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Viewpoint – The Role of the German Development Cooperation in Promoting Sustainable Hydropower

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ABSTRACT: After long and intense discussions on the recommendations of the World Commission on Dams (WCD), large dams are back on the agenda of international finance institutions. Asia, Latin America and Africa are planning to expand their hydropower utilisation. Hydropower is a key component of renewable energy, and therefore supports protection against climate change. Water storage over the long term and flood control are the main issues discussed with regard to climate adaptation measures.

Such trends are reflected by the increasing engagement of the German Development Cooperation (GDC) in the field of integrated water resources management (IWRM) programmes on the national and regional levels. A number of projects on transboundary water management in Africa, Central Asia and in the Mekong region have been initiated. In the context of these and other bilateral water and energy projects, partner countries are increasingly requesting the GDC to advise on the planning and management of sustainable hydropower.

The German Federal Ministry for Economic Cooperation and Development (BMZ) has for the last decade been known as a promoter of multi-stakeholder dialogues and as a supporter during the WCD process and the Dams and Development Project (DDP) of the United Nations Environmental Programme (UNEP). In addition, it has a reputation as an important bilateral and neutral partner. The BMZ recognises hydropower as a source of renewable energy, and acknowledges the potential and need for multipurpose usages of dams, as well as its role in global energy change. However, large dams also have to meet social and ecological requirements for their sustainable use. In this respect, the BMZ endorsed the WCD recommendations.

Germany's engagement in the promotion of participatory processes on dam-related issues is building on the WCD and follow-up processes, as outlined in this article. On the global level, BMZ, represented by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), is currently part of the Hydropower Sustainability Assessment Forum (HSAF). On the national level, one example of support is the contribution to and interaction with the Ghana Dam Dialogue, which is facilitated through two local partners: the International Water Management Institute (IWMI) and the Volta Basin Development Foundation (VBDF).

KEYWORDS: World Commission on Dams (WCD), German Development Cooperation, Ghana Dams Dialogue, Hydropower Sustainability Assessment Forum

INTRODUCTION

The formation of the World Commission on Dams (WCD) represented the culmination of a conflicting debate around large dams during the 1990s. Protest groups and environmental activists put pressure on the World Bank and other organisations to stop financial support for the construction of large dams, by criticising the negative environmental and social impacts associated with these projects. However,

the debates and conflicts over large dams are much more complex than they may appear at first glance, including fundamental questions about the development process in societies. Opponents and proponents of dams have different motivations ranging from national development objectives, business interests and political influence, through to protecting the environment and indigenous rights (Fink and Cramer, 2006). Therefore, the debate around large dams is more a discussion about political interests and decision making rather than scientific or technical considerations. It is against this background that the International Union for Conservation of Nature (IUCN) and the World Bank established the WCD in 1997. The two objectives of the Commission were "to review the development effectiveness of large dams and assess alternatives for water resources and energy development, and to develop internationally acceptable criteria, guidelines and standards, where appropriate, for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams" (WCD, 2000).

After its ambitious and comprehensive work, the WCD released its final report *Dams and Development – A New Framework for Decision-Making* in November 2000. The WCD report represented a milestone in the debate around large dams, as most non-governmental organisations working in the social and environmental contexts endorsed and promoted the recommendations given in the report. However, the response of financial organisations, industry and many governments was less enthusiastic. One reason for this more negative response was the lack of any final discussion incorporating the positive aspects of dams in the report. Some stakeholders rejected the recommendations for fear they would put an end to all dam building activities, feeling that the recommendations were too abstract – and therefore too difficult – to put in practice. The WCD recommendations needed to be operationalised and translated into the specific context of a region, country and dam project before they could make an impact. The World Bank, International Finance Corporation (IFC), Asian Development Bank (ADB), African Development Bank (AfDB) and Inter-American Development (IDB) revised their safeguard policies, while the industry started working on its Sustainability Assessment Protocol (SAP). The Equator Principles, a voluntary agreement between international commercial banks, developed ten principles based on the performance standards of the IFC. All of these safeguards, standards and principles adopted some of the recommendations made by the WCD report; however, some recommendations were critically questioned, such as that about Free Prior Informed Consent (FPIC). Germany, Ghana and a number of other regions such as Southern Africa organised multi-stakeholder dialogues on dams to define what sustainable hydropower development meant in a specific context (UNEP, 2010).

German support for the WCD report was clear, as stated by the former German Minister for Economic Cooperation and Development, Heidemarie Wiczorek-Zeul, at the Dialogue forum of the WCD Report (GTZ, 2001): "Hydropower will still be needed in the future. However, dam projects will have to satisfy strict environmental impact and social acceptability criteria and provide development benefits for the people who are immediately affected". Germany's Federal Ministry for Economic Cooperation and Development (BMZ) welcomed the findings of the WCD report in January 2001: "This way, confrontation between opponents and proponents of large dams can be overcome in the best interest of developing countries" (GTZ, 2001). The BMZ, which supported the work of the WCD with approximately one million EUR, was also a committed supporter of the WCD recommendations. Ever since, BMZ has continued with this support through German bilateral development cooperation, as well as in multilateral organisations such as the World Bank.

The objective of this viewpoint is to illustrate the role of the BMZ and one of its implementing organisations¹ – the Gesellschaft für Technische Zusammenarbeit (GTZ) – ten years after the WCD, via

¹ As the German Development Cooperation is organised in a complex way, the following definition shall be given: "The German Development Cooperation with partner countries rests on two pillars: it is either initiated and organised by the German government, or devised and implemented independently by non-governmental organisations. (...) Direct development cooperation between Germany and its partner countries rests on two main instruments – financial and technical cooperation. Financial cooperation is an instrument involving state bodies only. It can be used, for instance, to finance materials and equipment, or to establish effective structures. The volume of funds is agreed and laid out in a contract between Germany and the partner country. (...) Technical

two examples: a more detailed presentation of the Ghana Dam Dialogue (GDD) and the link it has with the Hydropower Sustainability Assessment Forum (HSAF), another initiative also supported by the BMZ and GTZ.

REASONS FOR ENGAGEMENT IN GLOBAL DAM DISCUSSIONS

The German BMZ has supported the WCD process since the outset, both financially and through advisory services. In 2001, the BMZ endorsed the recommendations as guidelines for German development cooperation (BMZ, 2007).

On behalf of the BMZ, the GTZ supported the WCD's work. Case studies from the Pak Mun, Thailand, and Tucuruí, Brazil, projects were conducted, and their findings provided to the WCD. In addition, the GTZ worked together with the WCD in developing a procedure for the cross-sectional analysis of some 100 large dams (GTZ, 2004). After the WCD published its final report, a GTZ project carried out a series of specific measures designed to help implement the WCD's recommendations. Providing advisory services and assistance to the Water Department of the Southern African Development Community, to strengthen its capacities to formulate a sector policy, could be cited as one example (GTZ, 2004). BMZ supported the UNEP-DDP process financially and represented the interests of donor countries in the 14-member DDP Steering Committee. In cooperation with UNEP and non-governmental organisations such as the IUCN, national multi-stakeholder dialogues in Cameroon, Nepal, Uganda, Togo, Ghana and other countries were supported. The GTZ also represented the BMZ in the HSAF process as an observer, and provided support financially. Of particular note is the contribution made by the GTZ to the consultation rounds, as will be explained later.

There are a number of reasons why the BMZ and GTZ are active players in the debate around dams. First and foremost, the GDC orients its objectives on the overall concept of sustainable development and the Millennium Development Goals (MDG) (BMZ, 2008). In order to attain the MDG's goals, access to clean energy and substantial electricity generation is required. This is particularly true for MDG goal one – eradicate poverty and hunger – and goal seven – ensure environmental sustainability. Seen in this light, hydropower offers opportunities for contributing to sustainable development. Be it on a large or a small scale, hydropower as a renewable energy form produces few emissions. In addition, multipurpose dams can provide access to clean drinking water and secure food supply through irrigation schemes. Nonetheless, it is important to balance the positive and negative effects of hydropower and large dams in an economically, socially and ecologically friendly manner.

Dams play an important role in a number of the GTZ's water, energy, rural development and environmental projects. In this context, the GTZ cooperates not only with government institutions, but also with civil society, the private sector, the scientific community and international organisations. During the last few years, the GTZ has expanded its transboundary water management portfolio, while an advisory service is offered to river basin organisations in Africa, Central Asia and the Mekong region. In each of these river basins, dams play an important role concerning the distribution of water rights within each country and between countries. The reduction and mitigation of negative social and environmental impacts, as well as benefit sharing approaches, are also linked with dam projects in these regions.

cooperation is always non-repayable. It aims primarily to boost the performance capacities of individuals and organisations in partner countries, from small self-help organisations to government authorities. To take the narrowest definition, technical cooperation embraces projects and programmes agreed on during negotiations between the German government and the government of the partner country" (BMZ, 2010). Financial cooperation is organised by the Kreditanstalt für Wiederaufbau (KfW) Entwicklungsbank development bank and the German Investment and Development Company (DEG), part of the KfW group. Technical cooperation is organised by the Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, as well as other organisations such as the Federal Institute for Geosciences and Natural Resources (BGR), German Development Service (DED) or Capacity Building International (InWent). However, the Federal BMZ "contracts the so-called implementing organisations to realise the projects, which are funded completely from the national German budget".

The establishment of framework conditions such as water, environment and energy policies, laws and regulations, as well as capacity development for institutions and key stakeholders, is the kind of advisory service that the GTZ provides. In many cases, the process of bringing about such changes takes many years and is affected by numerous external factors. Working to sensitise the general population and decision makers with regards to the risks and opportunities of dam building projects is a good way to help achieve effective reforms. Even though the sound environmental and social implementation of dam projects can provide impetus in that direction, only structural and strategic change within the environmental, water and energy sectors can provide a durable foundation for implementing the WCD's principles in the long run. This, in turn, requires an enabling environment for development. Consequently, a uniform sector policy and effective sector strategies need to be developed, a suitable legal framework must be established, capable institutions must be developed and transparent licensing procedures must be introduced.

Furthermore, the BMZ not only has an influence on its own bilateral financing cooperation, but also on the boards of the World Bank and other multilateral and regional financing institutions. Germany is therefore an important stakeholder in the dam debate, and needs to take its responsibility seriously.

Germany is the world's second largest exporter, and home to various companies selling construction work, equipment or services abroad. In the hydropower sector some of the most recognised companies have their headquarters in Germany. Export credit guarantees for subcontractors to sustainable large hydropower projects are one means of supporting this. Reputational risks, as well as concerns for sustainability, are serious issues for the German industry representatives and financing institutions involved in large hydropower and dam projects. It is therefore very much in the interests of industry to secure sustainable development, and a safe investment environment, in developing countries.

One example shall illustrate in more detail the engagement of the BMZ and GTZ in the dam debate: the Ghana Dams Dialogue. The case of the GDD is an example where different stakeholders in a country try to establish a dialogue for developing a dam policy for their nation – using a participatory approach. In addition, the HSAF is mentioned, as the BMZ and GTZ were also involved in the process. The HSAF presents the example of one stakeholder engaged in developing sustainability criteria inviting other stakeholders in to their activity. These two different initiatives are supported by the GTZ on behalf of the BMZ, because they bring together different stakeholders and exchange different perceptions of sustainability.

SUPPORT FOR NATIONAL DAM DIALOGUES – THE EXAMPLE OF GHANA

Large dams in Ghana

Dams are major features of Ghana's post-colonial development strategy. The construction of the Akosombo dam took centre stage among the huge infrastructure investments that President Kwame Nkrumah championed in the 1950s. The electricity generated was expected to form the foundation of Ghana's industrialisation and economic growth (BBC2, 1994). Although outstanding issues around compensation and resettlement need to be addressed, the Akosombo dam is recognised today as being at the core of Ghana's socioeconomic and industrial development.

The government has plans to provide electricity to the entire country by 2020 (table 1). However, the pace of the electrification programme will have to be greatly stepped up if this is to be achieved. With the evolution of the West African Power Pool (WAPP), the Volta River Authority (VRA) and other investors believe that hydro schemes could be developed more economically, as costs could be shared and power traded among countries (Gordon, 2005).

Table 1. Existing and proposed generation stations in Ghana.

Projects	Capacity (MW)
<i>Existing</i>	
Takoradi-1 (thermal)	330.0
Takoradi-2 (thermal)	220.0
Akosombo (hydropower)	1020.0
Kpong (hydropower)	160.0
<i>Proposed</i>	
Takoradi-3 (combined cycle)	330.0
Tema (combined cycle)	1980.0
Bui (hydropower)	400.0
Juale (hydropower)	87.0
Pwalugu (hydropower)	48.0
Hemang (hydropower)	93.0

Source: Gordon, 2005.

In 2004, Ghana published its National Strategic Energy Plan, which covered the period 2005-2025. Four hydropower dams were planned for this period, namely Bui, which was scheduled to be commissioned in 2012, Hemang and Juale, in 2015, and Pwalugu in 2020.

In November, 2009, Ghana and Brazil signed a memorandum of understanding to construct the Juale Dam, with Brazil agreeing to provide US\$250 million of the total US\$300 million project cost. In addition, two Brazilian contractors will provide support for the project (see www.ghananewsagency.org/s_science/r_8569).

Due to outstanding issues around the Akosombo dam, the construction of Bui and a number of other planned dams, the Volta Basin Development Foundation (VBDF) and Volta River Authority (VRA) decided that a dialogue process could make considerable contributions for guiding further dam development in Ghana.

Initiation and objectives of the Ghana Dams Dialogue

The Ghana Dams Dialogue was initiated in 2006, with a six-member institutional taskforce, as a follow up to the UNEP-DDP side event at the African Ministerial Conference on Hydropower in 2006. The objective of the GDD was to build capacities and provide tools for improved decision making on dam-related issues, and was aimed at leading towards the equitable, transparent, participatory and sustainable development of dams in Ghana.

The impetus behind the GDD process was the stakeholders' clear interest in addressing the unresolved issues around the Akosombo dam resettlement, in order to apply this knowledge to other planned dams including the Bui Dam currently under construction.

A National Coordinating Committee consisting of several ministries, the VRA, the Bui Power Authority (BPA) and dam-affected communities was established, to meet on a regular basis and steer the dialogue. A secretariat, organised by the International Water Management Institute (IWMI) and VBDF, was set up to coordinate all dialogue activities.

Together with the UNEP's DDP, the GTZ agreed to support the GDD on behalf of the BMZ. Bringing together all the stakeholders relevant to dam issues in Ghana was an important step in light of the number of dams planned for the upcoming years. By promoting the idea of developing a national policy on dams and providing input into it, the dialogue could contribute to sustainable dam development in Ghana. These assumptions have been the main reasons for the GTZ supporting the dialogue since its inception.

Up to now, several meetings including three dam fora and two dam-affected communities meetings have been held. Several topics such as compensation, community involvement, the sustainability of dams and climate change have been discussed. In order to build their capacity and preparedness, communities with previous experience regarding reasons for and possible consequences of dam-related social problems were brought together with future dam-affected communities.

Results and lessons learnt

The goals of the dialogue process and the expected consequences are both medium and long term. Therefore, while the process is still ongoing, it is too early to assess the extent of its overall achievement. An independent evaluation conducted by the German-based Research Institute for Organisational Communication (Institut für Organisationskommunikation, IFOK) in 2007 came to the conclusion: "What can be said today is that the core values and Strategic Priorities of the WCD have indeed been taken into consideration and explained at some of the meetings. Extensive research into issues and stakeholders was conducted and updated continuously. A multi-stakeholder platform was established. Its existence increased the collaboration as many of the stakeholders had never before had the opportunity to meet in person. Information exchange was fostered and thereby improved" (IFOK and GTZ, 2007).

Concerning achievements so far, it can be stated that the established forum serves as a much needed platform for regular meetings and information and knowledge exchanges. This platform brings together a wider network of interested parties including government representatives, operators and dam-affected communities, and provides opportunities for all voices to be heard. Both the VRA and BPA benefit from the process, as both can exchange views on problems concerning their dam affected communities, which in turn benefit from the dialogue as they have a forum for addressing their concerns and their opinions heard.

Mediating conflicts between dam-affected communities, operators and government evolved as another function of the dialogue. For instance, issues raised by the Ajena and Pese communities during their discussions with the VRA over the years have included compensation, resettlement and access to electricity: "Finally, on Wednesday, 4th March 2009, the electricity was disconnected from the main transformer. The community sent a petition to the VRA and others in authority hoping to get their lights connected, but with no success. They were now into the sixth day without electricity. Their main concern was about school pupils preparing for exams, who urgently needed the light, and also the clinic which needed power to keep their drugs cold. Having no better option, they agreed to demonstrate to show the entire nation about their predicament" (GDD, 2010). After consultations between the NCC, the communities, the VRA and government officials, the government mandated the Eastern Regional Minister to form a committee to look critically into the claims by the communities and to find lasting solutions. The secretariat of the dialogue process was invited to the first meeting.

Despite these achievements, areas of challenges and conflicts can be defined. For instance, guidelines and recommendations have not yet been drawn up. Although the first steps towards their final integration into the decision making processes have been taken, in Ghana they seem to be more complex than expected and lack transparency.

The Ghanaian government, through its ministries, departments and agencies, has been participating actively in the process in different ways and at different stages. At the National Coordinating Committee level, which is a kind of governing body of the process, out of the 16 members the government is represented by five institutions. Moreover, the government has about 35% representation within the 60-member Ghana Dams Forum. However, political commitment is still an issue. Although high numbers of governmental institution representatives are part of the dialogue and participate regularly in meetings and conferences, it is still debatable whether these ministers and the government as a whole would support the outcomes of the dialogue. Not surprisingly, the level of participation of the various government institutions varies depending on the issues being discussed.

The fact that the process has been mentioned in the Ghana Water Policy is, however, an indication of the level of support from the Ministry of Water Resources, Works and Housing.

What has to be taken into account regarding the question on the impacts of the dialogue on actual hydropower projects is that the two existing hydropower dams were constructed before the initiation of the dialogue process, and even the third one took off just before development got underway. As a result, it was not possible to delve into the contractual agreements. Issues on corruption and the integrity of the processes of hydropower dam development were not tabled for discussion for this phase, which would otherwise build and enhance trust for the process. The focus was more on making people's issues heard by government and operators, and to support possible solutions to address these problems. Consequently, dams planned for the future will be proof of the effectiveness of the dialogue: will future dams be planned and implemented in ways more sustainable than for their predecessors? Some of the statements of community representatives affected by resettlement in the context of the Bui project, about more meaningful participation and the integration of their views and needs, are promising.

Based on the experience of the Ghanaian process to date, some key observations for the future direction of the dialogue and other dialogues can be drawn as follows.

From discussions to implementation: one of the main challenges is to move from discussion to the implementation of the recommendations made in the 'communiqué' from the second forum meeting. Some key concerns voiced by stakeholders include having more transparency with regard to the development and implementation of dam projects in general.

Applying international standards: relevant government entities and the Environmental Protection Agency (EPA) must understand the responsibility they shoulder in implementing recommendations from the environmental and social management plan. This is a prerequisite for capacity development on the application of international standards.

Information sharing and awareness creation: information sharing and awareness creation, leading to increased knowledge at different levels of government, is critical to an improved decision making process. At national and regional levels this can be achieved through structured round tables of politicians and ministry officials from key agencies involved in planning multipurpose water resource projects.

Impact study on adaptation to livelihood changes: the Bui project will have significant environmental and socioeconomic impacts on the six displaced villages. This study is part of the current phase of the GDD. Results are expected to be published at the end of 2010.

Understanding the institutional environment of dams and their decision process for better coordination and governance: exploring the larger institutional environment within which dams and water resources development takes place, and identifying institutions involved in deciding and implementing decisions on dams and major water resource infrastructure in Ghana, documenting their roles and responsibilities, and understanding the mechanisms of coordination and community involvement in the process, would allow for better strategic planning and stakeholder engagement.

Building cohesion between dam-affected communities: in view of scant attention to the problems of affected communities in the past, coordinated and concerted efforts by dam-affected communities may be required for the state to live up to its responsibilities.

Evaluation of the effectiveness of the process: if lessons are to be learned from the dialogue process to date, it is imperative that an evaluation is performed by the stakeholders. This will indicate where the process can be improved, and identify actions for better outcomes.

Linking the GDD and HSAF

Building on the established structures in the GDD and the diversity of perspectives, the GDD offered a great opportunity to link with and provide input into the global consultation round of the so-called

Hydropower Sustainability Assessment Forum (HSAF) on the first draft of the Hydropower Sustainability Assessment Protocol, back-to-back with the third Ghana Dam Forum in October 2009.

The HSAF was initiated in 2008, when the International Hydropower Association (IHA) asked the BMZ and other stakeholders to contribute to the HSAF process. It brought together industry and NGO representatives from the key stakeholder groups in hydropower, namely industry, governments from developed and developing countries, commercial and development banks, as well as environmental and social NGOs.

In order to achieve improved performance in the hydropower sector, more broadly shared ownership regarding the application of sustainability criteria among all key players – which goes beyond the likeminded group of supporters of the WCD report – was needed.

Hence, the BMZ decided to support the HSAF's approach through financial and advisory contributions. The BMZ assigned the GTZ sector project Policy Advice for Sustainable Hydropower to participate as an observer in the HSAF process, to support efforts to foster broad and balanced stakeholder participation and to ensure that NGOs, directly affected people and governments in developing countries are heard.

This is why the two consultation rounds were supported financially and why, in Ghana, the GTZ, together with partners from the GDD, organised a specific consultation meeting with dam-affected communities from the Akosombo, Kpong and Bui dams.

This event has so far been one of the very few consultations with directly affected communities during the HSAF process. Issues that were raised – just to mention a few – around social impact assessments and resettlement were: lack of timely information, no proper documentation of baseline conditions or of negotiated agreements and the lack of binding policies to hold the government accountable. When focusing on the gender dimension of resettlement, an often overlooked issue was highlighted inasmuch that resettled men often have to find work outside the resettlement village. Once in the cities, they often find new partners, build new families, divorce their wives and abandon their families. Consequently, women should be treated as equal partners in negotiations and compensation schemes in order to prevent them from losing the basis on which they can sustain themselves and their children.

The results of the consultation were provided to the HSAF and fed into the revision process of the HSAP. Linking multi-stakeholder initiatives, as the GDD and HSAF example shows, is from our point of view a good way for broader knowledge sharing and enhancing the capacities of stakeholders.

CONCLUSIONS

The Ghana Dams Dialogue represents an initiative that brings together different stakeholders and interests. Multi-stakeholder dialogues organised at national, regional and global levels, discussing dam issues within their respective contexts, are valuable for all parties involved. This is why the German BMZ and GTZ are actively supporting such processes through multi-level approaches, which link the global, regional, national and local levels. These German organisations are contributing to the discussions around dams and trying to support a balanced development of dams in partner countries. Dams play an important role in global energy changes, and will continue to be built, especially in developing countries. These countries need assistance to enhance their legal frameworks in a way that the negative impacts of dams can be minimised, mitigated or compensated for, which might lead to better projects constructed in a more socially and environmentally friendly manner. In this field, development cooperation can make strong and sustainable contributions.

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ANNEX 1. ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
BMZ	German Federal Ministry for Economic Cooperation and Development
BPA	Bui Power Authority
EPA	Environmental Protection Agency
ESIA	Environmental and Social Impact Assessment
FPIC	Free, prior and informed consent
GDC	German Development Cooperation
GDD	Ghana Dam Dialogue
GTZ	Gesellschaft für Technische Zusammenarbeit
HSAF	Hydropower Sustainability Assessment Forum
HSAP	Hydropower Sustainability Assessment Protocol
IFOK	Institut für Organisationskommunikation
IHA	International Hydropower Association
NCC	National Coordination Committee
NCM	National Consultative Meeting
IDB	Inter-American Development
IFC	International Finance Corporation

IUCN	International Union for Conservation of Nature
SAP	Sustainability Assessment Protocol
TNC	The Nature Conservancy
UNEP-DDP	Dams and Development Project of the United Nations Environmental Programme
VBDF	Volta Basin Development Foundation
VRA	Volta River Authority
WAPP	West African Power Pool
WCD	World Commission on Dams
WWF	World Wildlife Fund