Dams and development: A new framework for decision-making

Overview of the report by the World Commission on Dams

December 2001
The present paper is a summary of the final report produced by the World Commission on Dams, which was published in November 2000. A full copy of the report titled *Dams and Development: A New Framework for Decision-Making*, can be obtained from bookshops or Earthscan Publications Ltd, 120 Pentonville road, London N1 9JN, UK. Email: earthinfo@earthscan.co.uk and http://www.earthscan.co.uk. The report is also downloadable at http://www.dams.org/report/.
CONTENTS

SUMMARY

INTRODUCTION: A BRIEF OVERVIEW OF DAMS AND DEVELOPMENT
    Changing context
    Cure or curse? The debate on dams

THE WORLD COMMISSION ON DAMS
    The main components and findings of the WCD Global Review
    A new approach to improving the outcomes of dams and water development projects

A NEW FOCUS FOR PLANNING AND DECISION-MAKING

WHAT NEXT?
SUMMARY

What are the real costs of dams? Who pays for them? And who benefits from them? The construction of large dams is now one of the most hotly contested issues in sustainable development. Supporters talk up the social and economic benefits of irrigation, electricity, flood control and water supply; while opponents highlight their negative impacts, such as cost overruns and debt burden, the displacement and impoverishment of people, the destruction of important ecosystems and fishery resources, and the inequitable distribution of costs and benefits.

The rivers, watersheds and aquatic ecosystems harnessed and affected by dams provide the basis for life and livelihoods. The considerable benefits that dams can provide must therefore be weighed against the negative consequences of introducing structures that transform the surrounding landscape, impacting on every species living within it. The World Commission on Dams (WCD) was set up to undertake the huge task of assessing the past performance and future role of large dams.

_Dams and Development: A New framework for Decision-Making_ is the product of over two years of intense study, dialogue and reflection by the WCD, the WCD Stakeholders’ Forum and hundreds of individual experts on all aspects of dams. Providing a comprehensive, global review of their performance and contribution to development, the WCD report is relevant to everyone working with or concerned by dams, from governments and international organisations, the private sector and civil society groups, to the communities most intimately affected by dams. This paper presents a brief overview of the issues addressed by the report, summarising its main recommendations and proposals.

Building on an analysis of how and why dams succeed or fail to meet development objectives, the report addresses key issues at the heart of the debate on dams, and recommends fundamental changes in the manner in which water development options are assessed and project cycles planned, implemented, monitored and evaluated. Working on the premise that dams are but one means of improving human welfare on a sustainable basis, the Commission proposes that they should be judged accordingly, supported if they offer the best way of achieving this goal, and avoided should other, better options be available.
Such judgement requires a new, more inclusive approach to dams as a development option: an approach that begins by identifying the broad range of stakeholders potentially affected by new initiatives, recognises their rights and the risks attendant upon a proposed programme, and ensures their informed participation in the decision-making processes that shape the development of water and energy resources. To support this new framework for decision-making, the Commission outlines seven strategic priorities, with criteria and guidelines that should enable stakeholders at all levels to seek and attain the most appropriate means of exploiting and protecting water and energy resources. Vital reading on the future of dams and the changing development context, *Dams and Development* leaves no doubt that business as usual is simply no longer an option.

**INTRODUCTION: A BRIEF OVERVIEW OF DAMS AND DEVELOPMENT**

There is nothing new about dams: for thousands of years people have been building them to manage flood waters and supply water for drinking, irrigation and, more recently, industry. By the 1950s, as national economies and populations expanded, dams were increasingly viewed as a means of meeting water and energy needs, and since then, at least 45 000 large dams have been constructed. Nearly half of the rivers in the world now house at least one large dam, and hydropower produces over 50% of the electricity in a third of countries across the world, with large dams generating 19% of electricity overall. Half of the world’s large dams were built exclusively or primarily for irrigation, and some 30-40% of the 271 million hectares irrigated worldwide rely on these constructions.

Dams have been promoted as an important means of meeting water and energy needs, and as a long-term, strategic investment with the ability to deliver multiple benefits, some of which are typical of all large infrastructure projects, while others are unique to dams and specific to particular projects. Regional development, job creation and fostering an industrial base with export capability are often cited as additional considerations when building large dams, while other goals include the generation of income from export earnings, either through direct sales of electricity or by selling cash crops or processed products from electricity-intensive industries.

However, such benefits need to be weighed up against the social and environmental impacts of large dams, which have become increasingly
obvious over the last fifty years. Rivers have been fragmented and transformed, and worldwide, an estimated 40-80 million people have been displaced by reservoirs. The enormous investment required to build large dams, and their huge social, environmental and economic impact, have fuelled opposition to them. As decision-making processes in many countries have become more open and transparent, the future of large dams is increasingly being called into question.

**Changing context**

A number of global reports have documented the dramatic impact of withdrawing water from the world's lakes, rivers and underground aquifers, as withdrawals doubled over the second half of the last century to an estimated 3800 cubic kilometres per year. Sustainable management of water resources has been pushed to the top of the global development agenda by the need to supply growing populations and economies with water, while groundwater sources are depleted, water quality is declining and increasingly severe limits have been imposed on surface water extraction.

Over the past few decades, water has ceased to be seen as a free commodity, and is now valued as a limited natural resource, an economic good and a human right. As such, it should be allocated in an equitable manner, but in 1990, over a billion people were estimated to have less than the 50 litres per person per day recommended as sufficient for basic human requirements, while households in industrial countries and wealthy city-dwellers in developing countries were consuming four to fourteen times this amount.

Leading analysts predict that competition for water to meet the demands of industry, agriculture and human consumption will increase, forecasting that by 2025, there will be a total of 3.5 billion people living in water-stressed countries. Empirical evidence suggests that limited water supplies, current agricultural practices and population growth will make it increasingly difficult for various countries to achieve food self-sufficiency, which will intensify the focus on food security and the protection of other environmental resources. Clearly, action is required to address both current and future needs, and dams are at the heart of the debate about how this might be achieved. While there are many threats implicit in this pressure on water, it could also act as a catalyst for positive change in water-related policies, creating new opportunities for development initiatives.
Cure or curse? The debate on dams

Between the 1930s and the 1970s, when the construction of large dams peaked, they were viewed by many as synonymous with development and economic progress. Hydropower, irrigation, water supply and flood control services were widely seen as sufficient justification for the huge investments required; while other benefits, such as the economic prosperity brought to a region by multiple cropping, the installation of electricity in rural areas, and the expansion of physical and social infrastructures, such as roads and schools, were used to justify dams as the most economically and financially competitive option.

However, a growing body of knowledge and experience about the performance and consequences of dams has raised questions about the reported returns on the investments required, and the level and distribution of benefits actually delivered. Initially focusing on specific sites, opposition has now evolved into a global debate about dams: their impact on neighbouring communities, livelihoods and ecosystems, and whether they represent the best investment of public funds and resources.

The debate ranges from the gap between the promised benefits of a dam and the actual outcomes, to the challenges of developing water and energy in terms of 'nation building' and resource allocation. Proponents maintain that dams have generally performed well as an integral part of water and energy development strategies in over 140 nations, for the most part providing an indispensable range of water and energy services. Opponents claim that better, cheaper options for meeting water and energy needs, from small-scale, decentralised water supply and electricity options to large-scale end-use efficiency and demand-side management options, have often been ignored, despite the fact that they may offer more sustainable and equitable development benefits.

While protagonists may agree on the need to take the environmental and social costs of dams more seriously, and systematically to consult with the people affected by their construction, there are still deep divisions over issues such as:

- the extent to which alternatives to dams are viable for achieving various development goals, and whether alternatives are complementary or mutually exclusive;
• the extent to which adverse environmental and social impacts are acceptable;
• the degree to which adverse environmental and social impacts can be avoided or mitigated;
• the extent to which local consent should govern development decisions in the future.

Today, the decision to build a large dam is rarely only a local or national one. The debate has been transformed from a local process of assessing costs and benefits to one in which dams in general are the focus of global concern about development strategies and choices.

THE WORLD COMMISSION ON DAMS

It was against this background that a meeting to discuss issues relating to large dams was convened in Gland, Switzerland, in April 1997. Supported by the World Bank and the IUCN – World Conservation Union, the meeting was attended by thirty-nine participants from governments, the private sector, international financial institutions, civil society organisations and people affected by dams. It resulted in a proposal to establish the World Commission on Dams (WCD), with a mandate to:

• Review the effectiveness of large dams as a development option, and assess alternatives for developing water resources and energy;
• Develop internationally acceptable criteria, guidelines and standards, where appropriate, for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams.

Members of the Commission were selected to reflect regional diversity, expertise and stakeholder perspectives; and to act in an individual capacity, rather than representing institutions or countries. In May 1998, the WCD started work on the first independent global review of the performance and impact of large dams and the options available for water and energy development. This involved preparing eight detailed case studies of large dams, country reviews for India and China, and a briefing paper on Russia and the Newly Independent States. Surveys were conducted on one hundred and twenty-five large dams; seventeen thematic reviews written on social, environmental and economic issues, alternatives to dams and governance and institutional processes; and nine hundred and forty-seven submissions and presentations made at four regional consultations. These inputs formed the
The core of the WCD Knowledge Base, which served to inform the Commission on the main issues surrounding dams and their alternatives. With the focus as much on the process as on the product, public consultation and access to the Commission were key components of the review, which was conducted in consultation with the WCD forum, a sixty-eight-member group representing a cross-section of interests, views and institutions. Taking care to involve all interest groups in the debate, the WCD also pioneered a new funding model, and fifty-three public, private and civil society organisations pledged funds to the WCD process.

**The main components and findings of the WCD Global Review**

The review was structured around three main components:

1. An assessment of the technical, financial and economic performance of dams, their impact on ecosystems and people, and the distribution of project gains and losses;
2. An assessment of the alternatives to dams, and the opportunities and obstacles relating to them;
3. An analysis of the planning, decision-making and compliance issues underpinning the selection, design, construction, operation and decommissioning of dams.

Evaluation of performance was based on the targets set for large dams by their proponents – the criteria providing the basis for government approval and financing. While recognising the substantial benefits derived from dams, the review also focuses on why, how and where they failed to achieve the results intended, or produced unanticipated outcomes. An integral part of the research involved documenting the good practices developed to address the shortcomings and difficulties experienced in the past. These practices suggest that there is cause for optimism about improving the benefits, increasing the beneficiaries and reducing or mitigating the negative impacts and conflicts caused by dams.

The principal findings of the review, which form the basis for the new approach developed within the report, are summarised below:

- Dams have made a significant contribution to human development, and considerable benefits have been derived from them;
- An unacceptable and often unnecessary price has been paid to secure those benefits, especially in social and environmental terms, by
displaced people, communities downstream from the dam, taxpayers and the environment;

- Compared with other alternatives, the value of dams in meeting water and energy development needs is questionable, particularly in view of the lack of equity and uneven distribution of benefits;
- By bringing to the table all those whose rights are involved, and who bear the risks associated with different options for developing water and energy resources, it should be possible to address competing interests and resolve conflicts in a positive manner;
- Negotiation can be used as a tool to increase the effectiveness of water and energy development projects, by eliminating inappropriate projects at an early stage and offering only those options that key stakeholders agree are the best for meeting the needs in question.

A new approach to improving the outcomes of dams and water development projects

Like any development project, dams and their alternatives must respond to a wide range of needs, expectations, objectives and constraints. This can only be achieved by transforming the development process, so that it includes all relevant stakeholders and is based on negotiation and consensual decision-making. For this radically different approach to work, participants need to have a clear understanding of and agreement about the shared objectives and goals of development, which should be underpinned by five core values identified by the Commission:

- Equity
- Efficiency
- Participatory decision-making
- Sustainability
- Accountability

The endorsement of these values is a key theme of the report and its recommendations, and there is significant support for rights, particularly human rights, to be considered as a fundamental reference point in any debate on dams.

In view of the importance of rights-related issues, and the nature and magnitude of the potential risks for all protagonists, the Commission proposes that an approach based on the recognition of rights and assessment of risks (particularly the rights at risk) be developed as a tool for guiding future
planning and decision-making. This will also provide a more effective framework for integrating the economic, social and environmental issues at stake when assessing development options and implementing projects.

In order to identify the legitimate claims and entitlements potentially affected by a proposed project or its alternatives, it is essential to clarify the rights at stake, as a pre-requisite to identifying all the groups entitled to a formal role in the consultative process. These stakeholders should be actively involved from the start, and party to negotiating project-specific agreements on issues such as benefit sharing, resettlement or compensation.

The notion of risk adds an important dimension to understanding how, and to what extent, a project may have an impact on such rights. Traditionally, the definition of risk was limited to the capital invested and returns expected by developers or corporate investors. These voluntary risk-takers can determine the level and type of risk they wish to take, and explicitly define its boundaries and acceptability. As the Global Review shows, water development projects have often created a far larger group of involuntary risk-takers, who find that their livelihoods, quality of life and very survival are at stake, and that the risks imposed upon them are managed by others. Typically, these involuntary risk-bearers have little or no say in overall water and energy policy, the choice of specific projects, or project design and implementation.

Like rights and entitlements, these risks must be identified, articulated and addressed. This will involve formal recognition of the fact that governments or developers are not the only parties at risk, and that the communities affected by a project, as well as the environment, also have much to lose.

A rights-and-risks approach to assessing options and implementation will provide an effective framework for determining who has a legitimate place at the negotiating table, and which issues need to be on the agenda (see Figure 1 below). Although this approach may be more demanding in the early stages of options assessment and project design, inclusive and transparent decision-making processes aimed at negotiated outcomes should legitimise subsequent stages of the project, thereby helping to resolve the many and complex issues surrounding water, dams and development.
Having taken the five core values outlined above as the basis for developing a rights-and-risks approach to the development process, the Commission then uses the broad framework of existing and emerging policy at local, national and international levels to identify seven strategic priorities and corresponding policy principles:

- Gaining public acceptance
- Comprehensive option assessment
- Managing existing dams
- Sustaining rivers and livelihoods
- Recognising entitlements and sharing benefits
- Ensuring compliance
- Sharing rivers for peace, development and security.
These priorities provide the basis for an innovative and constructive framework for decision-making, moving away from the traditional, top-down, technology-oriented approach towards a much more inclusive method of assessing options, managing existing dams, gaining public acceptance and negotiating and sharing benefits. Presented as outcomes to be achieved, the seven strategic priorities are supported by a practical set of principles and guidelines designed to be adopted and adapted by everyone involved in the debate about dams.

1. Gaining public acceptance
In order to develop water and energy resources in an equitable and sustainable manner, it is essential that there is public acceptance of such initiatives. This entails recognising the rights, addressing the risks and safeguarding the entitlements of all interested groups, by ensuring that they are informed about the issues at stake, able effectively to participate in decision-making processes, and that there is demonstrable acceptance of key decisions. Particular care should be taken to include the most vulnerable parties, such as women, the poor and certain indigenous groups, and that decision-making processes are guided by their free, informed and prior consent.

2. Comprehensive options assessment
The most appropriate development initiatives for a particular area can only be identified by assessing food, water and energy needs and clearly defining programme objectives. The full range of policy, institutional and technical options, which may well include alternatives to dams, should then be comprehensively assessed in a participatory process that accords the same significance to social and environmental considerations as to economic and financial factors. This process of assessment should continue throughout the planning, development and implementation of the project.

3. Managing existing dams
Dams and the context in which they operate are not static over time. Their benefits and impacts may be transformed by changes in priorities for water use, physical and land use changes in the river basin, technological developments, and changes in public policy expressed in environmental, safety, economic and technical regulations. Management and operational practices should be continuously assessed and adapted to changing circumstances, in order to optimise the benefits, address social issues and improve measures to limit and restore damage to the environment. This process should extend beyond the life of the project, so that the performance, benefits and impacts of all existing large dams can be monitored and evaluated.
on a long-term basis, and appropriate action taken to improve all aspects of their service delivery.

4. Sustaining rivers and livelihoods
Dams transform the landscapes they inhabit, with potentially irreversible effect. It is essential to understand, protect and restore ecosystems at river basin level, in order to minimise their negative impact, limit and mitigate harm to the health and integrity of the river system and those dependent upon it, and promote equitable human development and the welfare of all species. These are key issues when selecting sites and designing projects. Governments should develop national policies for maintaining in their natural state selected rivers with high ecosystem functions and values, and look for alternative sites on tributaries when assessing proposals for dams on undeveloped rivers.

5. Recognising entitlements and sharing benefits
Rather than benefiting from them, many of those affected by dams are aware only of their negative impacts. To redress the balance, a process of joint negotiation with such groups is required, based on recognition of rights and assessment of risks. The aim of these negotiations is to agree on legally enforceable mitigation and development provisions, which recognise entitlements that improve livelihoods and quality of life. States and developers are responsible for resettling and compensating all affected people, and satisfying them that their livelihoods will be improved by moving from their current situation. Legal means, such as contracts and accessible recourse at national and international levels, should be used to ensure that responsible parties fulfil their commitments to agreed mitigation, resettlement and development provisions.

6. Ensuring compliance
In order to win and maintain public trust and confidence, governments, developers, regulators and operators must meet their commitments for planning, implementing and operating dams. Compliance with applicable regulations, criteria and guidelines, and project-specific negotiated agreements should be ensured at all critical stages of project planning and implementation. A set of regulatory and non-regulatory mechanisms, incorporating incentives and sanctions, and flexible enough to accommodate changing circumstances, is needed to enforce social, environmental and technical measures. A clear, consistent and common set of criteria and guidelines to ensure compliance should be adopted by sponsoring, contracting and financing institutions, and compliance subjected to independent and transparent review. Legislation,
voluntary integrity pacts, debarments and other instruments should be used to eliminate corrupt practices.

7. Sharing rivers for peace, development and security
The storage and diversion of water on transboundary rivers can cause considerable tension within and between countries. As specific interventions for diverting water, dams require constructive co-operation, and states or political units within countries need to agree on the use of resources in order to promote regional co-operation and peaceful collaboration.

Rather than focusing on allocating water as a finite resource, states need to work on sharing rivers and their associated benefits. This will involve negotiating a wide range of issues, and making provision in national water policies for basin agreements in shared river basins. These agreements should be based on the principles of equitable and reasonable use, no significant harm, prior information and the Commission’s strategic priorities.

If an objection by a riparian state to a proposal for a new dam on a shared river is upheld by an independent panel, construction should not be carried out. Furthermore, where a government agency plans the construction of a dam on a shared river in contravention of the principle of good faith negotiations between riparians, external financing bodies should withdraw their support for projects and programmes promoted by that agency.

A NEW FOCUS FOR PLANNING AND DECISION-MAKING

In order to act on the strategic priorities recommended by the Commission, a new focus is required for planning and management in the water and energy sectors. This can best be achieved by focusing on the key stages in the decision-making process that influence final outcomes, and where compliance with regulatory requirements can be verified. The Commission identified five critical decision points for water and energy options. The first two relate to planning, and lead to decisions on a preferred development plan:

1. Needs assessment – validating needs for water and energy services;
2. Selecting alternatives – identifying the preferred development plan from among the full range of options.

When a dam is selected as a preferred development option, there are three further critical decision points:
3. Project preparation – verifying that agreements are in place before the construction contract is put to tender;
4. Project implementation – confirming compliance before commissioning;
5. Project operation – adapting to changing contexts.

The decision made at each of these points represents a commitment to action that will govern the course of future conduct and the allocation of resources. It is at these points that ministries and government agencies need to test compliance with preceding processes, before giving the green light to go on to the next stage. They are not exhaustive, and within each stage many other decisions have to be taken and agreements reached. The five stages and associated decision points need to be interpreted within the overall planning contexts of individual countries; and the Commission also noted that even when these decision points have been passed, there are certain steps that should be taken to improve outcomes (see Box 1 below).

**Box 1  Dams in the pipeline**

It is never too late to try and improve the outcomes of projects, even the many dam projects currently at various stages of planning and development. *Dams and Development* calls for an open and participatory review of all ongoing and planned projects, to see whether changes are needed to bring them into line with the WCD strategic priorities and policy principles. In general, regulators, developers and, where appropriate, financing agencies, should ensure that such a review:

- Uses stakeholder analysis based on the recognition of rights and assessment of risks to identify a stakeholder forum that is consulted on all relevant issues;
- Enables vulnerable and disadvantaged groups of stakeholders to participate in an informed manner;
- Includes a distribution analysis to see who bears the costs and who enjoys the benefits of the project;
- Develops agreed mitigation and resettlement measures to promote development opportunities and benefit displaced and adversely affected people;
- Avoids, through modified design, any severe and irreversible impacts on the ecosystem;
- Provides for an environmental flow requirement, and mitigates or compensates any unavoidable impacts on the ecosystem;
- Designs and implements recourse and compliance mechanisms.

The process of review implies added investigations or commitments, the renegotiation of contracts and the incorporation of a Compliance Plan. However, additional financial costs will be recouped in lower overall costs to operators, governments and society in general, as a consequence of avoiding negative outcomes and conflicts.
In the past, decision-making processes have taken little account of social, environmental, governance and compliance issues. The Commission therefore developed a set of criteria and twenty-six guidelines to complement the body of knowledge on good practices, and add value to current national and international guidelines, including those on the technical, economic and financial aspects of development. Used in conjunction with existing decision-making tools, these criteria and guidelines provide a new direction for appropriate and sustainable development. Bringing about this change will require concerted action from a number of quarters:

- Planners need to identify stakeholders through a process that recognises rights and assesses risks;

- States should invest more at an earlier stage of the process, to screen out inappropriate projects and facilitate integration across different sectors within the context of the river basin;

- Consultants and agencies have to ensure that outcomes from feasibility studies are socially and environmentally acceptable;

- All players should promote open and meaningful participation during planning and implementation, to achieve negotiated outcomes;

- Developers should take contractual responsibility for effectively mitigating social and environmental impacts;

- Independent reviewers need to improve compliance;

- Dam owners must apply the lessons learned from regularly monitoring past experiences and by adapting to changing needs and contexts.
WHAT NEXT?

The findings presented in Dams and Development are aimed at everyone involved in dams, from governments and the private sector, developers and owners, to civil society groups, international organisations and affected communities. The challenge now is to use the insights and proposals made in the report to reassess established procedures and involve all stakeholders - from the most powerful international players to the smallest communities - in making and implementing decisions about fundamental water and energy development choices.

The Commission proposes a number of entry points to help organisations start to act on the report, by:

- Carefully reviewing and actively disseminating the report;
- Issuing public statements of support for the approach taken;
- Using WCD criteria and guidelines to review dams currently being developed;
- Supporting investment in building capacity, particularly in developing countries, for options assessment and improved decision-making.

Specific proposals are included for national governments and line ministries, civil society groups, the private sector, bilateral aid agencies, multilateral development banks, export credit agencies, international organisations and academic and research bodies. These actions, outlined in Box 2 below, would facilitate permanent change and advance the principles of a more inclusive and equitable approach to development.
Box 2  Selected recommendations for key stakeholders in the debate on dams

National governments:
- Review existing procedures and regulations relating to large dam projects;
- Use time-bound licences for both public and privately owned dams;
- Establish an independent, multi-stakeholder committee to address unresolved issues caused by dams.

Civil society groups:
- Monitor compliance with agreements and assist any aggrieved party in resolving outstanding disagreements or seeking recourse;
- Actively assist in identifying stakeholders potentially affected by dam projects, using the rights-and-risks approach.

Organisations representing communities affected by dams:
- Identify unresolved social and environmental impacts and convince the relevant authorities to take effective steps to address them;
- Develop support networks and partnerships to strengthen the technical and legal capacity for needs and options assessment.

Professional associations:
- Develop processes for certifying compliance with WCD guidelines;
- Extend national and international databases, such as the ICCOLD World Register of Dams, to include social and environmental parameters.

Private sector:
- Develop and adopt voluntary codes of conduct, management systems and certification procedures for best ensuring and demonstrating compliance with the Commission’s guidelines, including, for example, through the ISO 14001 management system standard;
- Abide by the provisions of the anti-bribery convention of the OECD;
- Adopt integrity pacts for all contracts and procurement.

Bilateral aid agencies and multilateral development banks:
- Ensure that any dam options for which financing is approved have been selected from an agreed system of ranking, and respect WCD guidelines;
- Accelerate the shift from project- to sector-based finance, by increasing financial and technical support for effective, transparent and participatory needs and options assessment, and by financing non-structural alternatives;
- Review the portfolio of projects to identify any that may have underperformed in the past or still present unresolved issues.
A considerable element of trust between all players will be needed to move forward with these proposals. This will require early and resolute action to address various unresolved issues, and assurances to countries in the early stages of economic development that, within certain parameters, dams may still be a viable water and energy development option.

While the debate over dams will continue for many years, the Commission has shown that it is possible to find common ground without compromising individual values or losing a sense of purpose. The framework for a new approach to dams as a development option has been established, but its strength and effectiveness will depend on all parties pursuing the process in good faith and signing up to fundamental changes in priorities and practices. The report leaves no doubt about the challenges ahead, ending with an explicit call to action:

"We have conducted the first comprehensive and global review of the performance of dams and their contribution to development. We have done this through an inclusive process that has brought all significant players into the debate. And we believe that we have shifted the centre of gravity in the dams debate to one focused on options assessment and participatory decision-making. The rights-and-risks approach we propose will raise the importance of the social and environmental dimensions of dams to a level once reserved for the economic dimension. We have told our story. What happens next is up to you."