

WCD+10: Uptake, Impact and Perspectives – A Snapshot Survey

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ABSTRACT: The World Commission on Dams (WCD) published its report in 2000. Ten years later, UNEP has carried out a rapid online survey to obtain information on global uptake and impact of the WCD's recommendations. The survey attracted 112 respondents who provided 25 official responses on behalf of government departments and other organizations and 87 individual responses. Almost all the official responses were supportive, and most of the responding organizations had changed their policies and procedures as a result of the WCD, most often in relation to gaining public acceptance. Information was provided on 32 dams to which some or all of the WCD's seven strategic priorities have been applied. Opinion on governance structures being adequate for applying the recommendations remains polarised, as does opinion on effective implementation of the recommendations. However there is a general agreement that despite some progress with establishing a potentially effective administrative framework, implementation remains weak. Overall, the least attention had been paid to Strategic Priorities 3, 6, and 7, respectively Addressing existing dams, Ensuring compliance and Sharing rivers for peace, development and security. The Commission's recommendations remain relevant despite an evolving global context, and there is a need to renew the dialogue process.

KEYWORDS: World Commission on Dams, dams and development, governance

INTRODUCTION

Ten years ago Kader Asmal and Nelson Mandela launched the World Commission on Dams' report *Dams and Development*, more than 300 pages of analysis and recommendations based on the most detailed and comprehensive study of the performance and development effectiveness of large dams ever undertaken. Considering the failures of the past and the challenges of the future, much of the report was devoted to a new decision-making framework for improving the planning, design, implementation and governance of both new and existing dams.

The Commission's recommendations were widely considered to have "moved the goalposts", establishing new and higher standards that needed to be met to ensure that future projects achieved their development objectives without creating significant losers in the process. Whilst the report was welcomed by most civil society organizations and some governments and agencies, others felt that the framework for decision-making proposed by the Commission was too onerous or impractical, or were critical of the Commission process.

Following publication of their report, the Commission disbanded. To disseminate the Commission's findings and assist discussion of them at national level, UNEP established an activity known as the Dams and Development Project (DDP). Between 2001 and 2007 the DDP facilitated national, regional and multi-stakeholder dialogues on dams and their alternatives, and prepared a number of reports including a *Compendium on Relevant Practices*.²

It is now ten years since publication of the Commission's report. Dam building continues, as does the associated controversy over winners, losers, economic performance, human rights, sustainability, alternatives and governance. As noted in the Preface, ten years is not much time to transform water and energy governance, and the issues which led to the establishment of the Commission in 1998 are still current. In addition, major new players in dam financing have emerged, as have new issues such as climate change to drive the demand for renewable energy. The debate on large water infrastructure continues.

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² Dams and Development; relevant practices for improved decision-making. A Compendium of Relevant Practices for Improved Decision-Making on Dams and their Alternatives. UNEP-DDP. 2007.

A QUICK SURVEY

Against this background, UNEP has undertaken a rapid survey of global uptake, impact and perspectives on the WCD's recommendations. When combined with information from other sources, it creates a picture of how the Commission's report is influencing dam construction and operation.

The survey's ambitious objectives were to obtain information on: (i) actual and planned incorporation of WCD recommendations into national, bilateral, multilateral, private sector, professional and industry organizations, (ii) the identification and official rationale of countries and organizations rejecting WCD recommendations, (iii) identification of projects where WCD recommendations have been applied in part or in full, (iv) the effects of applying WCD recommendations to those projects, and (v) quotable perspectives on WCD impact and uptake from a range of sector stakeholders including affected people (resettlers, downstream, taxpayers), and pro- and anti- dam advocacy organizations (industry, private sector, civil society).

To maximize cost-effectiveness the survey was web-based, using a commercial online survey service on a secure server in Canada. It ran for 11 weeks to the end of July 2010 and was available in three languages, English, French and Spanish. The survey was publicised by a mixture of a formal approach to governments through the committee of permanent representatives to UNEP, direct email to concerned organizations and professionals based on DDP Forum membership lists and subsequent peer updating, placement of news items in listservs and newsletters, and digital press releases intended to be picked up by internet search engines.

The survey was divided into four parts, covering the respondent's profile, uptake of the WCD recommendations, impact of the WCD recommendations, and perspectives. Respondents could participate as official representatives of governments and other organizations, or as individuals, either affiliated with a government or organization or unaffiliated. By design, all responses were anonymous and untraceable. All respondents self-classified themselves into one of seven categories – government, private sector, financing institution, professional association, non-government organization, academic or research, and other (a category including, for example, dam-affected people).³

With respect to uptake, respondents speaking for or affiliated with a government or organization were asked whether that government or organization had adopted a formal position concerning the WCD's recommendations. Those answering yes were then asked whether that position was supportive and to what degree. Further affirmative answers led to questions as to whether policies, laws, regulations or procedures had been changed in response to the recommendations, and if so, which of the seven WCD strategic priorities were addressed [(1) Gaining public acceptance, (2) Comprehensive options assessment, (3) Addressing existing dams, (4) Sustaining rivers and livelihoods, (5) Recognising entitlements and sharing benefits, (6) Ensuring compliance, (7) Sharing rivers for peace, development and security]. Respondents reporting no policy or no support were asked why. Financial institutions were asked if they made compliance with WCD recommendations a condition of project financing.

With respect to impact, individual respondents were asked whether and to what degree they had seen significant changes in dam development and operation in the seven WCD strategic priority areas in the last ten years, with an additional two questions on compliance with WCD recommendations as a condition of project financing and/or sale and purchase of hydropower carbon credits. All respondents were requested to supply details of dams to which aspects of the recommendations have been applied, and to identify which strategic priorities were addressed, in full or in part.

With respect to perspectives, individual respondents were asked to rank their agreement with the following two statements on the governance and practice of dam development and operation, for a defined country or region and for each of the seven strategic priorities: (i) "In my opinion, the legislation, regulations, policies and procedures are in place to enable implementation of the WCD's strategic priorities", and (ii) "In my opinion, dam development and operations practices now comply with the WCD's strategic priorities".

Respondents were provided with space for submitting free-text comments and links to relevant URLs and documentation.

³ The Dams and Development Project used 14 categories of stakeholder (UNEP DDP, 2003); this was considered too complex for the online survey interface.

RESULTS

Respondents

The survey attracted 112 respondents from 33 countries who provided meaningful data. Of these, 25 were official responses and the remaining 87 were individuals. Of the official responses 8 were government departments or agencies, 7 were international and national non-government organizations, 4 were academic and research organizations, 3 were from the private sector and industry, 2 were international financing institutions and 1 was a professional association (Table 1). Of the 87 individual responses 46 gave an affiliation, 11 of these being government organizations with almost all the rest either universities and research institutes (14) or INGOs and NGOs (12) (Table 1).

Uptake

Official responses: 13 (52%) of the 25 official respondents stated that their organization had taken a very supportive or somewhat supportive position with respect to the WCD recommendations, including government agencies in Nigeria, Mexico and Pakistan and Germany's BMZ and KfW (Table 2). The US Bureau of Reclamation reported no official position, together with 2 NGOs and all the responding universities. Of the 13 supportive organizations, 12 (92%) reported a formal change in their laws, regulations, policies and procedures in response to the WCD recommendations, and were able to supply information as to which strategic priority was addressed by the changes (Table 3). For example, Mexico's National Water Commission reported that the WCD recommendations had a major influence on the revised National Water Law (2004), and in relation to the WCD strategic priority Sustaining rivers and livelihoods the Mexican Institute for Water Technology is now developing a national Environmental Flow Standard. The exception was ICOLD which, although being "somewhat supportive" of the recommendations, has not changed its policies and procedures as a result. Unusually, despite giving an officially neutral position, the Al Baraka Islamic Bank in Pakistan stated that it had changed its approach in response to the report, specifically in relation to gaining public acceptance.

8 respondents (32%) reported that their organization had no position on the recommendations or did not actively support them, for reasons including too few corporate resources to implement changes and too few dams to make changes worthwhile. The remaining 4 official respondents did not state any position, or did not know (Table 2).

None of the official respondents reported a formal corporate position against the WCD's recommendations.

Individual responses: of the individual responses, 75% of respondents (27 out of 36) claiming knowledge of their affiliated organization's position reported corporate support for the WCD recommendations (53% somewhat supportive, 22% very supportive). Of the remainder, 4 organizations were reported to be neutral, and 5 not supportive either due to fundamental disagreement with the recommendations or concerns with the WCD process, including a government and an international commission. A further 27 individual respondents stated that their organization had no position with respect to the recommendations, most commonly due to lack of resources (31%), other priorities (28%), or because the organization was not one that takes positions, e.g. a university.

23 individual respondents answered the follow-up question as to whether their government or organization had made any changes. 13 (57%) stated that these had their changed laws, regulations, policies or procedures in response to the report and 11 were able to identify which strategic priorities had been addressed (Table 4). However, 10 out of the 11 respondents (91%) considered that the changes brought partial rather than full compliance. 10 of the 23 respondents (43%) said that their government or organization had made no change, most often because there was no need to do so, but in 3 cases because their organization's practices were already consistent with the WCD's approach.

Impact

60 individual respondents gave an opinion on the extent to which they had seen significant changes to dam development and operation as a result of the WCD report (Table 5). Of these, 10 stated an affiliation with a government department, 11 with a private sector organization, 6 with professional associations,

and 2 with financing institutions. The respondents also included 17 researchers, 11 NGO affiliates and 3 'other'.

32 respondents reported knowledge of specific projects where WCD recommendations have been applied, in part or in full. Excluding duplicates and incorrect entries (e.g. dams built before publication of the WCD's report), details of 32 dams were supplied, together with links to (i) International River's WCD in action *Briefing Kit* (International Rivers, 2010a)⁴ which lists a number of dams and other projects where aspects of the principles have been applied, (ii) the UNFCCC CDM website,⁵ which can be searched for hydropower projects approved by European countries and therefore for which the WCD's recommendations should have been considered under the EU Linking Directive (European Union, 2004), (iii) Sri Lanka's Dam Safety and Water Resources Planning Project,⁶ and (iv) a river basin planning project for hydropower in southern Brazil⁷ (Table 6).

Perspectives

53 individual respondents provided answers to the two questions on the existence of adequate governance structures to apply the recommendations and their actual application in practice (Tables 7, 8). Of these, 36 related their opinions to experience in a single country and 17 referred to the global picture (Tables 9 to 14). 31 respondents provided comments before exiting the survey.

DISCUSSION

Response

The survey's respondents were self-selected. There was low level of official responses (25), especially from government bodies (8), financing institutions (2) and professional associations (1). It may reflect difficulties in getting the message to the correct office within large bureaucracies, the relative priority of filling in an online survey *vis-à-vis* other tasks, and – for some government departments – limited internet access. The number of individual responses (87, from at least 26 countries) is more encouraging, with significant diversity amongst those respondents who chose to reveal an affiliation (Table 1). In terms of geographical coverage, all regions are represented except East Asia and the Former Soviet Union (although some of the 41 unaffiliated individual respondents may have been located there). In terms of stakeholder categories, again all are represented, but with obvious shortfalls in the private sector (dam designers, builders and operators), financing institutions and in the Individual 'none of the above' category intended for dam-affected people, amongst others: this only attracted three responses. Clearly any survey of this type would become more effective if run for a longer period and resourced to provide additional languages, publicity and – for obtaining official responses – targeted follow-up. Equally, obtaining input from dam-affected people and their grass-roots representatives would require additional methods and resources.

Uptake

The low level of official responses prevents the survey results from being used to generate a formal reference list of WCD uptake, and therefore the survey's first objective – information on actual and planned incorporation of WCD recommendations – was only partially met. Nevertheless, the official information from 13 organizations (Tables 2, 3)⁸ will add to the global knowledge base. For example, although Germany's positive position is well known and is reflected in the submissions to this survey from both the federal ministry BMZ and the development bank KfW, the supportive positions of federal agencies in Mexico, Nigeria and Pakistan and that of the Al Baraka Islamic Bank are less well known (Table 2).

⁴ www.internationalrivers.org/en/taxonomy/term/1056

⁵ <http://cdm.unfccc.int/Projects>

⁶ www.mahaweli.gov.lk/Other%20Pages/Projects/Ongoing_DSWRPP.html

⁷ www.fepam.rs.gov.br/biblioteca/Taquari-Antas/default.htm

⁸ UNEP holds the survey results, which include some detailed submissions such as that from IUCN, and a number of links to reference documents.

No country or organization formally reported rejection of the recommendations or any rationale for taking such a position, so this survey objective was not met.

With respect to the strategic priorities addressed by changes within government organizations, the private sector and financing institutions, the commonest change was in relation to Gaining public acceptance (7 out of 8 official respondents), closely followed by Addressing existing dams (6 out of 8: Table 3). Sharing rivers for peace, development and security trailed at 3 out of 8, at least in part because some countries are not required to deal with transboundary water issues. These priorities were similar to those amongst INGOs and NGOs officially reporting changes (Table 3). Individual respondents (11) gave a slightly different view, considering that Comprehensive options assessment was addressed most commonly, followed by Gaining public acceptance and Sharing rivers, with Addressing existing dams and Ensuring compliance addressed least often (Table 4). In both cases the number of respondents was small (13 official and 11 individual), therefore limiting the conclusions that can be drawn.

UNEP does not maintain a formal database on WCD uptake, although the organization holds extensive files derived from the work of the DDP (2001 to 2007). Initial reactions to the WCD report were presented at the third and final meeting of the WCD Forum in early 2001 (WCD, 2001). Reactions over the first nine months after the November 2000 launch were reviewed by Bird (2002), and over the first two years (to the end of February 2003) by the DDP Secretariat (UNEP DDP, 2003). Subsequently a large WCD-related literature has developed, but without the development of any single comprehensive review of uptake. At present one of the most accessible sources of information on uptake is advocacy NGOs: International Rivers' current list is shown in Box 1 (International Rivers 2010b).

Impact

The 60 individuals who answered the question 'As a result of the WCD report in 2000, I have seen significant changes in the following areas of dam development and operation' gave a range of opinions on each strategic priority (Table 5). Despite the varied nature of the respondents (almost exactly half were from government, professional associations and financing institutions and half from NGOs, research institutes and 'other'), the numbers show some trends. For example, Gaining public acceptance, Comprehensive options assessment and Recognising entitlements and sharing benefits all attracted a higher percentage of 'Agree' and 'Agree Strongly' votes than 'Disagree' and 'Disagree Strongly'. Opinions on Sustaining rivers and livelihoods, Ensuring compliance and Sharing rivers were evenly balanced between the agrees and the disagrees, whilst Addressing existing dams showed a clear majority disagreeing that there have been significant changes in practice.

In contrast with the mixture of opinions on the strategic priorities, the two additional topics of compliance with WCD recommendations as a condition of dam financing and carbon credit trading generated some consensus: in relation to dam financing, a quarter of respondents neither agreed nor disagreed that there had been changes, but 57% disagreed or disagreed strongly; in relation to carbon trading, one third of respondents neither agreed nor disagreed, but 48% disagreed or disagreed strongly. Only 18% of respondents (dam financing) and 16% (carbon trading) gave positive views. Clearly there is little belief amongst this group of respondents that financial institutions and the financial sector have taken up the recommendations in any meaningful way.

In all cases – except for Gaining public acceptance – the percentage of respondents disagreeing strongly outweighed the number agreeing strongly, especially for Ensuring compliance (14: 4), Addressing existing dams (14: 5), Sustaining rivers and livelihoods (12: 5), dam financing (21: 9) and carbon trading (19: 8). This was not due to blanket responses, since only three respondents (two affiliated with professional associations and one with an INGO or NGO) ticked 'Disagree Strongly' for all questions. Similarly only one (affiliated with the private sector) ticked 'Agree Strongly' for all questions.

Box 1. Governments and Institutions that Endorse the WCD Recommendations

Although the Commission dissolved after publishing its report in November 2000, the WCD recommendations live on and have become the most important and legitimate global benchmark for dam building. The following are examples of institutions and governments that have endorsed the WCD report:

- Several governments – including Germany, Nepal, South Africa, Sweden and Vietnam – have organized dialogue processes to integrate WCD recommendations into national policies. The German government in particular has expressed a strong commitment to the WCD recommendations.
- The member countries of the OECD and the European Union have issued a statement on hydropower that "recognizes the value" of the WCD strategic priorities for their export credits.
- The Swiss export credit agency, SERV, expects project developers to follow the WCD's strategic priorities.
- The U.S. Overseas Private Investment Corporation (OPIC) applies screening and environmental assessment criteria that incorporate the WCD strategic priorities.
- The Swedish and German bilateral aid agencies have adopted the WCD recommendations and are supporting their partner countries and project developers to implement them.
- The World Bank and the International Hydropower Association (IHA), while critical of specific WCD guidelines, have endorsed the strategic priorities.
- Both the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), the two largest public banks in Europe, announced in 2005 that they would take into account WCD recommendations when considering funding for large dams, though the statements are not yet mandatory policies.
- In May 2005, HSBC bank developed water sector guidelines that require dam projects to comply with the WCD recommendations in order to receive funding.
- Like HSBC, the French bank Dexia will only fund dam projects if they comply with the WCD.
- The member states of the European Union have decided that carbon credits from large dams can only be sold on the European market if the projects comply with the WCD recommendations.
- International Carbon Investors & Services, a group of international banks and other bodies involved in carbon trading, approved a standard for voluntary carbon credits that requires WCD compliance for large hydropower projects.

Other international institutions and laws that have endorsed specific principles within the WCD:

Demonstrating Acceptance and Free, Prior and Informed Consent

- [Inter-American Commission on Human Rights \(IACHR\)](#)
- [International Convention on the Elimination of Racial Discrimination](#)
- [International Covenants on Human Rights](#)
- [International Labour Organization](#)
- [UN Declaration on the Rights of Indigenous Peoples](#)

Assessing Options for meeting Energy and Water Needs

- [EU Water Framework Directive](#)
- [UN Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Violations of International Human Rights and Humanitarian Law](#)

Addressing the Legacy of Dams

- [UN Declaration of Human Rights](#)
- [American Convention on Human Rights](#)
- [UN Declaration on the Rights of Indigenous Peoples](#)
- [International Covenant on Civil and Political Rights](#)
- [African Commission on Human and People's Rights](#)

Downstream Environmental Impacts and Environmental Flows

- [Convention on Biological Diversity](#)
- [EU Water Framework Directive](#)
- [Environmental Flows Network](#)
- [International Union for Conservation of Nature – Water Programme](#)
- [Ramsar Convention on Wetlands](#)

Sharing Benefits from Dams and Legally Enforceable Entitlements

- Most examples of benefit sharing for hydropower projects are at the regional or national level. China, Colombia, Nepal, Thailand, Argentina, Japan, Canada, Norway, and Vietnam all have, or are developing, some form of benefit sharing as part of national legislation.

Ensuring Compliance

- Most examples of ensuring compliance to project agreements also occur at the national level. The US and Norway have stringent licensing requirements for dams on paper.

More information:

[Protecting Rivers and Rights: The 10th Anniversary of the World Commission on Dams Report](#)

Source: www.internationalrivers.org/node/5569 Reproduced with permission.

The list of dams to which respondents consider that the recommendations have been applied (Table 6) is sure to be controversial, containing as it does names such as Bujagali, Ilisu and Nam Theun 2. Different observers have very different opinions about these projects. The list also contains projects which were in the last stages of planning or already under construction when the WCD report was published (e.g. the New Naga Hammadi Barrage and Theun Hinboun, respectively), and therefore which would have required urgent application of the WCD's recommendations for "dams in the pipeline" (WCD, 2000: p. 276) or re-writing history. Before dismissing the results as self-serving, readers should consider that the question was whether the recommendations have been applied in full *or in part* (author's emphasis), that partial application is generally much better than nothing,⁹ and that some of the projects may genuinely have applied the priorities in full. In addition, in some cases the application has been indirect; for example, the WHO-affiliated respondent reported that WHO "has been able to use the Nam Theun 2 context to promote a policy framework for health impact assessment of development in Lao PDR in line with WCD recommendations".

Accepting the list at face value, it allows a grouping of the popularity of each WCD strategic priority in practice: in order these are, firstly, Gaining public acceptance and Comprehensive options assessment; secondly, Sustaining rivers and livelihoods and Recognising entitlements and sharing benefits; thirdly, Addressing existing dams and Ensuring compliance; and, a distant fourth, Sharing rivers for peace, development and security (Table 6).

Perspectives

The last two questions in the survey were designed to obtain feedback from individual respondents as to (i) the existence of governance structures (legislation, regulations, policies, procedures) to enable implementation of the strategic priorities, and (ii) whether the priorities were being applied in practice. These questions were similar to the question on whether respondents considered that there had been changes in practice (discussed above under Impact), but with a focus on the difference between government and corporate capability and the results on the ground.

Overall, the results showed significant polarisation (Tables 7, 8). Respondents tended to either agree or disagree with each question, to a greater extent than in the answers to the earlier question on change. For example, in relation to governance structures being in place to implement the priority Sustaining rivers and livelihoods, 23 respondents agreed or agreed strongly with the proposition and an identical number disagreed or disagreed strongly, with only 7 neither agreeing nor disagreeing. This pattern repeats through all the priorities in both questions, except for Addressing existing dams, Sharing rivers and (for implementation only) Comprehensive options assessment. These three all show a tendency towards 'Disagree', indicating some consensus that these priorities are being treated less effectively than the others. Overall, 37% of respondents agreed or agreed strongly that governance structures were in place, whereas 45% disagreed or disagreed strongly.

In relation to the difference between governance structures being in place to apply the recommendations and their actual implementation, the responses show a clear reduction in the 'Agree Strongly' scores, which dropped from 31 to 20 (totals in Tables 7, 8). Overall, 30% of respondents agreed or agreed strongly that the priorities were being applied in practice, whilst 47% disagreed or disagreed strongly. This clear negative shift compared to governance presumably reflects a general concern that implementation of the WCD's priorities on the ground is lagging behind establishment of the administrative framework (Box 2).

⁹ The same caveat applies to projects used by to illustrate WCD uptake by other organizations, e.g. International Rivers' *WCD Recommendations in Action Briefing Kit* which states "... Although the dam examples highlighted in this briefing kit show how certain WCD recommendations have been successfully applied, many of these projects suffer from serious shortcomings in other areas" (International Rivers, 2010a).

Box 2. A comment on governance.

The governance structure is basically in place. There is a National Involuntary Resettlement Policy, Environmental Act, Disaster Management Act etc. In practice however, there are too many institutions to cooperate. Coordinating mechanisms are weak. Functions overlap sometimes. Commitment is governed by political will, which is beyond the governance structure.

The highest score in any category was the 38% of respondents (20 out of 53) who agreed that governance structures were in place to apply Strategic Priority 5, Recognising entitlements and sharing benefits (Table 7). This score was largely made up by 17 out of 36 country respondents. In contrast, 34% of respondents (18 out of 53) disagreed that implementation of Strategic Priority 5 was effective. Another high score (36%: 19 out of 53) was given by respondents disagreeing with both governance structures being in place and implementation being effective for Strategic Priority 7, Sharing rivers.

Despite the wide spread of votes, in general the 36 respondents basing their experience on one country were more optimistic than the 17 who based their opinions on the global picture (Tables 9 to 14, sub-totals).

The comments made by 31 respondents before exiting the survey reflect the range of opinions elsewhere in the survey. They range from the extreme – blaming the Commission for setting back the development of much needed water storage infrastructure by a decade – through cries for help from the village – "... in my experience we have seen the law of the market place always in operation, the politics of fear in affected communities, and within this context, political negotiations exerting real pressure ..." – to the positive – "Many organizations and countries have taken the WCD recommendations into consideration". A selection of comments is given in Box 3 to illustrate the range of opinions and ideas.

Box 3. Perspectives: A selection of comments from the survey

Uptake and Governance

WCD was a wake up call to the industry and has moved the thinking on – but it was also an overly complex and unimplementable document which failed to consult developing country governments where more than 80% of the techno-economically feasible hydropower potential lies (University / research affiliate).

Those stakeholders who focused on the main messages of the report, i.e. the strategic priorities, benefited significantly; those who went for the details, e.g. the 26 guidelines or policy principles, are still struggling to find a feasible way forward (World Bank affiliate).

The Commission's recommendations greatly influenced the revision of the National Water Law in 2004, and the majority of the environmental laws and regulations in Mexico (National Water Commission, Mexico).

The impact of WCD report would have been much greater if the World Bank and the regional development banks had decided to support the recommendations in a unanimous way, consolidated in their own policies and programmes. The lack of such a response has greatly undermined the potential impact of the WCD, and this issue needs to be re-visited in a consultation with these banks (WHO affiliate).

Unfortunately the WB and OECD did not fully subscribe to WCD and hence most financing mechanisms do not fully ensure compliance with WCD criteria. Linking financing either direct or indirect through CDM to the compliance with WCD and developing an appropriate applicable criteria list (check list) would substantially support the application of WCD (Germany – government affiliate).

In general the WCD recommendations are a tool for achieving changed and modified project preparation (tender design) and implementation. More recommendations should be turned into obligations in ToRs and contracts signed by implementing and investing companies, ministries and banks (Private sector).

Implementation

Many organizations and countries have taken the WCD recommendations into consideration. They think about the recommendations and – to varying degrees – have sought to implement the recommendations. In many instances, though, it is difficult to say whether they are implementing the WCD recommendations per se or to what extent they are rather implementing international best practice (which happens to reflect the WCD recommendations). In no instance that I know of, however, has a government or international organization fully implemented the WCD recommendations (Environmental Law Institute affiliate).

Whilst the policy and legislative framework largely addresses the WCD's strategic priorities (although not necessarily in direct response to the WCD), implementation practice has remained largely unchanged. In most cases this is because institutional mandates have not changed, institutional structures have not changed, and especially the measures of institutional success have not changed – almost nothing has changed as regards sustainability indicators and the need for reflecting much more than GDP as a measure of a country's 'development' (INGO / NGO affiliate).

Implementation is the name of the game (former WCD commissioner).

The WCD has never touched us in any positive way whatsoever! Banks continue to fund projects without any concern to WCD guidelines! (University / research affiliate).

Dam building is almost totally driven by considerations of financial profit – environmental and social values and local economies will be considered to the extent that certain benefits may be easily achieved without sacrificing the primary goal and to the extent that they can provide fodder for public relations (USA – NGO affiliate).

Sometimes environmentalists influence too much on the political decisions. The environmentalists care little for benefit of local people. However, they change their decision easily if some incentives are provided them (University / research affiliate).

Dam development and compliance practices are still in the hands of organizations, and individuals, and not within the governance structures (NGO affiliate).

Dialogue

The WCD recommendations were not embraced by all stakeholders, and it is increasingly clear that the drivers for dam development and the actors involved are changing due to, for example, climate change and the emergence of China as a major international financier of dams. This situation raises the question of how to use the global dialogue process to bring these new actors into the process? (IUCN).

The other thing that is important to note is that there does not appear to be an institution that is continuing the dialogue that WCD started. UNEP did this for a while through the Dams and Development Project. Since that closed, however, the international attention to the WCD and DDP has been fading, particularly with international attention being paid to other issues. Ironically, with international attention focused on climate change, there is increasing interest in hydropower. And a need for a multi-stakeholder dialogue on dams, dam practice, and dam policy. There is a compelling need for institutions to reinvigorate the WCD/DDP process (Environmental Law Institute affiliate).

CONCLUSIONS

The survey attracted respondents from a wide range of countries and categories of stakeholder. However, despite the rapid spread of internet access, this type of survey has limitations when trying to obtain information from stakeholder categories as different as governments and dam-affected people.

Overall, the results indicate extensive knowledge of the WCD recommendations, widespread uptake of its principles in one form or another, and significant weaknesses in implementation. Key points include:

- There has been widespread uptake of some of the WCD's principles and recommendations by many governments and other organizations.
- Practices in different countries, or in the same country but with different funding agencies, vary greatly.

- In general the Strategic Priorities which have received most attention appear to be Gaining public acceptance and Recognising entitlements and sharing benefits, with Comprehensive options assessment a close third.
- Little attention has been paid to Strategic Priority 3, Addressing existing dams, with few significant changes in practice.
- Full or partial application of the Priorities at 32 dams suggests a popularity grouping as follows: firstly, Gaining public acceptance and Comprehensive options assessment; secondly, Sustaining rivers and livelihoods and Recognising entitlements and sharing benefits; thirdly, Addressing existing dams and Ensuring compliance; and, a distant fourth, Sharing rivers for peace, development and security.
- Governance structures for applying WCD principles are much stronger in some countries than others, with Recognising entitlements and sharing benefits most advanced.
- In general, the existence of an appropriate administrative framework does not mean that effective implementation will automatically follow; implementation and compliance are, as usual, major challenges.
- Many stakeholders continue to experience a 'business as usual' scenario on the ground.

Taken together, what these conclusions suggest is that the Commission's recommendations remain highly relevant, despite the changing global context. This is not surprising, since they are founded on universal principles that are increasingly being incorporated into both international and national law. What is missing at present is a non-partisan forum that can engage both the old and new players in a multi-stakeholder dialogue about dams, and generate the political will needed to transform the provision of water and energy services.

DISCLAIMER

The views expressed in this paper are those of the authors and do not necessarily reflect the views of the United Nations Environment Programme.

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Table 1. Profile of Respondents

OFFICIAL RESPONSES (25)		INDIVIDUALS DECLARING AN AFFILIATION (45)	
Government (8)		Government (11)	
Germany	BMZ – Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung	Regional	Mekong River Commission
Mexico	Mexican Institute for Water Technology – Ministry of Environment	Canada	DFO – Department of Fisheries and Oceans
Mexico	National Water Commission	Cote d'Ivoire	Ministère del l'Agriculture
Nigeria	Federal Ministry of Water Resources	Germany	-
Pakistan	EPA – Environmental Protection Agency	Lesotho	Ministry of Natural Resources
Pakistan	WAPDA – Water and Power Development Authority	Mozambique	ARA-Centro
USA	Bureau of Reclamation (USBR)	South Africa	-
USA	Geological Survey (USGS)	Sri Lanka	Ministry of Irrigation and Water Resources
		Turkey	State Hydraulic Works General Directorate
		USA	EPA – Environmental Protection Agency
		USA	Fish and Wildlife Service
Private Sector / Industry (3)		Private Sector / Industry (5)	
India	GMR Energy Ltd.	Canada	Ecoconsult Inc.
Portugal	EDP – Energias de Portugal	Canada	GAIA Envirolink Inc.
Portugal	FuTurBio	Germany	TÜV SÜD Group
		Laos	NTPC – Namtheun 2 Power Company / NN2 – Namghun 2 Hydropower Company
		The Netherlands	SevS human and natural environment consultants
Financing Institution (2)		Financing Institution (1)	
Pakistan	AIB – Al Baraka Islamic Bank	Global	World Bank
Germany	KfW Entwicklungsbank		
Professional Association (1)		Professional Association (3)	
Global	ICOLD – International Commission on Large Dams	Global	ICID – International Commission on Irrigation and Drainage
		Global	IWA – International Water Association
		Egypt	ENCOLD – Egyptian National Committee on Large Dams
INGO or NGO (7)		INGO or NGO (12)	
Global	IUCN – International Union for Conservation of Nature	Global	Transparency International
France	HELIO International	Global	WHO – World Health Organization
India	SKG Sangha	Chile	Associação Civica Pró-Tâmega
Portugal	FAPAS – Fundo para a Protecção dos Animais Selvagens (Fund for Wildlife Protection)	Colombia	Fundación Providence
Togo	Jeunes Volontaires pour l'Environnement	Costa Rica	Asociacion ANAI / Little Tennessee Watershed Association
USA	International Rivers	Haiti	The Lambi Fund of Haiti
USA	WHALE Center	Philippines	HELP Davao Network
		Tanzania	Upendo Disabled Group
		United Kingdom	Oxfam
		United Kingdom	Practical Action
		USA	TNC – The Nature Conservancy
		USA	American Rivers
Academic or Research (4)		Academic or Research (14)	
Brazil	Federal University of Rio de Janeiro	Australia	La Trobe University
Brazil	Environmental Science Program of University of São Paulo	Brazil	Universidade Federal do Rio Grande do Sul

OFFICIAL RESPONSES (25)		INDIVIDUALS DECLARING AN AFFILIATION (45)	
South Africa	Northwest University (Vaal)	Canada	University of Victoria
USA	Harvard University	Denmark	Aalborg University
		France	Université du Maine ESO Mans – LPED
		Germany	Karlsruhe Institute of Technology
		Greece	Democritus University of Thrace
		The Netherlands	University of Twente
		Pakistan	University of Engineering and Technology, Lahore
		Turkey	Abant İzzet Baysal University
		United Kingdom	University of Essex
		USA	California Institute of Technology
		USA	Environmental Law Institute
		USA	Loma Linda University
		NOT AFFILIATED (41)	
Total Official Responses : 25		Total Individual Responses : 87	

Table 2. Official Respondents' Corporate Positions with Respect to the WCD Recommendations

OFFICIAL RESPONSES					
Government (8)		Very Supportive	Somewhat Supportive	Neutral / No Position	Internal Changes in Response to WCD?
Germany	BMZ – Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung	X			YES
Mexico	Mexican Institute for Water Technology – Ministry of Environment		X		YES
Mexico	National Water Commission	X			YES
Nigeria	Federal Ministry of Water Resources	X			YES
Pakistan	EPA – Environmental Protection Agency		X		YES
Pakistan	WAPDA – Water and Power Development Authority			-	-
USA	Bureau of Reclamation (USBR)			X	-
USA	Geological Survey (USGS)			-	-
Private Sector / Industry (3)					
India	GMR Energy Ltd.			-	-
Portugal	EDP – Energias de Portugal	X			YES
Portugal	FuTurBio			-	-
Financing Institution (2)					
Pakistan	AIB – Al Baraka Islamic Bank			X	YES
Germany	KfW Entwicklungsbank	X			YES
Professional Association (1)					
Global	ICOLD – International Commission on Large Dams		X		NO
INGO or NGO (7)					
Global	IUCN – International Union for Conservation of Nature	X			YES
France	HELIO International	X			YES
India	SKG Sangha			X	-
Portugal	FAPAS – Fundo para a Protecção dos Animais Selvagens (Fund for Wildlife Protection)	X			YES
Togo	Jeunes Volontaires pour l'Environnement	X			YES
USA	International Rivers	X			YES
USA	WHALE Center			X	-
Academic or Research (4)					
Brazil	Federal University of Rio de Janeiro			X	-
Brazil	Environmental Science Program of University of São Paulo			X	-
South Africa	Northwest University (Vaal)			X	-
USA	Harvard University			X	-
Total Official Responses : 25		10	3	8	Yes 13, No 1

- = don't know / not stated / no change because no position

Table 3. WCD Strategic Priorities Addressed by Changes to Laws, Regulations, Policies or Procedures

OFFICIAL RESPONSES		STRATEGIC PRIORITY ADDRESSED BY CHANGE						
		1	2	3	4	5	6	7
Government (5)								
Germany	BMZ – Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung	X	X	X	X	X	X	X
Mexico	Mexican Institute for Water Technology – Ministry of Environment	X	-	-	X	-	-	X
Mexico	National Water Commission	X	X	X	X	X	X	-
Nigeria	Federal Ministry of Water Resources	-	-	X	-	-	-	-
Pakistan	EPA – Environmental Protection Agency	X	X	X	-	-	X	-
Private Sector / Industry (1)								
Portugal	EDP – Energias de Portugal	X	X	X	X	X	X	
Financing Institution (2)								
Pakistan	AIB – Al Baraka Islamic Bank	X	-	-	-	-	-	-
Germany	KfW Entwicklungsbank	X	X	X	X	X	X	X
INGO or NGO (5)								
Global	IUCN – International Union for Conservation of Nature	X	X	X	X	X	X	X
France	HELIO International	X	X	-	-	X	-	X
Portugal	FAPAS – Fundo para a Protecção dos Animais Selvagens (Fund for Wildlife Protection)	-	-	X	-	-	X	-
Togo	Jeunes Volontaires pour l’Environnement	X	X	-	-	X	-	-
USA	International Rivers	X	X	X	X	X	X	X
		11	9	9	7	8	8	6
WCD Strategic Priorities								
1	Gaining public acceptance							
2	Comprehensive options assessment							
3	Addressing existing dams							
4	Sustaining rivers and livelihoods							
5	Recognising entitlements and sharing benefits							
6	Ensuring compliance							
7	Sharing rivers for peace, development and security							

Table 4. WCD Strategic Priorities Addressed by Organizations that Made Changes

WCD Strategic Priority	Official Respondents (%)	Individual Respondents (%)
Gaining public acceptance	85	73
Comprehensive options assessment	69	91
Addressing existing dams	69	55
Sustaining rivers and livelihoods	54	64
Recognising entitlements and sharing benefits	62	64
Ensuring compliance	62	55
Sharing rivers for peace, development and security	46	73
	N=13	N=11

Table 5. Individual Respondent’s Perception of Significant Changes in Dam Development and Operation as a Result of the WCD Report

WCD Strategic Priority	Response (%)				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Gaining public acceptance	12	35	23	18	12
Comprehensive options assessment	7	40	18	21	14
Addressing existing dams	5	28	23	30	14
Sustaining Rivers and Livelihoods	5	37	22	25	12
Recognising entitlements and sharing benefits	9	39	21	19	12
Ensuring compliance	4	30	32	21	14
Sharing rivers for peace, development and security	9	25	32	21	14
Additional Questions					
Compliance with WCD recommendations as a condition of dam financing	9	9	25	36	21
Compliance with WCD recommendations as a condition of sale/purchase of hydropower carbon-credits	8	8	35	29	19
N=60					

Note: not all respondents answered all questions, so the responses have been converted to percentages.

Table 6. Dam Projects to which Respondents consider that WCD Recommendations have been applied, in part or in full

COUNTRY	PROJECT	STATUS	STRATEGIC PRIORITY APPLIED						
			1	2	3	4	5	6	7
Brazil	Machadinho	Commissioned 2002				X			
Brazil	Simplicio	Completion 2011	X	X		X			
Brazil	Ijuí, Butuí, Piratinim, Icamaquã	Planning		X	X				
Brazil	Taquari Antas River Basin	Planning		X	X	X			
China	Refer to UNFCCC CDM lists	Built 2004-2010	X	X	X	X	X	X	X
Egypt	New Naga Hammadi Barrage	Commissioned 2008				X	X	X	
Egypt	New Naga Hammadi Barrage	Commissioned 2008				X	X	X	X
Egypt	New Assiut Barrage	Tender design	X	X	X	X	X	X	X
India	Karcham Wangtoo	Completion 2011	X	X	X		X	X	X
India	Pare	Ongoing	X						
Laos	Theun Hinboun	Commissioned 2002	X	X	X	X	X	X	
Laos	Nam Theun 2	Commissioned 2010	X				X		
Laos	Nam Theun 2	Commissioned 2010	X	X				X	
Laos	Nam Theun 2	Commissioned 2010	X	X		X	X	X	
Laos	Nam Theun 2	Commissioned 2010	X	X	X	X	X	X	
Mexico	Picachos	Commissioned 2010	X	X	X	X	X		
Mexico	El Realito	Under construction	X	X	X	X	X		
Mexico	Zapotillo	Under construction	X	X	X	X	X		
Mexico	Paso de la Reina	Planning	X	X	X	X			
Nepal	Middle Marsyangdi	Commissioned 2008	X	X		X	X	X	
Nepal	Middle Marsyangdi	Commissioned 2008	X	X	X	X	X	X	X
Nigeria	Goronyo Dam	Commissioned 2004	X	X	X				
Nigeria	Owena Dam	Commissioned 2007	X	X	X				
Nigeria	Gurara Dam	Commissioned 2008		X	X				
Nigeria	Ife Dam	Ongoing	X	X	X				
Nigeria	Owiwi Dam	Ongoing	X	X	X				
Pakistan	Mirani	Commissioned 2008	X						
Portugal	Alvito	Completion 2016	X	X		X	X	X	
Portugal	Fridão	Completion 2016	X	X		X	X	X	
Portugal	Ribeira Dio	Completion 2016	X	X		X	X	X	
Portugal	Foz Tua	Completion 2016+	X	X		X	X	X	
Sri Lanka	Weheragala	Commissioned 2009	X	X					
Sri Lanka	Moragahakanda-Kaluganga Development Project	Completion 2015	X	X	X	X	X		
Sri Lanka	Dam Safety & Water Resources Planning Project	Ongoing	X		X	X	X		
Togo	Adjarala Dam	Completion 2014	X			X	X		
Turkey	Ilisu	Completion 2012						X	
Uganda	Bujagali	Completion 2012	X	X		X	X	X	
Uganda	Bujagali	Completion 2012	X	X	X	X	X	X	X
Various	Refer to International Rivers' Briefing Kit (International Rivers 2010a)		X	X	X	X	X	X	
			32	30	21	26	24	19	6
WCD Strategic Priorities									
1	Gaining public acceptance								
2	Comprehensive options assessment								
3	Addressing existing dams								
4	Sustaining rivers and livelihoods								
5	Recognising entitlements and sharing benefits								
6	Ensuring compliance								
7	Sharing rivers for peace, development and security								

Table 7. Individual Respondents' Perceptions in relation to Governance Structures being in Place to Implement the WCD Strategic Priorities

WCD Strategic Priority	Response				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Gaining public acceptance	6	14	12	15	6
Comprehensive options assessment	4	12	11	19	7
Addressing existing dams	3	12	12	17	9
Sustaining Rivers and Livelihoods	6	17	7	17	6
Recognising entitlements and sharing benefits	4	20	8	13	8
Ensuring compliance	3	16	11	17	6
Sharing rivers for peace, development and security	5	11	11	19	7
N=53	31	106	72	117	49

Table 8. Individual Respondents' Perceptions in relation to the WCD Strategic Priorities actually being Applied

WCD Strategic Priority	Response				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Gaining public acceptance	4	14	11	17	7
Comprehensive options assessment	3	13	12	17	8
Addressing existing dams	2	11	15	17	8
Sustaining Rivers and Livelihoods	3	14	11	17	8
Recognising entitlements and sharing benefits	3	15	10	18	7
Ensuring compliance	2	16	11	17	7
Sharing rivers for peace, development and security	3	10	12	19	9
N=53	20	93	82	122	54

Table 9. Individual Respondents' Perceptions when asked 'Are Governance Structures adequate for Applying Strategic Priorities 1 to 3'?

REFERENCE LOCATION	STRATEGIC PRIORITY 1					STRATEGIC PRIORITY 2					STRATEGIC PRIORITY 3				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia		X					X						X		
Brazil			X						X						X
Brazil	X						X					X			
Canada		X							X			X			
Cambodia			X					X					X		
Chile				X					X					X	
China			X					X					X		
China				X					X					X	
China	X								X				X		
Cote d'Ivoire		X					X					X			
Egypt			X					X					X		
India			X				X						X		
India					X					X					X
Laos				X					X					X	
Laos			X					X					X		
Laos				X				X						X	
Laos			X					X						X	
Lesotho			X					X					X		
Malaysia				X					X					X	
Nepal			X						X					X	
Pakistan		X					X					X			
Pakistan			X				X					X			
Portugal	X					X					X				
Portugal					X				X				X		
Portugal	X					X					X				
South Africa		X				X									X
Sri Lanka	X						X					X			
Swaziland		X					X							X	
Tanzania				X				X				X			
The Philippines				X					X					X	
Turkey		X					X					X			
United Kingdom	X					X					X				
USA		X					X					X			
USA				X					X					X	
USA				X					X					X	

REFERENCE LOCATION	STRATEGIC PRIORITY 1					STRATEGIC PRIORITY 2					STRATEGIC PRIORITY 3				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
<i>Sub-total (N=36)</i>	6	8	10	10	2	4	10	9	12	1	3	9	10	11	3
Global					X					X					X
Global			X					X						X	
Global					X					X					X
Global				X						X			X		
Global			X						X						X
Global				X						X					X
Global		X							X			X			
Global		X							X			X			
Global		X					X						X		
Global				X										X	
Global				X										X	
Global		X			X					X					X
Global							X					X			
Global				X				X						X	
Global				X					X					X	
<i>Sub-total (N=17)</i>	0	6	2	5	4	0	2	2	7	6	0	3	2	6	6
N = 53	6	14	12	15	6	4	12	11	19	7	3	12	12	17	9

Table 10. Individual Respondents' Perceptions when asked 'Are Governance Structures adequate for Applying Strategic Priorities 4 to 6'?

REFERENCE LOCATION	STRATEGIC PRIORITY 4					STRATEGIC PRIORITY 5					STRATEGIC PRIORITY 6				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia		X					X						X		
Brazil				X						X					X
Brazil		X				X						X			
Canada		X					X					X			
Cambodia			X					X					X		
Chile				X					X					X	
China	X						X					X			
China				X			X							X	
China		X					X							X	
Cote d'Ivoire		X					X						X		
Egypt		X					X					X			
India			X				X					X			
India					X					X					X
Laos				X					X					X	
Laos			X					X					X		
Laos			X					X						X	
Laos				X			X			X				X	
Laos					X				X					X	
Lesotho		X					X					X			
Malaysia		X								X				X	
Nepal				X					X					X	
Pakistan		X					X					X			
Pakistan		X						X					X		
Portugal	X						X				X				
Portugal	X					X							X		
Portugal	X					X					X				
South Africa	X						X					X			
Sri Lanka		X					X					X			
Swaziland		X					X					X			
Tanzania		X					X						X		
The Philippines				X					X					X	
Turkey		X					X					X			
United Kingdom	X					X					X				
USA		X						X					X		
USA				X					X					X	

REFERENCE LOCATION	STRATEGIC PRIORITY 4					STRATEGIC PRIORITY 5					STRATEGIC PRIORITY 6				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
USA				X					X					X	
<i>Sub-total (N=36)</i>	6	15	4	9	2	4	17	4	8	3	3	12	8	11	2
Global				X					X					X	
Global				X					X						X
Global					X					X					X
Global				X					X					X	
Global			X						X					X	
Global				X					X					X	
Global				X			X					X			
Global				X				X					X		
Global		X						X				X			
Global				X					X			X			
Global				X					X			X			
Global				X			X						X		
Global				X					X				X		
Global			X					X					X		
Global			X					X					X		
<i>Sub-total (N=17)</i>	0	2	3	8	4	0	3	4	5	5	0	4	3	6	4
N = 53	6	17	7	17	6	4	20	8	13	8	3	16	11	17	6

Table 11. Individual Respondents' Perceptions when asked 'Are Governance Structures adequate for Applying Strategic Priority 7'?

REFERENCE LOCATION	STRATEGIC PRIORITY 7				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia			X		
Brazil			X		
Brazil		X			
Canada		X			
Cambodia			X		
Chile				X	
China		X			
China				X	
China		X			
Cote d'Ivoire			X		
Egypt		X			
India					X
India			X		
Laos				X	
Laos			X		
Laos			X		
Laos				X	
Laos				X	
Lesotho		X			
Malaysia				X	
Nepal					X
Pakistan		X			
Pakistan				X	
Portugal	X				
Portugal	X				
Portugal	X				
South Africa	X				
Sri Lanka			X		
Swaziland		X			
Tanzania				X	
The Philippines				X	
Turkey		X			
United Kingdom	X				
USA			X		
USA				X	
USA				X	

	STRATEGIC PRIORITY 7				
REFERENCE LOCATION	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
<i>Sub-total (N=36)</i>	5	9	9	11	2
Global				X	
Global				X	
Global				X	
Global				X	
Global					X
Global					X
Global				X	
Global				X	
Global					X
Global		X			
Global		X			
Global					X
Global				X	
Global					X
Global			X		
Global				X	
Global			X		
<i>Sub-total (N=17)</i>	0	2	2	8	5
N = 53	5	11	11	19	7

Table 12. Individual Respondents' Perceptions when asked 'Do dam development and operations practices now comply with the WCD's Strategic Priorities 1 to 3'?

REFERENCE LOCATION	STRATEGIC PRIORITY 1					STRATEGIC PRIORITY 2					STRATEGIC PRIORITY 3				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia		x					x						x		
Brazil			x					x					x		
Brazil	x						x					x			
Canada				X					X					X	
Cambodia			x					x					x		
Chile				x					x					x	
China			X					X					X		
China				x					x					x	
China	x								x						
Cote d'Ivoire		X					X					X			
Egypt			x				x						x		
India			X					X						X	
India					x					x					x
Laos				x					x					x	
Laos			x					x					x		
Laos			x					x						x	
Laos			x					x						x	
Laos				x				X					X		
Lesotho			X												
Malaysia					x					x					x
Nepal				X					X					X	
Pakistan				X					X					X	
Pakistan				x			x					X			
Portugal	x					x					x				
Portugal			x			x							X		
Portugal	x					x					x				
South Africa					x					x					x
Sri Lanka		X					X					X			
Swaziland		X					X						X		
Tanzania				X				X					X		
The Philippines		X							X					X	
Turkey		x					x					x			
United Kingdom		X						X				X			
USA		X					X					X			
USA		X					X							X	

REFERENCE LOCATION	STRATEGIC PRIORITY 1					STRATEGIC PRIORITY 2					STRATEGIC PRIORITY 3				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
USA				x					x					x	
<i>Sub-total (N=36)</i>	4	9	9	11	3	3	10	10	10	3	2	8	11	12	3
Global				X					X					X	
Global			X					X					X		
Global					X					X					X
Global					X					X					X
Global				X		X									X
Global		X			X					X		X			
Global		X							X				X		
Global			x					x					x		
Global				x					x					x	
Global				x					x					x	
Global		x								x			x		
Global					x									x	
Global		x					x					x			
Global		x					x					x			
<i>Sub-total (N=17)</i>	0	5	2	6	4	0	3	2	7	5	0	3	4	5	5
N = 53	4	14	11	17	7	3	13	12	17	8	2	11	15	17	8

Table 13. Individual Respondents' Perceptions when asked 'Do dam development and operations practices now comply with the WCD's Strategic Priorities 4 to 6'?

REFERENCE LOCATION	STRATEGIC PRIORITY 4					STRATEGIC PRIORITY 5					STRATEGIC PRIORITY 6				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia		X					X					X			
Brazil			X					X					X		
Brazil		X				X						X			
Canada				X					X					X	
Cambodia			X					X					X		
Chile				X					X					X	
China		X					X					X			
China				X					X					X	
China		X					X							X	
Cote d'Ivoire		X					X					X			
Egypt		X					X					X			
India			X				X					X			
India					X					X					X
Laos				X					X					X	
Laos			X					X					X		
Laos			X					X					X		
Laos		X							X					X	
Lesotho		X					X					X			
Malaysia				X						X					X
Nepal				X					X					X	
Pakistan				X					X					X	
Pakistan			X						X					X	
Portugal	X						X				X				
Portugal	X					X							X		
Portugal	X					X					X				
South Africa					X					X					X
Sri Lanka			X				X					X			
Swaziland			X					X					X		
Tanzania		X							X			X			
The Philippines				X					X					X	
Turkey		X					X					X			
United Kingdom		X					X						X		
USA		X						X					X		
USA				X					X				X		

REFERENCE LOCATION	STRATEGIC PRIORITY 4					STRATEGIC PRIORITY 5					STRATEGIC PRIORITY 6				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
USA				X					X					X	
<i>Sub-total (N=36)</i>	3	12	9	10	2	3	11	6	13	3	2	12	8	11	3
Global				X					X					X	
Global					X				X						X
Global					X					X					X
Global				X					X					X	
Global			X					X						X	
Global					X				X						X
Global				X				X				X			
Global			X					X				X			
Global				X					X				X		
Global				X					X				X		
Global				X					X				X		
Global		X						X				X			
Global				X				X					X		
Global		X						X				X			
<i>Sub-total (N=17)</i>	0	2	2	7	6	0	4	4	5	4	0	4	3	6	4
N = 53	3	14	11	17	8	3	15	10	18	7	2	16	11	17	7

Table 14. Individual Respondents' Perceptions when asked 'Do dam development and operations practices now comply with the WCD's Strategic Priority 7'?

REFERENCE LOCATION	STRATEGIC PRIORITY 7				
	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
Australia			X		
Brazil			X		
Brazil		X			
Canada				X	
Cambodia			X		
Chile				X	
China		X			
China				X	
China		X			
Cote d'Ivoire		X			
Egypt		X			
India		X			
India					X
Laos				X	
Laos			X		
Laos				X	
Laos				X	
Laos			X		
Lesotho		X			
Malaysia			X		
Nepal				X	
Pakistan				X	
Pakistan					X
Portugal	X				
Portugal	X				
Portugal	X				
South Africa					X
Sri Lanka			X		
Swaziland		X			
Tanzania				X	
The Philippines				X	
Turkey		X			
United Kingdom		X			
USA			X		
USA				X	
USA				X	

	STRATEGIC PRIORITY 7				
REFERENCE LOCATION	Agree Strongly	Agree	Neither agree nor disagree	Disagree	Disagree Strongly
<i>Sub-total (N=36)</i>	3	10	8	12	3
Global				X	
Global					X
Global					X
Global				X	
Global				X	
Global				X	
Global				X	
Global					X
Global			X		
Global			X		
Global				X	
Global					X
Global					X
Global			X		
Global				X	
Global			X		
<i>Sub-total (N=17)</i>	0	0	4	7	6
N = 53	3	10	12	19	9