



FUTURE DAMS

Recommendations to Swedish Stakeholders
on Implementing "Dams and Development
– A New Framework for Decision Making"

A report developed and written by the Swedish Committee for Water and Dam Issues (SKVD), a dialogue process between representatives from Swedish developers, consulting companies, authorities, financiers, non-governmental organisations, research institutions and indigenous peoples. It contains recommendations for Swedish actors' implementation of Dams and Development, A New Framework for Decision Making, which was launched by the World Commission on Dams (WCD) in November 2000.



Comment from UNEP

This set of 25 recommendations related to the strategic priorities of the World Commission on Dams (WCD) underscores the importance of a multistakeholder dialogue to clarify the central elements of the strategic priorities in the local context. The local context and the motivation to carry out the analysis differ from developing to developed countries. However, they share the need for clearly establishing the elements of technical, economic, social and environmental sustainability that will ensure that large infrastructure, and in particular dams, contribute effectively to sustainable development. National policy/regulatory frameworks and international guidelines should be the final repositories of the recommendations of these multistakeholder dialogues if implementation is to be achieved and compliance ensured. The Dams and Development Project (DDP) hosted by UNEP is tasked with promoting

dialogue at national, regional and global levels on the WCD strategic priorities and is also producing practical tools to help decision makers in strengthening those frameworks and guidelines. On the basis of the challenges faced and the experience gained by DDP during Phase 1 and the first stages of Phase 2, we are in a better position to appreciate the high value of the Swedish dialogue initiative and the relevance of its outcomes. I am sure that the Government of Sweden will pay them due consideration aiming to unify assessment criteria for deciding on financial support to developing countries. UNEP will take them into account for the benefit of DDP planned outcomes.

*Alberto Calcagno, Coordinator,
Dams and Development Project, UNEP*

Foreword

The World Commission on Dams launched its report in 2000. The Commission's work and report has had great implications for the international debate on dam construction and has deepened our knowledge and understanding. Unfortunately, the implementation of the recommendations has been difficult. In few areas have different stakeholders managed to reach agreement in their view on the report, not in individual countries nor in international organisations. Some countries, of whom South Africa was first, have had national consultations in order to reach a national position on these recommendations. That we in Sweden in this informal way have addressed the issue is a welcome initiative. The initiative for a broader stakeholder dialogue came from WWF and the Swedish Society for Nature Conservation. Their demand to the environment minister resulted in an assignment for the Swedish Water House (SWH) to facilitate this consultation.

The Stockholm International Water Institute (SIWI), which administers the Swedish Water House, has also been one of the participants in the consultation. We are convinced that investments in water infrastructure have been a big part of Sweden's economic development, as it will be in many developing countries. At the same time we are aware that many dams have been built on doubtful grounds and that social as well as ecological considerations have taken a back seat to other interests.

The implementation of these recommendations among Swedish actors can contribute to a more sustainable Swedish involvement in the construction of necessary infrastructure and that the efforts will render a lasting, poverty reducing character.

Anders Bertell, Executive Director, SIWI



Purpose

The main purpose of the Swedish Committee for Water and Dam Issues (SKVD) is to help ensure that dams and other water infrastructure projects with Swedish involvement are ecologically, economically and socially sustainable. In support of this purpose, the Swedish Water House, with a mandate from the Swedish Ministry of Sustainable Development, served as host for a dialogue between Swedish actors in 2004 and 2005. The process has brought together key Swedish actors and interest groups with differing views on water resources use to a free and open discussion on outlooks and approaches in

relation to the WCD report. Through the dialogue the participants have developed a shared attitude to the World Commission on Dams' recommendations and strategic priorities. By extension, this can lead to a collective Swedish posture on the financing of, and involvement in, large-scale water infrastructure projects. We hope that the points presented below clarify further the recommendations and strategic priorities published by the WCD in 2000. Through this we hope to help Swedish actors in the water infrastructure market turn the WCD recommendations and priorities into practice.

Background

Large-scale dams were built in the world's industrialised countries throughout the 20th century. After 1950, construction of dams also began in developing countries. For most nations, dam-building has not been a universally positive experience. With time, the issue has grown increasingly complicated and controversial. Among others, environmental organisations and human rights advocates have argued that a great number of dams have been built without due consideration for the environment and human rights. Increasingly, during the 1990s, the need grew stronger for the creation of common international norms for how large water infrastructure projects should be handled; which considerations must be made, and which parameters should be considered in decisions.

WCD and the Report Dams and Development

The World Commission on Dams (WCD) was launched in 1998 by the World Bank and The World Conservation Union (IUCN), the WCD's leading promoters, in order to learn

from the past and to recommend better procedures in the future. A 68-member reference group representing different interests was closely connected to the Commission. The Commission conducted four regional consultations, with 1,400 participants, case studies of eight dams and 17 thematic studies. These collective experiences formed the basis for the WCD's seven strategic priorities, acting as recommendations for decision makers, designers and builders of dams. The Commission presented its final report Dams and Development in November 2000. The level of detail in the report varies greatly from chapter-to-chapter and recommendation-to-recommendation. Much of the text is very general in order to make application possible in a number of different contexts; project details vary largely between different countries, and the stakeholder make-up also differs greatly. This variation has contributed to marked differences in interpretations of the report among stakeholders.

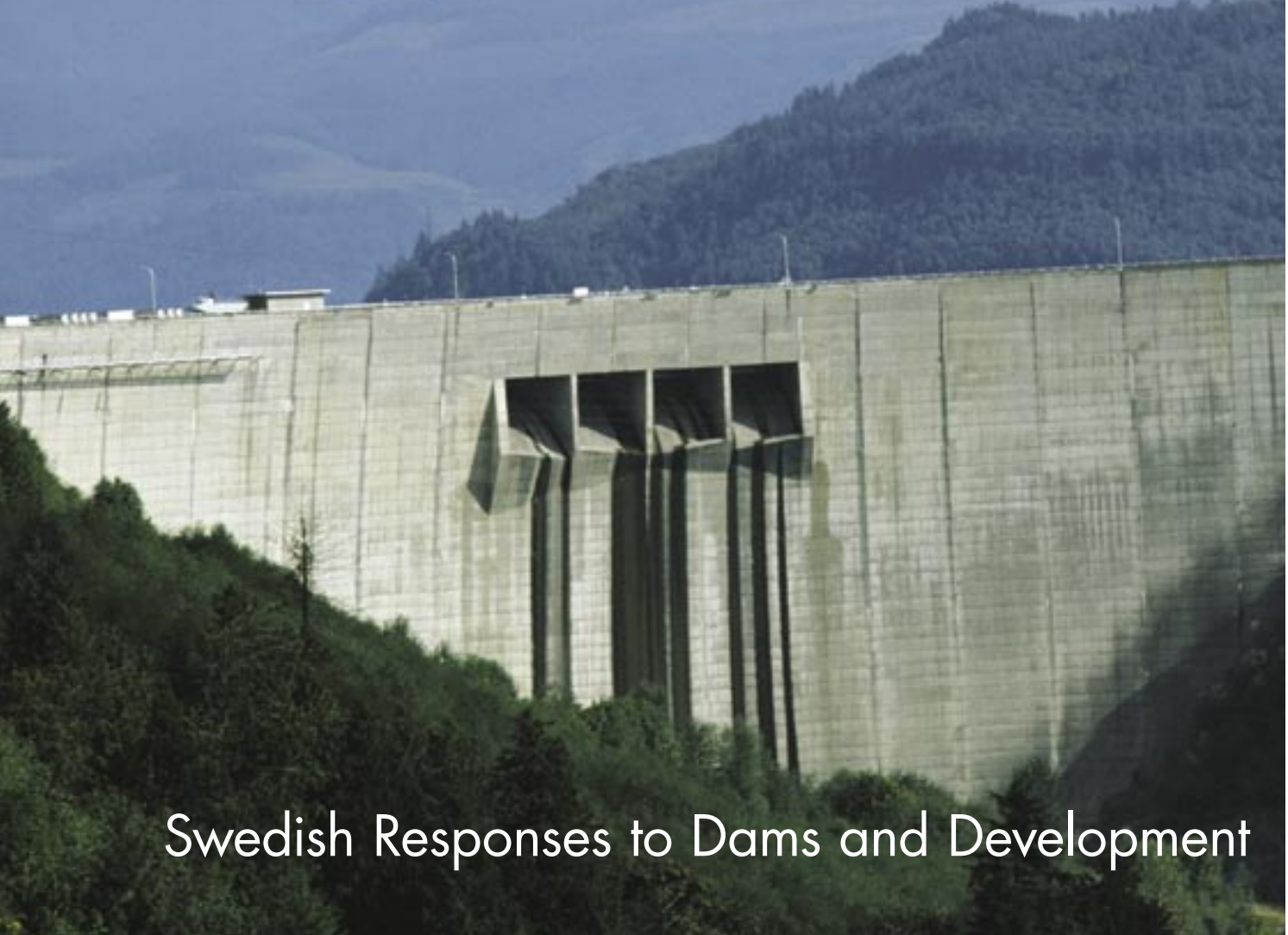


Photo: SWI

Swedish Responses to Dams and Development

Through the Swedish Agency for International Development Cooperation (Sida), Sweden has supported the WCD financially since the start and now also supports UNEP's Dams and Development Project, together with involved parties, to implement the WCD recommendations. Since the report was published, a number of Swedish actors have responded to it publicly. Sida states that, in principle, it shares the report's core values, and that Sida's policies basically already agree with the recommendations. Sida also supports the implementation of WCD's recommendations within the framework of development cooperation. Skanska has announced its support for the report and taken its recommendations into their policies. The Swedish Society for Nature Conservation (SSNC) and the World Wide Fund for Nature (WWF) welcomed the report and work for its implementation.

Other stakeholders either took a non-position or announced that they did not support the report. The lack of a shared vision and clear positions from the different interests complicates coherence between actors and political areas. The dialogue is thus one aspiration in line with the policy of collaboration and coherence which the Swedish Government advocates in its bill on integrated global development (PGU).

Initiative to Swedish Process

Since the release of the WCD report, the Swedish Society

for Nature Conservation and the World Wide Fund for Nature have arranged a number of seminars in order to discuss issues connected to the report's results and recommendations. In connection to one of these seminars, in March 2004, it was suggested that the Swedish Water House, as a neutral facilitator, organise a more limited network meeting to discuss a concrete proposal for a Swedish dialogue on WCD. The seminar was conducted on 10 May, and several seminar participants continued in the dialogue which was initiated in the autumn of 2004 and concluded in December 2005.

Objective of the SKVD

The participants decided that the target of the dialogue was to make the WCD recommendations more concrete in a Swedish context; how can Swedish actors, by following the WCD's recommendations, assure themselves that the projects they take part in are ecologically, economically and socially sustainable? WCD has already conducted very solid studies of individual cases, the general influence of dams, country strategies, and last but not least of different actor and stakeholder opinions. SKVD has never had the intention or capacity to repeat the WCD's enormous effort; rather it has only aspired to make the existing recommendations clearer and more useable for Swedish actors.

Participants in SKVD

The following persons have participated in the Swedish Committee for Water and Dam Issues (SKVD):

Magnus Andersson, The Swedish Export Credits Guarantee Board
Lars-Anders Baer, The Sami Parliament of Sweden
Anders Bertell, Stockholm International Water Institute
Göran Ek, The Swedish Society for Nature Conservation
Ingrid Furukvist, The Swedish Export Credits Guarantee Board
Anders Gustafsson, SWECO
Göran Haag, Sida
Amparo Ismodes, SWECO
Michael Löfroth, World Wide Fund for Nature
Urban Norstedt, Vattenfall
Johan Nylander, The Swedish Energy Agency
Per Renman, Skanska
Bernt Rydgren, SwedPower AB
Jonas Solehav, The Swedish Export Credits Guarantee Board
Gunnel Wisén Persson, ABB

Process leaders:

Johanna Wernqvist, Swedish Water House
Johan Kuylenstierna, Swedish Water House

Participated in individual meetings:

Carmen Blanco, UBV

Representatives from the Ministry of Sustainable Development, the Ministry for Foreign Affairs, the Ministry of Industry, Employment and Communications, the Department of Water and Environmental Studies at Linköping University, Umeå University and River Savers (NGO) have been invited to participate in the process, but declined to do so.

Work Methods Within SKVD

During the start-up phase, the project leader, Johanna Wernqvist, met each of the committee members privately in order to build an understanding of which expectations, ambitions and apprehensions existed before the start of the committee's work. These impressions were integrated anonymously into a general text which presented the collected views. After that, the participants were invited to meet approximately one time per month. The first of these meetings was devoted to defining the Committee's participants, working methods and goals. Aspects of terminology, e.g. the meaning of "water infrastructure", were freely discussed, more so in this than in later meetings. The three subsequent meetings were devoted to discussions of the seven WCD strategic priorities and to the formulation of Swedish recommendations in connection to these. During a final meeting in the spring of 2005, the formulations were completed. In the autumn of 2005 this document's text and photos were developed and approved by the Committee, and printed by the Swedish Water House. The process was completed by SKVD handing over the report to the Swedish Environment Minister Lena Sommestad.

Photo: Bernt Rydgren



Overall Recommendations

1. Monitoring and evaluation programmes for environmental and socio-economic issues shall be defined and decided before the decision to start construction.
2. These recommendations do not inherently press for democratic development, but large projects bring large changes and thus demand democratic participation from all affected partners in the decision-making process.
3. The recommendations which concern individual projects presuppose that national and regional strategic impact assessments have been carried out and have approved the proposed project as one appropriate solution to perceived needs.

1. Gaining Public Acceptance

Strategic priority 1 aims to ensure that no one experiences powerlessness in the face of a water infrastructure project. Related problems shall be solved at an early stage in order to minimise harm to human livelihoods, to nature and ecosystems, and on social and cultural values. All affected stakeholders shall be given the opportunity to participate in the decision-making process. Compensation and benefit-sharing agreements shall be completed before the decision to start construction. Unnecessary disputes and delays can thus be avoided, something which substantially and positively affects the project's economic bottom-line.

Recommendations

- 1.1 Gaining Public Acceptance (GPA) should be seen as an approach to assure quality and speed up the decision-making process and project construction. Greater engagement with all of the project's stakeholders ensures transparency and guarantees that all information relevant to the project is made available. Thus, it is possible in large measure to avoid lengthy and costly legal disputes, protests, etc., by people who feel disenfranchised because their opinions have not been taken into account.
- 1.2 Documents which are relevant for the project's planning and assessment of its appropriateness, such as social and environmental impact assessments, shall be publicly available in good time before the decision to start construction. Swedish actors shall actively strive after the highest possible transparency in regards to power purchase agreements and feasibility studies.
- 1.3 Key stakeholders should form a working group to establish a plan for dates and activities which detail when and how information efforts and consultations shall be carried out during the decision-making process. The responsibility for this rests with the owner of the project. WCD's guideline nr 1, "Stakeholder Analysis", along with nr 2, "Negotiated Decision-Making Process", should be used as the basis for guaranteeing that the process is perceived as fair, transparent



Photo: Berni Rydgen

and legitimate. Stakeholders shall be aware of the project and its influence on themselves and others.

- 1.4 When projects affect the livelihoods of permanent residents and nomadic peoples, the project owner shall pursue a planning and negotiations process which ensures that the population's legal representatives and traditional leaders can participate actively in the planning process and affect its outcome.

2. Comprehensive Options Assessment

Strategic priority 2 aims to ensure that a detailed comprehensive options (COA) assessment will be performed at policy, programme and project levels. Donors have a great opportunity to make valuable contributions by supporting and facilitating such assessments. Development alternatives which, after such an assessment are considered viable, will then be subjected to a more detailed examination where each individual project is assessed on the basis of all sustainability aspects. Environmental and social/cultural aspects should carry the same weight as economic and technical aspects in the choice between different alternatives.

Recommendations

- 2.1 In order to move on with planning on the project level, a comprehensive structural needs and options assessment must have been implemented at the national or

regional level. If a democratic decision-making process – as stipulated in 1.1–1.4 – identified the proposed project, on the basis of the needs assessment, as an appropriate solution to provide energy, water and/or ecosystem services, and also found it to be appropriate on the basis of the different sustainability aspects according to the goal for COA, then recommendation 2.1 on COA is considered as satisfied.

3. Addressing Existing Dams

Strategic priority 3 aims to ensure that the water infrastructure's benefit contra harm is continually evaluated in light of changing priorities and norms in society. Detailed, on-going monitoring of the dam's effectiveness shall be carried out in order to enable early identification of changes in the relation between harm and benefit. A negative shift shall trigger implementation of mitigating measures, such as changes in operational guidelines, or decommissioning.

Recommendations

- 3.1 A control function ("Independent Review Panel" in the WCD report) which monitors the dam's safety, social and ecological effects, along with its economic benefits, must be initiated by the facility's owner. This should form a natural part of the owner's environmental and quality-assurance management.



Photo: Isbama Wernquist



- 3.2 Project agreements shall not be entered into with actors who already have unresolved conflicts, or unfinished compensation agreements in their own projects.
- 3.3 Technical innovation shall be utilised to optimise the project's performance, thus reducing the need for new projects.
- 3.4 Routines for reporting on risks which can lead to serious accidents and incidents shall be developed. Routines for the documentation of positive effects and best practices shall also be developed.
- 3.5 All dams shall have an organisation and routines for dam safety work, prescribing regular controls of structural stability, monitoring of discharges and other operational decisions, along with a warning system for risk situations.

4. Sustaining Rivers and Livelihoods

Strategic priority 4 aims to ensure the understanding, protection and restoration of ecosystems at the catchment level to facilitate fair and sustainable development and for the benefits of biodiversity. Options assessment and decisions on river development prioritise the avoidance of impacts, followed by the minimising and mitigation of threats and damage to the health and integrity of the river system.

River systems are among the world's most productive and species-rich ecosystems, and one of the more important protein sources for the rural population along many rivers.

Since large water infrastructure projects, among them dams, seriously affect ecosystems, the project planning must be directed to the minimisation of negative impacts on the environment – in particular, irreversible impacts – through careful site selection and environmental impact assessments (EIA) in accordance with international standards.

Well-planned water infrastructure means positive development opportunities for the local population through improved cultivation (irrigation) or access to electricity. However, ecosystem services and traditional benefits can disappear and the cultural landscape can change. Thus, balance considerations are in order to find the most favourable development approach for the local population, energy services and the protection of ecosystems which depend on natural flow variations.

The recommendations below presuppose that the project is chosen through detailed options assessments and with democratic decision-making processes according to strategic priorities 1 and 2.

Recommendations

- 4.1 The value of ecosystem services from water courses must not be underestimated. Therefore, the impact assessment should include an analysis of those economic values which are lost through deteriorated opportunities for fishing, agriculture, hunting and other types of natural resources use. Which, and in

Photo: S/WI

what way, people and environment depend on the river system must be assessed. The minimisation of benefit losses is first priority, ahead of compensation. Project-generated benefits shall be directed to those who are negatively affected. This analysis should be done in close cooperation with the affected local population and in good time before the decision to start construction. The result of the analysis shall form the foundation for a compensation agreement and for calculation of the economic returns of the dam.

- 4.2 An environmental impact assessment (EIA) – including a zero-alternative analysis – shall be conducted and publicly available before the decision to start construction. Monitoring and evaluation of the EIA shall be determined, and the project owner pledges to implement mitigating measures in response to unforeseen negative impacts.
- 4.3 Site selection studies for the project should include an analysis of further dams and other infrastructure which might be built. The ambition should always be to concentrate the impacts of dams to as few water courses as possible in a drainage basin so that the other water courses can be left entirely undisturbed. Natural migratory obstacles in the water course should be prioritised as sites for development in order to avoid negative impacts on migratory fish. When negative impacts cannot be avoided, satisfactory compensatory measures should be taken.
- 4.4 Ecosystem and social and health issues shall be valued as an integral component of the project when decisions are made, and impact avoidance shall be prioritised. The health situation in the entire affected area shall be better after the project's completion than before.

4.5 When constructing large water infrastructure projects, the impacts of possible stretches of dry riverbed and/or sections with strongly reduced flow, must be evaluated carefully. The need for, and benefit of, maintaining reduced flow in the affected river sections shall guide the choice of the solution. A reasonable aim is to create conditions which are similar to those in the undisturbed water course. The ambition shall be that no species are exterminated, and that ecosystem services are maintained to the largest possible extent.

4.6 Projects shall avoid significant negative impacts on areas which are protected by legislation and/or international agreements and conventions.

4.7 Optimisation of the potential investment calls for the implementation of thorough sediment-transport studies in the water course. These studies shall build upon a good understanding of the sediment-transport dynamics, and shall serve as the basis for prevention of unwanted sedimentation.

4.8 The need for safety is provided for by design, operation, permit control and maintenance of dams and their discharges. Further, the operational regime must be analysed in regards to the safety of people residing within the project-affected area.

5. Recognising Entitlements and Sharing Benefits

Strategic priority 5 aims to ensure that all of the project's affected partners are seen as co-owners of the project. The local population shall have better livelihoods during and after the project's completion than before.



Recommendations

- 5.1 Compensation and resettlement agreements with the affected peoples (resident or nomadic) shall be finalised before the decision to start construction, and implementation should preferably have begun. In a resettlement scheme, the aim should be to solve perceived problems without creating new ones. Traditional, cultural and religious taboos must be treated with the utmost respect and seriousness, and local leaders should be engaged to propose and appraise solutions. One-time monetary payments as a form of compensation should be avoided in economies based on subsistence and primary production. Instead, different types of profit-sharing systems or development funds can be used, and the local population given priority for employment where the project gives rise to such opportunities.
- 5.2 If the affected population so desires, lost land shall, as far as possible be replaced with new land of equal or better value. The resettlers should participate in the search for new areas. The population already living in these new areas is also a project-affected party and should receive the same kind of consideration. Alternative sources of livelihood shall, if the owners so desire, be replaced with assets of the same nature. The transition period, before resources such as forests, cultivation, etc., are recreated, demands that other forms of meaningful livelihoods are offered to those affected.

6. Ensuring Compliance

Strategic priority 6 aims to ensure that relevant laws, regulations, recommendations as well as project-specific agreements are followed.

Recommendations

- 6.1 The project owner is responsible for ensuring that relevant laws, regulations and recommendations are followed. A monitoring and evaluation system shall exist which can respond to changed conditions with corrective action. All stakeholders understand the agreements entered into, and these are legally binding.
- 6.2 An external supervisory function shall be in place to monitor that the project owner adheres to the regulatory framework referred to in 6.1.
- 6.3 Companies convicted of corruption are not contracted for assignments and it is advisable that they do not receive Swedish development financing.

7. Sharing Rivers for Peace, Development and Security

Strategic priority 7 aims to ensure that no conflicts between states are created or expanded due to water infrastructure projects. Water infrastructure projects that affect more than one country shall promote peace, co-operation, development and security.

Recommendations

- 7.1 Countries with shared water resources need to agree on how these resources can be optimised for the common benefit of all partners.
- 7.2 For a transboundary water project, an agreement must be established between the affected countries, at the governmental level, which considers the following matters:
 - That Environmental Impact Assessments, Social Impact Assessments and other project documents shall assess the potential effect of the facility also on other countries in the drainage basin.
 - How information on the facility's technical data and operational policy shall be made available to concerned authorities in countries within the drainage basin.
 - How functioning warning systems for sudden changes in operation, accidents etc., which affect the river's discharge shall be established, understood and monitored.
 - Establishment of conflict resolution mechanisms.

Definitions for Expressions in the Recommendations:

- Stakeholders – all who in some way are concerned with the project/affected by the project. The primary stakeholders are those directly concerned, such as the residents and nomadic populations, decision makers, financiers, project owners; secondary partners are, for example, NGOs.
- Local population – permanent residents, or other people who derive their entire, or a considerable part of, their livelihood from the project's impact area.



Photo: Johanna Wernqvist

Underskrifter från deltagarna i processen

Magnus Andersson, Exportkreditnämnden

Lars-Anders Baer, Sametinget

Anders Bertell, SIWI

Göran Ek, Svenska Naturskyddsföreningen

Anders Gustafsson, SWECO

Göran Haag, Sida

Amparo Ismodes, SWECO

Michael Löfroth, Världsnaturfonden WWF

Urban Norstedt, Vattenfall

Johan Nylander, Statens Energimyndighet

Per Renman, Skanska

Bernt Rydgren, Swedpower

Gunnel Wisén Persson, ABB

Photo: SIWI



Future Dams

Recommendations to Swedish Stakeholders on Implementing "Dams and Development – A New Framework for Decision Making"

This report was developed and written by the Swedish Committee for Water and Dam Issues (SKVD), a dialogue process between representatives from Swedish developers, consulting companies, authorities, financiers, non-governmental organisations, research institutions and indigenous peoples. It contains recommendations for Swedish actors' implementation of Dams and Development, A New Framework for Decision-Making, which was launched by the World Commission on Dams (WCD) in November 2000.

The discussions within the committee have been fruitful, and the participants have learned from one another. A common vision has often been easy to achieve, but differing values, opinions and vocabularies have demanded considerable time in order to achieve consensus. The committee members have participated with the consent of their respective organisations, but primarily as individual experts.

As individuals, we take responsibility for the values, attitudes and opinions mirrored in the recommendations. The collaboration within the group has worked very well. The network created through the dialogue process can be used in the future for improved contacts between the actors.

Future Dams is an interpretation into Swedish context of Dams and Development, that can be downloaded from www.dams.org.

Also available on that site is information about the work behind the report within the framework of the World Commission on Dams.

Several countries have initiated national follow up initiatives to implement the WCD recommendations. UNEP supports their work and coordinates international discussions through the Dams and Development Project. Follow these processes on www.unep.org/dams



The Swedish Water House (SWH) is an initiative that stimulates co-operation and networking among Swedish-based, internationally-oriented academic institutions, consultants, government agencies, non-governmental organisations, research institutes and other stakeholders. SWH is funded by the Ministry for Foreign Affairs and the Ministry of Sustainable Development and administered by the Stockholm International Water Institute (SIWI).

SWH organises seminars and supports the publication of reports and policy briefs. An important area of activity is also the formation of project groups and networks that focus on internationally relevant aspects of water resources issues and management.

One of these groups is the Swedish Committee for Water and Dam Issues (SKVD).

The Swedish Water House is administered by SIWI.



STOCKHOLM INTERNATIONAL WATER INSTITUTE, SIWI

DROTNINGGATAN 33, SE-III 51 STOCKHOLM, SWEDEN • PHONE +46 8 522 139 60
FAX +46 8 522 139 61 • siwi@siwi.org • www.siwi.org