

Financing Water For All

Report of the World Panel on Financing Water Infrastructure

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**Global Water Partnership
World Water Council
Third World Water Forum**

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As one of the Millennium Development Goals, by 2015 all United Nations Member States have pledged to:

Reduce by half the proportion of people without sustainable access to safe drinking water;

At the Johannesburg Earth Summit it was further agreed, by 2015, to:

Reduce by half the proportion of people without access to basic sanitation

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abbreviations & acronyms

AFD	Agence Française de Développement
AfDB	African Development Bank
AsDB	Asian Development Bank
BOO	Build Own Operate contract
BOOT	Build Own Operate Transfer contract
CDC	Commonwealth Development Corporation
DAC	Development Assistance Committee (of the OECD)
DBFO	Design Build Finance Operate contract
EBRD	European Bank for Reconstruction & Development
EIB	European Investment Bank
EU	European Union
FAO	UN Food and Agriculture Organisation
GWP	Global Water Partnership
IADB	Inter-American Development Bank
IFC	International Finance Corporation
IWRM	Integrated Water Resource Management
JBIC	Japanese Bank for International Cooperation
KfW	Kreditanstalt für Wiederaufbau
MDG	Millennium Development Goal
MFI	Multilateral Financial Institution
MIGA	Multilateral Investment Guarantee Agency
NGO	Non-Governmental Organisation
O & M	Operating and maintenance
OBA	Output-Based Aid
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OPIC	Overseas Private Investment Corporation
PPP	Public Private Partnership
PSP	Private Sector Participation
SCR	Sustainable cost recovery
SSPWP	Small-scale private water provider
WWC	World Water Council
3WWF	Third World Water Forum

PREFACE

At the start of this Third Millennium, more than one person in three in the world suffers hardship and indignity from the problem of water.

The root cause of this problem is the negligence of mankind and our resignation in the face of inequality. Water is one of the world's injustices, perhaps because it is above all an injustice to women, which is why it is largely unspoken, and one of the most difficult to correct. However, over the next fifty years more than half of humanity is threatened by "water stress"¹ and the dream of pure water for all unites us. The group whose report I present here is a witness to the remarkable work of the many men and women who are grappling with this problem.

It was not in our mandate to philosophise about this drama. Rather, coming after the outstanding work of others on the technical aspects of the problem, our task was to explore, possibly for the first time, its financial aspects. Against the background of the Millennium celebrations and the Johannesburg Earth Summit, all the member states of the United Nations are committed, by 2015, to reducing by half the proportion of the world's population without access to water and sanitation. Our main task has been to find the financial means for achieving this.

This is the aim of the pages that follow. They are the fruit of the work of a group of men and women from diverse backgrounds. They have put all their resources, commitment, ability and experience into this work. The most difficult thing for them –as it is for me now –has been to draw the

¹ The growing tension between the needs of humanity for good quality water and the threats to natural resources caused by uncoordinated human activities

work to some conclusion, since time is upon us. Our feeling is that we are far from having plumbed the depths of the problem, and we have had to content ourselves with exploring what has to be done within the limits of our available resources.

For all its evident weaknesses, the report carries a key message. The dream of pure water for all can be realised. It can be done by prolonging for a further ten years the effort to which we are committed from now to 2015. This is the challenging task for the current generation of world leaders!

This effort must involve all parties acting together, since in the past they have too often tended to shift responsibilities to each other. The problem needs tackling at a global level, and can only be solved if all the various parties accept the need to change their approach, in some cases radically. This applies not just to governments in the North and South but also to towns, regions, non-governmental organisations, communities and civil society, public services, companies, banks, multilateral organisations and others. Each must redouble its efforts.

The financial needs can be simply stated. Financial flows need to at least double, and need to come from financial markets, from water authorities themselves through tariffs, from multilateral financial institutions, from governments, and from public development aid, preferably in the form of grants. How could it be otherwise? This is basically a question of giving our brothers and sisters what they need to drink. The Universal Declaration of the Rights of Man, in its first article, sets each person the duty of “acting towards others in a spirit of fraternity”.

This doubling, or more, of the volume of finance does not daunt us. The world is capable of it. But it will make no sense, and the finance will not be forthcoming, unless there is a corresponding effort to reform the way in which the entire world deals with its water problem. This concerns those at all levels of responsibility, from village communities up to the United Nations. The first set of our proposals are addressed to these preconditions, which are essentially about responsibility, the participation of civil society, decentralisation and transparency.

That, briefly, is the essence of the three-phase strategy that we propose to the international community for adoption at the Kyoto Forum for the next twenty-five years.

Michel Camdessus

Acknowledgements

The Chairman and panel members are deeply indebted to their sponsors, the GWP, WWC and 3WWF for setting up the panel and for those donor agencies that gave material support. They are grateful to the organisations concerned for releasing senior and busy staff members to take part in panel meetings and business. A number of institutions hosted panel meetings, or otherwise lent hospitality and support. A large number of individuals took time off from their normal work to give presentations and contribute papers to the panel-this report is immeasurably improved by their input. All persons listed in Annex 2 helped to shape the outcome of the report.

The members of the panel are grateful to all these persons and organisations. This report is, however, their own, and they take full responsibility for it.

Executive Summary

1. The Panel

A World Panel on Financing Global Water Infrastructure was formed late in 2001. This was a joint initiative of the Global Water Partnership, the World Water Council, and the 3rd World Water Forum in Kyoto, with the financial support of several donor agencies.

The Chairman of the panel is M. Michel Camdessus, formerly Managing Director of the International Monetary Fund and now Honorary Governor of the Banque de France. Its members are 20 personalities with top level experience in politics, finance ministries, international development and financial agencies, banking, Non-Governmental Organisations, and private water companies, plus eminent independent professionals.

The panel had 7 full meetings, in Manila, Washington, Johannesburg, The Hague, Paris (twice) and London. The Chairman and other panel members also went to other key water conferences and gatherings. It heard evidence from a wide range of people from different parts of the water and financial sectors across the world. Its report will be presented to the Third World Water Conference in Kyoto in March 2003.

The subject matter of the panel is the financial needs of the water sector in its broadest sense, taking a 25-year perspective. This includes household services, irrigation, hydropower, resource development and management, flood control, etc., though the needs of domestic water supply and sanitation have taken up the largest part of its time. Its geographical focus has been developing and transitional countries.

During its deliberations the panel has become convinced that water is one of the most important issues in the world today, and that the achievement of water security would do more for poverty, development and the other Millennium Development Goals (MDGs) than almost any other conceivable actions.

2. Landmarks in the Growth of a Consensus

Over the last ten years there have been a number of crucial landmarks in the development of a broad international consensus on water, starting with the first Earth Summit in Rio de Janeiro in 1992. The Third World Water Forum in Kyoto in March 2003 will be the latest and most comprehensive gathering on the subject. There is now broad international agreement on what needs to be done.

The United Nations in its Millennium Development Goals ('MDGs') set a target for halving by 2015 the number of people without safe water. This aim was extended to household sanitation at the Johannesburg Earth Summit. In 2000 it is estimated that 1.1 bn. people lacked access to safe water supply and 2.4 bn to proper sanitation.

Allowing for the expected growth in population, reaching the UN targets would entail providing water to an additional 1.5 bn. people and basic sanitation to an extra 2 bn..

by 2015 . In the thirteen years remaining before 2015, attaining the targets would mean *daily* global connection rates of several hundred thousand for both water and sanitation.

2015 is an important interim step on the way to full water security by 2025, which has broader financial implications. Current spending on new water infrastructure in developing and emerging countries is very roughly USD 80 billion *annually*. Over the next 20-25 years this will have to more than double, to around USD 180 billion. Much of the increase will be for household sanitation, wastewater treatment, treatment of industrial effluents, irrigation and multipurpose schemes.

3. Global water: the current situation

There are glaring global inequalities in the supply of water infrastructure and services. One indication is water storage, where the USA and Australia have 100 times more storage per head than Ethiopia. Likewise for the development of hydropower: in Europe and North America 70% of potential has been developed, in Asia only 30%. In Africa, where 40% of the population has inadequate access to water and sanitation, only 3% of renewable water is withdrawn for human use, only 6% of its land is irrigated and only 5% of its hydropower potential is used.

There are also large global deficits to recover in the provision of water services. The percentage of population without access to water is around 40% in Africa, 20% in Asia and 15% in Latin America and the Caribbean. The corresponding deficits in sanitation are, respectively, 40%, 50% and 20%. The situation is not a static one: overall populations are going to increase, and the urban population alone is expected to double in Africa and Asia over the next 25 years.

Extension of water and sanitation services will increase the urgency of proper collection, treatment and disposal of wastewater, including industrial effluents, in all of which there are enormous investment backlogs to make up. In the area of Water for Food, over the next 30 years the area of irrigated land is likely to have to increase by 22% and water withdrawals by 14% to meet the needs of a larger world population.

To overcome these deficits, finance will need to be drawn from all sources. At present, water users barely pay for even the running costs of their services, with no contribution towards capital outlays. The situation is even worse in irrigated farming, which is heavily subsidised. Domestic governments cover most of the cost of new investment, with the balance coming from foreign aid, international loans, private investment and voluntary donations.

All governments have limited budgets and many have offloaded the task of financing water to local bodies. Most water authorities and utilities are unequal to this task, unless they reform themselves and increase their revenues through tariffs. Commercial loans and private investment in water have both declined in recent years, and their short- term prospects are uncertain. One of the few positive notes is the better outlook for foreign aid, following recent donor pledges.

4. The Roots of the Problem

There has been general agreement in the expert presentations made to the panel that the water sector's problems arise partly from weaknesses in governance, and partly from risks that are specific to the sector. These factors apply in varying degrees in different parts of the sector – urban water supply obviously differs from irrigation and hydropower, for example.

In the realm of *governance*, the main problems are:

- The apparent low priority given to water sector issues by central governments
- Confusion of social, environmental and commercial aims
- Political interference
- Poor management structure and imprecise objectives of water undertakings
- An inadequate general legal framework
- Lack of transparency in award of contracts
- Non-existent, or weak and inexperienced regulators
- Resistance to cost-recovering tariffs

The main *sector specific risks* are the following, which apply to all commercial financial sources, whether from the private or public sector

- Project profile: capital intensive with high initial investment and long payback period
- Low sector rate of return
- Foreign exchange risk: mismatch between revenues in local currency and finance in foreign currency
- Sub-sovereign risk: decentralised water agencies with service responsibility but lacking financial resources and credit standing
- Risk of political pressure on contracts and tariffs, with weak and inconsistent regulation
- Contractual risk: projects of long duration entered into on the basis of poor initial information.

Country (“sovereign”) risk is also present as a general constraint on international finance, not limited to the water sector. Very few emerging markets have investment ratings that enable them to raise funds on attractive terms. Water projects have the additional disadvantage that there is a high minimum size of project finance, due to the size of legal costs, and the terms for water projects. International project finance has large returns to scale because of the legal, financial and due diligence costs associated with it. Many water projects may not be viable for project finance because they fall below the minimum size for this form of finance.

5. Proposals

The panel's *general conclusions*, which underlie its proposals, can be summarised as follows:

- there is widespread agreement that the flow of funds for water infrastructure has to roughly double, and the increase will have to come from all sources.
- governments have not in practice been giving enough priority or resources to their water sector
- sector institutions badly need reforming if they are effectively to absorb increased funding
- improved cost recovery is essential to generate more internal funds, since revenues ultimately come from either users or taxes
- responsibilities for water have been delegated to local bodies, a move in the right direction, but without conferring enough powers, human resources and finance to make it work
- local communities are vital to the task of improving services and need resources and powers to do this. NGOs can be a useful support.
- international loans and equity investment in water have been low and falling; banks and private companies are now more aware than ever of the risk-reward trade-off.
- official aid for the water sector has also been falling, but there are good prospects for a reversal of this, provided the sector is restructured to absorb it efficiently. Aid increases should be well targeted and used to stimulate flows from other sources.
- the sovereign risk on projects, including foreign exchange risk, is a key disincentive that must be addressed if international loans and equity are to be attracted to water projects in emerging markets

The panel's main *proposals* are the following, grouped by the main themes:

Central government actions

Each country should produce a national water policy and plan, including specific programmes to meet the MDGs and beyond, which would be part of an agreement for additional official development assistance (ODA) for water. Countries should report annually their achievements towards the water MDGs. Governments should provide predictable public revenue frameworks to their water service providers, and create the conditions for private funding, including regulation..

For the group of Highly Indebted Poor Countries water should be explicitly included in national Poverty Reduction Strategy Papers in order to give it higher priority in national budgets and capture some of the benefits of debt relief for this sector. Donors should keep funds available for rewarding countries that make early progress on implementation of water programmes in fulfilment of the MDGs.

Local governments and water authorities

Central governments need to work out better financial relationships with sub-sovereign bodies with crucial responsibilities for water, such as local governments and water utilities. Finance Ministries should give sub-sovereign bodies enough financial freedom to carry out their tasks. Municipalities should cooperate in credit pools to raise finance. Well-run national development banks could be considered as suitable channels for funding local bodies. Sub-sovereign bodies should be given credit ratings. More work should be done to simplify and standardise contracts and

leases. Donors and MFIs² should target sub-sovereign bodies with their technical support, aid and loans, and remove unnecessary constraints to lending to them.

Promoting local capital markets

Both public and private water providers should be able to borrow more of their capital locally, thus reducing the foreign exchange risk. Governments and central banks should encourage the growth of local capital markets and attract more local savings (e.g. from pension, mutual funds and other institutional investors) into suitable local outlets. MFIs should make greater use of guarantees and other instruments to encourage more long term local lending, and raise more of their resources in local currency markets.

Sustainable cost recovery (SCR)

Water service providers should aim for revenues sufficient to cover their recurrent costs, and should develop sustainable long-term cost recovery policies, anticipating all future cash flow needs. SCR includes operating and financing costs as well as the cost of renewing existing infrastructure.

Revenues arising from charges should be covered by users as a group. Under SCR, not all users need pay the same price. Individual affordability of water charges should be ensured by appropriate tariff structures including local cross-subsidization (for example by setting a rising block tariff structure) and/or by individually targeted and transparent pro-poor policies. That part of recurrent revenues provided by taxpayers from public budgets should be secured by agreeing the allocation of sufficient fiscal transfers a long time in advance. Sufficient fiscal transfers should then be earmarked as appropriate to meet central support commitments. Subsidies should be transparent and reviewed continuously to ensure they target the intended beneficiaries.

Increasing managerial capacity

Funding for capacity development in water institutions should be a high priority for the use of ODA. Donors should finance trust funds in the MFIs for using foreign specialists in the transfer of experience, particularly at an operational level. They should support cooperation between experienced and reputable partners, including those from the public sector, as a means of strengthening core public capacities.

ODA technical cooperation should preferably be used as a means of enhancing 'on the job' capacity building for strengthening the public sector and in the preparation and implementation of projects and programmes, including those involving private sector participation (PSP). The panel commends the concept of 'learning while doing' and believes that donors should support "action planning", in which planning and project preparation are wrapped into aid projects

Corruption & ethical practices

Corruption is an issue in both the public and private sectors. Executing agencies should be made attractive for high-calibre leadership, accountable for performance and delivery. Integrity standards should be worked out, agreed and implemented by all interested parties. The high political profile of water should be used positively to create more transparency for its operations. Public opinion, user associations and

² Multilateral Financial Institutions

NGOs should be encouraged to monitor and publicise the activities of water organisations and expose corrupt practices. Companies and public contractors engaged in the water sector are urged to cooperate with other parties involved to develop methods for promoting ethical behaviour.

The legal & regulatory environment

The panel recommends the creation of a Revolving Fund consisting of grant money to finance the public costs of preparation and structuring of complex projects, including PSP and other innovative structures. The fund would be used to assist in the preparation and structuring of project bids (including legal, financial, and technical advisory costs) at both the tendering and negotiation phases. The Fund would be replenished by the authorities once bids were accepted. The panel also recommends funding a study for the preparation of best practice and model clauses in the legal agreements of public-private partnerships, with particular reference to the water sector.

Turning to specific *financial instruments and facilities*, the panel proposes the following.

Official development assistance (ODA)

Donors should be held to account for their commitments to increase aid to the water sector. Overall ODA for water should be doubled, as a first step, and the share of water in total ODA should increase substantially from its current level. Individual donors should contribute their share towards this target, depending on the size of their current aid to the water sector. This ODA increase should preferably be done by increasing the amount of grants.

Donor agencies should work, under the guidance of the OECD's Development Assistance Committee (DAC), the UN and the Development Committee to implement DAC recommendations on increasing the effectiveness of aid. They should aim to coordinate their efforts in this sector, and avoid the waste and fragmentation typical of earlier water programmes.

In view of the capital-intensive nature of water investments, and the need for 'front loading' of ODA, means should be found for governments to create a special national or international facility to pre-finance disbursements budgeted for a later period. The panel encourages the parties involved to enter into 'debt for water' swaps as a means of increasing local currency funds available for water projects.

The panel urges DAC to consider amending its presentations of national ODA performance to reflect properly the status of guarantees. Geographically, ODA should favour those countries, especially in Africa, where the water service deficit is greatest and where most remains to be done to meet the water MDG targets. Within countries, grant ODA for water and sanitation should be directed to regions, settlements and social groups where public subsidy is necessary. Within the water sector, ODA should also be used for services which have to be financed publicly because it is not feasible to provide them privately, such as water resource management, large water storage schemes, flood control, and major irrigation and drainage projects.

Bilateral ODA should also support various current important multilateral initiatives, such as the African Water Initiative, African Water Facility, AfDB's Rural Water Supply and Sanitation Initiative, and the FAO's Special Programme of Food Security, amongst others. Rather than funding entire projects or programmes, and smothering local initiatives through indiscriminate subsidies, aid donors should regard their funds as catalysts to mobilise other flows, empower other players, and encourage self-sufficiency. Aid should be used to cover initial overhead costs, equity for revolving funds, guarantees, and for targeted subsidies and output-based aid delivered according to results.

Donors should report annually about the impact of their aid on achieving water MDGs by publishing a) the number of people they have helped to gain access to water and sanitation; b) the average 'aid efficiency' ratio of their water projects, namely, the above number of people served divided by the grant value of their aid, and, c) the 'leverage effect' of their aid, namely, the total amount of financing mobilized on water projects they have aided.

Multilateral Finance Institutions (MFIs)

MFIs such as the World Bank Group, the regional development banks and the European Investment Bank are crucially important because of the volume of their funding and the leverage effect it has on other flows. MFIs would be expected to substantially increase their contributions to the water sector. Those MFIs which do not at present lend to sub-sovereign entities should reconsider their policies, with the aim of permitting such lending in appropriate cases, subject to normal prudent lending criteria.

MFIs should revise their policies on capital provisioning, where these are constraints or disincentives to the use of guarantees. Those MFIs subject to the participation requirement should consider amending their articles to enable them to have the freedom to issue guarantees on a standalone basis, unrelated to actual loans made.

Because of the large unmet needs for water storage, MFIs and donors should resume lending to essential surface and underground water storage projects, subject to social and environmental safeguards

International commercial lending

The panel's recommendations are addressed to several of the major constraints to private lending. In particular the Report considers sovereign risk, foreign exchange risk, the heavy preparation costs of project finance, and the minimum threshold size of project financings caused by the specific costs of structuring and the restrictive OECD consensus rules on export credit. The panel recognised the benefits of banks developing a track record and creating a market precedent in water projects, and of developing local capital markets, and enhancing and extending sovereign risk coverage from both MFIs and ECAs.

The panel is concerned that the future viability of commercial bank project finance lending to the water sector might be adversely affected by new BIS capital weightings under the Basel II 'New Capital Accord' – which will be issued later this year. These developments should be closely monitored.

Export Credit Agencies (ECAs).

ECAs are urged to set targets for their water sector business, to lengthen the maturities for water loans and increase the proportion available for local costs. They should also consider offering guarantees and loans in local currency.

Private investment and operation

Private investment does not just include that from large international operators. It also comes from local investors in all parts of the sector, at all levels. Governments and water authorities should recognise the present and potential role of the local private sector, and provide a legal framework which can encourage greater long-term investment from this source. Governments should include small scale local operators in their national water supply strategies and service development plans, including incentives for them to improve their services, and they should receive better access to finance.

The prospect of private sector participation (PSP) in its various forms can be a powerful spur to the reform of public water agencies, whether it actually happens or not. In situations where reforms are being considered or tenders of various kinds are being drawn up, private participation should be included as an *option*, to be decided on specific grounds of efficiency, cost and effectiveness. Contract and procurement decisions should, as a rule, be made through open and transparent competition, typically on the basis of bidding.

The panel believes that water projects can be financed by combining public funds with private financing in transparent and acceptable ways. Public money can be used to stimulate projects for benefiting the general population without granting undue benefits to private parties. ODA and MFI lending should be available to facilitate water projects managed by private operators under public control, e.g. use of output-based aid to expand networks or fund revenue shortfalls on a diminishing basis under a concession. Alternatively, ODA could be used to finance investment in assets owned by the public and operated by the private sector.

A devaluation liquidity backstopping facility is proposed to address the devaluation risk for public and private sector promoters and operators taking on foreign currency commitments. As already noted, a Revolving Fund is proposed, addressed to the problem of the large fixed costs of preparing PSP contracts and tenders. Guarantee and insurance schemes offered by MFIs, governments and export credit agencies should be expanded in scope and internal constraints on their use should be relaxed. Governments taking up options granting PSP concessions should provide adequate safeguards in order to create investors' trust and confidence in the sustainability of long-term contracts and the revenue streams they define.

Community initiatives and Non-Governmental Organisations (NGOs)

Local communities need to receive the powers and resources necessary to enable them to perform their important role. Support from local NGOs, with backing from their international counterparts, is often crucial. In addition to the ordinary operations of local commercial banks, micro-credit schemes are important in financing community water projects and small local producers, and they should be supported by donors, MFIs, banks and external NGOs through the provision of seed capital, initial reserves and guarantees. On-going subsidies should be avoided.

International NGOs should propose ways of raising more funds through the various kinds of solidarity mechanisms. The panel proposes that a full study be conducted of the feasibility of creating Decentralised Funds for the Development of Local Initiatives.

Building the capacity of different local and national civil society stakeholders to perform independent watchdog roles is important in tracking the performance of public and private bodies and tackling corruption in the sector.

6. Conclusions: priorities, actions & impacts

The proposals differ in their nature, and in the speed with which they can take effect. They should be prioritised, with first priority given to producing action programmes, followed by the greater use of existing schemes and tools. Study should begin of new proposed methods, and a start should be made on the more difficult reforms.

The panel addresses its recommendations to seven different “actors”:

- Central governments, in both developing and developed OECD countries;
- National bodies at regional and local level
- Community organisations & service-oriented NGOs
- Banks & private investors and operators
- Aid agencies
- Multilateral Finance Institutions
- United Nations and other international organisations

The panel’s intention has been to attempt a balance between the needs of different water sub-sectors. This has not been easy. Inevitably, because of the prominence given to reducing the service deficits of the poor in the MDG and Earth Summit, the needs of poor households have absorbed much of the panel’s time. Each sub-sector requires its own distinctive approach, and many solutions are sector-specific. In particular, the financing needs of irrigation is a complicated problem which calls for deeper reflection and specific solutions.. With these reservations, the panel believes that its proposals would have financial benefits for each of the main branches of the water sector.

The panel envisages a three-phase strategy for implementing its programme for raising the flow of funds into the global water sector. Many proposals will need further study and elaboration by the parties involved. The Kyoto Conference is an ideal opportunity for the various parties identified in this report to start work on their respective proposals. Subsequent high-level meetings in 2003, e.g. the Development Committee and the G8 gathering, will be the occasions for keeping up the momentum. The panel is aware that the current time is highly fortuitous for implementation of the proposals in this report, and urges all parties involved to maximises the synergies that are there to be exploited.

The panel’s implicit perspective has been the 21 years remaining before 2025, with 2015 the interim stop. After Kyoto a good opportunity for checking progress would be the Fourth World Water Forum scheduled for 2006. By then, most of the necessary measures proposed in this report should have been taken, and results should be starting to appear.. We recommend that progress in implementing our proposals

should be evaluated at that time. This would be the first strategic phase in the implementation of our report.

The next obvious check-point is 2015, and the period from 2006 to then would constitute the second phase of implementation. The third phase would be from 2015 to 2025, when the aim would be universal coverage for water and sanitation and global water security in its wider sense.

Progress towards achievement of the MDGs should be systematically monitored by a global “control tower” consisting of a reporting network and an independent committee of “wise persons”. Existing systems for collecting and reporting data on global water should be reformed, strengthened, and coordinated, as appropriate. Information on progress towards the water MDG targets, and the performance of the many parties involved in implementing and funding this effort, should be produced. The data would be evaluated by a group of “wise persons” who would make recommendations on the steps to be taken to secure the water MDGs.

1. The Panel: mandate, composition & *modus operandi*

1.1. Mandate

The Panel was formed as a joint initiative of the Global Water Partnership, the World Water Council, and the Third World Water Forum in Kyoto. In their commissioning letter, the sponsors invited the Chairman to form “a panel of financial experts to address the ways and means of attracting new financial resources to the water field.” Its report should contain “new proposals on the financial aspects as well as on the enabling environment that has an impact on those flows”. The text of the commissioning letter is at annex 1.

1.2. Composition

Constituted in late 2001, the panel comprises twenty personalities with top-level experience in government, finance ministries, international development finance agencies, commercial banks and other funding bodies, water companies, non-governmental organisations active in the water sector, plus eminent independent professionals. A number of members appointed colleagues to act as alternates in order to ensure continuity of representation. A full list of members and alternates appears in annex 2. Various other specialists, also listed in annex 2, were co-opted to assist the panel in its work.

1.3. Modus operandi

The panel held seven full meetings in 2002 and early 2003, in Paris (twice), Manila, Washington, The Hague, Johannesburg and London. These meetings typically included presentations and evidence from water and/or financial specialists on both local and general topics, as well as internal panel discussions. In addition to the seven full meetings, the Chairman and various other panel members and supporters attended other meetings of a related nature.

In recent years, there have been many conferences, reports and papers on global water problems, and the panel has not wished to duplicate these, nor to go over familiar ground on which there is an international consensus. This report acknowledges some of the key milestones in the development of the prevailing consensus, and sketches in elements of the present situation and its perception of the causes of the current problem, as background to the presentation of its proposals. It takes for granted the conventional views of the sector’s global financial needs, and does not offer new and original estimates of its own.

The Panel has considered that its central responsibility was to answer the question: how to find the appropriate financial resources for the achievement of the two Millennium Development Goals (MDGs) for water access and sanitation. It is, nevertheless of the view that such targets cannot be separated from the consideration of the financial needs of all the different aspects of the water sector.. These include all water *uses*, such as household water and sanitation, wastewater collection and treatment, irrigation and drainage, industrial water use, hydropower, navigation, etc. Its scope also include *resource management* questions such as watershed and river

basin management, flood control, environmental protection, data gathering, climatic prediction, etc. Having said this, the report does not pretend to be comprehensive in its proposals, which have been conditioned by the expertise available to the panel and the time available. The report deals in some depth with the water and sanitation sector, and dwells much less on other areas.

Geographically, the focus of the report is on developing and transitional countries of Latin America, the Caribbean, Africa, the Middle East, Asia, Oceania and Central & Eastern Europe and the former Commonwealth of Independent States. The term “global” in the report refers to the above group of regions.

1.4. Why water?

The formation of the panel, and the proposals contained in the following pages, stem from a belief that water is one of the most important issues in the world today. This is so for a number of reasons.

First, access to water is a right and a basic need. The UN’s Committee on Economic, Social and Cultural Rights recently stated³:

“The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realisation of other human rights”

Second, although water is the subject of only one of the goals contained in the Millennium Declaration, it is vital to achieving the others, such as poverty, education and gender equality. To take just three examples: providing segregated toilet facilities in schools is in many societies a pre-condition for the further education of girls; the availability of private toilets and water in-house or close by would make a big difference to the lives of millions of women; and irrigation is and will increasingly be a prerequisite to increasing food production to feed the growing world population

Third, water has been underemphasied and neglected in the past, compared to other sectors. The costs of neglect, which are cumulative, are now better understood than in the past.

Fourth, access to clean water and proper sanitation, and attention to wastewater disposal and treatment, has proven benefits to public health. Poor water and sanitation is an important cause of diseases such as diarrhea (4 bn cases each year, with 2.2 mn deaths), intestinal worms (affecting 10% of the population of the developing world) blindness from trachoma (6 mn cases), cholera (where there have been 90 separate outbreaks since 1996) and schistosomiasis (200 mn people infected).⁴ Carrying water long distances and waiting at water sources wastes the energy and time particularly of women and children, at the expense of family activities, education and productive work.

³ November 2002. General Comment No. 15

⁴ WHO/UNICEF/WSSCC “Global water supply and sanitation assessment 2000 Report”

Fifth, effective water resources development and management are basic to sustainable growth and poverty reduction, in several ways. Broad-based water resources interventions such as major infrastructure provide national, regional, and local benefits from which all people, including the poor, can gain. Because it is usually the poor who live in degraded landscapes, interventions aimed at improving catchment quality and provide livelihoods for the poor are of major importance. Broad-based water service interventions (aimed at improving the performance of water supply and energy utilities, user associations and irrigation departments) benefit everyone, including the poor. Finally, water service interventions (such as water and sanitation and irrigation services for the unserved poor) play a major role in reaching some of the MDGs.

The inclusion of water as a target under the UN Millennium Development Goals, and the addition of sanitation, in the 2002 Earth Summit, are potentially fundamental steps for human life and dignity. It is the remit of the panel and the aim of this report to identify the policies and resources needed to make them real.

2. Landmarks in the Evolution of a Consensus

2.1. precursors

Over the last ten years or so great progress has been made in international understanding of global water problems, culminating in international commitments to tackle the worst deficits⁵. The panel does not therefore start from scratch: there is substantial agreement on a number of important issues, and targets have been set for policy-makers to attain. Some of the landmarks that are particularly relevant to the financing question are discussed below⁶, summarised in Panel 2.1.

Panel 2.1 Landmarks

1992 UN Conference on Environment & Development, Rio de Janeiro
 1992 International Conference on Water and the Environment, Dublin
 1996 Formation of Global Water Partnership and World Water Council
 1997 First World Water Forum, Marrakech
 1997 Formation of World Commission for Water in 21st Century
 2000 Second World Water Forum, The Hague
 2001 International Conference on Freshwater, Bonn
 2001 UN Millennium Declaration
 2001 New Partnership for African Development (NEPAD)
 2002 UN Conference on the Finance of Development, Monterrey
 2002 UN World Summit on Sustainable Development, Johannesburg
 2003 Third World Water Forum, Kyoto

At the beginning of the 1990s, the UN Conference on Environment and Development in Rio de Janeiro set the stage and much of the agenda for subsequent discussions of water as an environmental resource, agent, and victim. The Conference adopted Agenda 21, a catalogue of issues and measures to be taken; Chapter 18 of which was devoted to water.

Also in 1992, the International Conference on Water and the Environment in Dublin issued four guiding principles, one of which was that “water has an economic value in all its competing uses and should be recognised as an economic good”. On the one hand, everyone should have access to water and sanitation at an affordable price. On the other hand, the failure to place a price on water that reflects its economic value in its various alternative uses encourages wasteful and environmentally damaging use, and results in its misallocation. Since Dublin there has been a greater willingness to accept pricing and other market mechanisms in managing water, recognising that these are merely tools (“the market is a good servant but a bad master”). There has also been considerable debate about how pricing can be reconciled with affordability, especially for poor consumers.

⁵ reviewed in “Water security: a preliminary assessment of policy progress since Rio”, World Water Assessment Programme, 2001. Also the “World Water Development Report” 2002, by the same organisation.

⁶ the choice of 1992 is expedient as the starting date for this account and does not mean to disparage earlier events of importance, such as the UN Drinking Water Decade in the 1980s, or the 1977 UN Conference on Water, in Mar del Plata.

Another Dublin principle, that water should be managed in a “holistic” manner, has been taken up by the Global Water Partnership, formed in 1996, in the concept of Integrated Water Resource Management (IWRM) as a policy framework for managing the sector⁷. One basic aspect of IWRM is a distinction between water values and charges: its values in different uses should be recognised and used to guide allocation between different sectors, whereas charges should be applied where appropriate to provide the right incentives for users’ behaviour. In IWRM, pricing has the dual aspect of a management tool and as a means for cost recovery.

The World Water Council was formed in 1996 as a think-tank on international water policy issues, and one of its first tasks was to organise the First World Water Forum in Marrakech in 1997. The Forum gave the WWC a mandate to conduct a three-year study into global water, including its financial aspects. The World Commission for Water in the 21st Century was formed to oversee the work, and their report, “A water secure world”, was presented and debated at the Second World Water Forum held in The Hague in 2000.

This report, and its background papers⁸, indicated that additional annual investment of c. \$100 bn was required in all branches of the water sector. More should be done at the country and basin level to identify financial resources and investment needs and provide incentives to encourage this finance. New investment should be mobilised from the international private sector, and more recognition should be aroused among the international ethical investment community. Locally, development banks and microcredit mechanisms needed to be more fully used.

The consensus gained further impetus through two key conferences in 2000 and 2001. As the outcome of the Second World Water Forum in The Hague in 2000, seven challenges were issued, one of which was valuing water in all its uses. One implication of this is the pricing of water services to reflect their cost of provision, taking account of equity and the basic needs of the poor.

As the culmination of the International Conference on Freshwater in Bonn, 2001, the Ministerial Declaration stressed the urgency of using existing resources more efficiently and attracting extra financing from all sources. The Bonn Recommendations for Action noted that public budgets were likely to remain the biggest source of investment, hence the importance of measures to strengthen public finances, and, where public funds were scarce, to target them to the basic needs of the poor. National capital markets should be tapped, for instance through the issue of bonds. Water service providers should aim for financial sustainability through improved cost efficiency, though the affordability of their services should be assured by various means, including transparent public subsidies to the target social groups and cross-subsidies from other users.

At Bonn, it was recognised that public funding for water needed to be augmented by private capital. This could take the form of public-private partnerships (PPP), and did not necessarily imply private ownership of water resources and assets. In any case,

⁷ “Integrated Water Resources Management” TAC Background Papers No 4, GWP 2000.

⁸ Particularly “World water vision: making water everybody’s business” by William Cosgrove and Frank Rijsberman

PPP should not be imposed by donors as a condition of funding. PPP entails making water a more attractive investment opportunity, requiring good regulation and legal systems, transparent contracting procedures, reliable cost recovery, and public acceptance. Local self-help efforts should be promoted to reduce external financial needs, including help for NGOs. Development aid should be increased to conform to UN targets, it should be used to leverage other sources, and in view of its relative scarcity, should be used to target the needs of the poor.

2.2. International targets

The targets of halving service deficits in global water and sanitation started to appear in reports and conference declarations in the late 1990s onwards, such as the World Water Vision presented at The Hague in 2000. They were given even more powerful expression in the Millennium Declaration of 2000 and the conclusions of the Earth Summit in 2002.

In its Millennium Declaration, the United Nations set a target for 2015 of reducing by half the proportion of people without sustainable access to adequate quantities of affordable and safe water.⁹ In the following year, the UN World Summit on Sustainable Development, held in Johannesburg, extended the target explicitly to include sanitation.

These targets, for 2015, should be viewed as stepping stones on the path to full global service coverage and other aspects of global water security by 2025, which is the perspective adopted by the GWP in its Framework for Action.¹⁰ It should be recalled that the 2025 targets include irrigation, industrial effluent, wastewater treatment, water resource and environmental management, whereas the 2015 target is only concerned with household water and sanitation.

In 2000 it is estimated that 1.1 bn. people lacked access to safe water supply and 2.4 bn to improved sanitation. Allowing for the expected growth in population, reaching the UN targets would entail providing water to an additional 1500 mn. people (1,000 mn. urban, 500 m rural) and basic sanitation to an extra 2,000 mn. (1,000 mn. urban, 1,000 mn. rural) by 2015. .¹¹ . In the years remaining before 2015, attaining the targets would mean *daily* global connection rates of several hundred thousand for both water and sanitation, depending on the source of the estimate.

2.3. Financing requirements

Discussions of financing tend to be dominated by *investment* needs. However, it is equally important to provide for *recurring* items of expenditure on administrative overheads, operations, maintenance, routine repairs and periodic replacements. A

⁹ "We the peoples: the role of the United Nations in the 21st Century". Kofi A. Annan, UN, 2001

¹⁰ "Towards water security: a Framework for Action". GWP, 2000

¹¹ Estimates from "Global water supply and sanitation assessment 2000 Report" Report of Joint Monitoring Program led by WHO, UNICEF and Water Supply and Sanitation Collaborative Council (WSSCC). "Access to water supply" includes household connections, public standpipes, boreholes, protected dug well or spring and rainwater collection. "Improved" sanitation includes connection to a public sewer or septic system, or possession of a pour-flush, simple pit or ventilated improved pit latrine.

common assumption is that these are covered by the normal revenues of water utilities, but this is often not the case, and shortfalls on repairs and maintenance lead to a need for higher investment in due course. Up to a point, adequate budgeting for recurrent spending items, backed up by good cost recovery, can minimise future investment needs.

Estimates of the current annual resources financing new infrastructure in the water sector of developing and transitional countries are very broad, as are its future requirements. In its Framework for Action, the GWP produced the figures in Table 2.1, which have been generally accepted as the right orders of magnitude:

Table 2.1. Indicative annual investment in water services for developing countries

US\$ bn. per year

	Today	2000-2025, p.a.
Drinking water	13	13+
Sanitation & hygiene	1	17
Municipal wastewater treatment	14	70
Industrial effluent	7	30
Agriculture	32.5	40
Environmental protection	7.5	10
Total	75	180

GWP, "Towards Water Security: a Framework for Action", and John Briscoe, "The financing of hydropower, irrigation, and water supply infrastructure in developing countries", in Water Resources Development, Vol 15, no. 4, 1999. Figures include 15% allowance for O&M. Investment in hydropower (which totalled c. \$15 bn) is not separately identified above. Because larger schemes are usually of a multipurpose nature, some, but not all, of this cost would be included in the Agriculture and Environmental Protection categories.

It can be seen from this table that nearly all the extra financing for household services should be for sanitation. However, the current annual flow of investment in drinking water supply has just been sufficient in the past decade to maintain at 1.1 billion the number of people without adequate access to drinking water¹². The estimate of the above table regarding drinking water is therefore probably significantly underestimated¹³. Overall, the largest increase in funds required will be for the

¹² Cf Suez "Bridging the Water Divide"2001

¹³ The Report of the High-Level Panel on Financing for Development (the "Zedillo Report") concluded that no additional funding would be necessary to achieve the MDG for water. This panel believes this is an unduly optimistic view. Once explicit account is taken of the need for sanitation measures to

treatment of wastewater from both households and industry, which is grossly underprovided at present. The item “environmental protection” includes flood control and water resources management in its various forms. Estimates for both drinking water and sanitation depend on the level of service and technical option chosen, on which the GWP takes a pragmatic and eclectic stance.

The cost of meeting the 2015 targets also depend crucially on what assumptions are made about the type and level of service to be provided. This is in turn affected by the strategy chosen to reduce the service deficit – which countries, the urban-rural balance of the target group, and “which half” of the unserved population is addressed first. Using the most basic standards of service and technology, the 2015 goals could be attained at an extra annual investment cost of c. \$10 bn.¹⁴ On the other hand, providing full mains water and sewerage connections and primary wastewater treatment to the urban populations would raise the annual cost of the 2015 goal to \$17 bn. for water and \$32 bn. for sanitation/sewerage¹⁵.

The broad ranges of the above estimates are of course due to the scarcity of reliable data in many countries in a sector on which public attention has not so far concentrated. The Panel had to acknowledge that we still lack the solid information basis on which to build a global strategy. The need to avail ourselves with more precise quantification, before suggesting detailed steps, lies behind the three - phase strategy this report recommends.

2.4. Financial initiatives

Africa is at the forefront of international water concerns, and in 2001 the New Partnership for Africa’s Development (NEPAD) was launched. It was to be thereafter endorsed by the African Union, with the keynotes of African ownership and leadership in tackling the continent’s problems. NEPAD supports public-private partnerships as a means of attracting extra finance for sectors such as water. The African Development Bank has been given a particular but shared responsibility for infrastructure, and is closely associated with the development of proposals for an African Water Facility as an investment support vehicle and aid to capacity building.

The UN Conference on Financing for Development, at Monterrey in 2002, signified a potentially major change of trend in international aid for development, including water. Governments and agencies committed themselves to increasing their aid by 25%, which would raise an extra \$12.5 bn p.a. This would, if realised, set aid for water off on a new trajectory: in 1999-2001 annual average commitments of aid to water supply and sanitation from all sources had fallen to \$3.1 bn, compared with \$3.5 bn in 1996-98.¹⁶

Apart from the formal inclusion of sanitation in the 2015 target, the Johannesburg Summit was notable in other respects, being the occasion for announcements of

accompany basic water supply, present spending, which includes very little sanitation, clearly needs to double.

¹⁴ Unofficial estimates by WSSCC.

¹⁵ Luc Averous, “Financing water infrastructure: World Water Panel” Lehman Brothers, October 2002

¹⁶ OECD DAC data

pledges and programmes by the USA, EU and other bilateral and multilateral donors, and extra resources for various UN programmes. There was recognition of the need for water storage and hydropower development, including dams of all sizes, which signified an important change of mood.¹⁷ The business sector, in the shape of Business Action for Sustainable Development, played a prominent and constructive role, stressing the need for an enabling environment, using aid for capacity building, the importance of involving all water stakeholders and consulting users, and the need for full cost recovery.

¹⁷ Prior to this, a more critical attitude to dams was encapsulated in “Dams and development: a new framework for decision-making”, the report of the World Commission on Dams, November 2000.

3. Global water: a brief status report on infrastructure and financing

3.1. Global water: status in brief

The “water sector” has many facets, but the most basic distinction is between water as a *resource* to be developed and managed for the benefit of all its functions and users, and water as a *service*, to be provided to its many users after abstraction from the resource. Both aspects need financing, and both are currently deficient.

All countries need adequate water infrastructure, but those with dry or highly variable climates need more than others. Around the world, countries vary greatly in their stock of hydraulic infrastructure. For instance, Western USA, Australia and Ethiopia have similar climatic regimes, but whereas the USA and Australia have around 5000 m³ per head of water storage capacity, Ethiopia has only 50 m³, and Africa and the Middle East as a whole only 1000 m³.¹⁸ The need for more storage is likely to become even more acute as a result of global climate change.

Another measure of grossly unequal endowments is the development of the hydropower potential in different regions. In Europe and North America over 70% of hydro potential has been developed, in South America 40%, Asia c. 30%, and China alone 20%. Many dams are multipurpose, and are important for flood protection (e.g. in China).

Africa is particularly disadvantaged. Its available water resources are grossly underused. Only 3% of its renewable water is withdrawn annually for domestic, agricultural and industrial use, in a continent where 40% of the population still has inadequate access to water and sanitation. Only 6% of Africa’s cultivated land is irrigated and less than 5% of its hydropower potential is used.¹⁹

Not all the cost of water resource management consists of physical infrastructure. Other aspects include data collection, weather forecasting, afforestation, land use regulation, conjunctive use of surface and ground water, conservation measures, ecosystem management, pollution control, etc. Most of these items have to be funded from local government recurrent budgets, but there has been widespread underfunding of these essential services. Flood control is an increasing problem in many regions, requiring a mixture of infrastructure and management measures.

The second facet of the water sector is the provision of services, and here again there are large global deficits to recover. In the area of household water and sanitation, Africa has 38% of its population unserved by safe water and 40% by sanitation, Asia has 19% without safe water, 52% without sanitation, and Latin America & Caribbean 15% without water and 22% lacking sanitation. Although a huge number of additional people obtained access to services in the 1990s decade (c. 800 mn. to water and 750 mn. to sanitation) population growth meant that the % coverage for urban water

¹⁸ World Bank estimates

¹⁹ African Development Bank estimates

actually decreased, while the absolute number of people without access to water and sanitation remained the same throughout. Looking ahead to the next 25 years, the urban population in Africa and Asia will both practically double, and that in Latin America and the Caribbean increase by 50%.

Sewerage and wastewater treatment are even less developed. Although comprehensive estimates are not available, a large part of the sewage in most developing cities is not collected, but is disposed of in insanitary ways that endanger public health. Moreover, much sewage that is collected is released untreated, or treated to an unsatisfactory standard. At any time, many wastewater treatment plants are not operating at all, or not working properly, because of financial and technical problems.

Industrial effluent which is untreated, or not treated to proper standards, is a serious pollutant of rivers and coastal waters, causing environmental damage harmful to both humans and wildlife. Enterprises, both private and public, in developing and transitional countries, have very large backlogs of investment in effluent pre-treatment to make up.

Water services to agriculture are deficient in serious respects, and will be even more severely challenged in coming decades. In developing countries irrigated agriculture accounts for 40% of all crop production and 60% of cereals. Over the next 30 years it is estimated that arable irrigated land would need to increase by 22%, and water withdrawals by 14%, to meet the demands of a larger world population.²⁰ These data imply major efforts, including investment, to improve the productivity of land and efficient use of water. Major reforms will be required to reduce the incidence of future famines and on-going malnutrition (it should be recalled that the Millennium Development Goals include the target of halving by 2015 the proportion of people who suffer from hunger). . Agriculture will be in growing competition with other sectors for a limited water resource. Meanwhile, irrigation service providers are often inefficient and under-funded, with systems that are badly maintained, and with large areas of land degraded by water-logging and salinisation.²¹

3.2. Trends in funding investment in water

Water infrastructure is ultimately paid for by one or more of three parties: water users, through their own outlays or through water bills paid to official water service providers; taxpayers, through various local or national fiscal flows; or aid donors, including private voluntary contributions.

Financing water infrastructure means spending cash to finance long-term physical assets. This is financed by the present cash flow or reserves of the water undertaking, or by taking on loans or equity which have to be reimbursed over time by water users or fiscal transfers. Such financing sources are only feasible if long term reimbursement by users, taxpayers or donors is possible.

²⁰ FAO, "Agriculture: towards 2015 and 2030"

²¹ "World Water and Food to 2025: dealing with scarcity" by Rosegrant, Cai & Cline. IFPRI, 2002

Funds for the water sector come from a variety of sources, illustrated in panel 3.1.

Panel 3.1. Sources of funds for financing water infrastructure

(various sources, not cumulative)

Water users, such as households, farmers and businesses. Householders, particularly in rural areas and in poorer urban districts, invest their own cash, labour and materials in wells, pipes, basic sanitation and other facilities. Farmers invest large sums in tubewells, pumps and surface irrigation systems, either on their own account or as members of associations and user groups. In some regions, farmers with surplus water from their own sources invest in distribution systems to dispose of their surplus to others. Industrial and commercial firms often develop their own water supplies and effluent treatment facilities. Some large firms even supply the general population. Users also cross-subsidise each other through paying differential tariffs.

Informal suppliers. In cities where growth has outstripped the public network, local entrepreneurs, often acting outside the law, fill the vacuum by selling water in bulk from tankers, or in containers and bottles. The vehicles and facilities are often highly capitalised.

Public water authorities and utilities, which fund recurrent spending and some new investment from revenues provided by user charges (gross operating cash flow), loans and sometimes public subsidies.

Private companies, either local or foreign, providing funds from sources similar to public utilities, plus equity injection.

Local communities, mobilising contributions in cash and kind

Non-Governmental Organisations, raising funds from voluntary private contributions or grants from international agencies.

Local banks and other financial institutions, offering short/medium term loans at market rates.

International banks and export credit agencies, providing larger volumes of finance than local sources, against corporate guarantees or project cash flow

International aid from multilateral and bilateral sources, available as loans on concessional terms or grants

Multilateral Financial Institutions: Loans on market or near-market terms

Environmental and water funds

National central and local governments, providing subsidies, guarantees of loans, and proceeds of bond issues.

The largest funding sources are of local origin, namely governments, local banks and users, all of which are difficult to quantify in global terms. In contrast, the contributions of international aid, foreign banks and private companies are much more easily seen, though less important in overall terms. However, the balance between sources varies according to which part of the water sector is being discussed, as follows:

Water & sanitation ²² In the mid-1990s, the breakdown of financial sources was roughly estimated to be as follows: domestic public sector 65-70%, domestic private sector c. 5%, international donors 10-15%, international private companies 10-15%.

Irrigation & drainage: There are no reliable estimates of global investment in irrigation. Large public sector schemes are funded mainly by local public agencies and international aid, whereas the smaller schemes and on-farm investments are mainly privately financed by farmers themselves, informal credit, and banks ²³.

Hydropower Private finance has covered less than 10% of annual investment, mainly for small run-of-the-river schemes and rehabilitation projects. For various reasons, governments, aid donors and international development agencies finance the great bulk of this sector, though in some cases this supports private lending through guarantees. In recent years, donors and MFIs have reduced their support to this sector ²⁴

Public funding of the water sector obviously remains important, but is a hostage to the fiscal position of developing countries. An increasing number of governments have delegated financial responsibilities for the sector to local authorities and are increasingly interested in the various kinds of private participation. In the absence of firmer evidence, it is reasonable to conclude that current public funding of the water sector has been stationary at best.

The water sector's funding of investment from its own cash flow has shown little recent change. In a major review of its own projects in the water and sanitation sector, the World Bank concludes that "financial sustainability of the service providers and resource mobilisation for sector development...remain elusive goals."²⁵ In fact, the measure of financial sustainability used by the Bank's Operations Evaluation Department was slightly worse in 1999 than in 1990²⁶.

International aid for water supply and sanitation has fallen in the last few years (av. \$3 bn p.a. in 1999-2001, compared to \$3.5 bn in 1996-98). Loans from the main MFIs to the water sector have shown a varied trend. World Bank annual lending approvals to water and sanitation averaged \$1.1 bn in 1999-2001, slightly down on the level for 1990-98 (\$1.25 bn), but with great year-to-year variation. IADB lending for water and sanitation was clearly lower in 1996-2001 (av. \$400 mn p.a.) compared to 1991-5 (av.\$640 mn. p.a.). AsDB's lending has, on the other hand, been rising, though with year to year fluctuations (av. \$275 mn p.a. in 1996-2000, compared to av. \$200 mn p.a.1990-95). Lending by the AfDB has been rising, though at a lower level than those above.

²² "Getting the water to where its needed and getting the tariff right", by P.Prynn & H.Sunman, 2000

²³ K.Cleaver & F.Gonzalez, "Challenges for Financing Irrigation and Drainage" World Bank 2002

²⁴ Briscoe, op. cit.

²⁵ Guillermo Yepes, "Pricing policies in the water and sanitation sector. Implementation Review. A background paper prepared for OED" April 2002.

²⁶ "Efficient, sustainable service for all? Evaluating the World Bank Assistance to the water supply and sanitation sector. OED review of the portfolio" April 2002

Aid for irrigation & drainage, and for hydropower, has declined substantially during the last decade. The World Bank and IADB have practically ceased lending to large new water storage projects in response to the current climate of hostility to such schemes, though the decline is less marked, from a much lower base, for the AfDB and AsDB.

International private investment and commercial bank lending for the water sector has never been large, and has suffered from the general decline in private flows since their peak in 1996/7. Water and sewerage projects received only 5.4% of all private commitments to infrastructure in the 1990s. From year to year the figures fluctuate widely, e.g. \$2 bn in 1998, \$7 bn in 1999, \$4.5 bn in 2000.²⁷ However available figures do not accurately reflect the contribution of the private sector to funding water infrastructure since they include commitments made to governments (e.g. the cost of buying existing assets), and do not assess year by year the creation of new physical assets.

Commercial banks are now much more cautious in lending to emerging markets than before 1996, while the pool of private companies with both the resources and the willingness to invest in overseas water projects has shrunk, and the ones that remain are more risk-averse. Nevertheless, these companies remain an invaluable source of know-how and of potential for innovation. In the framework of well designed Private Sector Participation (PSP) schemes they could be essential actors in responding to the needs of a rapidly urbanising world.

3.3. Private or public water operators?

The ownership of the water industry generates passionate debate in some circles. The panel, by contrast, takes a pragmatic view of the issue based on its observations of past experience, the current situation, and future requirements. For the 40-year period after 1950 aid and MFI lending for water went entirely to public authorities or utilities. Large sums were disbursed, the central areas and affluent suburbs of big cities were served, but by the late 1980s in rural areas and poor suburbs the situation remained unsatisfactory. Too many utilities were poorly managed, and poorly supervised by the regulatory authorities.

By 1980 private operations in the water sector were limited, essentially to France, some small areas of Great Britain, the utility owned distribution schemes in the USA, some cities in Spain, and parts of francophone Africa.. The divestiture of the UK water infrastructure from public ownership to the private sector in 1989 created great international interest. People who witnessed for decades the difficulties public utilities were facing in their attempts to reform themselves in order to be more efficient, less prone to corruption, more open to their clients and to the public at large, became interested in what the private sector could offer in a range of emerging economies. The contractual agreements that were made in other countries were of various kinds, but rarely followed the British model of full divestiture of ownership. The various other models of public-private partnership leave the ownership of the infrastructure and the overall control of the policy environment and the resource with

²⁷ World Bank PPI database.

governments, while private operators are contracted to perform certain tasks in operations and expansion of infrastructure

The experience of the last fifteen years can be summarised as follows. The introduction of private operators in a country which does not have any experience in this matter is a long and difficult process. Compared with other types of infrastructure, the water sector has been the least attractive to private investors, and the sums involved have been the smallest. In fifteen years only 3% of the population of the poor or emerging countries is now served by operators that are fully or partially private. The 1.1 billion people without access to potable water and 2.4 without basic sanitation are in regions still served by public authorities and public utilities.

Most private operations have achieved real progress in efficiency and, when required by the authorities and as part of their contracts, poor suburbs have been served in affordable conditions²⁸. Some cases have failed, mostly due to insufficient preparation. Lately the trend of private operation has been declining, and has come to a virtual standstill since the economic crisis in Argentina and elsewhere, and the brutal devaluations which ensued.

3.4. Conclusions- and a ray of hope

It is impossible to escape the conclusion that, in its many forms, the global water sector is in disastrous condition. The water resource is not being sufficiently developed and conserved, physical infrastructure is lagging behind need, sector management is deficient, and services are deteriorating and deficits are growing. Allied to this is a shortage of financial resources going into the sector. Indeed, the financial situation has been getting worse in the last few years, and the sector shows no sign of generating the funds required to meet future service targets.

A rapid overview of this kind inevitably over-simplifies and fails to do justice to the many governments, municipalities, villages, companies, user associations, etc. which are rising to the challenges they confront.²⁹ Even the global rate of water connections in the 1990s is impressive in absolute terms and in relation to the scale of previous efforts, though it has been outpaced by the intervening growth in population. Generally speaking, the technology involved is well-known and straightforward, and there is a widespread demand for the service backed up by a degree of willingness to pay. The need for policy and institutional reform to make sustainable changes has also emerged as a global consensus and the reforms and institutions required are becoming better understood, and already exist in different places. The challenge is to generalise these successes, and bring the many up to the standards of the few.

²⁸ E.g. the full coverage of la Paz-El Alto cities in Bolivia

²⁹ The GWP Toolbox includes a number of exemplary cases of reform

4. The Roots of the Problem

Chapter 3 portrayed a sector in crisis, unable to raise the funds necessary for its existing operations, neglecting essential upkeep and repair to its assets, and without prospect of funding investments needed for its future commitments. This chapter summarises the main reasons for this state of affairs.

All the evidence presented to the panel gives a consistent picture. On the one hand, there are serious defects in the “governance” of the global water sector, which hamper its ability to generate and attract finance. But even if these were overcome, there would remain specific features in this sector which are inherent, and which pose risks to potential operators, lenders and investors. This chapter first deals with governance issues, then turns to the specific risks of the water sector in its main branches. It concludes with the interaction of country risk and project size on financing options.

4.1. Governance

The following issues, amongst others, seem to be important:

- The apparent low priority given to water sector issues by central governments
- Confusion of social, environmental and commercial aims
- Political interference
- Poor management structure and imprecise objectives of water undertakings
- An inadequate general legal framework
- Lack of transparency in award of contracts
- Non-existent, or weak and inexperienced, regulators
- Resistance to cost-recovering tariffs

All governments agree on the importance of water and subscribe to internationally-inspired commitments and undertakings. But their spending performance is at odds with their rhetoric: in most countries the water sector is given a share in the central government’s budget which is disproportionately small. Part of the explanation is that water tends to be a local responsibility, and local and national priorities differ. There is also a tradition, especially among poorer countries, of reliance on foreign aid for new water investments. It is also true that certain aspects of this sector are unglamorous and practically invisible in electoral terms³⁰, while the mass of people not currently serviced properly tend to be politically weak or disempowered. It is tempting to postpone spending on maintenance and periodic replacements, likewise on investments with a long gestation period. Nor is water a priority in the use of resources saved from debt relief - few Poverty Reduction Strategy Papers give priority to this sector, and some omit it completely.

Because water is a peculiarly basic resource which serves many functions, it is often expected to pursue conflicting aims. The social and public health benefits of providing adequate clean water and sanitation to all may be incompatible with full cost recovery and financial self-sufficiency. Wastewater treatment to fulfil

³⁰ how many sewage works are named after politicians?

environmental responsibilities to downstream users and neighbouring states may not be financially feasible. Providing cheap or free irrigation water as a contribution to a national cheap food policy is likely to deprive the irrigation agency of funds to maintain its system. Many irrigation agencies and water departments are grossly over-manned, in a misguided attempt to create employment. As a general rule, it is preferable to make a distinction between the various policy aims to which water contributes, and, so far as possible, to arrange funding for each in an explicit manner.

In different countries, there are many different ways of organising the water sector, reflecting local political, cultural and administrative traditions. In many cases water is still operated from a local government department, or as a nationalised industry, or as part of a more general ministry. In some cases, it is an autonomous agency, and there are now many examples of private sector participation (PSP) in its various forms. Although there are pros and cons of each case, and there is no universally valid model for reform, it is important to be able to hold the sector organisations to account for their own performance. This normally implies separation of accounts, some managerial, commercial and financial autonomy, and clear and consistent objectives set by governments, municipalities or users. These principles are valid whether water is operated in the private or public sector. In reality, the failure to follow these principles means that there is widespread inefficiency and waste in this sector, coupled with arbitrary political interference.

Attracting finance into the water sector, particularly of a novel type, pre-supposes a supportive legal framework, containing such features as: corporate laws permitting the structure of corporate vehicles; the concept of freedom of contract for a project and the enforceability of commercial contracts; adequate investment protection laws; clear authority for the public sector to enter into PPPs; ability of lenders to obtain effective security; supportive banking laws; sector-specific legislation; confidence in the impartiality and competence of the judiciary, if local enforcement is necessary, and transparent reporting. Needless to say, the absence of such legal foundations makes attracting finance more difficult.

The water sector is prone to corruption, like any other, in societies where this is endemic. The willingness of companies, or coercion on them, to make bribes or other favours in order to win business has insidious effects, raising the cost of the deal and increasing its debt burden, distorting the shape of the project, demoralising staff in the agency being bribed, etc. Corruption is a potential factor whether the sector is privately or publicly operated. Such behaviour is now becoming riskier as it is exposed by international pressure, but until all parties subscribe to the same rules and standards of ethical behaviour, the more principled companies will be discouraged from seeking business in these cases.

Regulation is a necessary part of placing water agencies at arms' length from governments and making their behaviour accountable to the public. Although regulation is usually seen as a precondition of private sector involvement, it has an essential role in the public sector too, wherever an agency is accountable for its performance. Unfortunately, there are very few examples of good, experienced regulators in the water sector of developing countries. Most are of very recent origin, are weak, subject to political interference, and have struggled to cope with the impact of macroeconomic events on major concessions. Where regulation is absent or weak,

neither companies, governments nor the general public have confidence in the processes concerned, and investment suffers.

Most water undertakings do not cover their full costs, including operations, maintenance and capital items, and hence they rely on public subsidies³¹. This is a precarious existence, and makes them the victims of periodic budgetary crises. There is little political will to raise tariffs, even to cover O & M expenses, despite the possibility of designing tariff structures that cushion the water bills of the poorest, and the use of the social security budget to subsidise deserving cases. Many utilities are trapped in a vicious spiral of weak finances, under-spending on essential maintenance, declining quality of service, resistance to pay more for a poor service, etc. This process is particularly evident in public irrigation agencies, where cost recovery is nearly everywhere very low, partly related to the depressing effect on prices from farm subsidies in the OECD countries.

4.2. Specific risks of the water sector

The panel received evidence from a number of sources, which were unanimous about the importance of the following specific risks, which apply to the commercial funding of water, from both private and public sources. Some of them are not unique to water, but they all apply with particular force to this sector:

- Project profile: capital intensive with high initial investment & long payback period
- Low sector rate of return
- Foreign exchange risk: mismatch between local currency earnings & foreign currency funding
- Sub-sovereign risk: responsibility with local entities lacking financial powers, resources & credit standing
- Risk of political pressure on contracts & tariffs & absent, weak and/or inconsistent regulation
- Contractual risk: projects of long duration entered into with poor initial information

The typical *project profile* comprises a high investment in the initial years with a large negative cash flow, eventually turning into a modest positive cash flow due to revenue increases, which continues into the long term.³²

Water, wastewater, and hydro projects are amongst the most capital-intensive of infrastructure investments: in the USA, for instance, the ratio of capital investment to revenues is twice as high in water as in natural gas, and 70% higher than in electricity and telecommunications³³. The assets created are typically unusable for any other purpose and cannot be removed, hence the investor depends totally on future revenue

³¹ This is a conclusion to be drawn from the recent World Bank OED Review, "Thirty years of Bank assistance in water supply and sanitation", 2002, which covers a sample which is probably better than average for the sector. The World Bank data set of 246 water utilities in 51 countries shows that the average Working Ratio (of costs as a % of revenues) exceeds 1 for three-quarters of the sample.

³² Luc Averous, presentation to panel, 9 Oct, 2002.

³³ Unpublished IFC paper for the panel, "The unique risks of financing water and sanitation projects".

to obtain the desired return. At the point when investment is completed, the investor is totally at the mercy of the host authorities (hence the importance of a strong and independent regulator).

Hydropower projects also have features which discourage private finance- high front-end costs, high construction risk, environmental sensitivity, high capital intensity, heavy local costs, and long payback periods. In practice, only a small proportion of hydro projects are privately financed, which tend to be small, run-of-the-river projects producing for base load.³⁴ Major public irrigation projects share some of the above features, with the additional problem of poor cost recovery, but there has been a high level of private investment into smaller schemes, especially based on groundwater. Much recent investment has also been in rehabilitation projects, avoiding sunk costs.

Partly due to the above mentioned delayed returns, coupled with resistance to tariff increases, financial *rates of return* in the water sector are among the lowest of any sectors³⁵ Contrary to the situation in developed countries, where water is considered a very safe investment, the risk-adjusted return on water in developing countries may be even lower than its nominal *ex ante* level, for reasons set out below. It should be noted, however, that the last generation of irrigation projects has turned in a good average *ex post* economic rate of return (15%, or 25% if weighted by area)³⁶, though the *financial* rates of return are probably less.

Practically all revenues from water projects arise in local currencies. This implies that borrowings or investments that have to be serviced, repaid or reimbursed in foreign currencies carry a *foreign exchange risk*. In practice, over the last decade, most of the large private concessions and joint ventures have been affected by devaluations in their host countries, some of them disastrously. It is effectively impossible to insure against foreign exchange risk. A common way of dealing with devaluation contractually is to allow tariffs to increase according to a formula that includes foreign exchange movements, but in the case of massive changes such formulae are usually sidelined because the implied tariff increases would be unrealistic.

The so-called *sub-sovereign risk* in water was repeatedly stressed to the panel. During the last two decades central governments have devolved the responsibility for providing water services to sub-sovereign bodies such as municipalities or regional agencies. These entities have not, however, been given equivalent powers to raise finance. Cities that are larger and financially stronger may have no difficulty raising bonds and loans on their own account, but most depend on a central government guarantee or other support, which is usually given sparingly since it represents a contingency liability on the central budget. Central government often bars sub-sovereigns from raising money themselves. Municipalities also tend to lack the expertise in raising outside finance, and their financial management is weak. Some IFIs are debarred from lending at this level.

Because water is so important in peoples' lives it is often exploited for political reasons. *Political risk* arises when there is a likelihood of politicians intervening to

³⁴ Presentation by Barry Trembath to panel, June 7, 2002

³⁵ According to internal IFC data, typical % rates of return are: water 5-10, toll roads 15-20, telecommunications 25-30 and power 17-25.

³⁶ William Jones, "The World Bank and Irrigation", OED, 1995. Reported by Henri Carsalade in presentation to panel, 25 nov, 2002.

override the terms of agreed contracts, or to exploit ambiguities in them. This is particularly likely to happen at the completion of an investment programme, when tariff increases are due. A good system of regulation would contain such abuses, but where this is not present, *regulatory risk* arises - where investors and operators cannot rely on a stable and impartial regime to govern their activities.

Finally, *contractual risk* is present to a high degree, for two main reasons. Firstly, contracts in the water sector tend to have a long life - typically 25-30 years, and over such a period the operating environment is likely to change, e.g. because of changes in national policy or water standards. Secondly, contracts are bid for and accepted without the bidder having full information about the extent and condition of the network (much of which is underground) and its installations. Contracts may not be flexible enough to accommodate subsequent adjustments. Even where contracts contain dispute resolution clauses, these may not deliver timely results, nor are they always cost-effective.

4.3. Country risk and project size

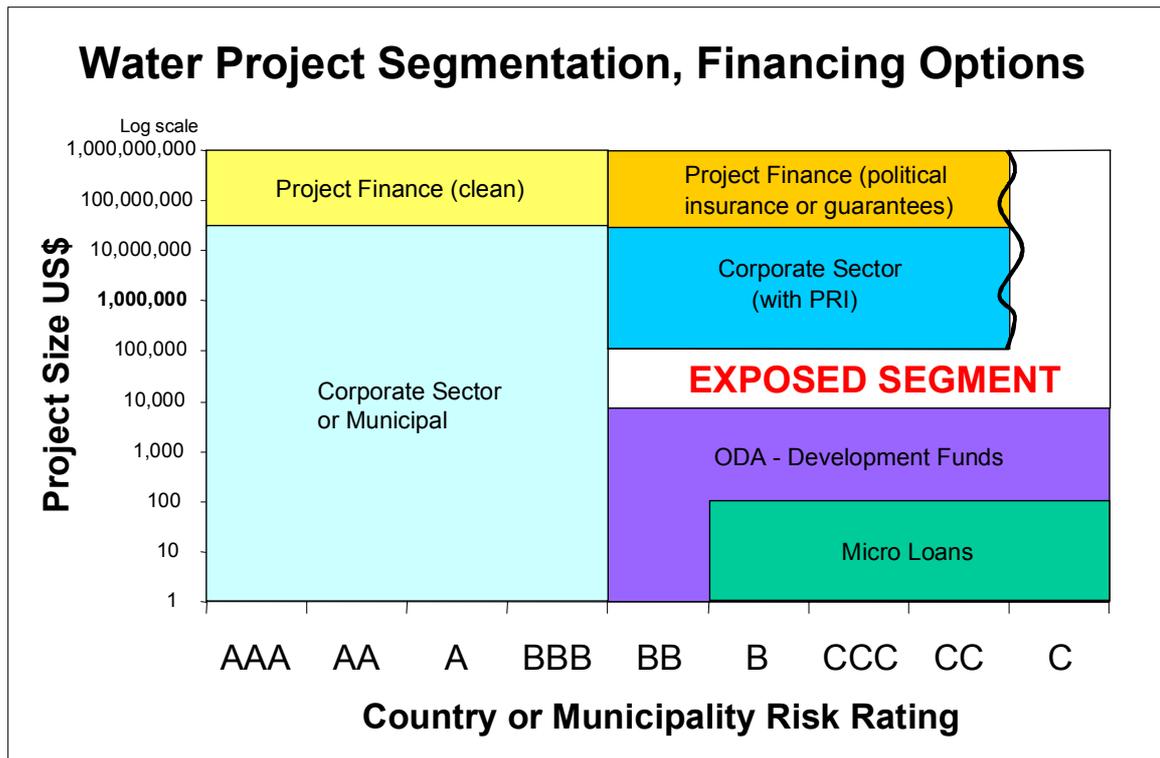
Country risk is a generic issue, not specific to water. The ability of governments, municipalities or water utilities to raise funds either internally or externally is crucially affected by the ratings given by one or other of the ratings agencies. Agencies use different criteria for Local Currency and Foreign Currency Ratings (the latter refers to the issuer's overall capacity to meet its foreign currency obligations)³⁷. Anything less than BBB (on the Standard & Poors scale) is not considered to be of "investment grade". Few emerging markets have investment grade ratings, and this obviously limits lenders' willingness (or, in the case of certain institutions, their legal ability) to take up bonds or syndications.

Water projects tend to fall in an awkward category from the viewpoint of financing, too small to bear the overhead costs of project finance, but too large to be funded from aid. The relationship between country risk and project size, and implications for financing options, is illustrated in Figure 4.1³⁸.

FIGURE 4.1

³⁷ Lidia Polakovic, "Water utilities' ratings in emerging markets". Presentation to panel, 9 oct, 2002

³⁸ This figure and the accompanying text were contributed by Robert Welford



Project finance is generally available subject to a '*de minimis*' size which will depend on the bank(s) concerned and the project. A typical minimum project size is US\$ 50 to 100 million. Below that level, returns to scale generally tend to make project financing uneconomic and projects will have to be addressed by the corporate sector. For project finance to be a viable option project revenues and returns to equity must be acceptable, though this does not preclude the use of aid to reduce the debt and/or equity burden to the project.

As the creditworthiness of the host country/municipality worsens, eventually we reach a credit standing in the first instance where the project will not be financeable without some form of political insurance/guarantee cover. Then, as country creditworthiness worsens further, ultimately projects will not be financeable under any circumstances because of the country rating and/or the lack of political cover available. In Figure 4.1, there are projects of size greater than US\$ 50 million which will not be done because of the lack of political cover. Similarly for sub-investment grade locations (rated BB+ and below), there is a size of project (US\$ 100,000 to US\$ 1, 000,000) which is too small for the corporate sector and too large for aid or micro loans.

In Figure 4.1 the area (coloured white) where projects will not get financed is described as the "Exposed Segment" (note that the diagram has a logarithmic scale). The Exposed Segment probably contains the majority of prospective projects –the range US\$ 10 million to US\$ 50 million is a common size for water projects.

5. Proposals

5.1. general orientations

The panel has come to the following general conclusions, which lie behind the proposals it makes:

- Based on the various authoritative estimates of investment requirements to meet targets both for 2015 and 2025, there is clearly going to be a large gap between current financial flows and what these estimates entail. *The annual amount of funds going into new investment in the sector in developing countries would need roughly to double..* This is the benchmark to be kept permanently in mind.
- No single source will be large enough to fill this gap alone. There are various sources of funding for water, and the sector will need them all. In practice, governments, ODA donors and MFIs are currently the major funders of investment. Cash flow from water revenues commonly provides only part of recurrent costs (operation, maintenance, and repairs) and only rarely contributes to funding investment .
- Global financial flows into water, after a slight increase in the 1990s, have recently fallen to a very low point.
- Many central governments have not, in practice, been giving high priority to the water sector, and need to decide on a clear policy towards this sector. But as the problem of water access and sanitation essentially lies at grass-roots level, decentralisation of policies will be crucial.
- The water sector badly needs reforming as a condition of generating and absorbing increased funding from all sources. This should be accompanied by a major effort at building managerial and technical capacity, with help from national and international peers. This should be a priority for the use of donor and MFI funding. Without reforms and capacity building, it will be a case of New Wine into Old Bottles.
- Sustainable financing for water systems will require greatly improved cost recovery from their users and increased management efficiency. In many cases revenues scarcely cover recurrent costs at present, and make no contribution to investment. The situation is even worse in public irrigation systems. Tariffs will need to rise in many cases, but the flexible and imaginative use of targeted subsidies to the truly poor will be called for to make cost recovery acceptable, affordable, and therefore, sustainable.
- On a positive note, the climate for official aid (ODA) is now better than for some years, and, with the new commitments made by a number of major donors, we can look forward to a reversal of the recent downward trend. Donors should be pressed to uphold their pledges and MFIs are likewise urged to increase their lending. Even so, ODA and MFI lending are not going to fill more than a minor part of the funding gap, though it is most important for the poorest countries. Aid flows need to be more carefully allocated between countries and target groups, and combined with other types of finance so as to induce a larger total flow from all sources. We are aware that this implies a

significant departure from the prevailing methods in a number of donor countries.

- International commercial lending and equity investment for emerging markets in general, and to water in particular, has been falling in recent years, and the prospects remain uncertain. New ways of mitigating the risks of lending and investment in this sector are urgently needed, and existing facilities need to be used more fully.
- Private international investment in infrastructure has been very selective and oriented far more towards energy, transport and telecommunications than to water. In the water sector, many projects, though initially successful, have been beset by difficulties, especially currency crises in key countries such as Indonesia, Philippines and Argentina. In response to these and other problems, the pool of potential international operators has shrunk and is now very small. The panel is convinced of the vital importance of private sector disciplines, know-how and management skills in the reform and further development of the water sector, but takes a pragmatic view of the costs and benefits of private participation in each case. It is aware that there are many different kinds of private involvement. Whatever form is chosen, risks need to be better allocated between the various parties and mitigated, using both existing and new methods.
- Revenues from the water sector arise almost entirely in local currencies and it is sensible to finance the sector as far as possible using locally-denominated funds, so as to minimise exposure to currency changes. This calls for active measures to develop local capital markets and sources of funds. . It also implies that central governments should exercise special restraint in order to avoid crowding out other borrowers in the long-term credit markets.
- Much investment in water is made, and much more is needed, at the grass-roots level, where the involvement of individual users, small producers, community organisations and NGOs is essential. These parties need to have improved access to finance. In many countries local businesses are already involved as contractors and service providers. They already tap into local funding sources and would benefit from the further development of local capital markets.
- There is clear evidence that so far water has suffered from a lack of financing, particularly at grass-roots and local level, and a lack of monitoring at national and global level. This calls, to a degree, for a “reversed financial architecture”, though we should guard against the illusion that it is possible to solve the problem by the creation of a global world water fund. At this level, nevertheless, a “global control tower” is needed, to provide information to a group of independent observers to prompt adequate and timely reactions.

The remainder of this chapter applies the above philosophy to make proposals for increasing funding for the water sector. There are broadly two kinds of measures. Section 5.2 deals with issues of Governance and Sector Reform, which are mainly within the powers of host governments and which create the right environment for attracting more finance. This section is partly addressed to host governments, but also to other parties where they have a contribution to make. .

Section 5.3 then shifts the focus to the providers of funds and proposes actions they, and their counterparts in the host countries, can take. This section includes specific financing proposals, which necessarily differ according to the sector to which they apply (e.g. urban or rural).

A full list of the proposals is contained in Annex 5.

5.2. Water Governance and Sector Reform

This section starts by addressing what central governments need to do in order to raise water higher on their policy agenda. It dwells at greater length on the crucial role of “sub-sovereign” entities as players in this sector and has numerous suggestions for making them more powerful and effective. It urges the importance of creating larger and more efficient local capital markets and financial intermediaries. The section continues with a discussion of key cross-cutting issues - corruption, increasing managerial capacity, sustainable cost recovery, and legal/contractual aspects.

5.2.1. Central governments

Central governments in developing countries need to take a grip on the water sector by producing national strategies for implementing the MDG targets and other water sector commitments. Governments in the countries concerned (those eligible for IDA terms) also need to inscribe water clearly in their Poverty Reduction Strategy Papers (PRSPs) in order to ensure sufficient budget resources for water and to capture the benefits of debt reduction for this sector. The PRSP is used increasingly by countries and their donors as a centrepiece of poverty-reduction policies and as a vehicle for targeting the local proceeds from coordinated international debt reduction. So far, the water sector has not had the priority it deserves in these Papers, and in some cases does not even feature.

Governments that do rise to the challenge and genuinely give water the priority it deserves should get financial bonuses from the international community. Aid and MFI lending should reward the countries that are “first off the block”.

- **Each country should produce a national water policy and plan, including specific programmes to meet the Millennium targets and beyond. This would be detailed in an action programme embedded in the national document which countries committed themselves to produce at the Johannesburg Earth Summit, and would be part of an agreement for additional ODA for water. Countries should state indicators by which their efforts should be judged.**
- **Each country should provide predictable revenue frameworks to their water service providers, either public or private.**
- **Each country should monitor and report annually its achievements towards the WMDGs**
- **For the group of Highly Indebted Poor Countries water should be explicitly included in national Poverty Reduction Strategy Papers in order to give it higher priority in national budgets and capture some of the benefits of debt relief for this sector.**

- **Donors should keep funds available for rewarding countries that make early progress on implementation of water programmes in fulfilment of the MDGs.**
- **Governments should create an enabling environment for the participation of the private sector in the delivery of infrastructure services.**
- **Governments should adopt policies based on integrated water resources management (IWRM)**
- **Governments should encourage municipalities in large and middle size cities to start working on projects for water supply and sanitation with the aim of responding rationally to the pressure of urbanisation**
- **Governments should engage in active regional and international policies to address the problems of trans-boundary rivers and basins.**

5.2.2. Sub-sovereign entities

Organisations at the sub-sovereign level of government have the greatest potential to raise the quantity and quality of water services. In most countries, local governments - or their public local water authorities - are responsible for providing collective water services. Where there is inadequate provision, these sub-sovereign bodies can best identify local solutions, organise their implementation and manage distribution in future. There is a better chance of good choices being made over the technology and level of service being provided if the decisions are taken at a decentralised level. Mistakes made over these crucial choices can kill any hope of financial sustainability for the water service providers concerned.

Sub-sovereign bodies can allow local participation, have a thorough understanding of local problems and issues and enable quick decision-making at the local level. This can also be an inclusive level of government, which can energise local participation in building solutions. The sub-sovereign can also handle a wide range of project sizes, including the very small. As noted in Chapter 4, one of the main blocks to progress in water is, however, the sub-sovereigns' lack of access to money and their lack of good management skills.

Firstly, sub-sovereigns must demonstrate the required breadth of expertise in managerial and financial matters, and budgetary and Treasury management. We have the following recommendations:

- **Governments should be encouraged to procure training and help for their sub-sovereigns in relevant managerial and financial matter**
- **Central governments should set national minimum standards for provision of water sector services by their sub-sovereigns**
- **Governments, together with responsible sub-sovereign bodies, should define what technical and financial assistance sub-sovereigns require to meet these standards**
- **In order to optimize local investment capacities local governments and water authorities should maximize their operating efficiency and report about their performance in meeting these standards.**

- **Close contacts, including partnership associations and twinning, should be promoted between sub-sovereigns, both intra- country and intra-regionally, to allow exchanges on experience and best practice. This would extend to preparation of toolkits and possibly preparation of standardised documentation.**
- **Contracts for Private Sector Participation (PSP) should be standardised and promoted, enabling sub-sovereigns to employ private companies under incentive driven contracts to raise efficiency and performance.**

Apart from good management, the creditworthiness of sub-sovereign entities depends on tax revenues, flows from central government, cash generation from the tariffs for existing services, the income generated by new projects, capital and operating expenditures, and the levels of debt. Active municipal financiers give high credence to the concept of ‘essentiality’ – if taxpayers believe a project is necessary, they will be much more willing to pay taxes and bear other financial burdens, than they will be if the project is considered inessential or even frivolous.

Current problems include the inadequacies of the financial statements prepared by sub-sovereigns, the secrecy with which available numbers are treated, poor auditing and poor oversight. A vicious circle exists, in which sub-sovereigns are unwilling to prepare or to open their books without seeing money on the table, and lenders are unwilling to make any move before the information is provided.

Budgetary support from central government is often a key determinant of financial strength of sub-sovereigns. Yet it is common to find that the fiscal relationship between the central government and the their sub-sovereigns is ill-defined or opaque. To the extent that this fiscal relationship is unclear, potential lenders will discount the uncertainty fully, leading to higher costs and possibly non-availability of finance.

The panel recommends:

- **Central governments should provide incentives for good reporting by their sub-sovereigns e.g. to relate some central transfers to the quality of reporting.**
- **National governments should create a central agency to collect, publish and compare sub-sovereigns’ financial and management information (including benchmarking of key operating parameters). The agency should encourage civil society to monitor whether the services received by the community are consistent with the reports received. The panel recommends that donors should support such an agency, using public and private sector expertise in administrative, legal and financial areas.**
- **Governments should clearly define their fiscal relationship with sub-sovereigns.**

The short time horizon of some sub-sovereign officials (in some countries mayors are elected for three years) increases the likelihood of irresponsible behaviour towards obligations taken on by predecessors. It is important to build transparency into their behaviour, to create incentives for good governance and disincentives for bad. The panel recommends:

- **Governments, with the help of MFIs and donors, should promote the rating of sub-sovereigns, partly to enable transparency and a tracking of behaviour.**

In many countries there are restrictive limits on borrowing by sub-sovereigns. Moreover many existing financial institutions are either constrained in, or prevented from, lending to sub-sovereigns. In many jurisdictions the legal basis for sub-sovereign financing is weak or even hostile.

It is entirely justifiable for a central government to set limits on the borrowing by sub-sovereigns, both in local currency and certainly in foreign currencies, for such borrowing needs to be within the sub-sovereigns' and the national carrying capacity. However in most domains this is taken to excess and the limits are set not in the general interest, but with a tendency to concentrate financial resources in the hands of the central government itself. For central governments are borrowers themselves and tend to dominate domestic markets. Thus they view sub-sovereigns as competitors rather than partners. While responsibility for infrastructure service provision has been devolved to sub-sovereigns, corresponding access to long-term credit markets has not.

This crowding out in domestic credit markets is achieved by a range of rules and requirements, the most common being instructions to banks, insurers, pension plans etc. to hold a high proportion of their reserves in treasury bonds. But it is also supported by the way the laws are written. It is not going to be easy to persuade governments to make way for more sub-sovereign borrowing for water, when those governments are competing for the same funds. It will be essential to use effective persuasion to show governments the benefits of opening doors, even partially, for more sub-sovereign financing.

The position in domestic markets is mirrored by international institutional arrangements. Some MFIs, though not all, are constrained by their articles, or by the customary interpretation of their articles, from lending at the sub-sovereign level. Moreover most export credit agencies also have severe restrictions on the credit they can grant against sub-sovereign risk. These practices should be re-examined: it is vital to remove the impediments to international lending institutions financing sub-sovereigns. It should, of course, be recognised that the spread of more sub-sovereign lending will have implications for the pricing of loans, which would need to reflect the credit standing of the borrowers.

In principle, national development banks have a potentially important role as intermediaries between foreign lenders, central governments, and sub-sovereign entities. A single national organisation would be able to deal on the one hand with foreign IFIs and donors, and with local central government, and on the other with the potentially large number of sub-sovereign bodies wishing to borrow. The development banks would, over time, build up experience and intelligence about borrowers in a way which is not feasible for an external agency. If it worked on an appropriate scale, it could build up sector expertise and become an important technical partner and mentor for water projects. The bank would need to have the powers to recover loans in the event of difficulties, but would be in a position to pool its risks from different borrowers. Investors, donors and IFIs would be able to deal with a single "window" in each country.

Despite these potential advantages, in practice the performance of many national development banks has been poor, due to inexperience and imprudent lending for political reasons. Many have had to be refinanced by national governments and central banks, drastically reformed, or even closed down. Nevertheless, they are obvious types of intermediaries for sub-sovereign lending, and should be seriously considered, taking full account of the lessons of previous experience.

The panel recommends:

- **Governments should consider taking steps to permit the prudent development of domestic borrowing markets for sub-sovereigns..**
- **Governments be advised to encourage and facilitate the entry of rating agencies and bond insurance/ financial guarantee companies into their domestic capital markets.**
- **In the light of lessons learned from previous experience, and with appropriately reforms made, national development banks or specialised financial institutions should be considered as intermediaries for channelling external and central government funds, and funds raised in local markets, to sub-sovereign bodies operating in the water sector.**
- **Governments should encourage the creation of credit pools for sub-sovereigns, with an option of joint and several liability³⁹. This would give the sub-sovereigns themselves an interest in their peers' self-governance**
- **Governments should be encouraged to allow and facilitate limited intercepts into fiscal transfers to give lenders to sub-sovereigns partial security.**

Many water sector projects have long payback periods and high externalities, so that it may be entirely appropriate to subsidise them. In addition there may be constraints on tariffs, e.g. on those paid by poor communities, which may also provide economic and as social justification for subsidies. Sub-sovereigns are ill equipped to analyse and design such projects and are badly placed to obtain funds from international sources, which mainly work through central governments.

The panel recommends that:

- **Donors should provide technical assistance to sub-sovereigns for analysing and designing water projects**
- **Donors should channel aid to sub-sovereigns requiring funding on concessional terms for water projects**
- **Sub-sovereign entities should consider the option of retaining assets in public ownership, with continued public responsibility for investment finance, and with operations privately financed and managed.**

We believe that the steps listed above will expand the availability of finance, partly by stimulating a response from private markets. However it will be productive to set up a fund and/or a limited number of regional funds to channel resources to sub-sovereigns. Since sub-sovereigns' requirements for water are mainly in local

³⁹ This follows a recommendation of the CEO Panel, which has made a detailed proposal for such pools, although without 'joint and several' liability.

currency, such funds should concentrate on partial guarantees, bond insurance, or other enhancements that could be used to improve the credit quality of local currency instruments.

The need for subsidies, described in the section above, also suggests that a fund may be required. Some of the needs can be met by direct subsidies from the sub-sovereign itself, central government, or aid donors, or by appropriate public-private partnerships where risks and/or costs are shared by the public sector. 1.

5.2.3. promoting local capital markets and savings

Revenues of the water sector are nearly always in local currency. This means that funds raised abroad, serviced and repayable in foreign currencies, expose the borrower or investor to a foreign exchange risk. The panel was repeatedly told that this risk is a serious disincentive to the entry of foreign loans or equity to the water sector in emerging and developing countries. The mitigation of this risk is discussed later, in section 5.3.3. Raising funds locally would avoid the problem at source.

Some of the larger countries (e.g. India, China, Brazil, South Africa, amongst others) have well established local financial markets, able to satisfy part of local borrowing needs. These markets typically offer short-term loans, and need to evolve a fuller range of long-term instruments to be able to satisfy the needs of the water sector. But a high proportion of their total debt is denominated in local currency and immune to devaluation risk. In the majority of countries, however, domestic banks and other financial intermediaries are unable to satisfy the local demand for secure savings outlets and sources of loans. Water, as an infrastructure sector with a long repayment horizon, has specific problems in attracting local capital, though banks will take part in well-structured schemes, in which other parties can provide the required overall length of maturity. In some countries it must also be recognised that governments deny borrowers access to local capital markets for certain purposes (e.g. in China foreign companies making local acquisitions are barred from borrowing the funds locally).

Various proposals in the preceding section would stimulate local capital markets—for instance, active *local development banks* could attract local capital as participants or investment partners. There is also a specific value in using guarantees that effectively lengthen the term of loans. In most countries, there are very few lenders willing to go beyond a term of a few years, which is too short for major water projects. However, using a *Partial Credit Guarantee* covering some of the later repayments effectively stretches the loan term to make it more appealing to borrowers. The *Partial Risk Guarantee* can complement this by covering other repayment risks. Between them, PCGs and PRGs can lengthen the term and reduce the interest spread on loans and bonds raised in local and foreign markets. A number of IFIs and bilateral agencies offer these products, but the conditions for their implementation are not always met in a specific project, due to the lack of a proper legal framework or clear sharing of responsibilities between Central and Local Authorities.

Local *pension funds* and other *institutional investors* such as mutual funds are potentially large sources of funding for water projects⁴⁰. In a number of emerging markets pension funds are likely to grow, starting from a modest base, and are well placed to provide local currency funding, if the right savings instruments and security were available. Pension funds can take a long view, and have a natural interest in long-term savings instruments, including those offering stable returns. Because of their strong fiduciary commitment, pension funds are limited in the risks they can take. However, some of them would be attracted to “socially responsible” investment outlets. Moreover, water has a reliable and consistent earnings stream over the long term.

For these reasons, the panel believes there is potential in MFIs’ use of instruments such as Partial Credit Guarantees and their efforts to raise more bonds in local currency. These activities encourage the growth of local currency markets, increase the supply of funds for the water sector and strengthen balance sheets of the pension funds through building a better currency and asset/liability match for the local savings. Some MFIs are also now offering long term fixed interest rate local currency loans, and local currency swaps. These initiatives should also be encouraged and expanded

The panel recommends:

- **Governments and central banks should put in place measures to promote local capital markets and address problems caused by their own actions in ‘crowding out’ other borrowers.**
- **That larger countries lift remaining barriers to the use of local funding when they are not obviously required**
- **MFIs and other agencies should extend their use of guarantees and the issue of local currency bonds to promote local capital markets, extend the maturity of local loans, and encourage the use of local pension funds in the water sector. They should urgently address statutory and managerial obstacles to their further use for this purpose.**

5.2.4. Sustainable cost recovery

Increasing resource mobilisation for water must start with closing the revenue cycle. Only operators or water authorities that generate sufficient cash can operate and maintain present systems and attract investments for expanding services and improving management. Water services and management are always paid for by someone, inevitably consumers (through user tariffs) or taxpayers (from fiscal resources) or to a much smaller extent by bilateral and multilateral assistance. Closing the revenue cycle depends both on reducing costs and increasing revenues.

At present, it is common for the revenue from water tariffs to cover only part of the recurrent costs of urban household water services. It is rare for tariff revenues to contribute to capital expenses in municipal schemes. As long as this situation persists, water authorities are dependent on subsidies to cover part of their recurrent

⁴⁰ Antonio Vives, “Pension funds in infrastructure project finance: regulations and instrument design” *Journal of Project Finance*, Summer 1999.

costs and virtually all their capital spending on expansion and modernisation. Budgetary constraints are a chronic brake on the sector and water authorities slip into an attitude of dependency on central government and aid funding. They cannot develop long term plans. It is also wrong to think that tax revenues are a more obvious source than tariffs, in poor countries with weak fiscal systems and many other urgent claims on the public purse.

For water supply and sanitation, the panel believes that full cost recovery from users is the ideal long-term aim. However, it recognises that there are situations where full cost recovery is not feasible, or even desirable, in the foreseeable future. The situation of large, affluent cities is clearly different from that of scattered and poor rural settlements. Families already in the cash economy are better placed to pay than those still outside it. People coming into a public system for the first time may need special encouragement through subsidies, etc. The device of cross-subsidies to households from other sectors, or from more affluent consumers, is not available in systems where the majority of users are poor. Some countries have chosen to supply each consumer with a free basic quota of water. In these and other cases, public subsidies may continue to be part of the financing solution.

The panel therefore proposes the concept of *sustainable cost recovery* as a way of giving the water sector the financial assurance it needs, while acknowledging affordability problems and the case for subsidies in certain cases. ***The panel proposes that the aim of water service providers should be sustainable cost recovery (SCR). SCR means that:***

- **Service providers should aim for revenues sufficient to cover their recurrent costs, and they should develop sustainable long-term cost recovery policies, anticipating all future cash flow needs. SCR includes operating and financing costs as well as the cost of renewing existing infrastructure.**
- **Revenues arising from charges should be covered by users as a group. Under SCR, not all users need pay the same price. Individual affordability of water charges should be ensured by appropriate tariff structures including local cross-subsidisation (for example by setting a rising block tariff structure) and/or by individually targeted and transparent pro-poor policies**
- **That part of recurrent revenues provided by taxpayers from public budgets should be secured by agreeing well in advance the allocation of sufficient fiscal transfers .**

From experience of tariff reforms, raising revenue creates a “virtuous circle” leading to improvements in service, expansion of the system creating further revenues, attraction of external funding and investment, and releasing public funds for those purposes that genuinely need subsidising. The panel has been repeatedly told that even poor urban people are willing to pay for water, though politicians are often reluctant to charge them higher tariffs. Affordability, and ways of achieving it, are the keys to charging adequate tariffs.

One rule of thumb which is useful in some cases (e.g. planning water supply in Asian cities) is that urban households are able to afford to pay up to 5% of their incomes on water services⁴¹. Intelligent tariff design is fundamental. It is well known that poor people, without their own connections, buy from vendors or neighbours at many times the price per unit that is paid by those with connections. However, this is usually for small quantities of water, and, once connected, poor families may need relief from paying the full tariffs. Realistically, there will be systems (e.g. in poor, isolated or rural communities) where affordability is a distant prospect and some subsidy inevitable, at least in the short term.

SCR must therefore allow for wide variations in payment capacity. It is useful to distinguish urban, peri-urban and rural consumers. Many urban utilities offer the promise of complete cost recovery for water supply systems but most peri-urban often require their investment costs to be subsidised. When they are served by a large utility cross-subsidies are feasible which will not threaten the utility's financial sustainability. Many rural water supply and sanitation systems are unlikely to be able to recover more than a portion of investment costs, in addition to paying for operations and maintenance costs, which is a minimum for ensuring sustainability of operations.

There are various ways of using subsidies, but the general principles are that they should be *affordable* (general budgets are adequate to support them), *targeted* to the groups intended to benefit, and *transparent* (visible to the public and identifiable in public accounts).

Where they are available, social security payments can subsidise the water bills of poor families and other deserving cases (this is the system operated to good effect in Chile). Cross-subsidy is another option, using higher rates paid by consumers in other sectors (e.g. industry) to lower rates paid by the poor. A common device is to use a stepped (progressive) tariff, with the initial amounts free or cheap, followed by higher unit tariffs for larger amounts of consumption (though this would not help large families). In some countries, a free basic ration is provided, underwritten in the last resort by the government. A highly efficient way of subsidising the poor is to give them connections at a subsidised cost that they can afford. Where subsidies are used to cover the transition to full cost-recovering tariffs, they should be *tapering*.

- **Where subsidies are used they should be targeted, transparent and, where they are intended to ease the transition to higher tariffs, tapering.**

Where public subsidies form an important part of water revenues, they should be agreed sufficiently far in advance to give the water authorities the assurance they need to plan their future operations and investment plans (water projects often take many years in gestation). Many governments cannot give such assurances for future years and in such cases it is wise for the water sector to be as financially self-reliant as possible. It is an obvious point that governments that decide to subsidise water need to have credible fiscal policies.

5.2.5. Increasing Managerial Capacity

⁴¹ Alfredo Pascual, "Tariff reform" a paper on AsDB experience presented to the panel, Jan 2003.

Many of the water sector's problems are due to its weak organisations, which often reflect the wider political, administrative and financial problems of the societies in which they operate. Waiting to solve these problems, and making good governance a precondition of further international support to the water-sector, would make the Millennium timetable unattainable and abandon many of its intended beneficiaries to their fate. The panel's proposals on strengthening of sub-sovereign bodies, help to local communities, the development of contractual capacity, etc. will all help the cause of capacity building. But they do not satisfy the need for better performance of government in its core responsibilities, the urgency of which was repeatedly brought home to the panel.

In section 5.2.1 the report calls for national water strategies to be produced, as the means of defining and implementing a water policy. Section 5.2.2 cited competent and independent regulators and supervisors as a necessity step when delegating to sub-sovereigns and semi-public bodies, and when considering PSP. Technical assistance for capacity-building in public administrations has a long history, and has not been particularly effective. Nor is it very popular with donors, who find it difficult to attach a clear national identity (a “flag”) to this type of aid. It is much easier to raise large sums of ODA for capital investments than to raise relatively tiny sums for the administrative capacity building that is a vital condition of making it effective.

Nevertheless, the panel believes that it is of extreme importance to strengthen the skills of managers dealing with water issues in public authorities, at the government, municipal or community levels.

- **Funding for capacity development in water related institutions at government, municipal and community levels should be a high priority for the use of ODA and MFI funds.**
- **Donors should finance trust funds in the MFIs for using specialists with strong practical experience at the appropriate level in the transfer of skills.**

As 97% of the population of the poor and emerging countries are, at least notionally, served by public utilities, the panel believes that it is not only essential to train the managers in the public authorities which regulate the utilities but also to attract and train good managers inside the public utilities themselves. The panel is attracted to cooperation agreements, between public authorities as well as utilities on both sides, which define clearly the respective roles of the “advisor” and of the “recipient” bodies. The panel recommends using the decentralised nature of water supply as an opportunity for healthy competition between public, private and community based solutions.

The involvement of reputable public institutions, either from other parts of the country or abroad, could greatly strengthen core bodies and improve the governance of the sector. Traditional “twinning” arrangements have had limited success, mainly because the arrangements lacked any real incentives or genuine commitment from the two parties. Recent “reinforced twinning” arrangements have introduced stronger

incentives (e.g. between the Nordic cities and those in the Baltic states and Russia). This is an example of “decentralised cooperation”.

The panel recommends donors to give grants and technical assistance in support of these co operation agreements

- **Donors should support cooperation agreements involving experienced and reputable public partners, as a means of strengthening core public capacities. These agreements should state mutual responsibilities, and contain performance targets and incentives applying to both parties.**

The panel believes that most effective learning happens "on the job", in "learning by doing". Organisations and people within them learn best when they work on problems jointly with more experienced colleagues and partners. South-South cooperation (between countries at a similar level of development or cultural background) is often cost-effective. This kind of assistance will need grant funding, allowing contributions to be matched flexibly and in a timely manner to specific requirements.

- **The panel recommends the concept of jointly working on problems and ‘learning while doing’ in public-public partnerships as well as in cooperation agreements between utilities and companies. Such cooperation is possible either within a country, or in a North-South or South-South⁴² manner**

Learning while doing is also relevant to improved project preparation through the concept of "action planning". For example, within an approved investment programme capacity building should start early, even during the planning process. For this to happen, some funding has to be available before project preparation is completed and before the final loan or management contract is signed. This preliminary funding may later be consolidated in the contract agreement, or it could be provided, possibly together with capacity development services, from development agencies specialising in this. Local partners would gain experience and credibility in the planning process, and increase their sense of “ownership” of the project. It would also reduce the lead-time entailed in major investments and alleviate the severe strain most administrations will experience when they try to meet the MDG targets⁴³.

- **In implementing the MDG targets donors should support "action planning", in which planning and project preparation are wrapped into aid projects.**

The collection and publication of comparative performance data for different water authorities is an important spur to improving performance (as in the AsDB's Water Utilities Data Book and the African Water Utility Partnership's benchmarking project). Water managers can draw on existing networks of water professionals,

⁴² We follow the customary, though geographically inaccurate, habit of using North to denote a developed country, and South a developing one.

⁴³ This proposal contrasts with the concept of Output-Based Aid, which is paid after the work is done. There will be scope for both approaches, depending on circumstances

meeting regularly to exchange experience in gatherings organised by the International Water Association and its regional counterparts (e.g. the Union Africaine des Distributeurs d'Eau or the Asociacion Interamericana de Ingenieria Sanitaria y Ambiental. The efforts of these associations in organising training courses and benchmarking surveys deserve recognition and support.

- **ODA should be provided for the work of regional professional associations in support of training, professional exchanges, and data collection and benchmarking.**

Another field of application of 'learning while doing' is the preparation and implementation of contracts through such schemes as Build Operate Transfer (BOT), Design Build Finance Operate (DBFO), Build Own Operate (BOO), concessions, O & M contracts, etc. These kinds of contract all involve important transfer of skills from private to public partners. This kind of 'on the job' approach to learning is usually very effective.

- **ODA technical cooperation should be used to help the preparation, structuring and implementation of contracts such as BOT and other kinds of concession, operation & maintenance contracts, management contracts, leases, etc. as a means of enhancing 'on the job' capacity building.**

5.2.6. Corruption and ethical practices

Corruption can arise amongst public and private, local and international participants in the water sector. It distorts projects, damages the operating environment and discourages responsible investors. Eradicating it, especially from societies where it is endemic will not be easy. The panel's proposals on sub-sovereign entities, contracts, and other matters will contribute to institutional reform, better administration, transparency, and more open and rigorous commercial practices. Other proposals are presented below

- **Capacity development in the core public institutions of the water sector should aim to define and implement a water policy, set a regulatory framework and create a basis for commissioning and controlling executing work, whether performed by private or public agents.**
- **Executing agencies should be made attractive for high-calibre leadership, accountable for performance and delivery. Integrity standards should be worked out cooperatively by all interested parties.**
- **The decentralised nature of water services is an opportunity for different mixes of public, private and self-help options, and for competition between them. The choice between them should be pragmatic, eschewing ideology.**
- **The high political profile of water should be used positively to create more transparency for its operations. Public opinion, user associations and NGOs**

should be encouraged to monitor and publicise the activities of water organisations and expose corrupt practices.

Multinational companies involved in water ventures are currently preoccupied by urgent concerns affecting their further engagement in the sector. Against this background, the efforts to involve them in exercises like Transparency International's Integrity Pact or work on joint ethical standards for the sector has made little progress. The same is true, though for different reasons, of contractors and consultants in the water sector. The outlook may change with a more favourable international financial outlook and measures to mitigate foreign exchange and other risks. Private companies are urged, in their own self-interest, to engage in the development of ethical standards of behaviour for the water sector. The panel has noted with appreciation the contribution of NGOs such as Transparency International in assisting with these efforts.

None of the above implies that corruption is absent in public sector contractors, or that the problem is worse in private companies. Both private and public contractors are urged to develop codes and standards that place their behaviour above reproach.

- **Political obstacles to private sector participation (PSP) in water exist. One of these is a perception of corruption in some previous dealings. Companies engaged in the water sector are urged to cooperate with other parties involved to develop methods for promoting ethical behaviour. Public water authorities and public sector contractors equally need to develop codes and standards that place their behaviour above reproach. PSP transactions should be made more transparent, e.g. through competitive bidding and including requirements to publish contracts.**

5.2.7. The legal & regulatory environment

Despite the evident importance of new investment in the water sector, very few new sound projects are presented to potential investors and financiers, public or private. In the current international economic climate, even fewer are likely to come forward unless action is taken to increase the pipeline of good, well-prepared projects, which is essential to meet the challenge of global urbanisation. Only better structured projects, meaning those with a better and clearly defined risk allocation and with efficiently managed tendering and transactional processes, would increase long term investment in the water sector, by both public and private sectors.

The panel agrees that an adequate legal and regulatory framework is an essential precondition for attracting more commercial finance or private investment. Some of the necessary elements are stated in chapter 4. In brief, the legal framework should permit the matrix of rights and obligations that make up a bankable project and its commercial and funding structure to be confidently put in place, with the assurance that relevant contracts will be enforceable in accordance with their terms.

A major problem faced by international investors in water projects is the risk of renegotiation of the contract during the life of the PSP. Removing weaknesses of the tendering process and procedures, and improving their transparency, would decrease

the risk of project failure, which is often caused by overbidding and underbidding due to inadequate information about the project at the tender stage.

The presence of effective laws on the central/local fiscal relationship would allow the interception of central-periphery fiscal transfers. Their use as collateral would greatly enhance the financeability of water infrastructure projects (Mexico is an example of the use of central-periphery transfer funds as project security). Moreover, the presence of effective laws on private financing of public infrastructures could facilitate the “pooling” of several public borrowers which, by jointly and severally guaranteeing each other’s financial obligations, could greatly reduce the cost of borrowing or even make the borrowing possible in the first place.

Achieving a sound general legal framework will not be done overnight. While urging the more widespread adoption of measures based on best practice, the panel proposes a more modest contribution, focussing on two related aspects, the creation of a fund or funds to be used for complex tendering, and a study into the practicality of producing a handbook of best practice and model clauses for public-private partnerships (PPPs).

The panel recommends:

- **The creation of a Revolving Fund or funds consisting of grant money to finance the preparation and structuring costs of complex projects (including PSP and other innovative structures) The fund would be used to cover the legal, financial and technical advisory costs of the preparation and structuring of projects up to and including the tendering and negotiation phases.**

The Fund would be replenished, partly or totally, by the public partner upon the award of the project to the successful bidder. If a project were cancelled, all or an appropriate amount of the grant would be reimbursed to the Fund by the public institutions in charge of the development of the project. Although the Fund would be available equally for projects implemented by the public and private sector, it would have a particular impact on the attraction of private sector partners, which is now an objective of many governments.

Although other funds for helping project preparation exist, this one would be dedicated to the water sector. In general, donor governments and development agencies are reluctant to finance technical assistance of this type, hence the Fund would fill a gap in the current structure of development finance⁴⁴.

A second proposal aims to streamline the approach to PSP infrastructure projects, currently one of the most problematic, time-consuming and costly aspects of commercial law. The panel recommends:

- **A study should be funded for the preparation of best practice and model clauses in the legal agreements of public-private partnerships, with**

⁴⁴ The UK’s DFID has several proposals with a bearing on this, such as the Emerging Africa Infrastructure Fund, and the DevCo Project Development Facility. In addition, the Public-Private Infrastructure Advisory Facility is a multidonor facility hosted by the World Bank

particular reference to the water sector. The panel wish to draw the attention of relevant institutions to the urgent need for this initiative.⁴⁵

5.3. Financial instruments & facilities

This section deals with methods of increasing external financial flows into water, organised according to the main sources of these funds. (Internally generated and other domestic sources are dealt with in the previous section 5.2).

5.3.1 Official development assistance (ODA)

Official development assistance (ODA) comprises financial transfers with a minimum grant element of 25% as stipulated by the OECD's Development Assistance Committee ("DAC"). This is what is commonly known as "aid". Most of it consists of government-to-government transfers from OECD member states, so-called "bilateral" aid. A minor, but still substantial portion is "multilateral" ODA from the World Bank's International Development Association (IDA), the concessional funds operated by the regional development banks, the various aid funds of the European Union, and several UN agencies including the UN Development Programme (UNDP).

The multilateral development agencies mentioned above also lend large amounts of "non-concessional" funds at near-market rates. Although this is not ODA in the literal DAC sense, it is available on more attractive terms than commercial finance from banks and other lenders. In this report, unless otherwise specified, references to ODA in general, or proposals to increase ODA for water projects, improved governance, capacity building, etc. are directed both at bilateral and multilateral sources, including the non-concessional lending of the MFIs. We return to the MFIs again in the following section to discuss specific features of their operations.

There are also bilateral agencies having a development purpose but with more commercial practices, offering equity, guarantees and/or loans at, or close to, market terms (e.g. the German KfW, the French AFD, the UK's CDC, the Japanese JBIC *et.al*). Although these agencies have much in common with the MFIs (section 5.3.2).

ODA for the water sector has been declining in recent years. This is partly because of the general decline of aid, partly because of the sharp drop in aid for large dams and water storage schemes. The prospects for a reversal of this trend have recently improved. In conformity with the Monterrey Consensus, ODA decline should be reversed; its amount should be increased by 25% - i.e. \$12.5 bn – by 2006. G8 leaders also declared in Kananaskis that they believed "that in aggregate half or more of our new ODA could be directed to African nations that govern justly, invest in their own people and promote economic freedom... This will help ensure that no country genuinely committed to poverty reduction, good governance and economic reform will be denied the chance to achieve the Millennium Goals through lack of finance".

⁴⁵ Partnerships UK has also worked on this issue

If implemented, such commitments, even if insufficient in their amounts, could nevertheless have a decisive role in catalysing more sizeable public and private financing over the next few years. However, a particular effort should be made in the water sector where the proportion of aid allocated to water remains low. In constant dollars, DAC Members' bilateral aid to the water sector increased over two decades at an annual average of 9 %. The downward trend observed since the middle of the 1990s is a reflection of ODA in general, although aid to water started decreasing later than that of other sectors.

The share of aid to water supply and sanitation in total ODA remained relatively stable in the 1990s at 6 % of bilateral and 4-5 % of multilateral ODA. In recent years, total aid allocations to the water sector have averaged about USD 3 billion a year. An additional USD 1-1.5 billion a year is allocated to the water sector in the form of non-concessional lending by the major MFIs. Japan is by far the largest donor in the sector in value terms, accounting for about one-third of total aid to water. Funding by IDA, Germany, the United States, France, the United Kingdom and the European Commission amount to another 44 % of the total.

The 1998 DAC Development Cooperation Report showed that aid in the water sector was highly concentrated in a relatively small number of recipient countries. In 1995-96, for example, nearly two-thirds of total aid to the water sector was allocated to only 10 recipients. The data show some change in focus in recent years. In 1997-2001, the 10 largest recipients received 48 % of total aid to the water sector. China, India, Vietnam, Peru, Morocco and Egypt remained on the top ten list. Turkey, Indonesia, Tunisia and Sri Lanka were replaced by Mexico, Malaysia, Jordan, and Palestinian administered areas.

Another finding of the 1998 analysis was that many countries with a large proportion of the population not having access to safe water received very little, if any, aid to this sector. This still seems to be the case. Only 12 % of total aid to the water sector in 2000-2001 was allocated to countries where less than 60 % of population had access to an improved water source, which includes most of the least developed countries.

If the overall task is to double the total amount of resources invested in water we cannot avoid the conclusion that

- **Governments of developed countries should be held to account for their commitments to increase aid to the water sector. Overall ODA for water should be doubled, as a first step.**
- **Individual donors should contribute their share towards this target, depending on the size of their current aid to the water sector. This ODA increase should preferably be done by increasing the amounts of grants. Donors and MFIs should aim to make substantial increases in the share of water in their total commitments**
-

These decisions should be seen as a clear demonstration of the strength of commitment of the OECD countries to contribute their own share for the implementation of the water MDGs. In view nevertheless of the huge magnitude of the needs – particularly for rural populations – and of the very low level of the present

contributions to this sector, this doubling can only be considered as a first step. If the other forms of support we suggest, particularly in governance, training of local managers, preparation of projects etc, materialise promptly, higher amounts of ODA will need to be considered. Once systems were reformed as suggested, the investment of these resources could contribute much more effectively than so far to achieving the MDG.

To ensure that these quantitative efforts make the major difference we should expect, the increase in oda will have to go alongside ways of increasing its effectiveness.

- **Donor agencies should work, under the guidance of the OECD's Development Assistance Committee, to implement the ADC's recommendations on increasing the effectiveness of aid. They should aim to coordinate their efforts in this sector, and avoid the waste and fragmentation typical of earlier water programmes.**

Even if the doubling of oda for water occurred, and its effective use could be assured, there could be problems in matching the annual amounts available with actual requirements. There could be serious time lags before the flow of funds reached the required levels.

- **In view of the capital-intensive nature of water investments, and the need for 'front loading' of ODA, means should be found for governments to create a special national or international facility to pre-finance disbursements budgeted for a later period.**

In view of the quality of the signature of the OECD countries, such a facility would benefit from AAA rating, and would enable higher amounts of ODA financing to be provided at the most critical moment for the achievement of our goals. The panel has been encouraged to hear that suggestions of a similar nature are being presented by the Chancellor of Exchequer for consideration by the G8 countries. We strongly support their adoption.

There is a risk, to which the panel is sensitive, that a major increase in the availability of grant aid for water projects would "crowd out" commercial lending and discourage water authorities from becoming more financially self-sustaining. Hence the importance of using aid to facilitate other flows, instead of replacing them. This requires judgement in each case, but it would be helpful for donors to operate only within coherent national water strategies, and they should use ODA to influence reform of water institutions to improve their commercial and financial autonomy.

- **Rather than funding entire projects or programmes through grants, with the risk of smothering local initiatives and discouraging financial self-sufficiency, donors should regard their funds as catalysts to mobilise other flows and empower other players**

Another method of generating more resources for the water sector is through "debt for water" swaps.

- **The panel encourages the parties involved to enter into ‘debt for water’ swaps as a means of increasing local currency funds available for water projects**

We call also the attention of OECD governments to the fact that the significant efforts we suggest in the field of guarantees deserve to be properly reflected alongside other forms of official assistance, in the ODA statistics established by the Development Assistance Committee (DAC). The present reporting conventions only reflect guarantees when they give rise to actual disbursements – for instance after default. We believe that does not fully reflect the real size of the contingent liabilities accepted at a given moment by a donor country.

- **We invite the DAC to consider amending its presentations of national ODA performance to reflect properly the status of guarantees.**

Making better use of ODA

Despite this welcome prospect, extra aid will only finance a minor part of the increased funds required. It is important to make the best use of it by focussing it both geographically and within certain parts of the water sector. It should also be used to back certain important multilateral initiatives.

- **Geographically, ODA should favour those countries, especially in Africa, where the water service deficit is greatest and where most remains to be done to meet the water MDG targets.**
- **Within countries, grant ODA for water and sanitation should be directed to regions, settlements and social groups where public subsidy is necessary.**
- **Within the water sector, ODA should also be used for services which have to be financed publicly because it is not feasible to provide them privately, such as water resource management, large water storage schemes, flood control, capacity-building, and major irrigation and drainage projects.**
- **Bilateral ODA should be applied in support of various current important multilateral initiatives, such as the African Water Initiative, AfDB’s Rural Water Supply and Sanitation Initiative, and the FAO’s Special Programme of Food Security, amongst others.**

The Panel would like to commend in particular the African Development Bank initiative (see annex 5) which addresses squarely and convincingly the difficult issue of the partnership for water at grass-roots level and which aims to catalyze the necessary joint action of governments, local municipalities, communities and NGOs as providers of finance and technical assistance. The African Development Bank would also be the channel for donor grant support. Other regional development banks could consider, if appropriate, adopting similar schemes.

Aid should be applied imaginatively and creatively alongside other sources of funds, such as local revenues, voluntary donations, bank loans and private capital so as to

leverage the maximum total financial flows for this sector. It is important for transparency and accountability purposes that the benefits of aid should be clearly targeted to the beneficiary groups, and that the association of aid with private funds should be in ways which clearly provides public benefits. There are several ways this can be done.

Firstly, aid can cover the initial overhead costs of the host organisations for creating institutions and preparing projects. This could include providing “seed capital” or equity for revolving funds, which are replenished from user charges or other sources.

Secondly, aid can be used to provide guarantees, for a fee, against some of the key risks in the water sector. This is reverted to in the next section, 5.3.2.

A third method, attracting much interest, is “output-based” aid, which is given in association with commercial finance for infrastructure services, but which carefully targets the subsidy payments to specified works or social services actually provided. This kind of aid can also be used to target the poor more accurately⁴⁶ (Panel 5.1.).

Panel 5.1. Output-Based Aid⁴⁷

Output-Based Aid (OBA) is a strategy for providing subsidies to support the delivery of water and other basic services. In essence, OBA ties the disbursement of public funding (whether sourced from government resources, bilateral donors, or multilateral agencies) to specific services or other outputs delivered by private firms or NGOs. This contrasts with traditional approaches of directing public funding to pipes, pumps, or treatment plants or other inputs used by public sector providers.

OBA has four main applications in the water sector. It can be used for on-going consumption subsidies, as in Chile, where subsidies are used to reimburse water bills of the target group of low-income consumers. It can be used to support the expansion of existing water or sewer networks, such as when disbursement of the funding is tied to the number of new connections made and served. It can be used to implement time bound subsidies to ease the transition to cost-covering tariffs. Or disbursement of subsidies can be tied to the achievement of specific environmental targets (e.g. volume of wastewater treated to a certain standard). All four approaches promise better targeting of intended beneficiaries or outcomes, sharpen accountability for results, improve incentives for efficiency, and help to mobilise private finance in support of development objectives.

The World Bank launched its pilot OBA program in 2002, and is currently working on pilot projects in the water sector in several regions. A Global Partnership on Output-Based Aid was launched in 2003 to facilitate collaboration on OBA issues with other official agencies.

The panel recommends:

⁴⁶ “Contracting for public services: output-based aid and its applications”, eds. Penelope Brook & Suzanne Smith.. World Bank, 2001

⁴⁷ contribution by Peter Woike to panel, Feb 2003

- **Aid should be used to catalyse other financial flows by such means as funding initial overhead costs, providing equity for revolving funds, guarantees, and subsidies targeted to performance (e.g. output-based aid).**
- **Donors should report annually about the impact of their aid on achieving water MDGs by publishing :**
 - **the number of people they have helped to get access to water and sanitation**
 - **the average “aid efficiency” of their water projects, namely, the above number of people divided by the grant value of their aid**
 - **the “leverage effect” of their aid, namely, the total amount of financing mobilised on water projects they have aided.**

5.3.2. Multilateral Financial Institutions (MFIs)⁴⁸

MFIs are important funders of water, through their grants, loans and guarantees, Their track record is commendable and they have great potential to do more. Although their loans only cover a minor part of current investment needs, they set the tone for others through their dialogues with government recipients and the understandings they reach. They can also mitigate risks for other players. They could lend more without a proportionate increase in their borrowings or callable capital, if certain of their constraints were relaxed.

The Panel is of the view that the MFI contribution will be central in the overall strategy to provide the needed financing where it is still missing, particularly at the most decentralised level. This problem is so acute that it calls for a reversal of the financial architecture. This concern lies behind several of the following proposals and it explains in particular our strong support for the implementation of the African Development Bank’s “Rural water supply and sanitation initiative” and our invitation to other regional development banks to follow suit. As a strategic choice, we encourage the important new orientations the World Bank Group is undertaking.

- **We recommend that, so far as possible, new instruments should be located in and coordinated by the regional development banks, who are in close touch with regional water policies and who can maintain links with communities and have an awareness of local circumstances.**

Lending more to water implies lending more to sub-sovereign entities who cannot avail themselves of a government guarantee. A number of the MFIs are barred, or bar themselves, from lending without a sovereign guarantee. More recently established MFIs (e.g. EBRD) have no such limitation. The panel has no wish to encourage MFIs to exceed prudent lending and encourage excessive borrowing by weak sub-sovereign bodies. But, equally, it urges MFIs to equip themselves to lend to such bodies where

⁴⁸ Principally the following public multilateral financial development agencies: The World Bank family of organisations (including IBRD, IFC, IDA and MIGA), EBRD, IADB, AsDB, AfDB, the Islamic Development Bank, and EIB including the “soft windows” of these organisations offering funds on concessional terms.

it is prudent, appropriate and within their mission to do so. This may in some cases involve a revision of their constitution, but is more likely to entail managerial and board decisions to reinterpret existing statutes and practice.

- **Those MFIs which do not at present lend to sub-sovereign entities should reconsider their policies, with the aim of permitting such lending subject to normal prudential criteria.**

The panel is strongly of the belief that one of the most important ways in which MFIs can increase funding for water is through the much greater use of their guarantee programmes to leverage other kinds of finance⁴⁹. However, this would call for changes in MFIs' policies on the way guarantees are "scored". One issue is "provisioning", the way in which loans and other instruments are treated as potential calls on reserves and capital. The panel understands that guarantees, and other types of contingency instruments, are treated on fully the same basis as loans, in other words as if a guarantee were loan exposure for 100% of the amount. This discourages the use of guarantees. The panel believes it is important to change these practices, if the MFIs are to fulfil their important potential role in this sector.

- **MFIs should revise their policies on capital provisioning, where these are undue constraints on the use of guarantees.**

Guarantees are important credit enhancement instruments that MFIs use to facilitate the flow of long-term debt, local and foreign, to fund water infrastructure. Flexibility is needed for the effective use of these instruments. Most MFIs are able to issue guarantees on a standalone basis. However, some others are constrained by their articles, limiting their guarantees to loans in which they participate. Such participation requirements complicates the structuring of financing transactions since the MFI concerned has to make a direct loan to the borrower even if a guarantee is all that is required.

Those MFIs subject to the participation requirement should consider amending their articles to enable them to have the freedom to issue guarantees on a standalone basis. *Financing major hydraulic works*

In the 1990s there was a backlash against the construction of dams, reservoirs, water transfer schemes and other major hydraulic works. Criticisms were based on the distress and costs imposed on resettled populations, the adverse environmental impact of the structures, widespread cost overruns, and the disappointing outcomes of many of these projects. Much more rigorous and exhaustive procedures and standards have been urged on the sponsors and funders of dams in particular.

The practical effect of this hardening of attitude has been the virtual cessation of lending by the World Bank and IADB for dams and associated irrigation projects, a decline in lending by the AsDB and AfDB, and a decline in interventions by the bilateral donors. This has been particularly serious for smaller or poorer countries which are normally more dependent on ODA and MFI funding. Those developing countries that could afford it have continued to plan and build such schemes under

⁴⁹ The MFI system of B-loans and Preferred Creditor Status, which confers on other lenders the same privileges as the MFI enjoys, is also relevant here

their own efforts, without the benefit of aid and MFI advice and assistance, and often with lesser environmental and social standards than would otherwise have been applied. Some countries, especially in Africa, where the need for storage is most urgent, have endured crucial delays in projects and postponement of urgent works due to lack of financial support.

The panel recognises the force of many of the criticisms made, but believes that the pendulum has swung too far in the other direction. The reaction to dams appears to have been excessive and counter-productive. A resumption of aid and MFI lending to water storage and related projects, subject to adequate social and environmental safeguards, is called for to meet the future needs for water storage, flood control and irrigation development. Africa, in particular, is grossly under-provided for in this respect, and suffers the extremes of drought and flood as a result. In many places water availability is decreasing because of depletion or pollution of underground watertables (due to climate change, lack of protection or overabstraction). In many areas, achieving the water MDGs in a sustainable way will require restoring watertables and creating underground storage

A reengagement in this sector by MFIs and donors would be welcomed by authorities and beneficiaries in the recipient countries. A positive sign of the tide turning was the commitment by the World Bank in its Water Resources Strategy for a reengagement with this kind of “high risk/high reward” infrastructure and the preparation of “a new business model which puts development risk first, and which aims at timely, predictable and transparent decisions”⁵⁰.

- **MFIs and donors should resume lending to essential surface and underground water storage projects, subject to adequate social and environmental safeguards**

5.3.3. International commercial lending

There are various categories of international commercial lending, whether bank loans or bonds. Sovereign loans and bond issues are made against a guarantee of the government of the host country. Commercial lending to utility projects falls into two broad categories: recourse and non-recourse. Recourse lending implies lending to companies or corporations which then choose to invest in projects, the risk remaining with the borrower – i.e.: the corporation. Non-recourse lending also known as ‘project finance’ involves lending to a special purpose vehicle (‘SPV’) with no or limited recourse back to the parent company which may be a sponsor of, or shareholder to, the SPV.

In the case of sovereign loans and recourse loans to corporate borrowers, the funds will not generally be earmarked for specific projects or sectors such as water. Such full recourse loans have the attraction of being simpler and quicker to place than non-recourse, project finance loans. The drawbacks may outweigh the benefits however: changing priorities mean that funds are sometimes spent elsewhere; constraints of balance sheet capacity – *de facto* limits on corporate gearing for example; the placing

⁵⁰ World Bank, “Water Resources Sector Strategy”, 2002

of unwanted risk or liabilities on the balance sheet; and, the difficulty in accommodating partners or sponsors of entirely different creditworthiness.

This remainder of this section is concerned with project finance and section 5.3.4 deals with export credit.

Project finance

Project Finance lending involves taking full exposure to the SPV with servicing and eventual repayment of the debt contingent on the financial health or otherwise of that entity rather than its parent. Since loan repayment is dependent on project cashflows alone, projects are generally well structured with the project risks allocated explicitly by a contractual framework to those parties best able to manage or mitigate each specific risk.

The project finance industry considers risks to fall into different categories:

- Sovereign, or ‘political’: the risks associated with operating in a given country or region. Sovereign risks include nationalisation, expropriation, currency convertibility, breach of contract, war, riot, etc. The risk is usually narrowly defined by insurers and gaurantors whereas its real scope can be very wide.
- Commercial: such risks are often split into the pre-completion phase and the post-completion phase, where completion involves the end of construction and the hand-over of the assets to the project’s operator. Pre-completion risks include construction, delays and cost over-runs. Post-completion include operating risk, technology, revenues and market risk, *force majeure* etc.

Project finance has provided a ready source of funding for projects around the world, particularly in the heydays of the 1990’s. Indeed global project finance lending (all sectors) in year 2002 was US\$ 76 billion, itself a 43% reduction on the previous year for reasons discussed below. Despite these huge sums of money, only US\$ 157 million (less than 0.3%) was applied to water and sewerage projects. Furthermore in years 2000, 2001 and 2002 no bonds were issued in the water sector.⁵¹

<i>US\$ billion</i>	2002	2001	2000
Global Loans	62.2	108.5	110.9
% change on previous year	-43%	-2%	
Of which water sector	0.16	0.76	0.0
% water sector	0.3%	0.7%	0.0%
<i>Global Bonds</i>	13.8	25.0	20.8
% change on previous year	-45%	+20%	
Of which water sector	0.0	0.0	0.0

⁵¹ Source: Project Finance International, January 2001, January 2002 and January 2003

Over the past few years it appears that only bank loans – whether international or domestic – have been used to finance private-sector water projects. Bond finance through the debt capital markets does however remain a possibility for the future. In the first instance though, project complexity, challenging credit ratings and general lack of track record in water sector projects seems likely to restrict bond investor appetite for water project financing, particularly in the emerging markets.

On the loan side, the table above reflects the impact of several adverse factors: the global economic slowdown; the effects of ‘flight to quality’ following the scandals at companies such as Enron and WorldCom; the impact of the events on September 11th 2001; devaluations and financial stresses in key South American markets; bank mergers which have had the effect of reducing capacity; and large bank exposure to merchant risk in the US and UK power sectors. Furthermore the potential threat posed by adverse changes to the treatment of project finance loans by the Basel Committee in the form of higher Tier 1 equity capital requirements has not yet been factored in (see below).

Each of the above factors is acting to reduce international bank demand for overseas – particularly emerging market – loan exposure. Nevertheless, there prevails a view that projects of an international configuration which are ‘well-structured’, itself a comparative concept, will find international commercial bank appetite to lend to them. Such projects may be deemed ‘bankable’.

‘Bankable’ Projects and Risk Allocation

The banks' view will in general be driven by commercial factors and it will be necessary for projects to be seen as ‘bankable’ whereby money is lent; the project happens; and, the loan is repaid. The private sector will not be lending money to ventures where the economics do not make sense and there is no chance of loans being repaid and investment recouped.

Banks will see sovereign risk as the major issue in emerging market water project financing. Commercial risk allocation in general should not prove overly contentious. Risks should be allocated to the party best able to bear them: construction to contractors, operation to water companies, commercial insurance to insurers/underwriters etc.

Sovereign Risks

Past experience has led banks to be wary of the political risks: nationalisation; expropriation; breach of contract; currency devaluation, transferability and convertibility; war; riot; social upheaval etc. Furthermore an important issue is whether the country - regardless of credit standing or wealth - has a track record in developing projects over the years. Regulatory environment and the government’s commitment to stability will also be critical.

Banks will not accept much in the way of sovereign risks - certainly not to the long tenors required. Such risks for any reasonable maturity will require the involvement

of export credit agencies (ECAs) and MFIs to provide insurance or guarantees⁵² for the sovereign element of project risk. Export credits may also be made in the form of direct loans to importing organisations or projects. The following [section (5.3.4)] addresses ECAs and the Panels proposals for this segment of the market.

In this respect, it would help if the rules of sovereign risk insurance and/or guarantees were simplified, and documentation requirements relaxed..

Commercial Concerns

In the eyes of lenders, the tariff should be economic, fair, and on the basis of sustainable cost recovery. Tariffs tend to be a political issue. Equity returns must be set high enough to be a fair reflection of the risk being borne by investors, which is important also for lenders because the equity is the 'cushion' to debt service. In this respect, care should be taken pricing tariffs in neighbouring regions. Anomalies in water tariffs in adjacent regions can cause consumer dissatisfaction and promote tension with customers.

Financial risks such as inflation and real interest rates will be for the account of the water off-takers or charge payers. The tariff payable for the water services will be indexed to insulate the project from such macroeconomic factors. The project should not be exposed to risks of devaluation, transferability or convertibility (the panel's proposal for a Devaluation Liquidity Backstop Facility, discussed below, is relevant here).

The risk of changes in environmental law or the costs of changes in regulation will generally be borne by the off-taker and/or the customers. Transparency in bidding is important and banks will have concerns about usage of funds (and of course absence of corruption).

Renegotiation of concession documents will sap the credibility of the bid process over time. In reality, renegotiation is often necessary because of the paucity of information available to the bidders before the tender. In this situation, the scope of work or investment required can often evolve during the concession.

The Process

The intensive, time-consuming nature of project financing leads to large economies of scale. Indeed scale is a major impediment to private sector lending to the sector. Although there may be many small water projects, banks will typically want to see projects exceeding US\$ 50 to 100 million as a financed cost, for this reason.

With private-sector finance, tenor (length of loan) is the clearest demonstration of lender appetite. As a general rule, long tenors are required because water projects are usually for the creation of long-term infrastructure assets. Given the local content in many cases, water projects should aim at maximum local financing.

⁵² The MFIs' system of B-loans and Preferred Creditor Status, which confers on other lenders the same privileges as the MFI enjoys, is also relevant here.

Expanding the Market

Figure 4.1 in Chapter 4 provides a schematic depiction of the segmentation of the market for international water projects. Figure 5.1⁵³ below provides a conceptual approach to extending the market for project financing in the water sector:

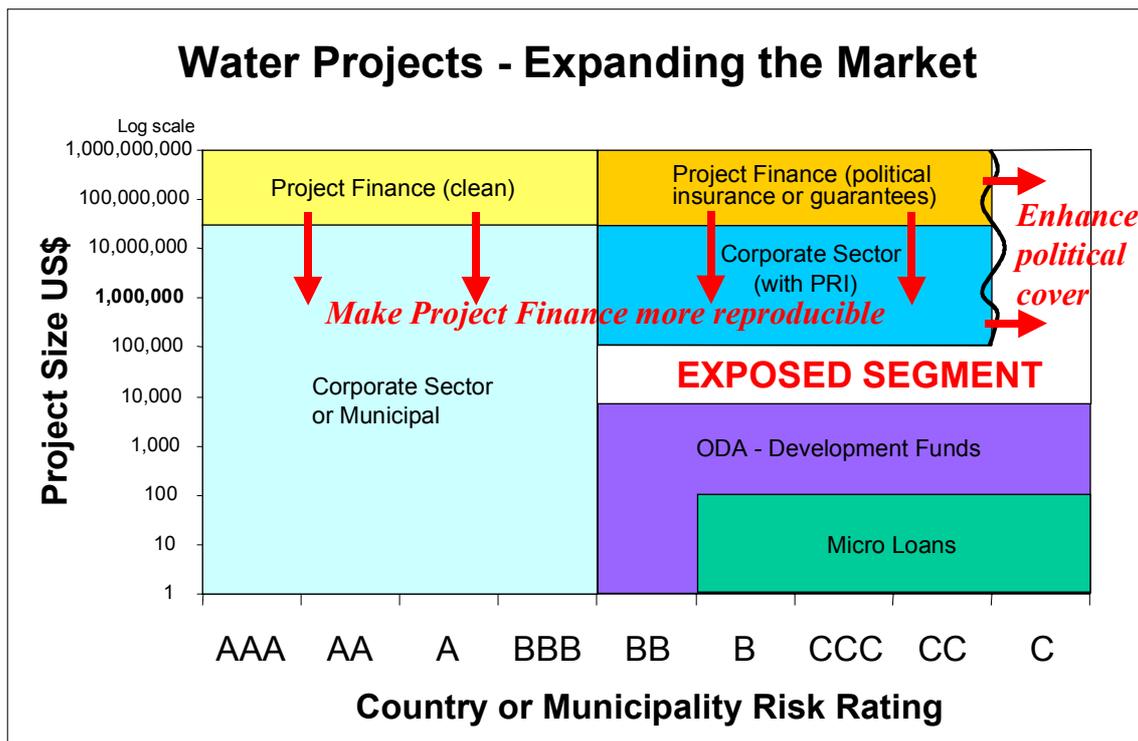
- Make project financing more reproducible. This will depend on a market for water projects developing together with track record and ‘market precedent’. This will help to lower the minimum size of the project financing by reducing complexity and simplifying documentation. Lowering the minimum threshold for these projects means that more of them can be financed by this technique.
- Enhance the political cover of projects: through changes in ECA and MFI political risk cover to make it easier to do projects in ‘tougher’ locations. Extending political risk cover enhances the creditworthiness of countries and municipalities previously considered poor risks.

These two initiatives will shrink the ‘Exposed Sector’ which contains projects previously unable to attract project finance.

It must be stressed that the base assumption to this approach is that the projects to be financed are inherently sound and viable. In practice, many projects may not be economic without a subsidy of some kind. But this of itself does not make projects ‘unbankable’ provided the subsidy is sustainable, allows the debt to be repaid and sponsor investment to be recouped.

Furthermore expanding the market for project finance (increased non-recourse finance) will directionally release funds for corporate purposes, thus increasing the total amount of money for water investment.

FIGURE 5.1



To summarise the methods for expanding the market for water project finance (several have been proposed in earlier sections), the Panel proposes:

- **Banks should focus initially on closing suitable transactions, pick the ‘low hanging fruit’, and start to develop a track record and create a market precedent**
- **As the market for water projects develops, banks should attempt to standardise documentation and simplify the financial and commercial process. If projects are easier to close, requiring less time and effort, ‘fixed’ costs including legal, financial and other due diligence charges will reduce allowing smaller projects to become feasible for project finance**
- **Governments, MFIs and banks should encourage the development of local capital markets in which projects can obtain part or all of their funding (5.2. 3) to enable better currency matching of revenues with borrowings**
- **MFIs and ECAs should enhance and extend political risk coverage for projects, including the use of MFI guarantees (5.3.2.) and relaxation in ECA rules on guarantees and insurance (5.3.4)**
- **Banks and other interested parties should develop and employ innovative financing techniques such as:**
 - **securitisation or collateralisation of loan/debt obligations (i.e. the combination of a number of individual project loans into packages, which are then taken up by other lenders.)**
 - **Devaluation Liquidity Backstop Facility (see below)**

A Devaluation Liquidity Backstopping Facility

The Panel identified foreign exchange risk, and the difficulty of mitigating it, as a major disincentive to private sector investment and obtaining commercial finance.

- **The Panel proposes a new Devaluation Liquidity Backstopping Facility as one method of mitigating the risk of foreign exchange fluctuations in water projects at the sub-sovereign level.**

Water Service Providers, or projects in the public or private sectors, would have a new facility available to enable them to continue to meet foreign currency obligations (e.g. debt servicing) that suddenly become more onerous following a large devaluation. The facility would be provided by an international agency with an excellent credit rating (one or more of the MFIs would be natural candidates). **It would pay to the foreign lenders the part of the debt (and possibly equity) service which exceeds the reimbursement capacity of the project. The amounts paid by the facility would create long-term loans to the national government (or to the local government with a guarantee by the central government) ~~Its loans would in turn be guaranteed or repaid by the host government~~** Its loans would in turn be guaranteed or repaid by the host government which would recoup the proceeds from a specific surcharge on water tariffs over a time period that is politically and socially feasible. This approach, according to our scenario, would generate sufficient revenue over the long term to repay the loan.

The Facility would apply in the following cases:

- In projects, operated by either the private or public sectors, which provide essential basic services such as water, power, transport, telecommunications, etc
- Where the project operator is subject to targets and regulation set by government, such as on tariff levels, investment spending
- Where the WSP has no means of mitigating local currency devaluation through escalation of the tariff and the project partners such as the local government or water authority have no way of preventing it.

Where bidders are invited to a competitive tender, for the sake of equity the Facility should be available to all.

Further information on the Facility is contained in Annex 3.

BIS/Basel 'New Capital Accord'

The Basel Committee on Banking Supervision, part of the Bank for International Settlements (BIS), in January 2001 caused disquiet by releasing the initial proposal on the Basel New Capital Accord, "Basel II". The comments relating to the treatment of project finance loans caused particular concern to practitioners within the project finance sector. There was nothing specific in the Basel II proposals but the implication was that commercial banks' project finance loans were going to receive new and considerably more severe capital allocation treatment under Basel II.

The Basel Committee had been taking a view that project finance risks were higher than in general commercial lending. This perception ignored the considerably higher level of structuring in project finance loans. In fact analysis shows levels of loan delinquency and loss norms are lower for project finance than for 'general corporate' business. The Basel Committee received a large number of comments and submissions from the industry on its January 2001 proposals.

Following a review during most of 2002 the Basel Committee has simplified its proposals as they relate to project finance and other specialised loans. Under Basel II, the onus will be on banks to assess their capital adequacy relative to their residual risks using an internal ratings-based approach. The upshot is that many banks will now be able to treat these forms of lending identically to other corporate exposures.

The Basel Committee initiated a Quantitative Impact Survey (QIS) in October 2002⁵⁴ to allow banks to evaluate the impact of Basel II and revert with their views. Thereafter the Basel Committee will finalise its New Capital Accord in the fourth quarter of 2003 with a view to implementation by the end of 2006. The current perception among project finance practitioners is that the Basel process is probably not as threatening as it was at the end of 2001, but its impact remains to be analysed

⁵⁴ BIS information is available at website www.bis.org. Index of Quantitative Impact Study ('QIS') documentation <http://www.bis.org/bcbs/qis/index.htm>. Press release <http://www.bis.org/press/p021001.htm>. October 2002 Overview available at <http://www.bis.org/bcbs/qis/qis3ovrv.pdf>. Technical guidance <http://www.bis.org/bcbs/qis/qis3tech.pdf>.

and a potential threat remains. Clearly, if the capital requirements for project finance become more demanding than at present, that would have a serious impact on the current shallow market for project finance and reduce the supply of funds.

5.3.4 *Export Credit Agencies (ECAs)*

At the Johannesburg World Summit in 2002 ECAs accepted their role in sustainable development in the following terms:

“Building on achievements in export credit disciplines (e.g. interest rates, tied aid and risk premium fees) and conscious of new challenges, inter alia in the context of WTO developments, ECA Members and the Participants continue to seek, in the forums of the OECD, to eliminate trade distortions and to work toward a level playing field on which exporters can compete fairly. This will continue to be complemented by the more qualitative elements of governments’ activity in the field of export credits (e.g. environment) in the wider context of good governance and sustainable development.”(in the text for the Implementation Plan)

At that Summit, water and renewable energy were identified as the two priority areas of development where ECAs can play a role

The OECD's Export Credits Group (ECG) was started in the early 1970's and came into its own in the late 1970's with the creation of the Arrangement on Export Credits, which was the first step in a 20-year campaign that has largely eliminated explicit subsidies from the practice of official export credits. Key steps were putting interest rates at market levels in the early 1980's, setting limits to the use of tied aid in the early 1990's and coordinating risk premia in the late 1990's. Since the completion of work on premia in the late 1990's, the ECG has turned its attention to the more "qualitative" aspects (e.g. bribery, unproductive expenditure and environment) of official export credit, trying to use export credits as leverage to attain broader social goals. Success in these areas is still to materialise..

Governmental attitudes to the link between export credits and social goals varies widely and leaves little chance of finding true consensus at anything but the lowest common denominator. Although the OECD/ECG has produced an agreement on bribery, an understanding on unproductive expenditure, and "common approaches" on Environment, none of these documents is binding or makes much progress towards achieving the social goals.

At present ECG is considering how it can reconcile its functions with the expanding role of the World Trade Organisation (WTO). At issue is whether the OECD or the WTO will become the ruling body for official export credits. Meanwhile there is growing use of "market windows"; and more resort to untied aid and funding options outside the limits of the OECD Arrangement.

Another development is the advocacy by various organisations, especially NGOs, that a specific share of ECA activity should be earmarked for renewable projects (for

instance, at Johannesburg a figure of 10% of energy projects was suggested). Although this idea was not formally adopted in Johannesburg, it continues to receive serious consideration in several capitals. In this connection, the USA has targeted water for Ex-Im Bank and OPIC activity, indicating the need to double resources on water over the next five years. Ex-Im Bank only covered \$42 million of water projects in Fiscal Year 2000, less than 1% of its annual budget. An OPIC-supported equity fund committed approximately \$42 million in water-related projects. For a variety of reasons – including the lack of creditworthy projects – none of these mechanisms have been used to their full potential.

In recent years, the ECAs of OECD countries have collectively provided c. \$70 billion annually of long-term credit for developing countries (both public and private sectors) for purchasing goods and services in OECD members. Probably less than 1% of this amount has been for water and renewable energy projects. . In such a context the panel recommends that all OECD countries and their ECAs emulate the US target of doubling water activity over the next five years.

Local costs

As part of the general effort to update the OECD Arrangement and bring its processes into line with WTO principles, the Norwegian Government has proposed the elimination of any limit on official ECA support for local costs. The justification presented for this proposal is that limits on the capacity to finance local costs is one of the biggest constraints to many projects, especially for infrastructure, in developing countries. This proposal was not supported by other ECAs; most agencies operating with exposure limits are opposed to taking more exposure per \$ of exports. However, since local costs are so important in water projects, this proposal could have a big impact.

The Panel has the following specific proposals for ECAs:

- **The OECD could incorporate into the Arrangement a requirement that 2%/3% of aggregate ECA credit be directed annually to water projects. This could provide incremental funding of an estimated \$1.5 to \$2.5 billion annually for water projects in the developing countries.**
- **The OECD should consider allowing 20-year repayment terms (current limit is 10 years) for water. Although there are no currently available incentives for any sector, the OECD could (as it did for project finance cases) act to give special term flexibility to any sector it wishes. Such flexibility would most likely be in the form of longer terms and more freedom to shape the repayment profile to cash flows.**
- **The OECD should consider raising the credit ceiling for local costs for water projects from 15% (current maximum) to 50% of the export value. This would provide a substantial increase in funding for local costs at a moment when there is only limited and costly funding available.**
- **ECAs should consider offering guarantees and loans in local currency**

5.3.5. *Private investment & operation*

Private sector participation (PSP) in its various forms is an option available to governments and water authorities in developing this sector. In the light of the experience summarised in section 3.3 the panel takes a pragmatic view on this issue. It is clear that public sector utilities, responsible today for 97 % of the population concerned, have to act decisively if the Millennium goals are to be met. This means reforming the way they operate, their financial management, the way they relate to their customers, the confidence they create in their financiers and investors, whether public or private, etc. It is a huge endeavour, which has to succeed.

It is equally clear that in rural areas and in the poor suburbs of cities, nothing can be really achieved without full cooperation with the local communities. In this respect the role of the service oriented NGOs cannot be overestimated. Utilities must have their responsibilities clearly defined, split between the owner of the infrastructure (most often the municipality) and the utility itself. An authority must act as the regulator, with a clearly defined mandate and responsibility, and supervise the operator, public as well as private. It is the paramount responsibility of the public authority to assign the goals, to explicitly state the tariff policies, to define required investment and decide funding sources. Under the above conditions there is room, not only for public utilities but also for private operators to perform their trade, to use their skills and to point the way for better efficiency and better customer satisfaction.

The role of small-scale local entrepreneurs

Discussions of the private sector in water often take for granted that the issue is the involvement of large multinational companies, which at present serve around 3% of the developing world's population. There is another private sector, locally-based, including both large and small operators. Some of the major concessions are joint ventures between international companies and local firms. Local private firms are often involved in construction and sub-contracting. Smaller-scale local entrepreneurs are pervasive in large, low-income cities, providing services to complement, and compensate for, coverage by public utilities. It is also true that in many developing countries the expansion of private enterprise is cramped by official policies, and that this important source of growth is not working to its full potential.

Research in Africa, Latin America and Asia shows that the population without access to a connection are concentrated in low –income areas and that a large number of them rely on alternative forms of services delivered by small-scale private water providers (SSPWPs). The proportion of the population covered in this way varies from 6% in Delhi, 10% in Dhaka, 19% in Ho Chi Minh City, to 44% in Jakarta.⁵⁵

There are many different forms of this small-scale private involvement, and no single policy response would be appropriate. It has often thrived because of the failings of the public authorities: a reformed and more responsive public sector could mean a smaller market share for private providers, though not necessarily a smaller role in absolute terms. As a matter of fact, local private providers have advantages, such as closeness to consumers, flexibility, use of local materials and technology, and

⁵⁵ AsDB, "The role of small scale private water providers in serving the poor". Summary provided to the panel, January 2003.

adaptation to customer requirements. They are not necessarily saints either, since there are many cases of monopoly and extortion, and water quality is often worse than in the public supplies. The first step in engaging them is recognition, then an understanding of their potential role and the constraints affecting them, followed by their gradual access to financial markets, within a properly defined regulatory framework.

- **Governments and water authorities should recognise the present and potential role of SSPWPs and other parts of the local private sector, provide a legal framework which can encourage greater long-term investments by them, including their role in private concessions and the decentralisation of services.**
- **Governments should include SSWSPs in their national water supply strategies and service development plans, including incentives for them to improve their services.**
- **SSWSPs should be encouraged to improve their access to finance to increase their capacity to invest in the sector and reduce their cost of capital.**

Private international companies

There are now fewer serious and credible *private international companies* willing to invest in emerging and developing markets, compared to 10 years ago. Several of the flagship water concessions have suffered from devaluations in the host countries, which have made debt servicing more difficult. In any case, apart from their own equity, companies tend to finance their projects by drawing on the same capital markets as others., though on the other hand they often induce complementary financing that would not otherwise happen.. Also, tax regimes often favour public financing. These and other reasons limit the contribution made by private operators in strictly financial terms , though there is potential for an increase if current hurdles are removed.

The panel does, however, believe that experienced private companies can bring great potential benefits to the reform of water agencies from transferring its skills and experience, its use of market disciplines, and its access to finance. The private sector brings skills and experience useful in reforming water agencies and improving their financial sustainability. It can be effective in extending services to the poor, where contracted to do so. It can add credibility to a project, which opens the door to more finance, on better terms. The prospect of private involvement, even where it does not come about, may galvanise public agencies into carrying out reforms. However, where PSP is applied, it is of the utmost importance for its credibility and public acceptance to make the bidding and contractual processes transparent and fair.

Even if it is clear that one cannot expect a significant role from their part in the rural sector or for very scattered communities, it is equally obvious that in a world in a process of very rapid urbanisation, their role, for all the above reasons, can be decisive. Many are of the view, as a matter of fact that their role will be critical for reaching the Millennium targets, as a significant proportion of the population growth in the next 20 years will take place in areas of high population density where their managerial and technological assets will be in high demand.

- **The prospect of PSP in its various forms can be a powerful spur to the reform of public water agencies. In situations where reforms are being considered or tenders of various kinds are being drawn up, private participation should be included as an *option*, to be decided on specific grounds of efficiency, cost and effectiveness. Procurement decisions as a rule should be made on the basis of open and transparent competition, typically through bidding.**

Where governments decide that the PSP option has advantages, it should be facilitated by the better allocation and mitigation of risk. In view of the potentially vital contribution of private involvement, the panel proposes measures to address four specific problems which currently discourage PSP in water. These proposals are addressed partly to private companies, and partly to governments and the international financial community, who will each have a part in implementing the solutions.

Firstly, aid donors are inhibited from backing private participation directly because of a desire to avoid subsidising profits. The panel understands this concern, but believes that aid funds can be combined with private funding in ways that meet these concerns.

- **The panel believes that water projects can be financed by combining public funds with private financing in transparent and acceptable ways. Public money can be used to stimulate projects for benefiting the general population without granting undue benefits to private parties.**
- **ODA should be available to facilitate water projects managed by private operators under public control, e.g. use of Output-Based Aid to expand networks or fund revenue shortfalls on a diminishing basis under a concession. Alternatively, aid could be used to finance investment in assets owned by the public and operated by the private sector.**

Secondly, investors and lenders are discouraged by foreign exchange risk, which is virtually impossible to insure against commercially. In concessions, companies may take over existing foreign debt, take on new foreign loans, and need to remit dividends. All these become more expensive following devaluation. Various methods of mitigating this risk have been tried, involving the creation of reserves to meet the devaluation contingency⁵⁶ or the use of national schemes for guaranteeing the future foreign exchange rate⁵⁷. But they tend to be time-consuming to arrange, and are limited in scale

The contracts under which WSPs operate usually include a clause allowing tariff increases to cover defined categories of cost. Devaluation above a certain threshold level may well be included as an eligible cost increase, and moderate devaluations could be compensated over time by such a formula. The real problem comes with a massive devaluation, that would trigger a tariff increase of such proportions that it is totally unrealistic to expect it to be implemented.

⁵⁶ OPIC has been working on a Foreign Exchange Liquidity Guaranty for Debt Transactions, described in a presentation to the panel by Ms Mitchell Strauss, June 2002..

⁵⁷ e.g. the Pakistan Exchange Risk Insurance Scheme operating in the 1990s, used for the Hub power project.

In reality, several of the largest private concessions (e.g. Buenos Aires, Manila, Jakarta) undertaken during the last ten years have been affected by major devaluations, which have greatly increased the local currency requirements for servicing foreign debt, and caused liquidity crises for the WSPs concerned. The outcome is usually some renegotiation of their contractual commitments plus tariff increases, but in all cases there is disruption to their operations and investment programmes.

- **The devaluation liquidity backstopping facility proposed in section 5.3.3 addresses the devaluation risk for public and private sector promoters and operators taking on foreign currency commitments.**

Thirdly, the heavy fixed costs of preparing tenders and contracts for private participation restricts the pipeline of such projects, and raises the minimum size of contract that is worthwhile.

- **The Revolving Funds proposed in section 5.2.7 are addressed to the problem of the large fixed costs of preparing PSP contracts and tenders**

Finally, certain of the specific risks in the water sector, such as unpredictable government behaviour, are so damaging that they prevent many projects from maturing. When hiring private operators, governments should recognise that a long-term partnership can only succeed if the public body fully plays its role and complies with its commitments. This type of risk can be mitigated by the public partner providing securities and/or by insurance and guarantee instruments offered by MFIs and other agencies. For instance, MIGA offers cover against breach of contract in concession agreements, transfer restrictions, political instability and violence, etc., though this only applies to cross-border investors. The World Bank's Partial Risk Guarantees cover lenders in the case of a default on contractual obligations to a project company.

The difficulty here results, not from the absence of appropriate coverage schemes for these risks, but from the fact that the responsible bodies frequently adopt a very restrictive interpretation of their mandates and instruments. This is no longer acceptable in the present circumstances. The Panel recommends these bodies to review their internal regulations and procedures, with the object of providing a significantly increased coverage of the risks confronted in the water sector.

- **Guarantee and insurance schemes offered by MFIs, governments and export credit agencies should be expanded in scope and internal constraints on their use should be relaxed (section 5.3.2). The specific needs of the water sector should be better covered.**
- **Governments taking up PSP should provide adequate securities to create trust in the sustainability of long-term contracts**

5.3.6 Community initiatives and service-oriented NGOs

Civil society groups within the water and sanitation sector perform several roles:

- service providers – helping to build user-managed schemes,

- advocates for the poor
- participating in open planning processes to ensure that poor people's needs are at the top of development agenda,
- watchdogs – scrutinising the investment decisions of governments and donors and raising alarms on any negative impact of these decisions.

Locally-based groups are in a strong position to insist on, and influence, the choice of their communities regarding the technology and level of service to be supplied. To the extent they are successful, the resulting schemes are more cost-effective and client-centred than they would otherwise be, and thus more sustainable.

- **Civil society roles in water provision need to be supported, and their capacity to perform these roles more effectively needs enhancing. Building the capacity of different local and national civil society stakeholders to perform independent watchdog roles is also important in addressing the blight of corruption .**

Across the world, individual households, including poor ones make substantial investments to improve their water supply and sanitation. Financial instruments from domestic private sources such as loans, as well as from the public sector in the form of subsidies for the poorest, must be developed to further facilitate these investments. At the same time, micro-credit initiatives need to be encouraged to provide low-cost finance to households for water supply and sanitation improvements. Governments are in a position to lever in these kinds of resources, as the experience of India's Total Rural Sanitation Programme shows⁵⁸.

- **Micro-credit schemes are important in financing community water projects, and should be supported by donors, MFIs and external NGOs through the provision of seed capital, initial reserves and guarantees. Continuing subsidies should, however, be avoided as they tend to damage the sustainability of such schemes.**

External NGOs are important channels for funds for local initiatives, through the donations they raise and through attracting matching government contributions. A promising avenue is to explore the scope for inviting water consumers in industrialised countries to add, on a voluntary basis, a modest amount to the payment of their bills, on the understanding that the proceeds would be allocated to decentralised bodies in developing countries for financing well chosen and exemplary projects.

- **External (“northern”) NGOs should propose ways of raising more funds for channelling to their local partners through the various kinds of solidarity mechanisms.**

⁵⁸ The panel had presentations on this initiative and on the work of Eau Vive in the Sahel at its meeting in The Hague, October 2002.

Amongst local communities there is usually a great demand for improved water services and a willingness to commit local resources to their implementation. What is often lacking is capacity – organising, financial, technical, etc. The panel is attracted to the idea of creating a fund in each of the regional development banks that could be drawn upon by local groups – NGOs, associations, community representatives – to build capacity through training, hiring advice, creating partnerships, attracting funding, etc. Funding could come from a spectrum of organisations, but with a minimum amount of intermediation. . A local supervisory committee would be appointed to be accountable for use of the funds and to vouch for the quality of the product.

- **The panel proposes that a full study be conducted of the feasibility of creating Decentralised Funds for the Development of Local Initiatives.**

6. Implementing the proposals: a three-phase strategy.

In this report, the panel has laid out a strategy and the main lines of a program for raising the flow of funds into the global water sector. Many of the proposals will need further study and elaboration by the parties involved. The Kyoto Conference is an ideal opportunity for the various parties identified in this report to endorse and to start work on their respective proposals. Subsequent high-level meetings in 2003 will be the occasions for keeping up and developing the momentum. The panel is aware that the current time is highly fortuitous for implementation of the proposals in this report, and urges all parties involved to maximize the synergies that are there to be exploited.

In view of the lack of basic data and of the magnitude of the administrative, financial and even cultural changes implied by the implementation of the Millennium Development Goals for water, Panel was not in a position to define a fully fledged and comprehensive global financial strategy. Its proposals, nevertheless, constitute the basic foundations of a strategy which could unfold in three stages. It should be recalled that 2025 has always been the panel's implicit target, with 2015 as the key interim stop.

Launched in 2003 – the International Year of Water – the strategy would go through an initial stage ending in 2006 on the occasion of the Fourth World Water Forum. This meeting would provide an opportunity to review the measures endorsed at Kyoto, the G8 meeting at Evian in June 2003, and at subsequent gatherings, and actions taken to implement them. By 2006, most of the necessary measures proposed in this report should have been taken, or should be on the way to yielding results. 2006 would also be a good vantage point for making any necessary corrections of trajectory for targeting the key 2015 MDGs. By that time, provided the recommended strategy has made a good start, the relevant authorities will be in a better position to assess and adopt other measures, the need for which could not be foreseen earlier. The period 2003-2006 would constitute the first phase.

The importance of the check-point, 2015 does not need to be emphasized, and the period 2006-2015 would be the crucial second phase, containing the main push towards fulfilling the MDGs.

The third phase would be the period between 2015 and 2025, when the world community could realise the vision of universal water and sanitation., and the broader aim of water security, provided the same intense effort and focus were maintained,

- **2006 should be the first check-point on the route to 2015. This would be an opportunity to review the measures endorsed at Kyoto and at subsequent gatherings, and actions taken to implement these.**
- **2015 should be the next essential check-point, opening the third stage of a strategy leading to universal access and sanitation by 2025.**

For this three phase strategy to be maintained, made more comprehensive and adapted to changing circumstances, a major gap in the global institutional system would have to be filled. At present, no single international organization has a clear and undisputed

role for monitoring water. A number of international bodies, including the panels' sponsors, fulfil valuable functions in this respect, but none has the key mandate of being a global "control tower" systematically collecting, evaluating and publishing data on the performance of the various parties involved. Reluctant as it is to increase the number of international organisations, the Panel thinks that a "global control tower" with the abovementioned function would be indispensable. It could be formed from the resources of existing units, reformed, coordinated and supplemented, as necessary, or it could be a new body. In either case, a limited number of permanent staff would be required to help countries gather the required data and track global progress. The "control tower" would produce an annual report and its activities would be conducted in full public transparency.

To complement the work of the "control tower" ensure the right conclusions are drawn from its work, and that any necessary action is taken, we recommend that a permanent group containing independent "wise persons" of acknowledged calibre and standing be formed with the task of evaluating ongoing developments, appraising the information collected by the "control tower" and making any suggestions judged appropriate to achieve the water MDGs

- **Progress towards achievement of the MDGs should be systematically monitored by a global "control tower" consisting of a reporting network and an independent committee of "wise persons". Existing systems for collecting and reporting data on global water should be reformed, strengthened, and coordinated, as appropriate. Information on progress towards the water MDG targets, and the performance of the many parties involved in implementing and funding this effort, should be produced. The data would be evaluated by a group of "wise persons" who would make recommendations on the steps to be taken to secure the water MDGs.**

7. Conclusions: Priorities, Actions & Impacts

7.1. Priorities

Chapter 5 contains a number of proposals in a variety of areas. If they were all implemented quickly, a critical mass would be created that would make a big impact on the financial resources available to water. However, in reality, the proposals differ in the ease with which they can be implemented, and in the speed of their impact.

Meanwhile, the clock is ticking away towards 2015, not to mention 2025. This section suggests some priorities for the international community, recognising that some early progress needs to be made in reducing service deficits, particularly amongst the poor in Africa. Success will breed success, and virtuous circles will be implanted. At this point, it should be recalled that the panel's task is not only to address household water and sanitation deficits, but also to propose financial measures for global water in its broader sense. The urgency of meeting the MDGs for 2015 should not overshadow the importance of funding the other needs of the wider water sector over a longer time horizon.

The first priority is for host governments to be clear on their strategies and priorities for the water sector, and to plan accordingly. Donors, NGOs, MFIs, companies and others can assist, but there has to be real political “ownership” of the effort from host governments as a precondition.

Examples:

Preparation of water sector strategies
Detailed action programmes for meeting MDGs
Inclusion of waterpolicies in PRSPs

Secondly, facilities that already exist should be used as financial vehicles, replenished and empowered as necessary. Unnecessary constraints on their operations should be removed. Organisations with viable plans and projects, but a shortage of finance, should be targeted.

Examples:

Donors to refocus aid for water & coordinate through DAC et al.
Donors to give priority to strengthening core public capabilities
MFIs to reconsider attitude to capital provisioning
Greater use of guarantees
Export credit rules modified
IFIs & donors to resume qualified lending for water storage
NGOs with good project pipeline to be targeted for assistance
Private companies (local & international) to be used as contractors & managers

Thirdly, proposals for new agencies, funds and schemes should urgently be studied for their detailed feasibility, and their implementation mapped out. Sponsors should be identified.

Examples:

Decentralised Fund for Local Initiatives
Revolving Fund for tender preparation & contract award
Devaluation Liquidity Backstopping Facility

Fourthly, policy changes and reforms to institutions, which are likely to have a longer lead-time, should be set in motion.

Examples

Tariff reform
Reforms to public water agencies
Measures to strengthen financial powers of sub-sovereigns

7.2. Actions required from main parties

The measures proposed in this report call for measures to be taken by seven main categories of actors: central governments from both developed and developing countries, sub-sovereign bodies, community organisations, and NGOs, banks and private investors, aid donors, Multilateral Finance Institutions, and members of the UN system and other international organisations.

Central Governments in developing countries need to prepare water strategies and action programmes for 2015, and inscribe water policies in PRSPs. They need to start reforms for public water institutions, drawing on various models for cooperation. They need to work out the financial relationship between central governments and sub-sovereign entities, and propose measures to expand and deepen local capital markets, including use of pension funds.

Central Governments of developed countries have responsibilities to ensure that the international institutions and agreements that have governed the world economy over the last few generations are well adapted for the challenges of the Millennium, and if not, how they should be reformed. This applies particularly to aid, the governance of MFIs, and the consensus over international finance and export credit.

Sub-sovereign national bodies such as local governments and water authorities are the fulcrums of reform and action in the water sector. They have the responsibilities, but not all of them yet have the necessary skills, efficiency and financial powers. There is a huge and challenging agenda of actions.

Community organisations, *supported by service-oriented NGOs, are the first line of attack* on the water sector at the grass-roots. They should aim for a more ambitious role in influencing and monitoring the performance of the institutions that supply water services. They should explore ways of raising more external funds through their NGO partners, and become involved in local finance through micro-credit and other multi-partner schemes.

Banks & private investors should be looking for ways of raising their involvement in the water sector, following several years of decline. Exploring innovative financing techniques adapted to the specific needs of the sector is part of the answer, but there is much scope for the greater uptake of what is available, such as guarantees and

insurance. Contracts and documentation could be streamlined. The proposed facility to inject liquidity after devaluations should be of interest.

Aid donors firstly need to stand by their commitments to increase aid for water, which should immediately be doubled as a first step. Donors should focus unremittingly on helping achieve the water MDGs, and later the wider goals of global water security. ODA will need refocusing between countries and within the sector itself, and should support the strengthening of core public capabilities.. It should favour countries with sound water programmes and reward early progress. Aid should increasingly be seen and used to catalyse other kinds of finance. Donors should take the lead in developing the new instruments proposed here, e.g. the Decentralised Fund, Devaluation Facility, Revolving Fund, etc.

Multilateral Finance Institutions (MFIs) will be the pillars of the new water financial architecture. They should do everything to reverse the recent decline in their water lending, and specifically make every effort to expand their use of guarantees and insurance. They should overcome their reluctance to lend for water storage schemes.

UN agencies and other international organisations need to evolve relevant new forms of cooperation to support the reform effort in the water institutions of developing countries. The OECD and its DAC have a clear role in mobilising, coordinating and monitoring the water aid effort, and the OECD should look hard at the impact of its export credit consensus, and whether it can be changed to favour the water sector. The Basel Committee should review the impact of their recommendations on lending to infrastructure in emerging markets.

7.3. Impacts on the main sub-sectors:

The panel's intention has been to attempt a balance between the needs of different water sub-sectors. This has not been easy. Inevitably, because of the prominence given to reducing the service deficits of the poor in the MDG and Earth Summit, the needs of poor households have absorbed much of the panel's time. Each sub-sector requires its own distinctive approach, and many solutions are sector-specific. In particular, the financing needs of irrigation is a complicated and stubborn problem. With these reservations, the panel believes that its proposals would have financial benefits for each of the main branches of the water sector, and are summarised below.

Urban household water & sanitation

Poor urban households would benefit directly or indirectly from many of the proposals: increased and more closely targeted aid; the involvement of NGOs and companies in project design and service delivery; reforms and financial strengthening of sub-sovereign entities and water authorities; the mobilisation of local savings and development of local capital markets; and others.

Rural & village water

Aid would become more targeted on regions and social groups most in need of public subsidy. Donors would specifically be urged to support special rural water

programmes being mounted by regional bodies. NGOs would be strengthened in their capacity to assist local community projects. Financial strengthening of urban water authorities would increase resources available for cross-subsidising smaller and financially weaker communities.

Wastewater collection & treatment

Wastewater services are normally more costly per unit than providing freshwater, and account for a high proportion of the extra \$100 bn annually required. Many urban systems have no proper wastewater treatment plants, hence it is becoming increasingly common to add to systems through private BOT projects⁵⁹. In this context, proposals for tariff reform are especially relevant, since tariffs would need to rise considerably to meet the cost of wastewater services, however they are provided in-house by the public utility or on a “take or pay” basis by a private company. The panel’s proposals on tender and contract terms, the revolving fund, and the development of insurance and guarantees, are also highly relevant to attracting private finance into wastewater.

Irrigation

The reengagement of IFIs and donors with dams and other major hydraulic works would improve water and food security for many farmers, especially in Africa. Public irrigation agencies are one type of sub-sovereign entity that could benefit from more financial autonomy, though major reforms are going to be needed to improve their creditworthiness. In selected schemes where conditions are favourable, private concessions are feasible (and are being invited); these would benefit from the extended use of insurance and guarantee instruments, and from the proposed liquidity facility. Small-scale farmer-financed schemes would benefit from the proposals to develop local capital markets, micro-credit and development finance institutions.

Hydropower

Most large hydro schemes are in the public sector and dependent on public investment, supplemented by foreign aid and international/national borrowing. A minority of projects, mainly small, run-of-the-river schemes, are private investments. The proposal on dams would encourage more IFI and donor support. Commercial bank lending would benefit from the wider use of insurance and guarantee products, and from wider use of the MFIs’ B-loan and Preferred Creditor Status products. Bond issues for hydro would also gain from more use of Partial Credit Guarantees, which would extend maturities and lower rates.

Industrial & commercial water and wastewater

There is no major financial problem involved in industrial water use, which is either taken from public mains or obtained from the company’s own sources. In either case, the payment for water or the investment required is usually a minor part of company income and can be passed on to consumers. Financing the pre-treatment of effluent

⁵⁹ Private sector involvement in sewage treatment seems to be a less emotive subject than for fresh water

will, however, become an increasing charge on companies to meet tighter pollution control. The assumption of most pollution measures is that industry will meet the cost of treatment itself, from its normal financial sources, supplemented in many countries by recycling the proceeds of pollution levies and environmental taxes for approved investment in abatement. For companies and parastatals for which funding will be difficult, our proposals on local capital markets and development banks should be helpful.

Resource management & environmental protection

For various aspects of resource management and protection there is no serious alternative to funding through the public sector. The annual recurring cost of resource management usually falls on the budget of the local government. (though there are examples of groundwater aquifers being managed privately, funded by users). New capital projects (e.g. afforestation, dams, flood control, pollution clean-ups) also fall largely to governments, with help from donors and IFIs. At the margin, the cost and funding of some multipurpose schemes can be shared with other parties, or neighbouring countries. The panel's proposal on water storage should help the re-entry of donor and IFI money to this sector. Proposals to focus aid and public subsidy on these public goods, amongst other priority uses, should work in the same direction.

Annex 1. Extract from commissioning letter

The following are relevant extracts from a letter sent by Dr Abu Zeid (President, World Water Council), Mr Hideaki Oda (Secretary-General of Third World Water Forum) and Mrs Margaret Catley-Carlson (Chair, Global Water Partnership) to Mr Michel Camdessus:

Dear Mr Camdessus,

In the name of the World Water Council and the Global Water Partnership, we wish to express our strong appreciation for your willingness to chair a panel of financial experts to address the ways and means of attracting new financial resources to the water field...

You will be only too aware of the pressures that mitigate against any substantial increase in public funding for this sector from developing country treasuries. In part as a consequence, but also to be considered, is the slowdown in multilateral institutional funding in water. The inflow of private investment in the last ten years has sown positive result as well as difficulties, and the momentum is slowing down.

The world absolutely needs new proposals on the financial aspects as well as on the enabling environment that has an impact on these flows.

You are in the best position to choose personally the members of the team, to organise the work of the panel...as you feel best...

Two billion more mostly poor people will be added to the global population and we must make the infrastructure investments that will secure the livelihoods and food supply of our still expanding world. Current financial flows to this sector have left more than one billion people without water, twice that number without sanitation, and have failed to address important, potentially catastrophic, environmental problems. Yet every day, each of us uses water and contributes in some measure to the costs of providing it. We are persuaded that, with ingenuity new means can be found to link these needs with potential investment and financing capacity. We are honoured and gratified that you are willing to direct this "search".

Annex 2. List of Panel members and others

Members

M. Michel Camdessus, *Honorary Governor of the Banque de France, former Managing Director of the International Monetary Fund (Chairman)*

Sr. Enrique Iglesias, *President of the Inter-American Development Bank*
Alternate: Sr. Antonio Vives

M. Omar Kabbaj, *President of the African Development Bank*
Alternate: Mr Kordje Bedoumra

Mr Tadao Chino, *President of the Asian Development Bank*
Alternate: Mr Alfredo Pascual (replacing Mr Wouter Lincklaen Arriens)

M. Jean Lemierre, *President of the European Bank for Reconstruction and Development*
Alternate: Mr Riccardo Puliti

Mr Peter Woicke, *Executive Vice-President of the International Finance Corporation and Managing Director of the World Bank*
Alternate: Mr Declan Duff

M. Alassane Ouattara, *former Prime Minister of Ivory Coast, President of Institut International pour l'Afrique.*

Mr Onno Ruding, *Vice-Chairman of Citibank*
Alternate: Mr Robert Welford

Mr Moeen Qureshi, *Chairman, Emerging Markets Corporation, former Prime Minister of Pakistan*

Sr. Angel Gurría, *Consejero, Recoletos, former Finance Minister of Mexico*

Prof. Makoto Utsumi, *Japan Center for International Finance*

Mr William Alexander, *Group Chief Executive, Thames Water*
Alternate: Ms Linda Kemeny

M. Gerard Payen, , *~~Director-General~~ Senior Executive-Vice-President at Suez , former Chairman & CEO of Ondeo*

M. Bertrand Badré, *Director, Lazard Frères & Co, now Représentant personnel adjoint du Président de la République pour l'Afrique*

Mr Peter Eigen, *Chairman of International Secretariat of Transparency International*
Alternate: Mr Hansjorg Elshorst

M. Raymond Jost, *Secretary General, International Secretariat for Water*

Mr Ravi Narayanan, *Director, Water Aid*

Mr James Harmon, *Chairman Harmon & Co, former Chairman US Ex-Im Bank*

Mr Ismael Serageldin, *President of Alexandria Library, former Chairman of World Water Committee, former Vice-President of World Bank.*

Prof. Abdulaziz Suliman Al-Turbak, *Dean of Engineering Faculty, University of King Saud, Riyadh*

Sponsors' representatives

Mrs Margaret Catley-Carlson, *Chair, Global Water partnership*

Mr William Cosgrove, *Vice-President, World Water Council*

Mr Hideaki Oda, *Secretary-General, Third World Water Forum*

Advisers, secretariat & administration

M.Ivan Cheret (Adviser)

M. Pierre-Frederick Teniere-Buchot (Adviser)

Mr James Winpenny (Secretary & Rapporteur)

Mme Geraldine Jacob (Secretary to M.Camdessus)

Mme Cecile Collas (UN Office for Project Services)

Co-opted specialists

M. Michel Wormser, *World Bank*

M. Jean-Pierre Djian, *consultant*

Mr Christopher Clement-Davies, *Vinson & Elkins*

M.Jean-Paul Minette, *Suez Environnement*

M. Christian Deseglise, *HSBC*

Annex 3. The Devaluation Liquidity Backstopping Facility

Description

A new facility would prevent the disruption of water services due to the impact of a large devaluation, by rescheduling the service of foreign debt over a time period that is politically and socially feasible.

Justification

The facility would be of value to local authorities, which organize water services, set water tariffs, and request their water service provider (WSP) to undertake investment or to take over water - related foreign debt incurred by previous administrations.

It is impossible to insure commercially against devaluation, since the risk cannot be estimated with any precision, and political risk insurance does not normally cover this event.

In reality, several of the largest water projects (e.g. Buenos Aires, Manila, Sao Paulo, Jakarta) undertaken by developing countries during the last ten years have been affected by major devaluations, which have greatly increased the local currency requirements for servicing foreign debt previously borrowed by public or private bodies, and caused liquidity crises for the water authorities and WSPs concerned. The outcome is usually a lengthy process of modification of the local water policy (investment programs, tariff increases, fiscal revenues) aiming at rebalancing the economics of the water service. In all cases, there is disruption of debt service and/or investment programs.

Scope

The facility would apply in the following cases:

- Projects operated by either the private or public sectors,
- Projects where the WSP is subject to targets and regulation (e.g. over tariffs, investment spending) set by government,
- Projects where the WSP has no means of mitigating devaluation, and where the project partners (local authority, WSP) have no way of avoiding it.

Practical aspects and implementation

- **International guarantor:** The facility would actually be a contingent facility provided by an international public body (MFI or ECA) with an excellent financial standing, able to bear the financial onus from devaluation to the end of the revenue recovery period. The international body would effectively guarantee the foreign loans and finance the additional debt service incurred from devaluation. The guarantee would be counter-guaranteed by the national government, and guarantor disbursements would create sovereign debt. The national government would recoup reimbursements by levying an appropriate water surcharge, directly or through the local water authority. It would be possible to involve a third party to provide the loan, which could be a local commercial/development bank. The international guarantor would then guarantee the payments of this third party.
- **Facility reimbursement:** The collection of the surcharge could be done by the usual billing entity. On the other hand, the responsibility for repaying the amounts

disbursed by the facility should be borne primarily by the government or the local authority, which has the power to set the tariffs.

- Affordable exchange rate: Based on macroeconomic forecasts (including inflation and exchange rates, usually based on Purchasing Power Parity), the initial base case financial model (drafted when the foreign loan is contracted) predicts a specific debt service to revenues percentage every year. Assuming all operational considerations are unchanged, the same percentage of actual revenues is available during the life of the loan for debt service whatever the actual macroeconomic parameters. This percentage translates into a nominal amount of local currency (“affordable debt service”), which, when divided by the payment due in foreign currency, gives what is designated as the “affordable exchange rate”, for each year. After being adjusted for a deductible, this rate becomes the threshold above which the facility would intervene.
- The facility would include the following features:
 - The project pays annual premiums to the facility.
 - The project fully services the foreign debt as long as the actual exchange rate does not exceed the “affordable exchange rate”.
 - Any positive post-devaluation impact on the part of WSP’s revenue which was anticipated to service the foreign debt (e.g. tariff increases to compensate for local inflation) would reduce the amounts to be further funded by the facility.
 - A minimum level of devaluation is borne by the project. For example a deductible of 10% of the affordable exchange rate is set below which no drawing on the facility would be made.
 - If agreed by the parties, the part of WSP’s revenue which was anticipated to service the WSP equity (when invested in foreign currency) may well be partly protected by the facility in a similar way.

User impact

The potential impact of this facility has been tested on hypothetical projects facing a 50% (or 67%) devaluation. The initial devaluation occurs at the point where foreign debt service would have represented 17 % of annual revenues without devaluation. Under the proposed facility scheme, tariffs would not need to rise immediately to adjust for devaluation. End-users would pay a surcharge that would gradually increase over 5 years to 2.3% (or 5%) of the tariff, with an annual increase of less than 1.4% (or 3.1%). The sovereign debt created would peak at 20% (or 40%) of protected debt in foreign currency terms. At all times, and assuming that other devaluation impacts are mitigated, the WSP would remain profitable, and pay its corporate taxes to the government.

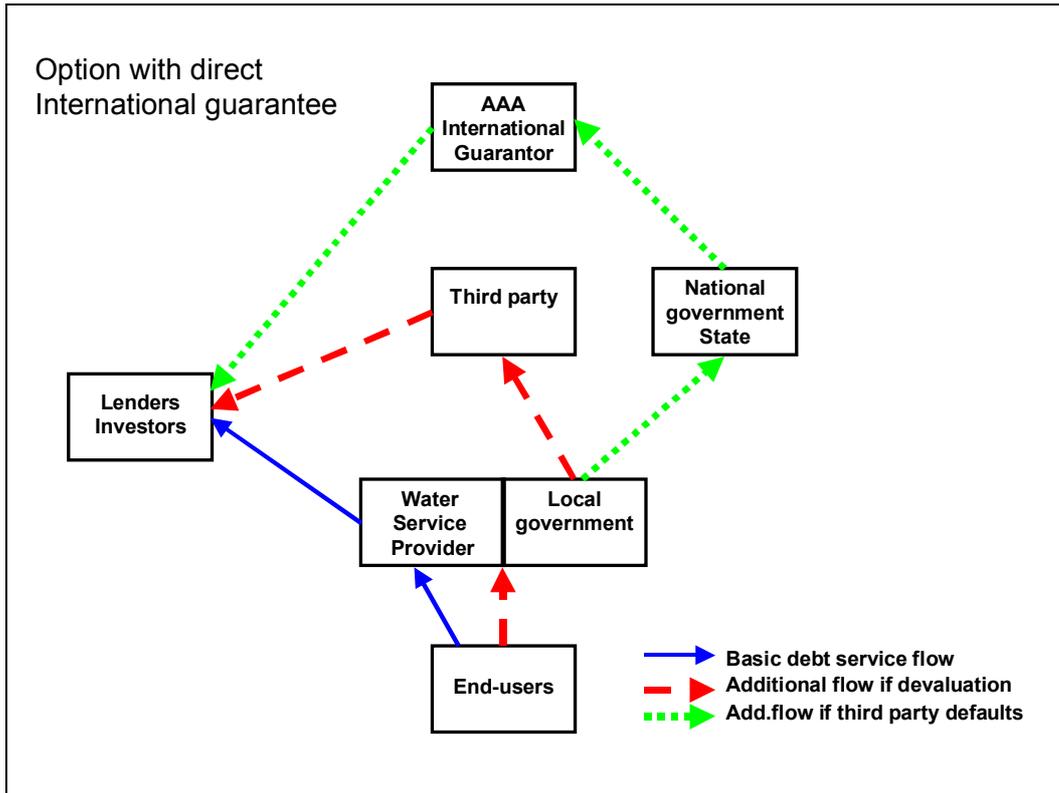


Table : Devaluation Liquidity Backstopping Facility

Annex 4. The African Development Bank proposal for a Rural Water Supply and Sanitation Initiative

This paper presents a Concept being developed by the Bank Group to address the challenge of providing accelerated access to safe drinking water supply and sanitation to the rural population in Africa who still do not have access to acceptable services. The concept is still at a development stage and will be elaborated after further consultations with regional member countries, development partners, NGOs and other stakeholders.

Justification

Rural areas in Africa have the least coverage of safe drinking water supply and sanitary disposal of excreta. Currently about 400 million people in Africa (50% of total population) lack access to safe water supply and an even higher figure lack adequate sanitation. Nearly 330 million of this population live in rural areas. Consequently, rural populations are burdened to a greater extent by preventable water and sanitation-related diseases, suffer greater deprivation of women and children not attending school or engaging in economic activities due to time and effort needed to fetch water. These problems together combine to perpetuate poverty in the rural areas of Africa. In addition, there is very limited scope for private sector participation in rural areas; most of the investments required would have to come from governments, bilateral sources, multilateral agencies, NGOs and community efforts.

In order to provide access to safe drinking water supply and sanitation to the unserved, and the increase in population over the next two decades, the rate of increase in coverage over the next 20 years has to exceed 19 million rural inhabitants per year. There is therefore need to accelerate the pace of development of the sector with specific focus on coverage while not ignoring sustainability and effectiveness, using fast track mechanisms, and highly innovative, broad-based, participatory, inclusive and community-based approaches.

Goal and Objectives of the Initiative.

The goal of the Initiative is to accelerate access to sustainable water supply and sanitation to rural Africa within the framework of the Africa Water Vision. This would be achieved through the following strategic interventions:

- (a) Develop and implement fast track mechanisms for preparation and implementation of interventions so as to significantly accelerate the implementation of the national rural water supply and sanitation programmes.
- (b) Implement projects, with participation of beneficiaries, to extend and sustain rapid coverage of water supply and sanitation services to rural areas.
- (c) Promote technologies that are appropriate, based on beneficiaries' consensus as to the acceptable levels of services, ease of implementation, local skills and knowledge for their operation and maintenance.
- (d) Mobilize higher levels of funding from official development assistance (ODA) and promote and support local initiatives for funding rural water supply and sanitation.

Targets of the Initiative

Targets for the Initiative and indicative costs are given below:

- 66% of the rural population with access to drinking water supply and sanitation by 2010 from the present 34%
- 80% of the rural population with access to drinking water supply and sanitation by 2015

The average annual investments in the first seven years (up to 2010) is US\$1.4 billion, thereafter it will be about US\$900 million per annum. The targets are set as overall figures for the continent as a whole. The Initiative will in practice initially begin in five to seven countries with relatively well developed water sector policy and existing capacity to implement the Initiative and then proceed to other countries on the continent.

Approach

Fast track mechanisms mean flexible, transparent, and fast-paced procedures for programme and project preparation, appraisal, and implementation as well as procurement, disbursements and financial management

The Initiative would promote the use of programme approach (as against single project) in identification, preparation, appraisal and implementation of interventions. Investments would be based on an agreed basic service level of water supply and sanitation, to be defined, on a country basis, in consultation with RMCs taking into account hydrological and hydro-geological conditions, population densities and socio-economic conditions.

Financing structures for channelling funds to communities would include adaptations of Social Funds and AGETIP-type structures.

At community level, implementation structures and facilities management would be based on existing institutions, local organisations and associations, women's groups. Capacity building would be provided to enable the beneficiaries to plan, execute and manage the facilities.

Implementing the Initiative

Implementation would be phased, starting with a group of countries that already have a strong policy framework and are prepared to give necessary political commitment. Country assessments would be carried out to form basis of designing the phasing of implementation and timetable. Seven RMCs (Burkina Faso, Benin, Ethiopia, Ghana, Mozambique, Rwanda and Uganda) have been tentatively selected to pilot the implementation of the Initiative. However the final decision will be made after further elaboration of the Initiative and acceptance by the concerned countries.

Collaboration with Other Initiatives.

The Rural Water Supply and Sanitation Initiative would collaborate with the African Water Facility to source some funds as well as with other co-operating partners involved, e.g., USAID, CIDA, JICA, and Netherlands Government, contributions from other bilateral donors are, of course, expected. The Initiative would collaborate with NEPAD in implementing policy reforms under the IWRM policy of the Bank Group. In addition, the Initiative would use the framework of NEPAD and the African Ministers' Conference on Water to generate sustained political commitment from RMCs.

The African Water Facility

The African Development Bank coordinated a stakeholders Conference on Water Sustainable Development in Accra in April 2002, to identify and establish a consensus on the main priorities for water development in Africa, and to contribute to a process for mobilizing the necessary financial resources. The Conference recommended the establishment of an African Water Facility to help mobilise the financial support needed for meeting the urgent water needs. The Conference further recommended that the Facility is housed within the African Development Bank and that detailed studies be undertaken to determine the financial resources required, the possible sources of the fund and the operational modalities.

The objectives of the Facility is to provide investment support for water resources management and water service provision programmes in Africa that are designed to move bottlenecks and help leverage additional financial resources from multilateral and bilateral sources as well as from public, private and community resources. This will be done by promoting innovative actions by both countries and donors; assisting to create an enabling environment; and helping to build governance and management capacity within implementing institutions. The Facility would be defined under the broad framework of NEPAD, the African Water Vision and the priority areas identified at the Accra Water Conference.

An evolving AWF will require gradually increasing resources to be available for investments. It is expected that the AWF should seek to raise US\$ 300 to 500 million in the short to medium term to leverage funds to contribute toward the US\$ 20 billion per annum needed to meet the continent's water targets for 2025. Initially, the AWF will focus on assisting countries access existing sources as well as additional funds that would be made available to it. The areas of focus of the Facility are indicated below:

The Facility aims at supporting appropriate priority programs at the regional, sub-regional and national levels and focus on supporting the following activities:

At the national level

- Integrated Water Resources Management planning, projects and programmes
- Capacity building, especially in the context of program development, affordability and procurement
- Data collection, analysis, and dissemination
- Design and carrying out of policy and institutional reform

- Project and program preparation and implementation
- Consensus building
- Assistance with drafting and negotiating agreements
- Regulatory instruments and monitoring capacity
- Research, training and public awareness
- Environmental management planning, projects and programmes

At Sub Regional and Regional Level, the AWF would provide support for the above as well as:

- Developing shared river basin visions and transboundary environmental groups
- Securing political support
- Support to river basin activities, regional and subregional groups
- Support Monitoring Mechanism for the Implementation of the African Water Vision 2025
- Support Regional Information Cleaning House and related Information Networks
- Multinational project and program preparation and implementation

(Financing Water Infrastructures in Africa) ADB, Nov 2002

Annex 5. Full list of panel proposals

The various proposals made in earlier parts of this chapter can be summarised and grouped together as follows. A number of proposals are relevant to more than one context.

Governments' water policies

- Each country should produce a national water policy and plan, including specific programmes to meet the Millennium targets and beyond. This would be detailed in an action programme embedded in the national document which countries committed themselves to produce at the Johannesburg Earth Summit, and would be part of an agreement for additional ODA for water. Countries should state the indicators by which their efforts should be judged.
- Each country should provide predictable revenue frameworks to its water service providers, either public or private.
- Each country should monitor and report annually its achievements towards the water MDGs
- For the group of Highly Indebted Poor Countries policies for water should be explicitly included in national Poverty Reduction Strategy Papers in order to give it higher priority in national budgets and capture some of the benefits of debt relief for local financing of this sector.
- Governments should create an enabling environment for the participation of the private sector in the delivery of infrastructure services.
- Governments should adopt policies for integrated water resources management (IWRM)
- Governments should encourage municipalities of large and middle size cities to start working on projects for water supply and sanitation in response to the pressure of urbanisation
- Governments should engage in active regional and international policies to address the problems of trans-boundary rivers and basins.

Local governments & water authorities at sub-sovereignlevel

- Governments should be encouraged to mobilise national and international training and help for their sub-sovereigns in relevant managerial and technical matters
- Central governments should set national minimum standards for provision of water services by the responsible authorities

Governments, together with with sub-sovereign bodies, should define what technical and financial assistance sub-sovereigns require to meet these standards. In order to optimise local investment capacity, local governments and water authorities should maximise their operating efficiency and report on their performance in meeting these standards.

- Close contacts, including partnership associations and twinning, should be promoted between sub-sovereigns, intra- country, intra-regionally, and internationally to allow exchanges of experience and best practice (including preparation of toolkits and possibly standardised documentation).

- Contracts for Private Sector Participation (PSP) should be standardised and promoted, enabling sub-sovereigns to employ private companies under incentive- driven contracts to raise efficiency and performance.
- Central governments should provide incentives for good reporting by their sub-sovereigns, e.g. by relating some central transfers to the quality of reporting.
- National governments should create a central agency to collect, publish and compare sub-sovereigns' financial and management information (including benchmarking of key operating parameters), and generally improve the transparency of these operations. The agency should encourage civil society to monitor whether the services received by the community are consistent with the reports received. Donors should support such an agency, using public and private sector expertise in administrative, legal and financial areas.
- Governments should clearly define their fiscal relationship with sub-sovereigns.
- Governments should be encouraged to allow and facilitate limited intercepts into domestic fiscal transfers to give partial security to lenders to sub-sovereigns .
- Donors should be ready to provide technical assistance to sub-sovereigns for analysing and designing water projects
- Donors should be ready to channel aid to sub-sovereigns requiring funding on concessional terms for water projects
- A Revolving Fund should be created, using grants to finance the public preparation and structuring costs of complex projects such as PSP projects and other innovative structures
- Sub-sovereign entities should consider the option of retaining assets in public ownership, with continued public responsibility for investment finance, and with operations privately financed and managed.

Promoting local capital markets and savings

- Governments and central banks should put in place measures to promote local capital markets and address problems caused by their own actions in 'crowding out' other borrowers. Larger countries should lift remaining barriers to the use of local funding, where they are redundant
- Governments, with the help of MFIs and donors, should be asked to promote the rating of sub-sovereigns, to facilitate their financing but also to enable transparency and a tracking of behavior.
- Governments should consider taking steps to permit the development of domestic borrowing markets for sub-sovereigns.
- Governments should encourage and facilitate the entry of rating agencies and bond insurance/ financial guarantee companies into their domestic capital markets.
- With appropriate reforms made in the light of lessons learned from previous experience,, national development banks or specialised financial institutions should develop a role as intermediaries for channelling external and central government funds, and funds raised in local markets, to sub-sovereign bodies operating in the water sector.

- Governments should encourage the creation of credit pools for sub-sovereigns, with an option of joint and several liability.
-
- MFIs and other agencies should extend their use of guarantees and the issue of local currency bonds to promote local capital markets, extend the maturity of local loans, and encourage the use of local pension funds in the water sector. They should urgently address statutory and managerial obstacles to their further use of these instruments.

Sustainable cost recovery

- The panel proposes that the aim of water service providers should be sustainable cost recovery (SCR), which means that:
 - Service providers should aim for revenues sufficient to cover their recurrent costs, and they should develop sustainable long-term cost recovery policies, anticipating all future cash flow needs. SCR includes operating and financing costs as well as the cost of renewing existing infrastructure.
 - Revenues arising from charges should be covered by users as a group. Under SCR, not all users would pay the same price. Individual affordability of water charges should be ensured by appropriate tariff structures including local cross-subsidisation (for example by setting a rising block tariff structure) and/or by individually targeted and transparent pro-poor policies.
 - That part of recurrent revenues provided by taxpayers from public budgets should be secured by agreeing well in advance the allocation of sufficient fiscal transfers .
- Where subsidies are used they should be targeted, transparent and, where they are intended to ease the transition to higher tariffs, tapering.

Increasing managerial capacity in water institutions

- funding for capacity development in water institutions should be a high priority for the use of ODA and MFI funds.
- Donors should support cooperation and partnership agreements, preferably involving experienced and reputable public partners, as a means of strengthening core public capacities. These should state mutual responsibilities and contain performance targets and incentives applying to both parties.
- The panel recommends the concept of joint working on problems and learning while doing in public-public partnerships as well as in cooperation agreements between utilities and companies. Such cooperation is possible within a country, or North-South or South-South.
- Donors should finance trust funds in the MFIs for using specialists with strong practical experience at the appropriate level to assist in the transfer of skills.
- In implementing the MDG targets donors should support "action planning", in which planning and project preparation are wrapped into aid projects.
- ODA should be provided for the work of regional professional associations in support of training, professional exchanges, and data collection and benchmarking.

- ODA technical cooperation should be used to help the preparation, structuring and implementation of PSP contracts such as BOT and other concessions, management contracts, leases, etc. as a means of enhancing 'on the job' capacity building.

Legal & regulatory environment, corruption and ethical practices

- Capacity development in the core public institutions of the water sector should aim to define and implement a water policy, set a regulatory framework and create a basis for commissioning and controlling executing work, whether performed by private or public agents.
- a study should be funded for the preparation of best practice and model clauses in the legal agreements of PSPs, with particular reference to the water sector.
- Executing agencies should be made attractive for high-calibre leadership, accountable for performance and delivery. Integrity standards should be worked out cooperatively by all interested parties.
- The decentralised nature of water services is an opportunity for different mixes of public, private and self-help options, and for competition between them. The choice between them should be pragmatic, eschewing ideology.
- The high political profile of water should be used positively to create more transparency for its operations. Public opinion, user associations and NGOs should be encouraged to monitor and publicise the activities of water organisations and expose corrupt practices .
- Private and public companies engaged in the water sector are urged to cooperate with public clients and other parties involved to develop methods for promoting ethical behaviour. PSP contracts should be fullt transparent.

ODA

- Governments of developed countries should be held to account for their commitments to increase aid to the water sector. Overall ODA for water should be doubled, as a first step. Donors and MFIs should aim to make substantial increases in the share of water in their total commitments.
- Individual donors should contribute their share towards this target, depending on the size of their current aid to the water sector. This ODA increase should preferably be in the form of grants rather than through concessional loans
- Donors should keep funds available for rewarding countries that make early progress on implementation of water programmes in fulfilment of the MDGs.
- Donor agencies should work, under the guidance of the OECD's Development Assistance Committee, UN agencies, and the Development Committee, to implement the DAC's recommendations on increasing the effectiveness of aid and improve the coordination of their efforts in this sector.
- In view of the capital-intensive nature of water investments, and the need for 'front loading' of ODA, means should be found for governments to create a special national or international facility to pre-finance disbursements budgeted for a later period.

- Rather than funding entire projects or programmes through grants, with the risk of smothering local initiatives and discouraging financial self-sufficiency, donors should regard their funds as catalysts to mobilise other flows and empower other players
- The panel encourages the parties involved to enter into ‘debt for water’ swaps as a means of increasing local currency funds available for water projects
- The panel invites the DAC to consider amending its presentations of national ODA performance to reflect properly the status of guarantees.
- Geographically, ODA should favour those countries, especially in Africa, where the water service deficit is greatest and where most remains to be done to meet the water MDG targets.
- Within countries, grant ODA for water and sanitation should be directed to regions, settlements and social groups where public subsidy is necessary.
- Within the water sector, ODA should also be used for services which have to be financed publicly because it is not feasible to provide them privately, such as water resource management, large water storage schemes, flood control, and major irrigation and drainage projects.
- Bilateral ODA should be applied in support of various current important multilateral initiatives, such as the African Water Initiative, AfDB’s Rural Water Supply and Sanitation Initiative, and the FAO’s Special Programme of Food Security, amongst others.
- Aid should be used to catalyse other financial flows by such means as funding initial overhead costs, providing equity for revolving funds, guarantees, and subsidies targeted to performance (e.g. output-based aid).
- Donors should report annually about the impact of their aid on achieving water MDGs by publishing :
 - the number of people they have helped to get access to water and sanitation
 - the average “aid efficiency” of their water projects, namely, the above number of people divided by the grant value of their aid
 - the “leverage effect” of their aid, namely, the total amount of financing mobilised on water projects they have aided.

Multilateral Financial Institutions (MFIs)

- Those MFIs which do not at present lend to sub-sovereign entities should reconsider their policies, with the aim of permitting such lending in appropriate cases, subject to normal prudential criteria.
- MFIs should revise their policies on capital provisioning, where these are undue constraints on the use of guarantees.
- Those MFIs subject to the participation requirement should consider amending their articles to enable them to have the freedom to issue guarantees on a standalone basis.
- MFIs and donors should resume lending to essential surface and underground water storage projects, subject to adequate social and environmental safeguards
- New instruments and Funds to be created should preferably be located in, and coordinated by, the regional development banks.

International commercial lending

- Banks should focus initially on concluding suitable transactions, picking the ‘low hanging fruit’, and starting to develop a track record and creating a market precedent
- As the market for water projects develops, banks should attempt to standardise documentation and simplify the financial and commercial process. They should encourage the development of local capital markets in which projects can obtain part or all of their funding to enable better currency matching of revenues with borrowings
- MFIs and ECAs should enhance and extend political risk coverage for projects, including the use of MFI guarantees and relaxation in ECA rules on guarantees and insurance
- Banks and other lenders should develop and employ innovative financing techniques such as securitisation or collateralisation of loan/debt obligations (i.e. the combination of a number of individual project loans into packages, which are then taken up by other lenders.)
- A new Devaluation Liquidity Backstopping Facility is proposed as one method of mitigating the risk of foreign exchange fluctuations in water projects at the sub-sovereign level.

Export Credit Agencies (ECAs)

- The OECD should consider incorporating into the Arrangement a requirement that 2%/3% of aggregate ECA credit be directed annually to water projects.
- The OECD should consider allowing 20-year repayment terms (current limit is 10 years) for water, and give special term flexibility for this sector and allow more freedom to shape the repayment profile to cash flows.
- OECD should consider raising the limit on credit for local costs for water projects from 15% (the current maximum) to 50% of the export value.
- ECAs should consider offering guarantees, and loans in local currency

Private investment & operation

- Governments and water authorities should recognise the present and potential role of small-scale water service providers (SSWSPs) and other parts of the local private sector, and provide a legal framework which can encourage greater long-term investments by them.
- Governments should include SSWSPs in their national water supply strategies and service development plans, including incentives for them to improve their services.
- SSWSPs should be encouraged to improve their access to finance to increase their capacity to invest in the sector and reduce their cost of capital.
- Where public authorities are considering reforms of the water sector, or tenders of various kinds are being drawn up, PSP should be included as an *option*, to be decided on specific grounds of efficiency, cost and effectiveness. Procurement decisions as a rule should be made on the basis of open and transparent competition, typically through bidding.

- Donors and governments should be open to financing water projects by combining public funds with private financing in transparent and acceptable ways
- ODA should be available to facilitate water projects managed by private operators under public control, e.g. use of Output-Based Aid to expand networks or fund revenue shortfalls on a diminishing basis under a concession. ODA could also be used to finance investment in assets owned by the public and operated by the private sector.
- Guarantee and insurance schemes offered by MFIs, governments and export credit agencies should be expanded in scope and internal constraints on their use should be relaxed. The specific needs of potential private operators in the water sector should be kept in view.
- Governments taking up PSP should provide adequate securities to create trust in the sustainability of long-term contracts

Community initiatives and service-oriented NGOs

- The roles of civil society groups as service providers, advocates, participants in planning processes and watchdogs need to be supported, and their capacity to perform them more effectively needs enhancing.
- Micro-credit schemes available for financing community water projects should be supported by donors, MFIs and external NGOs through the provision of seed capital, initial reserves and guarantees. Continuing subsidies should, however, be avoided.
- External NGOs should propose ways of raising more funds through the various kinds of solidarity mechanisms for channelling to their local partners.
- A full study should be conducted of the feasibility of creating a Decentralised Fund for the Development of Local Initiatives.

Implementation of the proposals

- 2006 should be the first check-point on the route to 2015. This would be an opportunity to review the measures endorsed at Kyoto and at subsequent gatherings, and actions taken to implement these.
- 2015 should be the next essential check-point, opening the third stage of a strategy leading to universal access and sanitation by 2025.
- A “global control tower” should be established to monitor and report on the progress made towards achievement of the MDGs for water and sanitation, and the performance of the main parties involved in implementing and funding these activities. To complement this, a group of “wise persons” should be formed to evaluate this information, monitor developments and make recommendations on the steps needed to secure the water MDGs.