical side effects. However, according to EAWAG the EIA failed

- to base its assessment on scientific literature available,
- to develop a plausible sediment management concept,
- to critically assess the ecological functioning of the reservoir ecosystem including its greenhouse gas production and the effects on fish biodiversity,
- to offer strategies for mitigating the downstream effects of hydropeaking.

Some of the environmental impacts of the Merowe Dam will also be on the wildlife population. Many animals such as Nile crocodiles and aquatic birds will lose their nesting grounds due to flooding as the reservoir fills up, as will birds nesting in trees as they are chopped down during the digging

process. Waders will lose their source for nutrition as shallow waters will be flooded and surrounded by bare rock. If looking at the consequences for the aquatic life characterising the Aswan High Dam there will be severe consequences. Fishes with the ability of adapting to the new environment will grow in population, leaving others to disappear. (Moussa and Bethmann 2007)

Another environmental consequence is water loss that will occur due to the increase in the surface area of the new reservoir and the consequent evaporation because of solar radiation and massive daily fluctuations of the water level downstream of the dam, with corresponding impacts on downstream agriculture which can have grave consequences for downstream economy. (Bosshard and Hildyard 2005)

### **7.3 Economic Impact**

The combination of funding has direct effects for the nature of the project since neither Arab development funds nor Chinese government are as highly under pressure from international NGO's and concepts of best practises as are Western development institutions. Furthermore the general perception among the investors, related to democratic and participatory means has great repercussions for the ability of civil groups to enter discussions on the project which, widely spoken, means that decisions can be made in a comfortable distance from the scrutiny of Western NGO's and other institutions demanding high standards for the project. Thus, the decisions are made with regards to the national targets and technical effectiveness rather than with a focus on social and environmental impact. When looking at the official website for the Merowe Dam one notices this strong bias immediately. Very little attention is given to the negative impacts associated by the project, while much is mentioned of all the positive aspects of the project. The few Western companies involved are companies mostly focused on the technical aspects of the project and have little experience (and interest for that matter) in the policies, planning and general impact of the project. It is however important to stress that this does not necessarily mean that the projects negative impacts will outweigh its positive outcome.

The Sudanese government and the DIU portray the Dam as the ultimate solution for modernisation and development in the country but large hydro-projects also include the risk of increasing the national debt burdens by millions of dollars. The DIU claims on the website that resettlement will improve the quality of life of the affected communities through land ownership, cash compensation and improved access to water, electricity and new and improved fertiliser. However it

seems that the DIU has been trying to minimise the number of people entitled to compensation through rules involving a lot of meticulous exceptions for who is entitled and who is not.

According to some of the leaders of the communities affected by the project, the poverty rate of the resettlement site has increased from 10% to 65% in less than two years. (Bosshard and Hildyard 2005) It is somewhat of a question as to how they reached these numbers, but nevertheless it shows some indication that the project has not increased the living standards for the affected people. Sudanese contractors have actually been involved in building the dam and the resettlement sites, so it is fair to assume that the project has created some employment, however as Chinese contractors are known for 'bringing their own workforce' the level of local employment created could be higher. (Bosshard and Hildyard 2005) Albeit one of the supposed benefits related to the project is irrigation for agricultural development, little is known about the irrigation scheme. It seems that two irrigation intakes have been incorporated in the dam structure design, but how much land they will irrigate once completed, remains unknown. The access to, use of, and ownership of the new land is still unknown, some members of the affected community claim that the land has been sold to wealthy Arab investors, thus not creating a local opportunity for growth in agriculture.

One of the main arguments for building the dam is the massive electricity need in the country, especially in rural areas. The Merowe Dam is to mainly provide electricity for the cities and industrial centres of Khartoum, Port Sudan and Dongola and it does not seem that the rural population will have more access to electricity than they had before.. (Bosshard 2007) Another positive feature in relation to dam building is the associated infrastructure improvements. In relation to the building of the Merowe Dam, an airport, a bridge and several roads have been constructed in the area. On a general level the local population has threatened the DIU and the government of Sudan with uprising in the Northern region if promises are not held.

#### **7.4 Archaeological Heritage:**

The area along the Nile has been heavily populated for thousands of years, thus leaving traces from towns and cemeteries dating back to the ancient Nubian civilisation that preceded Pharaonic Egypt. In general very little archaeological work has been conducted in Sudan and it is only in the past few decades that archaeologists have begun to recognise the vast potential for historical treasures in the region. No archaeological research was made before construction of the Merowe Dam began. According to the Lahmeyer EIA, more than 1.000 archaeological sites would be flooded by the creation of the reservoir and 120 in the resettlement areas. The British Museum undertook a survey but it was



too late at the time and the Museum has given up the quest, stating that it is a neutral party (Hildyard 2008a) Furthermore, no systematic assessment of cultural heritage was undertaken prior to the siting decisions. Notwithstanding that it does not justify the lack of engagement in this case, many Western countries have shown the same lack of interest in cultural heritage when engaging abroad. As an example, the U.S. has in many instances showed a rather indifferent attitude towards cultural heritage, one of the newest cases being the invasion in Iraq where the U.S. has been criticised for not interfering in the robbing of the National Museum in Baghdad as a direct consequence of their invasion in 2003.

## 7.5 Security Impact

The following are some of the incidents mentioned in Sudan Tribune related to conflicts caused by clashes between affected communities and Sudanese forces:

- September 30<sup>th</sup> 2003: During a demonstration against the dam, the Sudanese police shot and injured three men from the Hamdab community (one of whom was the president of the union of the dam affected people) and detained them for a month.
- December 1<sup>st</sup> 2003: The police dispersed several Hamdab villagers who refused to move from their houses (that had already been demolished by the dam contractors)
- Due to these incidents the Amri and the Manasir formed an armed group called the Movement of the Displaced.
- November 2005: Chinese contractors occupied local water wells, preventing the Manasir from access to water. Furthermore the Chinese contractors started using SAF as security organ (often referred to as the Dam Militia)
- November 29<sup>th</sup>
- April 22<sup>nd</sup> 2006: The dam militia attacked Amri people gathering at a local school. Three were killed and several were injured.
- August 7<sup>th</sup> 2006: The Dam authorities closed the gates of the Dam without warning, forcing more than 100 Amri villagers to abandon their homes due to flooding.
- March 29<sup>th</sup> 2007: Six representatives of the Manasir community were arrested and detained for close to two months without charges.
- July 31<sup>st</sup> 2008: Some 600 Manasir Communities who refused to move to the desert lands were flooded out of their homes without warning, as the reservoir was abruptly filled. This was according to the villagers a deliberate part of forcibly evicting the families. Some observers

even claimed that the DIU called the eviction 'hijrat al-far' (migration of the rats). A spokesman from the DIU later stated that flood was due to heavy rains and not because of the dam.

- September 30<sup>th</sup> 2008: The same happened again. Thousands were flooded; the DIU denied it had shut the gates, saying that any floods were caused by seasonal rains.

The above are just examples of incidents associated with the scheme, however it is obvious that the general approach to villagers affected has been marked by little attention to human rights, and that conflict in many instances could have been avoided. As stated by Ali Askouri, the President of the Leadership Office of Hamdab Dam Affected People (LOHAP) *'Whereas in Darfur, the government uses helicopters and aerial bombardment to depopulate villages, here the Nile's flood water is the weapon of choice'* (Askouri 2007b)

## **7.6 International Involvement and Response to Incidents**

As aforementioned a plan for resettlement was not included in the EIA and none of the international companies involved made such a plan a condition for their involvement. In an open letter to the Chinese contractors, the NGO Business and Human Rights expressed their concern about the Amri shootings in April 2006. The Chinese response was that such an incident had not occurred at their site and that:

*'the Government of Sudan has assigned local security force to be responsible for the security of the Merowe Dam Project since commencement of the Project, at both the upstream site and downstream site of the project construction area. Security personnel from professional security companies engaged by the contractors and approved by the client and the Engineer, are also 24 hrs available for the security of the site camp and construction site.'*

([www.business-humanrights.org](http://www.business-humanrights.org))

A similar letter was sent from Business and Human Rights to Alstom who replied that their engagement in the project purely consists of supply of electro-mechanical equipment and that that issues related to human rights is the responsibility of the DIU. On the statements by the UN special rapporteur on adequate housing, Lahmeyer International responded that their impression was that the resettled people had been very satisfied with the facilities provided for them, such as new houses with electricity and running water, hospitals, schools, markets and mosques. Furthermore Lahmeyer

provided photo-documentation on the new sites and the facilities associated, stressing that the main responsibility for resettlement is the DIU's. There has been no response with regards to the violent clashes nor the floodings.

In many instances one would expect that involvement of Western companies in these kind of schemes somehow will help secure standards for best practises. In the case of the Merowe Dam, this has had no effect, as all companies involved point to the fact that the DIU is the only institution responsible for resettlement, thus leaving it out of the hands of all companies involved.

## 8. Is Merowe Dammed?

As the case of the Merowe Dam project shows, involvement of Western based companies does not seem to put forward much pressure for 'best practises'. The decisive role regarding the 'quality' of the project lies with the institution financing the project and the government of the receiving country, in this case the government of Sudan and the DIU.

Chinese contractors have often been criticised when engaging in these schemes, even if the project is financed by Western based IFI's, but in the case of Merowe, Alstom and Lahmeyer play as large a role in the impacts as do the Chinese contractors. As stated by Ali Askouri spokesman for the organisations for the people affected by the Merowe dam:

*'Contrary to the ongoing failure, the Merowe project could have been a success story had the Chinese and European companies insisted and pressed the dam authority to adopt and follow international standards.'* (Askouri 2007a) p. 86

However none of the companies involved recognise their own stake in matter, pointing at the DIU as the institution responsible for the social consequences. The reluctance from all other parties than the DIU to engage in issues related to social, environmental and economic costs has great influence concerning the repercussions for civil society, as the DIU does not consider the dam effected communities as stakeholders 'important' enough. This may well have something to do with the fact that a regime as the Sudanese that benefits from oil revenues mostly is controlled by the need for generating revenues from taxation in the resource extraction field and therefore reluctant to pay much attention to allocation of resources to civil society (Friedman 2006)

Many developing countries affected by water scarcities do not have the financial, technical, material, organisational, and human resources for implementing large water projects. At the same time many Western institutions with the expertise needed are reluctant to engage in these projects as

they often create environmental problems and cause local opposition as well as opposition from the increasingly more powerful NGO's. (Elhance 1999) One of the main reasons why China is the single biggest international player in Sudan, whether concerning business or development assistance, is the prolonged divestment in both areas by Western countries. And this is the case even though most Western based development institutions recognise infrastructure as one of the main drivers for development in Africa. But as stated by Joshi and Moore

*'There is a substantial disjuncture between what international aid and development agencies say they want to do, and what they actually do'* (Joshi and Moore 2000) p205

As abovementioned, it becomes vivid that some issues are rather complicated when applying theories of public goods. In the case of electricity, irrigation, access to water and other goods associated with the building of the Merowe Dam it is difficult to describe them as 'pure' public goods. These goods can be described as 'Club Goods' at best, and in some instances seem to move towards being of a more private nature. This has some implication when looking at the supposed benefits related to the dam. On the one hand public goods are supposedly mainly for the benefit of weak actors as they are incapable of producing these themselves (Møller 2007a). On the other hand, poor and other vulnerable groups are likely to bear a disproportionate share of the social and environmental cost of large dam projects, not gaining from the economic benefits. (Scudder 2006) However, an important reason for building dams is that of irrigation schemes; if Sudan shall move out of a national industry marked by Dutch disease one possibility would be that of strengthening exports such as cotton, sesame, livestock, groundnuts, Arabic gum and sugar. As it currently is, it is difficult to expand these industries because of the lack of modern irrigation systems. Another focus could be on Sudan's main industrial sectors such as textiles, edible oils, and leather; all of which are industries deeply dependent on both electricity and irrigation. Since a country's electrification level is imperative for development, for no one to engage in infrastructural change is not a better solution for Sudan.

It is an undeniable fact that China is the 'New Dam Builder' in Africa and that Sudan is in grave need of electrification of the country for development. Hence such statements as that of the OMCT that they *call upon the Government of Sudan to suspend the Merowe and Kajbar hydro-electric projects until their impact upon the human rights of the communities affected have independently assessed'* (OMCT 2007)p. 1 are completely unachievable thus unbeneficial for the cause. A change in the international development agenda in these countries calls for cooperation, not unconstructive

criticism that does not have the potential to bear fruit and not for pulling out as Western development institutions do.

The Khartoum Statement on future dams' development on the Nile declares the recognition of local communities and the engagement of civil society in the development process of all the future dams. But does this mean 'fair' dams? And can it ever be fair to be dammed? It seems that if it should be fair for all, no dams would be build. For a country like Sudan, infrastructure commitments from non-Western institutions like Chinese Ex-Im seem to be the only alternative, and to some even the best. As stated by Business Day journalist Michael Power: *'Do not despair: there is a new world ahead that will serve continents like Africa so much better than the last one has'* (Power 2008) Let us just hope that he is right.

## 9. Are Development Agencies Competing?

In some countries such as Sudan and Angola, sanctions, pressure from shareholders and politicians have limited the competition from Western organisations, thus paving the way for 'untraditional' donor countries such as China. However, divestment does not seem to be the way to solve the lack of 'proper' governance and the disrespect for human right. As Luke Patey has argued in his presentation 'Invest to Save Darfur', in the case of oil; as long as the market is competitive, divestment will open up for other investors, thus not leading to a general pulling out if the arena (Patey 2007). This seems to be the case in some areas of the development arena as well.

The West's reluctance to operate in countries that violate human rights and do not promote democracy and good governance is somewhat paradoxical since it opens up for countries, such as China who are less vulnerable to issues such as human rights and good governance. Some believe that the new 'Chinese' model for development is pushing out traditional donors, thus providing African states with new alternatives when it comes to development loans. This competition may well offer greater autonomy for African states when choosing their future, but there is also the risk that it will result in a 'race to the bottom', thus lowering standards on issues like building of infrastructure. A desolate example is from Angola, a country with a history of corruption and poor governance. When the IMF undertook negotiations for a loan to Angola in 2004, it made sure to build measures to remove corruption and strengthen good economic management. But when China's Ex-Im Bank provided Angola with an alternative \$2 billion loan without such conditions, the Angola government basically broke off negotiations with the IMF instantly and accepted China's offer. (Schiller 2005)

Sino-African relations are not processes of colonisation but of globalisation and competition. Paradoxically, the West has taught China the importance and wonders of market economy and now China is being criticised for expanding into Africa using market principles. (Taylor 2009) Fifty years of European and American aid have not succeeded in bringing much prosperity to Africa and other poor but resource-rich places. A different approach from China might yield better results. At the very least it will spur other donors to seek more effective methods. As stated by Deborah Brautigam on the issue on the World Bank's ability to operate in a competitive environment:

*'In the past, the (World) bank had too often averted its eyes, refusing to see the political effects of the money it lent. As a result, its aid added to the spoils by which feckless governments stayed in power... now, wiser (or more constrained) the Bank (and the IMF) watch as China offers non-conditional aid loans for the very infrastructure projects the Bank has largely abandoned, in countries where the IFI's recent concern for governance has made them hesitate to lend' (Brautigam 2007)*

## **9.1 Is there a Common Ground?**

China's position in the world has shifted away from self-reliance into an interdependent phase, as China's accession to the World Trade Organization in 2001 shows (Large 2008). China now has a self-interest in long-term stability in Africa along with development on the continent and thus the country is paying more and more attention to governance and environmental problems when operating on the continent. A recent example of this development is that China's Ex-Im bank has removed Sudan from the list of countries they recommend investment in. Thus, one can reasonably assume that it is unlikely that the Chinese government and its development institutions such as the Ex-Im will continue promoting a strategy for development in Africa distant from that of the West?. (Brautigam 2008) Paradoxically and maybe unfortunately, one might say, China as it thoroughly enters the global arena, plays more and more by the rules of the game set by the West. However, one should measure Chinese efforts by *International* standards and not by *Western* standards. As stated by Ian Taylor:

*'As Chinese capitalism matures and global branding becomes more important to Chinese companies they will be less willing to be associated with human rights abuses and repressive regimes in Africa and elsewhere. Chinese companies operating globally will thus become more vulnerable to*

*'naming and shaming' pressure from NGO's especially in Western consumer markets in relation to their image and associations. China will realise that its long tem economic interest is best served by promoting peace in Africa and this is most likely to come about by encouraging representative government in Africa rather than supporting dictators.'* (Taylor 2009)

Whilst official publications tend to emphasise distinguished features of Chinese aid policy and practice, in reality, the differences between China and OECD members are smaller than before and will become even further smaller in the future. Or put differently, the more business China does with the rest of the world, the more nuanced its foreign policy is likely to become. The question remains, on what level the Sudanese people will benefit, if China follows the Western tendency and stops engaging in countries like Sudan.

## Appendix A

### Summary

Currently China has emerged as a 'new player' in the global development arena. Though the Chinese presence on the scene is far from new it is growing in terms of activities and scrutiny from the Western world. An example of Chinese involvement in development is that of infrastructural commitments on the African continent. The import export bank of China (Ex-Im) is now one of the largest export credit agencies in the world when it comes to financing infrastructure in Africa. Though many Western based institutions have called for increased engagement in the infrastructural area in Africa, it seems that the main contributor actually is China.

While there is an increased focus in the West on rogue states, axes of evil and states producing terrorist, Beijing has a quite different view on the subject. China simply has a different set of conditionalities linked to their development assistance, different from that of Western development institutions. Another important factor characterising ODA from China is the concept of non-interference which for decades has been the cornerstone of Chinese foreign policy, a policy derived from an argument about respect for national sovereignty and domestic affairs. This is somewhat appealing to many African leaders who have seen the criticism of their regimes as an ethnocentric consequence of Western dominated definitions of human rights and democracy and China uses any opportunity to draw a parallel of understanding between Africa and China, emphasising their own experience with Western oppression through history, not to forget that the lack of interference in governance is in the self-interest of any leader whose rule is under scrutiny and criticism for whatever the reason.

Thus, more traditional development institutions such as the World Bank and the IMF that previously have dominated the arena are now being challenged by this emerging role of countries like China, who in some areas set different standards for their activities. One such example is the Chinese involvement in the construction of one of the largest hydroelectric dams on the African continent, namely the Merowe Dam in Sudan. The Merowe Dam is the largest hydroelectric project under construction on the continent since construction of the Aswan high dam in the 1960's. The dam is being constructed on the fourth cataract of the Nile some 250 kilometres north of Khartoum, and will be completed in late 2009. The Sudanese electricity generation capacity is very small, only enough to provide less than 1 million people (out of a population of 40 million) with electricity. Of this, close to 70% of the electricity generated is consumed in the Khartoum area which means that most rural areas



do not have access to electricity. The dam is expected to double Sudan's electricity generation capability, will include an irrigation component and will cost close to 2 billion \$ most of which is largely financed by China's Ex-Im bank through concessional loans.

The thesis tries, through the case of the Merowe Dam, to identify in what areas the Chinese engagement challenges Western development assistance, and to what degree this has economic and social repercussions for the recipient country. It is quite evident that China currently employs different conditionalities and set different benchmarks than those of the West. However it appears unlikely that the Chinese government and its development institutions such as the Ex-Im will continue promoting a strategy for development in Africa distant from that of the West, as China's role as a global player grows. This, however will not necessarily benefit the recipient country.

## References

- Addison, T. (2000). 'Aid and Conflict', in Tarp F (ed.), *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. Routledge, London.
- Adelman, I. (2000). 'The Role of Government in Economic Development', in Tarp F (ed.), *Foreign Aid and Development: Lessons Learnt and Direction for the Future*. Routledge, London.
- Ahmad, A. M. (2008). 'Post-Jonglei planning in southern Sudan: combining environment with development', *Environment and Urbanization*, Vol. 20, pp. 575-586.
- Andersen, O. (2000). 'Sector Programme Assistance', in Tarp F (ed.), *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. Routledge, London.
- Andersson, H. (2008). 'China is fuelling war in Darfur', *BBC News*. Darfur.
- Askouri, A. (2007a). 'China's Investment in Sudan: Displacing Villages and Destroying Communities', in Marks S and Manji F (eds.), *African Perspectives on China in Africa*. Fahamu, pp. 71-86.
- Askouri, A. (2007b). 'Sudan: Another Darfur in the Making', *Sudan Tribune*.
- Berger, M. (2004). 'After the Third World? History, destiny and the fate of Third Worldism', *Third World Quarterly*, Vol. 25, pp. 9-39.
- Boesen, J. and Lauridsen, P. E. (2007). '(fresh) water as a human right and a public good', in Andersen E A and Linsnaes B (eds.), *Towards New Global Strategies: Public Goods and Human Rights*. Martinus Nijhoff Publishers, Leiden - Boston.
- Bosshard, P. (2007). China's Role in Financing African Infastructure. Report.
- Bosshard, P. (2008). 'China's Environmental Footprint in Africa', *SAIIA's China in Africa policy Briefing*, Vol. 3.
- Bosshard, P. and Hildyard, N. (2005). A Critical Juncture for Peace, Democracy, and the Environment: Sudan and the Merowe/Hamadab Dam Project. Report.
- Brautigam, D. (1998). 'Chinese Aid in Africa', *Chinese Aid and African Development: Exporting Green Revolution*. Palgrave Macmillan.
- Brautigam, D. (2007). 'China, the World Bank, and the Global Aid Regime', *New Directions in Development Assistance*. Oxford University.
- Brautigam, D. (2008). China's African Aid: Transatlantic Challenges. Report.
- Burnside, C. and Dollar, D. (2000). 'Aid, Policies, and Growth', *American Economic Review*, Vol. 90, pp. 847-868.

- Burton, J. W. (1991). 'Development and Cultural Genocide in the Sudan', *The Journal of Modern African Studies*, Vol. 29, pp. 511-520.
- Cheadle, D. and Prendergast, J. (2007) *Not on Our Watch: the Mission to End Genocide in Darfur and Beyond*, Hyperion, New York
- CommissionforAfrica (2005). Our Common Interest. Report.
- Cook, L. D. and Sachs, J. (1999). 'Regional Public Goods in International Assistance', in Kaul I, Grunberg I and Stern M A (eds.), *Global Public Goods: International Cooperation in the 21st Century*. Oxford University Press, Oxford.
- Cornwall, A. and Brock, K. (2005). 'What do buzzwords do for development policy? a critical look at 'participation', 'empowerment' and 'poverty reduction', *Third World Quarterly*, Vol. 26, pp. 1043-1060.
- Davies, D. M. (2008). How China delivers development assistance to Africa. Report.
- De Waal, A. (2007). 'The Wars of Sudan', *The Nation*, pp. 4.
- Duflo, E. and Pande, R. (2007). 'Dams\*', *Quarterly Journal of Economics*, Vol. 122, pp. 601-646.
- Easterly, W. (2007). 'Are aid agencies improving?', *Economic Policy*, Vol. 22, pp. 633-678.
- Easton, D. (1957). 'An Approach to the Analysis of Political Systems', *World Politics*, Vol. 9, pp. 383-400.
- Elhance, A. P. (1999) *Hydro-Politics in the 3rd World*, United States Institute of Peace, Washington.
- Ellis, L. J. (2007). 'China Exim Bank in Africa: Opportunities for Strengthening Environmental Standards for Hydropower in Sudan ', *The China Environment Forum and the Africa Program*. Woodrow Wilson International Center for Scholars.
- Folke, S. and Nielsen, H. (2006). 'Introduction; Aid Relations, Aid Impact and Poverty Reduction', in Nielsen S F H (ed.), *Aid Impact and Poverty Reduction*. Palgrave Macmillan
- Foster, V. (2008). Building Bridges: China's Growing Role as Infrastructure Financier for Africa. Report.
- Friedman, T. L. (2006). 'The First Law of Petropolitics', *Foreign Policy*, pp. 28-36.
- Goldsmith, P., Abura, L. and Switzer, J. (2002). 'Oil and Water in Sudan', in Sturman J L a K (ed.), *Scarcity and surfeit : the ecology of Africa's conflicts*. Institute for Security Studies.
- Hathaway, T. and Pottinger, L. (2008). 'The Great Hydro-Rush: The Privatisation of Africa's Rivers', in McDonald D A (ed.), *Electric Capitalism: Recolonising Africa on the power grid*. HSRC Press.

- Hildyard, N. (2008a). Neutral? Against What? Bystanders and Human Rights Abuses: The Case of Merowe Dam, The Corner House.
- Hildyard, N. (2008b). Section 3: Compliance Review, The Corner House.
- Hilsum, L. (2005). 'The Chinese are coming', *New Statesman*.
- Hjertholm, P. and White, H. (2000). 'Foreign aid in historical perspective: background and trends', in Tarp F (ed.), *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. Routledge, London and New York.
- Holslag, J. (2008). 'China's Diplomatic Manoeuvring on the Question of Darfur', *Journal of Contemporary China*, Vol. 17, pp. 13.
- Homer-Dixon, T. F. (1994). 'Environmental Scarcities and Violent Conflict', *International Security*, Vol. 19, pp. 5-40.
- HumanRightsFirst (2008). Investing in Tragedy - China's Money, Arms, and Politics in Sudan. Report.
- Johnson, D. H. (2003) *The Root Causes of Sudan's Civil Wars*, Indiana University Press.
- Jok, J. M. (2007) *Sudan: Race, Religion, and Violence*, One World Publications, Oxford.
- Joshi, A. and Moore, M. (2000). 'Enabling Environments: Do Anti-Poverty Programmes Mobilise the Poor?', Routledge, pp. 25 - 56.
- Kanbur, R. (2000). 'Aid, conditionality and debt in Africa', in Tarp F (ed.), *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. Routledge, London and New York.
- Kaul, I., Grunberg, I. and Stern, M. A. (1999). 'Defining Global Public Goods', in Kaul I, Grunberg I and Stern M A (eds.), *Global Public Goods: International Cooperation in the 21st Century*. Oxford University Press, Oxford.
- Lako, G. T. (1985). 'The Impact of the Jonglei Scheme on the Economy of the Dinka', *African Affairs*, Vol. 84, pp. 15-38.
- Large, D. (2008). 'From Non-Interference to Constructive Engagement? China's Evolving Relations with Sudan', in Alden C, Large D and Oliviera R S D (eds.), *China Returns to Africa: A Rising Power and a Continent Embrace*. Columbia University Press, New York, pp. 404.
- Loxley, J. and Sackey, H. A. (2008). 'Aid Effectiveness in Africa', *African Development Review*, Vol. 20, pp. 163-199.
- Martinussen, J. (1997) *Society, State & Market: A guide to competing theories of development*, HSRC Press

- Metha, L. (2003). 'Problems of Publicness and Access Rights: Perspectives from the Water Domain', in Kaul I, Conceicao P, Goulven K L and Mendoza R U (eds.), *Providing Global Public Goods: Managing Globalization*. Oxford University Press, Oxford.
- Mitchell, W. C. (1961). 'Politics as the Allocation of Values: A Critique', *Ethics*, Vol. 71, pp. 79-89.
- Mohan, G. and Power, M. (2008). 'New African Choices? The Politics of Chinese Engagement', Routledge, pp. 23 - 42.
- Mohan, G., Power, M. and Tan, P. (2008). 'Redefining 'Aid' in the China-Africa Context', *Development & Change*, Vol. 39.
- Moussa, A. and Bethmann, F. (2007). 'Merowe/Hamdham Project', *The Science and Politics of Large Dam Projects*. ETH, Swiss Federal Institute of Technology Zurich, pp. 38.
- Møller, B. (2005 ). 'Water, Security and Conflict', in Møller B (ed.), *Conflict, Human Security, Governance and Development in the Developing World*. Aalborg: Institute of History, International and Social Studies, pp. 126-163.
- Møller, B. (2007a). 'Peace as a global public good', in Andersen E A and Lindsnaes B (eds.), *Towards New Global Strategies: Public Goods and Human Rights*. Martinus Nijhoff Publishers.
- Møller, B. (2007b). 'Riget i Midten og verden omkring det: Kinas nationale identitet og udenrigspolitik', *Den Ny Verden*, Vol. 40.
- Møller, B. (2007c). Terror Prevention and Development Aid: What We Know and Don't Know. Report.
- Naím, M. (2007). 'Help Not Wanted', *New York Times*, pp. 29.
- NEPAD (2001). The New Partnership for Africa's Development. Report.
- OMCT (2007). Sudan: Ongoing Violence Against Communities Resisting Dam Construction in the Northern Nile Valley. Report.
- Patey, L. Invest Sudan to Save Darfur, Paper Presented at the Africa's Riches, the World's Rewards: Sudan and the Global Political Economy of Resource Extraction in Africa, Danish Institute for International Studies, 2007.
- Patey, L. A. (2006). A Complex Reality: The Strategic Behaviour of Multinational Oil Corporations and the New Wars in Sudan. Report, DIIS.
- Pottinger, L. (2007). Lowering the Bar on Big Dams: Making a Case for WCD Compliance on African Dams. Report.
- Power, M. (2008). 'After the economic quake a whole new world awaits ', *Business Day*.

- Riddell, R. (1987). 'Foreign Aid Theory', *Foreign Aid Reconsidered*. John Hopkins University Press, London.
- Robinson, W. C. (2003). Risks and Rights: The Causes, Consequences, and Challenges of Development-Induced Displacement. Report, Massachusetts.
- Rogerson, Hewitt and Waldenburg (2004). The International Aid System 2005–2010: Forces For and Against Change. Report.
- Schiller, B. (2005). 'The China Model', *Open Democracy*.
- Schulpen, L. and Gibbon, P. (2002). 'Private Sector Development: Policies, Practices and Problems', *World Development*, Vol. 30, pp. 1.
- Scudder, T. (2006) *The Future of Large Dams: Dealing with Social, Environmental, Institutional and Political Costs*, Earthscan, London.
- Scudder, T. (Unpublished). 'A Comparative Survey of Dam-induced Resettlement in 50 Cases', pp. 31.
- Swain, A. (2008). 'Mission Not Yet Accomplished: Managing Water Resources in the Nile River Basin', *Journal of International Affairs*, Vol. 61, pp. 201-214.
- Tarp, H. (2000). 'Aid effectiveness disputed', *Journal of International Development*, Vol. 12, pp. 375-398.
- Taylor, I. (2006). 'China's oil diplomacy in Africa', *International Affairs*, Vol. 82, pp. 937-959.
- Taylor, I. (2009) *China's New Role in Africa*, Lynne Rienner Publishers, London - California.
- UN (2006). World Investment Report 2006. FDI from Developing and Transition Economies: Implications for Development. Report.
- UNEP (2007). 'Freshwater Resources', *Sudan Post-Conflict Environmental Assessment*. United Nations Environment Programme, Nairobi, pp. 218-249.
- WCD (2000). Dams and Development: A New Framework for Decision-Making. Report, Ltd E P.
- WorldBank (1998). Assessing Aid: What Works, What Doesn't and Why? Report, Press O U.
- Yamana, T. (2004). The Impacts of Dams and Reservoirs on Public Health. Report, Massachusetts.
- Yin, R. K. (1994) *Case Study Research: Design and Methods*, Sage Publications, California.
- Young, M. H. (2008). "'New' Donors: A New Resource for Family Planning and Reproductive Health Financing?", *Population Action International*, Vol. 3.

**Web:**

[www.business-humanrights.org](http://www.business-humanrights.org)

[www.dams.org](http://www.dams.org)

[www.eximbank.gov.cn](http://www.eximbank.gov.cn)

[www.imf.org](http://www.imf.org)

[www.internationalrivers.org](http://www.internationalrivers.org)

[www.merowedam.gov.sd](http://www.merowedam.gov.sd)

[www.nasa.gov](http://www.nasa.gov)

[www.nepad.org](http://www.nepad.org)

[www.oecd.org/dac/guidelines](http://www.oecd.org/dac/guidelines)

[www.sudantribune.com](http://www.sudantribune.com)

[www.transboundarywaters.orst.edu](http://www.transboundarywaters.orst.edu)

[www.worldbank.org](http://www.worldbank.org)

[www.unmis.org](http://www.unmis.org)