



# Task Force on Financing Water For All Report 1

## **ENHANCING ACCESS TO FINANCE FOR LOCAL GOVERNMENTS FINANCING WATER FOR AGRICULTURE**

*Chaired by Angel GURRIA*



World Water Council  
World Water Forum



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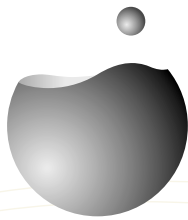
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World Water Council  
World Water Forum

## **Task Force on Financing Water for All** **Report 1**

*Chaired by Angel GURRIA  
Report written by Paul VAN HOFWEGEN  
March, 2006*

*The findings, interpretations and conclusions expressed within this publication  
are entirely those of the Task Force and should not be attributed to the convenors.*

*This report and detailed case studies can be found at [www.financingwaterforall.org](http://www.financingwaterforall.org)*

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## ► Preface

Access to finance is an essential part of the local capacity to develop and manage water services in a sustainable way. It is on this local level that action has to take place to meet the global challenges for a secure water future for all.

Funding flows should double to meet the MDGs and financing institutions should adjust their instruments to enhance the supply of finance for the sub-sovereign level as recommended in the report of the Panel on Financing Water Infrastructure under the chairmanship of Michel Camdessus in 2003. This report has made an important impact. All the IFIs and some bilateral donors have responded positively and made important efforts to have their financing instruments reach the sub-sovereign level. Also important impact has been made on the political side through the G8 meetings where commitments are made to double the level of ODA.

This Task Force on “Financing Water for All” is established by the World Water Council, the Global Water Partnership and the Secretariat of the 4th World Water Forum as a direct consequence of the Camdessus Panel to maintain its momentum. The World Bank, the Regional Development Banks, some civil society organisations and representatives of local governments joined this Task Force as partners in this work: what has been done but also what still has to be done.

The importance of rural and urban local governments is growing because of decentralisation. Also the bulk of finance originates from contribution of users of the services and taxpayers. However, the main obstacle in increasing the financial flows is the local capacity. This demands that now the main focus on sustainable water sector development is put on the demand side of the local actors.

This report makes this important shift from the supply to the demand side and the need to match these better. The essential need for adequate capacity at local level to bring about the changes needed is paramount. National as well as local governments are urged to take appropriate action to develop the necessary institutional and financial capacities at local level to enable an increase of financial absorption capacity. They are also urged to develop local capital markets and provide access to these markets for local governments and service providers.

The Task Force is at the beginning of its work. This first report reflects the issues and potential solutions to the problems faced today. Many of the reported innovations on financing mechanisms still need to be further tested. The Task Force will continue to provide the platform to address these issues or direct questions. Follow-up with some countries, monitoring of developments and a continuous exchange of experiences are some of the actions of this Task Force after the 4th World Water Forum. The Task Force in co-operation with OECD may even call nations together to address these important financing issues and to bring access to finance a step closer for local governments and service providers.

The Task Force cannot do this alone. Its efforts will yield most if they are concerted with other institutions working on financing water for all. Continued and intensified cooperation will be pursued with the UN Agencies, the Advisory Board to the UN Secretary General on Water and Sanitation, the organisation of United Cities and Local Governments (UCLG), the OECD-DAC for matters related to ODA, the Financing Working Group of the EU Water Initiative and many others working on a future with water for all.

But in the end it is the National and Local Governments that have to act and it is the responsibility of the international community to provide them with the support where needed and welcome.

*Angel Gurria*

## ► Acknowledgements

The convenors of the Task Force on Financing Water for All want to express their sincere gratitude to Angel Gurría to accept the invitation to chair this Task Force. Through his capable leadership the Task Force has produced this first report to be presented at the 4th World Water Forum.

The convenors are also very grateful to the active and constructive involvement of the members of the Task Force. The variety of institutional backgrounds of the members enriched the debate.

This report is the result of debates and exchanges among the Task Force members under the chairmanship of Angel Gurría. The Task Force members have contributed actively to the work of the group by providing relevant action cases and sharing their experiences. They also relied on external participants who gave their time to present their own experience and greatly contributed to substantiate the report, especially representatives from local governments who gave a new perspective to the discussions on improving water and sanitation sector financing.

Although members of the Task Force are invited on their own merits, they represent institutions that can make an important contribution. The Task Force members are grateful to their organizations for making their participation possible: the cities of Tshwane and Paris, Water Aid and International Secretariat for Water, UN-Habitat the Asian, African, Inter American and Islamic Development Banks, the International Financing Corporation, the Netherlands Waterboard Bank and the Dexia Bank, OECD, Japan Water Forum, and to all other contributors but they take as individuals full responsibility of their views expressed here.

The Convenors would also like to express their gratitude to all who have contributed to the preparation of the meetings and to the Task Force report. The staff of the World Water Council Headquarters: Daniel Zimmer for his inspiring leadership and guidance; Paul van Hofwegen for the development and facilitation of process; Elisabeth Catton who, among other things, gave so much of her energy to involve representatives of local authorities; Jérémie Toubkiss, for his comparative analysis of Target 10 cost estimates; Florence Clermont, for her analysis of ODA for water and sanitation; Danielle Gaillard-Picher, Mélanie Giard and Carine Sirou, who managed logistical affairs and contributed to the web-pages dedicated to the Task Force; Stéphanie Neno, who managed the web-pages and contributed to the collection of case studies; Stéphanie Porro and Lætitia Chassefière who facilitated the graphical design and printing of the report; and also to Cyril Bellier, from the Agence Française de Développement who organised the second meeting at the AFD and to all others who made the work of the Task Force possible and pleasant.

Special thanks also go to Alan Hall of GWP and Jim Winpenny (Wychwood Consult), who with Paul van Hofwegen have been the motor behind the preparatory work of the Task Force and the Working Group on Financing Water for Agriculture.

Without the financial support of the Secretariat of the 4th World Water Forum, the Inter American Development Bank for the local government part and the contributions from UNDP-UNOPS, IPTRID/FAO, GWP and WWC the work would not have been possible.

They also wish to thank the French Agency for Development (AFD) and the World Water Council for hosting the Task Force meetings and releasing staff members to assist in the Task Force business, as well as other organisations that provided material and financial support.

*Loïc Fauchon, President of the World Water Council*

*Margaret Catley-Carlson, Chair of the Global Water Partnership*

*Cristobal Jaime Jaquez, Co-Chair of the International Organizing Committee of the 4th World Water Forum*



## ► Abbreviations

<b>ACP</b>	Africa, Caribbean and Pacific
<b>AfDB</b>	African Development Bank
<b>AsDB</b>	Asian Development Bank
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organisation of the United Nations
<b>G8</b>	Group of eight “most economically developed” countries (Canada, France, Germany, Italy, Japan, Russia, United Kingdom, United States)
<b>GNI</b>	Gross National Income
<b>GWP</b>	Global Water Partnership
<b>HIPC</b>	Highly Indebted Poor Countries
<b>IADB</b>	Inter-American Development Bank
<b>IFI</b>	International Financial Institution
<b>IMF</b>	International Monetary Fund
<b>IPTRID</b>	International Program on Technology and Research for Irrigation and Drainage
<b>IsDB</b>	Islamic Development Bank
<b>IWMI</b>	International Water Management Institute
<b>MDGs</b>	Millennium Development Goals
<b>NGO</b>	Non-Governmental Organisation
<b>NWB</b>	Netherlands Waterboard Bank
<b>OBA</b>	Output-Based Aid
<b>ODA</b>	Official Development Assistance
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OECD-DAC</b>	OECD – Development Assistance Committee
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>PSP</b>	Private Sector Participation
<b>UN</b>	United Nations
<b>USAID</b>	United States Agency for International Development
<b>WSS</b>	Water and Sanitation Sector
<b>WUA</b>	Water User Association
<b>WWC</b>	World Water Council



## ► Summary

The Task Force on Financing Water for All was established to provide recommendations on innovative financing mechanisms and make concrete proposals for immediate action that enhance the access of local governments to financial resources for investments in water services and agricultural water management. The Task Force has an open mandate and will continue after the 4th World Water Forum.

The tasks cover an assessment of (i) the status and trends in water financing, (ii) reasons behind current water financing trends, (iii) examples of innovative financing options being explored and tested with local governments and (iv) the future of financing for the water sector, particularly at the local government level.

The Task Force has given special attention to (i) the financing needs of local governments, especially as they are increasingly being faced with impacts that accompany decentralization, and (ii) the financing of necessary investments in agricultural water management to enhance efficiency and productivity of the sector that uses the most water.

The Task Force, however, is mindful of the equally important work of financing improvements in the management of river basins. River basins are the foundation of the water sector and a key component to ensuring that water services are sustainable. Innovative financing at increased levels will be needed for resource management, which will still depend largely on ODA and the public sector, but efforts need to be made to make this more attractive for the capital market. The Task Force will study and advocate further work in this area.

## Access to Finance for Local Governments

### Recognition of the demand side – a shift of focus on financing issues

In 2003, the Camdessus Panel warned that the Millennium Development Goals (MDGs) would not be achieved unless annual investments in water supply and sanitation services in developing countries are doubled from the 2003 level (US\$15 billion per year to US\$30 billion per year). These figures were confirmed by TF7 of the Millennium Project and by Water Aid. The water sector is, however, experiencing decreased, static, or marginal increases in financing, despite recommendations to double investments. The Camdessus Panel's call to double the level of water finance has not, and will not, expire. This higher level is still required and must be achieved.

The fact, however, that financing has not increased points to a more fundamental problem in the financing paradigm. The Task Force finds that the prevailing paradigm, evidenced in the Camdessus Panel Report, has focused too narrowly on how to create a greater supply of water financing without addressing the demand for it. The Task Force calls for a sharper focus on under-considered, yet fundamental, issues from the demand-side that are affecting financing levels: tariff structures, regulation, local capacity and access to various finance options for local governments and service providers.

It is necessary that National Governments develop policies to address these issues, while recognising that water is a local affair and that its sustainable management requires the empowerment of local governments and the development of their fiscal, management and human resource capacity. Given the contextual nature of water issues there is no silver bullet or one-size-fits-all solution.

► Sustainable management requires the empowerment of local governments and the development of their fiscal, management and human capacity.

● Financing new investments is only possible if repayment of the finance necessary for these investments is assured.

## **Provision of water services is primarily a local affair**

Water is a local affair because water services<sup>1</sup> are provided by local entities on a local scale to citizens of villages, towns and cities. The local government has the responsibility to provide their citizens with adequate services. They need the fiscal, human and institutional capacity to manage existing water services in a sustainable way and to extend services to the un-served. It is local action that enables the mobilisation of local social and financial capital and that can call upon solidarity mechanisms in society: an essential element for development of their financial capacity. On top of that, decentralisation increases responsibility at the local level.

## **Customers and taxpayers mainly finance water services**

Financing new investments is only possible if repayment of the finance necessary for these investments is assured. In provision of rural and urban water services revenues come almost 100% from the contributions of users and the public budget. It is this repayment capacity that determine the financial health of the service providers and their access to finance for new investments. The focus on enhancing access to finance issues should, therefore, be on this capacity of local governments and local operators to provide services and recover the associated costs both in urban and rural areas. A transparent and accountable relationship with the customers is a prerequisite for for sustainable cost recovery.

## **Fair tariffs combined with targeted subsidies are needed to connect the un-served, especially the poor**

In poor areas, as elsewhere, the cost of service provision needs to be balanced by the potential for revenues (user fees and taxpayer contributions). Acceptable, fair and pro-poor tariff structures are important to sustain the existing services and to obtain additional financing to extend services to the unserved, especially the poor. Solidarity among customers, cities, and countries through cross-subsidies and targeted subsidies is necessary to provide the poorest and the unserved with affordable access to basic services. Technology selection and service levels need to be adjusted to this potential and agreed upon among customers, service providers and local governments in association with tariff and subsidy structures.

## **Building local capacity is necessary to develop financial flows**

Lack of local capacity is one of the main obstacles in financial flows. Capable and accountable institutions, well-informed citizens and clear development strategies are essential elements to move forward. To access financing the capacity to structure projects and to manage investments in a sustainable way is crucial. Central governments should empower, facilitate and strengthen the capacity of local stakeholders in development, structuring, implementing, and managing local projects and services to enable effective local financing. This requires effective decentralisation, the devolution of not only responsibilities but also of the associated budgets and removal of obstacles in flows of funding from the central to local governments.

Financed through grants, development of service strategies, project preparation and structuring capacity will remove a major obstacle in financial flows. The set up of a “project preparation fund” or “debt for project preparations” swaps could facilitate this process.

Careful management of the relationship between local and national government is needed because of existing interests and possible differences in political signature

<sup>1</sup>- Water services in this report are to be understood as services directly provided to individuals or groups of society like water supply, sanitation, sewage, waste water treatment, drainage, etc. Infrastructure for bulk water supply in river basins or even inter-basin transfers can also be the affair of a basin organisations, national governments or even international bodies.

on the two levels. The pace of this implementation needs to be carefully phased, as competencies and capacities differ from place to place. Dialogues between central and local governments need in many instances, to be initiated, facilitated and strengthened.

All governments must examine and take steps to increase the flow of budgeted allocations for water, focussing in particular on blockages in the flow of funds to local entities responsible for extending water services. More responsibility and financing should be devolved to local government authorities and municipalities to enable local financing, improved service delivery and direct links with customers and access to local capital markets.

### **Projects should be structured through dedicated partnerships, matching demand and supply**

Involvement of all stakeholders is necessary for development and establishment of sustainable and affordable services. Establishing dedicated partnerships in which all parties cooperate (local and national government, users, public and private operators, local and international financiers) is essential for matching better demand with supply of services and their financing. These partnerships will create feasible financing and repayment mechanisms and exploit local financing options that are often overlooked. Since the broad range of stakeholders will demand transparent and accountable management processes, the risk and the cost of financing can be reduced. This will enhance service delivery, the willingness of users to pay and the creditworthiness of local governments. Such partnerships will enable a higher quality preparation, structuring and implementation process of investment projects. Bilaterals and IFIs should include the establishment and strengthening of such partnerships as part of their assistance to countries in the process of project preparation.

### **Enhancing financing flows requires development of local capital markets and their accessibility for local governments**

National governments should develop and improve local capital markets to make local currency loans possible and more attractive. Ministries of finance or treasuries should provide local governments and service providers with (better) access to local capital markets instead of forcing them to borrow in foreign exchange, increasing currency risk.

National development banks or other intermediary bodies can be important in the development of a local capital market to subsidise loans and to facilitate access to credit for financially weak local authorities. They have to be strictly monitored to benefit all local governments. In the long run, when local financial markets are strengthening, they should slow down their actions not to undercut the growth of commercial banks and stifle the emergence of a healthy local capital market.

Bilateral and multilateral financing agencies should coordinate aid to stimulate development of local capital markets making local currency loans possible and more attractive. Leveraging capital in these countries allows donors to provide more resources to those countries where financial markets are weak or non-existent to invest in their water infrastructure. Concertation of efforts of IFIs and bilateral donors in this direction will enhance the effective use of the limited resources available.

► Establishing dedicated partnerships in which all parties cooperate is essential for matching better demand with supply of services and their financing.



## More money is needed and better use should be made of the money available

Despite the progress in the development of financing instruments and their applications, doubling all flows of money (ODA, private sector, water-users and taxpayers) required to meet the MDGs is still far from being achieved.

ODA responded positively to the Camdessus Panel Report recommendations and developed innovative financing instruments to help put local governments within reach of special financing mechanisms that they are otherwise unqualified for. These innovative financing options, some of which are already being implemented, include sub-sovereign financing, bonds, guarantees and other instruments.

Though ODA is only a small part of the total amount of resources required to invest and manage water services, it can be significant in leveraging other funds and developing confidence to create access to (local) capital markets. Establishment of revolving funds and provision of (partial) guarantees for loans and bond issues can enhance creditworthiness and develop confidence in local currency markets. ODA also plays a crucial role in providing the upfront capital needed for investment in infrastructure and in providing guarantees for output-based aid (OBA). Without this critical input, in some places the contributions from consumers and taxpayers could not take place because there would be no service for which to pay.

The Task Force recommends that ODA contributions should also explore new sources of financing, which—currently being tested—include (i) external guarantees for local currency finance, (ii) grant aid as leverage, (iii) pooled bonds issued by groups of municipalities, (iv) local savings (pension funds, insurance companies and individual investors) drawn into financing bonds, (v) multilateral financiers now able to offer local-currency loans using the proceeds of bonds raised in local capital markets, and (vi) credit rating agencies extending services to subsovereign bodies to improve financial discipline and credit worthiness.

Further development and upscaling of special water facilities is encouraged like the African Water Facility (AWF) and European Union Water Facility for African Caribbean and Pacific Countries (ACP-EUWF) because they give local actors direct access to international funding.

Development of solidarity and decentralised funds based on the involvement of citizens at local, national and international level is encouraged to provide support for service development especially in rural and marginalized areas. These funds do not form part of the ODA budgeting systems. For instance, twinning arrangements between cities, towns, utilities and operators are making more and more progress. Though still relatively small, these arrangements create awareness and can stimulate action on a local scale.

The government with the initial support of international and national financing institutions should develop more effective and diverse credit systems for investments in community of small scale water services made by others, whether communities, the local private sector or other organisations. This can take many forms, including through existing banking systems, direct credits to NGOs or other organisations and credit systems (Asia Water Watch, 2005).

► Despite the progress in the development of financing instruments and their applications, doubling all flows of money required to meet the MDGs is still far from being achieved.

## **Special attention is needed for countries where infrastructure is weak and capital markets are lacking**

Poor countries with a low development level of infrastructure and where capital markets are absent face special challenges. The costs for infrastructure development are the highest and access to needed finance is lowest. These countries need long-term soft money to build institutions and infrastructure at the national and local levels. These countries that are in greatest need only receive a small part of ODA. International solidarity between the wealthiest and the poorest countries is necessary to create investments that otherwise cannot be afforded through national taxation.

Phasing of self-reliance in service provision is important. There is a gap between demand side and the capability of the economy to carry the burden of the costs associated with water infrastructure. In the short and medium term, grant-based ODA and solidarity mechanisms are crucial as a first step in bridging this gap.

### **National and local action plans are needed to increase the levels of investment**

National Governments, especially those with PRSPs, will give in their planning water the proper priority for financing.

The Task Force recommends that national and local governments should develop action plans to facilitate an increase of the levels of investments in water at municipal and district levels. Needs are to be identified and quantitative and qualitative targets need to be set on water services and associated financial expenditure and cost recovery (fees and subsidies) through national-local dialogue. The action plans should distinguish clearly between urban and rural water supply and outline a package of interrelated measures incorporating:

- Policy reforms and improved regulation for sustainable service provision on cost recovery and efficient pro-poor tariff structures; public and private sector participation modalities.
- Development of project structures based on partnership approaches.
- Phased investments – commencing with improvements in efficiency and reliability of service provision.
- Financing instruments and arrangements including development of and access to local capital markets for local governments and water service providers.

An umbrella action plan needs to be adopted at a national level. The Task Force believes that without such plans and their determined implementation the efficient management of the world's most crucial natural resource, and its benefits for the poor will remain mere rhetoric.

## **Financing Water for Agriculture**

The future state of water management for agriculture will be determined by a growing scarcity of water, competition for its use and growing concerns about its environmental impact. For these reasons and from the disappointing performance ODA to the sector has dropped sharply. However, agriculture is the greatest user of water and much investment is needed to make the sector more water productive. The next generation of investments will therefore be different from the last in type, scale, sponsors, and modes of finance.

► National and local governments should develop action plans to facilitate an increase of the levels of investments in water at municipal and district levels.

► Agriculture is the greatest user of water and much investment is needed to make the sector more water productive. The next generation of investments will be different from the last in type, scale, sponsors, and modes of finance.

The Task Force recognised the complexity of the issues around financing water for agriculture and the need for further study, consultation and analysis. At this interim stage the findings of the working group resulted in the formulation of three main questions around this issue to be developed in the next stage of the work of the Task Force:

- What are the needs where for financing water management infrastructure for agriculture? Should it be on efficiency improvement, expansion of irrigated agriculture, technology development? And whose needs are they as they vary from small-scale subsistence agriculture to large-scale international commercial enterprises?
- Who should pay for these investments? Within the distorted agricultural market the separation between public and private interests has become very vague. Where does the public responsibility end and where does the private responsibility start?
- What mechanisms are most appropriate? The wide variety of functions of water in agriculture and the large spectrum of size of operations which all need to be properly funded, demands for a mix of instruments that need to be consistent and complementary.

All kinds of finance will be conditional on supportive policies, reformed institutions, sound projects and creditworthy borrowers. In order to attract the required amount and types of funds the sector as a whole will need drastic reform.

Water institutions will need to make a strong effort for capacity development, including participation, empowerment, technical assistance and organisational development. The re-education and training of staff is an important part of this. Staff exchanges, benchmarking, “south-south” cooperation, twinning, and other kinds of technical assistance all have a potential role to play.

The trend to give Water User Associations more delegated responsibilities needs to be accompanied by sufficient delegation of powers (“voice and choice”) to enable them to function effectively in this new environment.

Future spending by national governments should be more functional in order to support necessary reforms. Departments should examine the reasons for any underspending that occurs and take action to remove administrative blockages.

External aid will continue to be needed in this sector, though on a more selective basis than in the past. Donors should be more receptive to new roles for aid, with the keynotes being facilitation, leverage and capacity building.

In order to secure finance for essential major infrastructure from IFIs and commercial lenders, working arrangements are required, which take account of the key elements of the World Commission on Dams report. However, these should avoid unnecessary delays and complex procedures, which deter both society, financiers and borrowers. There should be a specific study of the experience of dams and other major hydraulic projects concluded since 2000 with IFI involvement.

Water charges to users are a grossly under-tapped source of finance with great potential, and the only sustainable source of finance for recurrent operations. However, service agencies will need to be more customer-oriented and provide a better service if this potential is to be realised. Greater attention also needs to be paid to improving access to local and foreign markets for agricultural produce. Further study is desirable of cases where irrigation tariff reform has been successfully introduced.

The key to involving a wider range of financial sources is to identify the specific risks of this sector to investors and lenders, and to address these risks through financing structures. Co-financing from various sources is feasible, with each funder assuming appropriate parts of the risk. Further study is recommended of recent cases of PSP in this sub-sector.

Governments, donors, and IFIs, with the support of international networks and other stakeholders, should develop appropriate fora (e.g. Round Tables) involving local financial service providers to identify ways of promoting microfinance in water for agriculture. Governments should also review the impact of existing credit and capital market controls on the potential development of a microfinance market for this purpose.









# I. INTRODUCTION

Water sector financing will neither increase nor fulfil its potential to dramatically reduce poverty until demand for it increases and reforms and capacity building lead to the needed enabling environments.

## The need for the Task Force

In March 2003, the World Panel on Financing Water Infrastructure under the chairmanship of Michel Camdessus produced a report, “Financing Water for All”, which made recommendations aimed at increasing, and making better use of, funding for the international water sector. The report highlights the role of sub-sovereign and local-level financing to secure access to water and sanitation services and the consequent investment in required infrastructure. The availability of, and access to, financing is essential for local governments in order to develop and deliver the projected services.

The report has created an important change in the thinking and operations of international financing institutions (IFIs) regarding sub-sovereign financing. The momentum within IFIs has increased as all the multi-laterals are now exploring this area. The World Bank Group has led the way in developing new mechanisms for water financing, as was requested by the G8 Water Action Plan (Evian, 2003). All the IFIs and several donors have responded to the call and most have enhanced their offer of financial products to local governments.

The Camdessus report looked at financing mainly from the supply side i.e. from the point of view of banks and other financing institutions. It has been recognised, however, that generating more funds for the water sector cannot succeed unless there is a complementary effort to create the right conditions on the demand side i.e. with the central and local governments and municipalities that need the funds. The report also states (p. 38) that *“Each sub-sector requires its own distinctive approach, and many solutions are sector-specific. In particular, the financing need of irrigation is a complicated and stubborn problem”*.

As sponsors of the panel, the World Water Council (WWC), the Global Water Partnership (GWP) and the Secretariat of the 4th World Water Forum decided that further work was needed; a task force was set up to look in more detail at the follow-up of the report and at the special issues regarding access to financing for local governments and financing water for agriculture. Through the activities of this Task Force on Financing Water for All under chairmanship of Angel Gurria, the panel’s momentum and its impact on the international agenda have been maintained.

A major objective of this Task Force is to assess financing for local governments. The assessment covers (i) the status and trends in water financing, (ii) reasons behind current water financing trends, (iii) examples of innovative financing options being explored and tested with local governments and (iv) the future of financing for the water sector, particularly at the local government level. The task force also looked into the issue of financing water for agriculture.

► The availability of, and access to, financing is essential for local governments in order to develop and deliver the projected services.

After this introduction, this report presents in Part II the Task Force's findings on enhancing access to financing for local governments and better matching demand for and supply of financing, to sustain existing water services and extend them to those populations not yet reached. Part III discusses the development and application of financing instruments. Part IV of the report is written by J.T Winpenney and dedicated to the findings of the working group on Financing Water for Agriculture that worked under the auspices of this Task Force. This part of the report should be regarded as work in progress as the complexity of the sector demands for more study and consultation in a wider group of stakeholders.

This report presents work in progress and is based on existing literature, case material provided by task force members, consultations with a variety of stakeholders and discussions within the task force. The report is the first report of the Task Force intending to identify issues that need to be addressed. Issues that could not be dealt with yet will be taken up in following reports as the Task Force will continue its work after the 4th World Water Forum.

## **Acknowledging the demand side of financing**

The Camdessus Panel looked at financing mainly from the supply side i.e. from the point of view of banks and other financing institutions. It has been recognised, however, that generating more funds for the water sector cannot succeed unless there is a complementary effort to create the right conditions on the «demand» side i.e. with the central and local governments that need the funds.

Enhancing financial flows means that the demand side and the matching of the supply and demand for financing should be seriously addressed especially since the bulk of finance is generated locally through user fees and taxpayers' contributions and needs to be locally managed.

Moreover, with decentralisation, local governments are given an increasingly important role in the provision and financing of the various water services. To be effective, the delegation of these responsibilities has to be associated with a delegation of powers and the capacity to exercise these, including raising revenues.

The demand for investments has been stymied in many countries by a lack of reforms to correct longstanding issues that prevent both the public and the private sector from investing specifically on tariff adjustments, and the establishment of credible regulation. Without these, financial viability will elude both public and private utilities. Tariff levels, together with other forms of dependable revenues, must be able to cover basic operation and maintenance of systems as well as some rehabilitation and expansion. Regulation of the sector must be credible; it must be independent of the service provider and impenetrable by political influences that adversely affect a utility's ability to improve service coverage, financial viability and sustainability. The reforms are needed to provide some measure of security over public and private investments and to ensure their ability to perform efficiently and progressively.

Financing options remain out of reach of local governments, many of which are affected by decentralisation yet unable to fulfil their new responsibilities. Local governments are not able to access financing (even new innovative schemes) for three reasons: A lack of willingness at national level, an absence of creditworthiness, and a lack of awareness. All these issues must be addressed through the financing of capacity building programs as a preliminary exercise.

► Enhancing financial flows means that the demand and the process of matching the supply and demand for financing should be seriously addressed.

## What has happened on the supply side?

Despite the progress in developing and testing financing instruments, the required doubling of the total flow of funds (ODA, private sector, water-users and taxpayers) to meet the MDGs is still far from being achieved. ODA for water has marginally increased if at all and private sector investments have reduced dramatically due to both local political pressure on tariffs and the limited access to local currency financing.

As a consequence of the political pressures, the attitude of most international private operators towards their involvement in investments and management of water utilities has changed. Although the vast majority of operators are public, the landscape of companies pursuing water contracts changed in recent years. Local private operators are now entering the water business sometimes associated with big international groups and developing country companies expanded within their regions.

The renewed interest of IFIs and donors in investments in major infrastructure, under the new concepts of sustainable and equitable development, arises from the stagnation in social and economic development as a consequence of a lack of water infrastructure. Providing water for all requires implementing the necessary measures for bulk supply to bring water to consumers and to mitigate the consequences of drought and floods. Several development banks such as the AsDB have already indicated a doubling of their allocation for water infrastructure. ♦

♦ ODA for water has marginally increased if at all and private sector investments have reduced dramatically due to both local political pressure on tariffs and the limited access to local currency financing.







## II. THE DEMAND SIDE

Access to finance for local governments in urban and rural areas. Towards long term – fixed rate – local currency financing.

### **Providing water services: a local affair**

Providing water services like water supply, sanitation, sewerage, waste water treatment, and drainage in both urban and rural areas is a local affair, especially when the resource is locally available. It is the responsibility of local governments to regulate such services and ensure that appropriate service providers are appointed to develop and manage their existing services in a sustainable way and to develop and extend them to the unserved. As decentralisation proceeds, financing also is becoming more and more a local government responsibility.

The bulk of the funds required for sustaining existing systems and for new investment in water services comes from user fees and the public budget. Mobilizing local social capital and public solidarity is essential in developing capacity to finance the provision of sustainable services. Each country, region, district or municipality has its own dynamics and has to rely on its own strengths.

In enabling new investment, lending to sub-sovereign entities is becoming increasingly important and issues with sub-sovereign risk becoming more prevalent. However, in many cases local government either lacks the financial and managerial capacity or the proper regulatory framework and authority to be considered credible financial partners.

To improve access to the financing required by local governments to achieve the MDGs, major action is required on three fronts: (i) increasing the capability and creditworthiness of local governments to engage in financing actions; (ii) shifting from foreign currency and sovereign financing to local currency and sub-sovereign financing; (iii) ensuring the volume of all financial flows is brought up to the necessary level.

### **Connecting the unserved: fair tariffs and public solidarity**

The repayment capacity of local governments, communities and service providers determine their capability and creditworthiness to engage in financing actions. Acceptable and fair tariffs are essential in order to sustain existing services and to repay loans. They are a condition for obtaining additional funding necessary to invest in the creation or extension of access to services both in rural and urban areas.

In poor areas as elsewhere, sustainable service provision requires a balance between the cost of overall service provision and total revenues (user fees and taxpayer contributions). Resource development, technology selection and service levels need to be selected according to this revenue potential and agreed upon with the stakeholders, in association with tariff and targeted subsidy structures.

► The bulk of the funds required for sustaining existing systems and for new investment in water services comes from user fees and the public budget. Mobilizing local social capital and public solidarity is essential in developing capacity to finance the provision of sustainable services.



► The restructuring of tariffs and subsidies associated with upgrading and extending services, needs to be socially and politically acceptable.

► Free water services ultimately may be very expensive for the poor.

In financing arrangements special consideration must be given to the poor, especially those in deprived districts, cities and towns. Providing access to the poorest requires solidarity mechanisms with the better-off in society as it is essential to ensure that the costs related to service provision to the poor are covered. Cross-subsidies through tariff structures, complemented if necessary with state or municipal subsidies, are an example of such mechanism. Pro-poor tariff structures need to be implemented to make water affordable for the poor, without making excessive demands, in order to avoid richer customers disconnecting from public services and resorting to their own private supply, with the subsequent loss of resource base. Solidarity needs to be accompanied by the right incentives for service providers to ensure that the poor will have access to services and that the infrastructure will be adequately operated and maintained at the least cost.

The restructuring of tariffs and subsidies associated with upgrading and extending services, need to be socially and politically acceptable. Methods have to be introduced to finance the service quality improvement and extension before the water rates are revised. The introduction of targeted bridging subsidies is the key here; only after the service improvement has been implemented will water tariffs be adjusted to the agreed levels. Occasionally, partial-risk guarantees are provided by IFIs, which ensure a government's capacity to fund operational or connection subsidies during transitions to cost recovering tariff levels over an extended period of time.

Financing water services needs to be associated with improvements in the management of river basins as they are the foundation of the water sector and a key component to ensuring that water services are sustainable. Also in this segment of the sector innovative financing at increased levels will be needed, which will depend largely on ODA and the public sector. The development of such infrastructure may be too much of a burden for local governments and like in many developed countries central government will have to play its proper role.

Free water services ultimately may be very expensive for the poor because they deprive public suppliers of the financial resources needed to extend and sustain networks, especially to poorer households who are then condemned to using costly private suppliers.

## **Matching demand and supply: effective partnerships for project structuring**

The lack of matching of the demand for financing with its supply, combined with a limited capacity to develop bankable projects, creates a major obstacle for financial flows. The involvement of all stakeholders is necessary for the development and management of sustainable and affordable services and is essential for a quality process of preparing, structuring and implementing investment projects.

Establishing dedicated partnerships involving all local parties (government, users, public and private operators, local and international financiers) with transparent and accountable management processes will ensure a better matching of the demand and supply of services and their financing. Broadening the range of stakeholders in a project can reduce the risk and the cost of financing as it will implicitly contain corrective mechanisms to improve service delivery, stimulate users to pay and enhance the creditworthiness of local governments. Thus, feasible financing and repayment mechanisms can be developed and local financing options, often overlooked, can be exploited.



Local and national governments are often not aware of the spectrum of financing options available. Concerted efforts are necessary to raise awareness of local governments, service providers, civil society and organisations of local governments on the possibilities and conditions for financing.

Sometimes catalysts are necessary to establish these partnerships. These can be (local) government departments, communities or NGOs. The set up of a “project preparation fund” or “debt for project preparations” swaps could facilitate this process. Initiatives like the Water and Sanitation Trust Fund at UN-Habitat are worth replication and upscaling. The use of special decision-support tools to match demand with supply like FEASIBLE of the OECD combined with actual information on financing options like the web based “EUWI-Financing Guide” are recent initiatives that are conducive to efficient dialogues between stakeholders (Box 1). The financing institutions are encouraged to support the development, provision and updating of information on financing mechanisms for developing countries and municipalities. Local Government Organisations like UCLG could be instrumental in dissemination of tools and information.

### **Box 1: Matching demand and supply requires facilitation and dialogue, access to information and support tools**

UN Habitat has established strategic partnerships with development banks, donors, governments, UN Agencies and NGOs to seek effective use of investment funds and increasing levels of investments in countries or regions. In this framework special programmes are run to create an enabling environment for new investments into the urban water and sanitation sector to impact significantly on the poorest segment of the population. A Water and Sanitation trust Fund is created under which the Water for Asian Cities and the Water for African cities programs operate. In this construction UN-Habitat can operate as a broker or catalytic link between development banks and donors on the one hand and developing countries on the other hand. A number of tools are used to help countries on the demand side to qualify for investments funds that they would otherwise be unable to access. *Source: UN-Habitat*

OECD developed and applied a dialogue approach using the decision support tool FEASIBLE for consensus building among stakeholders and to build bridges between policy development and implementation. The model can assess the levels of finance (public, private, domestic, foreign) that might be available under different macro-economic conditions. In this way it provides a check on what public budgets might realistically be expected to contribute. It can also help to assess the potential social implications of increasing tariffs by determining the impacts of such price increases on households. It helps to systematically review the obstacles that would need to be removed in order to mobilize financing for environmental infrastructure. *Source: OECD*

An information gap exists about how finance mechanisms work, and how they are used. Whilst some donors and International Finance Institutions provide information about their financial products online, there are no comprehensive sources of information about the universe of products on offer and how they work, particularly in relationship to the water sector (which includes water governance). Information about finance mechanisms from a demand-led perspective is patchy and often anecdotal, rather than organised in any systematic way. Within the European Water Initiative, a website has been setup as a first response to the identified gap (prototype under development at <http://financeguide.euwi.net/>). The objective is to provide users of finance, typically in developing countries, with a means to identify different types of finance mechanisms that are available for the water sector, how they work (broadly), and provide linkages to other sites on the Internet, which can provide additional details and information. The present Water Finance Guide website is a first step towards creating a highly interactive “one stop” source of information about the range of finance mechanisms available for the water and sanitation sector, to increase knowledge and capacity for accessing finance. *Source: IRC*

- Establishing dedicated partnerships involving all local parties with transparent and accountable management processes will ensure a better matching of the demand and supply of services and their financing.

● Many developing countries still face widespread under-investment in the water sector, due to major blockages in the flow of budgeted allocations from central governments to local entities responsible for extending water services.

## Building capacity to translate needs into effective demand

Despite their commitment to the MDGs and poverty reduction many developing countries still face widespread under-investment in the water sector, due to major blockages in the flow of budgeted allocations from central governments to local entities responsible for extending water services. A lack of implementation capacity and the late release of funding mean that water budgets are hardly ever fully spent. Utilisation rates in African countries assessed range from 9 to 65%, often because of delays in disbursements. At the end of a financial year, local authorities can still be waiting for a sizeable part of their budget to be released (WaterAid, 2005). In Tanzania for example, reaching the water supply MDGs requires US\$ 96 million each year; the development budget for water supply in 2002/03 was US\$ 29 million, but only US\$ 12 million was actually spent. (Water Aid, 2005)

Essential elements for sustainable service delivery and access to finance are agreed strategies for local service development, accountable and capable institutions to develop and manage these services and well-informed citizens. Central governments have an important role to play in enabling, empowering, facilitating and strengthening the capacity of local governments and services. This requires effective decentralisation and the transfer of not only responsibilities, but also the associated budgets and the removal of obstacles in the flow of funds from central to local governments.

To enhance the creditworthiness of local authorities, transparent management of public finances and capable public institutions are necessary. The Indo-USAID Programme on Financial Institutions Reform and Expansion in the Indian states of Tamil Nadu and Karnataka shows that such enhanced creditworthiness has led to improved access to the local financing market (Box 2). IFIs and bilateral donors could help local governments and public utilities to improve corporate governance, creditworthiness and initial financial backing.

### Box 2: The Indo-USAID FIRE-D project builds capacity to enhance development of and access to local financial markets

The USAID Financial Institutional Reforms and Expansion (FIRE) project has shown that significant achievements are possible in creating access to financing through capacity building at national, state and local level. The project included the preparation of a national policy framework, creation of legal and fiscal incentives for local governments and utilities and preparation of guidance on improved resource mobilization and at state level and the development of guidelines to improve municipal financial management. At the local level, capacity development focused on project planning, access to financial markets, enhanced creditworthiness and on the promulgation of tools for financing and developing commercially-viable water supply and sanitation projects. It has also introduced incentives to help local service providers develop a track record of debt servicing, starting with small loans, which should facilitate their access to private funds. *Source: USAID*

## Local capital markets - where demand and supply meet

The development of local capital markets is essential for local governments to be able to access financing for investment, as a complement to their usual revenues sources. Issuing bonds is one way for local governments to raise funds in local capital markets. Mobilizing savings is an essential requirement for developing



nations. Pension funds (where they exist) are particularly suitable for financing long-term investment such as for infrastructure; China (Chengdu), India (Tamil Nadu and Ahmedabad), Argentina (Salta Region) and Mexico (Tlalnepantla) seem to be good examples. The major advantage of accessing the local rather than the international capital market is the absence of currency risk, as funds are raised and repaid in local currency.

### Box 3: IFI Partial Guarantees create confidence in local capital markets

#### Municipal bond issues with a partial credit guarantee: Tlalnepantla and Johannesburg cases

In 2003, the Municipality of Tlalnepantla, Mexico, and its municipal water company (OPDM) created a private trust. The trust issued 10-year revenue bonds backed by the municipality and OPDM in the Mexican capital markets for an amount of Mx\$95.9 million (US\$9.1 million) on June 2003. IFC and Dexia provided a partial credit guarantee (90% of the principal and interest) in Mexican Pesos, which enabled the trust to access financing at relatively low cost and over longer term as the bonds were rated AAA national scale by Moody's and standards and Poor's, a two-notch increase over the municipality rating. Eight domestic financial institutional investors fully subscribed the bonds.

#### The City of Johannesburg issued a R1billion (US\$153 million) bond in June 2004

IFC and the Development Bank of South Africa (DBSA) provided a partial credit guarantee (40% of principal outstanding), that raised the bond's credit rating three notches to AA- and allowed for an extension of the bond final maturity to 12 years. The guarantee can be used to repay up to the full amount of principal and interest falling due and payable to bondholders. The bonds were 2.3 times oversubscribed. In April 2005, the City issued a R700 million bond with a maturity of 8 years without credit enhancement. It is the first of a series of offerings intended to raise R6billion from capital markets over the next five years to address infrastructure backlogs. The issue was oversubscribed 3.8 times, showing a good level of investors' confidence.

Such partial guarantees create the necessary confidence for local institutional investors to buy municipal bonds. It creates a track record and establishes a benchmark for unsecured long-term municipal debt, as in Johannesburg.

*Source: IFC direct contribution*

Financial intermediaries occupy a strategic position in channelling resources from capital markets directly to local investment projects. The financing and development of local infrastructure, which traditionally are the responsibility of local governments, will increasingly have to be financed by market-based funding techniques involving beneficiary participation. If transparent, such intermediaries can bring together a number of stakeholders around one platform: central, state and local governments and municipalities, domestic financial institutions, private investors and multilateral donors.

Development banks or other intermediary bodies within a country can be useful to develop local capital markets, subsidise loans and facilitate access to credit to financially weak local authorities and operators. They have to be strictly monitored to benefit all local governments. In the long run, when financial markets are strengthening, they should slow down their action not to ultimately undermine the growth of commercial banks and stifle the emergence of a healthy local capital market.

● The provision of legal security through international guarantees is a necessary condition for lowering financial costs of water projects in some poor countries.

IFIs and donors have an important role to play in improving access to local financial markets for public and private water projects. This is done through project structuring, to match revenue generation with liabilities, channelling local savings into water investments, incorporating local debt holders as stakeholders in projects and introducing market performance benchmarks as in Mexico (Tlalnepantla). The partial credit guarantees provided in Johannesburg and Tlalnepantla raised the bonds' credit rating and allowed their maturity to be extended. These initial credit enhancements have reinforced confidence in the municipal bond market (box 3). The provision of legal security through international guarantees is a necessary condition for lowering financial costs of water projects in some poor countries.

Cooperation among stakeholders will stimulate creativity and the finding of smart solutions. To make projects feasible one may need to combine municipalities in pools like in Tamil Nadu-India (box 4), or combine different public services (e.g. electricity and water) like in Morocco (box 5).

#### Box 4: Cooperation creates smart solutions: pooling cities and services

The Tamil Nadu Urban Development Fund was established in 1996. The fund provides the necessary credibility to attract private capital flows into development projects and since inception the Fund has made several innovations that were unknown in Indian local development like Fostering PPP for infrastructure, the creation of special purpose vehicle (the Water and Sanitation Pool Fund raised about Rs 300 million from the bond market for a pool of 14 small municipalities in 2002 with a partial credit guarantee from the USAID), designing credit enhancement and government guarantee in financial arrangements, raising of municipal bonds etc. Loans and grants are blended for the poorer municipalities. The TNUDF case can be replicated in urban and semi-urban areas, in developing countries that follow the path of decentralization and municipal reform.

Market-based financing options like municipal bonds, tax-exempt bonds, pooled financing development facility have been introduced successfully at the state level in India. The successful track record of the Tamil Nadu Water and Sanitation Pooled Fund (WSPF) pooled financing in 2002 inspired the state of Karnataka, which developed the same scheme. In 2005 the Karnataka WSPF issued a bond for a pool of 8 urban local bodies in Bangalore with a partial credit guarantee provided by USAID/DCA. The Central Government of India also decided to vouch support for these new approaches to urban financing in the budget 2002-03 by setting up a Pooled Finance Development Fund to help small and medium-sized bodies accessing market borrowings. While this is still under discussion, the government has conferred tax-free status to municipal bond issues up to Rs 5 billion. *Source: Pritha Verkatachalem, 2005*

#### Special attention is needed for countries where infrastructure is weak and capital markets are lacking.

As the funds required for investment mainly have to come from local capital markets, more attention is required for the poorest countries where districts and municipalities cannot have the creditworthiness required to attract the interest of capital markets in water sector investment.

These poor countries with a low level of infrastructure and an absence of capital markets face special challenges. Their cost of developing infrastructure is the highest and access to the required financing the lowest. That is why in Africa, the per-capita cost of connecting people to basic services is three times the cost in Asia and Latin America. These countries need long-term soft loans to build the necessary institutions and infrastructure at both national and local level.

### Box 5: Combining services can be smart if done well!

Morocco has embraced privatisation of the water sector far more than other countries in the region, having signed three major combined water and electricity concessions in Casablanca, Rabat and Tangiers. Three more are planned in Fez, Marrakech and Agadir. Two years after the contract was awarded in Casablanca the larger electricity side of the services was subsidising investment in the smaller water division. The electricity division accounted for 70% of total turnover while the water and sewerage accounted for the remaining 30%. Despite this, the power business saw only 40 per cent of the investment, with the rest going to water. *Source: D.Hall 2002*

Combining services can sometimes undermine their sustainability. Properly managed, productive use of 'domestic' water can lead to improved financial sustainability, as household consumers may be more able and willing to pay water charges if the water is used for cultivation and livestock as well as for household consumption. On the Cape Verde island of Santiago however, due to the way in which tariffs are set, productive use for irrigation from a multiple-use water supply is leading to serious problems of equity and financial sustainability, which threaten to undermine the entire water supply system. Some well fields are used to supply water for domestic consumption as well as for irrigating agriculture around the towns. The subsidised tariff for irrigation water, as established by the Ministry of Agriculture to incite agricultural production, is much lower than the production costs, the difference being recovered from drinking water consumers. As a result, the poorest town dwellers are effectively subsidising the low price of water for irrigation. However, the number of drinking water consumers is insufficient to cover the deficit created by bargain-rate irrigation water. *Source: NWB-IRC direct contribution*

International solidarity is required between the richest and poorest countries if the investment, which cannot be funded otherwise through state taxation, is to be made.

Especially in these countries international mechanisms are required to help mitigate the consequences of external macro-economical accidents. If not available, the investments required will simply not happen.

Phasing is important. There is a gap between demand and the ability of the economy to bear the cost of supply. In the short term, ODA and solidarity mechanisms are crucial to start bridging this gap; focussed or blended grants and loans provide some possibilities.

### Investing in water still remains a low priority in many countries

Though the needs and benefits are clear, it is surprising that water is not more of a priority in many countries. This is confirmed by the lack of water-related programmes and investment in PRSPs. In 2003, water and sanitation were only prioritised in 2 out of the 30 countries home to nearly 90% of the 1.1 billion people lacking safe water. Although water issues topped the agenda at poverty consultations, they were strikingly absent or insignificant in the final PRSPs and associated budgets. However, where water was included (Uganda and Tanzania), it has made a difference. Uganda increased government spending fivefold; now, with a doubling of donor aid, an additional 2.2 million people have access to safe water (Slymaker and Newborne, 2004).

The benefits of improved water supply and sanitation affect many aspects in life: time saving, improved health, improved income opportunities, new skill learning, community mobilisation and new local organisations, savings and credits

► It is surprising that water is not more of a priority in many countries. \$1 spent on improving water supply and sanitation buys the poor \$6 in time and health savings.

leading to more credits, improved political systems and above all the multiplier effects (AsDB, 2004). Investing in water is investing in poverty reduction. In fact, \$1 spent on improving water supply and sanitation buys the poor \$6 in time and health savings (Asia Water Watch, 2005).

Investing in water is central to poverty reduction and therefore, achievement of MDGs. Governments must act swiftly in prioritising the water sector in their PRSPs. They need to ensure in their strategies that the benefits are really directed to the poor. Local governments and providers of water services will have to become an essential partner in the development and implementation of such strategies. ♦



# III. THE SUPPLY SIDE

## The required doubling of the total flow of funds is still far from being achieved

Both the Camdessus and MDG Taskforce 7 reports stated that a doubling of the total flow of funds (from ODA, the private sector, water-users and taxpayers) is required to meet the MDGs. However, despite all progress made in developing and testing new financing mechanisms, the flow of funds has hardly increased if at all.

Total ODA for water<sup>2</sup> has decreased in the period 1996 – 2001. This is mainly due to the decrease in ODA for large water infrastructure that halved from 1995 to 2002. But the ODA for water supply and sanitation remained constant if not increasing slightly. The share of water in bilateral ODA declined from around 5.4% (2000) to 4.2% (2004)<sup>3</sup>, despite an overall rise in total aid and the emergence of new, dedicated water facilities (e.g. ACP-EU Water Facility, African Water Facility). Japan was the largest contributor in the water supply and sanitation sector, accounting for 41% of the global total in the five-year period 1998 – 2002. However, Japan's ODA/GNI ratio dropped from 0.31% in 1990 to 0.2% in 2003.

### Box 6: The G8 Gleneagles commitment for Africa

To meet the MDGs in Sub-Saharan Africa, a comprehensive package was agreed at Gleneagles, which will mean faster progress by Africa in meeting the Millennium Development Goals. Some of the highlights of this package are:

- By 2015, all children will have access to good quality, free and compulsory education and to basic health care, free where a country chooses to provide it.
- A doubling of aid by 2010 - an extra \$50 billion worldwide and \$25 billion for Africa.
- Immediate debt write-offs for 18 of the world's poorest countries, most of which are in Africa. This is worth \$40 billion now and will be as much as \$55 billion as more countries qualify.
- Writing off \$17 billion of Nigeria's debt, in the biggest single debt deal ever.
- A commitment to end all export subsidies. The G8 has also given a commitment to reducing domestic subsidies, which distort trade.
- Developing countries will «decide, plan and sequence their economic policies to fit with their own development strategies, for which they should be accountable to their people».

Source: DFID and the G8 Presidency 2005; [www.dfid.gov.uk](http://www.dfid.gov.uk)

Only since 2004 has ODA for water started increasing again, albeit marginally (WWC, 2006). At the G8 Gleneagles summit, Japan committed to continue its efforts towards its goal of providing ODA of 0.7% of GNI. Over the next five

► Despite all progress made in developing and testing new financing mechanisms, the flow of funds has hardly increased if at all.

**2-** The OECD-DAC definition for ODA for water supply and sanitation consists of ODA allocated for Water supply and sanitation plus water resources management. The larger definition of water related ODA includes the DAC definition plus agricultural water resources, flood prevention and control, water transport and hydropower.

**3-** Data of the Development Assistance Committee of the OECD.

► Lack of effective programme structuring and project designing, are two of the main obstacles in increasing the flow of money due to the limited capacity of governments and implementing agencies.

► Though ODA represents only a small part of the total funding required for investment and management of water services, it can be highly significant in leveraging other money.

years, Japan is committed to increasing ODA to an aggregate of US\$10 billion over the level of ODA on the basis of 2004 net disbursements. (Japan Ministry of Foreign Affairs, 2005). Other G8 countries like the USA, France and the UK made a commitment to double total ODA in the water sector. The commitments of the G8 nations at the Gleneagles summit in 2005 (Box 6), and those of individual donor countries like the Netherlands and France, are encouraging but still fall below the levels required to achieve the MDGs.

Furthermore, it would appear that actual disbursements represent only half the sums committed and that the time lag between commitments and disbursements can be as long as eight years (OECD-DAC). Lack of effective programme structuring and project designing, due to the limited capacity of governments and implementing agencies, are two of the main obstacles in increasing the flow of money.

Private sector investment in water has lagged far behind other infrastructure sectors. In developing countries, of the total investment commitments for infrastructure projects with private sector participation in the period 1990-2004, the share for water was just 5 percent. In 2004, total investment in water and sewerage projects with private participation amounted to nearly US\$ 2 billion<sup>4</sup>, which is little relative to the sector's requirements. Recently, private funding has been concentrated in a small number of countries and has focused on treatment plants and smaller projects. In 2004, after a steady decline since 2000, annual investment grew by 36 percent. However, most of the investment in developing countries was concentrated on just three countries: Chile, China and Mexico accounted for 90 percent of the investment and 70 percent of the projects. This upturn only represents a return to 2002 investment levels nonetheless (World Bank, 2005). The significant annual investment by small or informal local private suppliers is not included in these figures.

Debt relief can have a critical impact on a country's ability to invest and achieve the MDGs. In many countries, debt repayments outstrip the additional financing requirements for water and sanitation. At the G8 Gleneagles summit, the member countries agreed to a proposal to cancel, in 2006, 100% of debts owed by eligible HIPC's to the IMF, IDA and African Development Fund. (worth US\$ 38 billion in 2004 NPV terms)

## Effective use of funds

Both donors and the water sectors in most recipient countries need to spend their money more effectively. Moreover, not enough money is targeted at the places that need it most: the countries that are home to nearly 90% of the 1.1 billion people with no access to clean water receive less than 40% of water aid. (Tearfund, 2005)

Though ODA represents only a small part of the total funding required for investment and management of water services, it can be highly significant in leveraging other money and developing confidence to create access to local and other capital markets. Establishing revolving funds and providing partial and total guarantees for loans and bond issues can enhance creditworthiness and develop confidence in local currency markets. Grants can be effectively used for project development and structuring and the development of the associated need for local capacity. Debt swaps for water supply and sanitation or for project structuring and preparation are also suggestions made.

To enhance effective use of funds, output based aid options could be an attractive alternative. Other new initiatives like decentralised cooperation and solidarity



4- The report is not clear about the contribution specific to the private sector, as mention is only made of amounts in which there is some degree of private sector participation.



finance are innovations worthwhile to monitor. They can be very attractive alternatives for the poorest countries and municipalities. However, these initiatives will for the immediate future still be marginal in size of money.

The present monetary allocation and disbursement orientation of monitoring and reporting should be complemented with outputs like the development of people connected with water supply and sanitation services. Effective use of resources requires commitments and monitoring in these terms of outputs. An innovation is the commitment of some donors to provide sustainable access to safe drinking water and sanitation by reaching certain numbers of people by 2015. Good examples are the Netherlands that are targeting 50 million people worldwide (Box 7) and France that is targeting 9 million people in Africa by 2015.

### **Box 7: The Netherlands' Output oriented Commitments: providing 50 million people with sustainable access to safe drinking water and sanitation by 2015**

As part of its contribution to achieving the MDGs, the Netherlands will have provided 50 million people with sustainable access to safe drinking water and sanitation by 2015. Though programmes will be implemented both in rural and urban areas, the focus will be mainly on rural areas, where the needs are most urgent. Whereas, until now, commitments have been essentially financial in nature, this output-based commitment is one of two innovations the Netherlands, as donor country, has introduced.

Implementation will be through direct bilateral support from Dutch embassies, via international multilateral organisations like the World Bank and UNICEF and through the Dutch private sector (FMO, in combination with the Netherlands Water Partnership). The financing is partly ensured by adding an extra € 50-60 million to the annual development cooperation budget, creating a leverage on the market to provide the financing for the ultimate total expected cost of € 1,500 Million.

The second innovation is in the financing construction where the implementing agency accepts (through arrangements with the local managing authority) the responsibility for sustainable service delivery. Sustainable means in this respect ensured delivery of agreed services in duration, quantity and quality terms. The implementation contract includes the responsibility to set up a self-financing environmental and system maintenance and management capability to be funded out of recovered cost from service provision. The implementing agency is responsible until and with 2015 for the delivery of these agreed services, which is 6 years after the completion of the implementation contract. It is to the implementing agency to ensure proper arrangements on sustainable development, management and maintenance of the infrastructure financed under this programme. Deficiencies before 2015 have to be addressed and financed by the implementing agency at their account.

Monitoring implementation and target achievement will be carried out the implementing agencies as part of their reporting obligations. These reports and the results in the field will be verified through inspections by independent accountants and experts.

*Source: Ministry of Foreign Affairs of The Netherlands - Directorate General of International Co-operation.*

► Developing local capital markets, local currency loans and the role of financial intermediaries have become increasingly important.

## **More financing instruments are adapted to local requirements**

Developing local capital markets, local currency loans and the role of financial intermediaries have become increasingly important. New developments to note in this respect have been: (i) external guarantees for local currency financing; (ii) the increasing use of grant aid as source of leverage; (iii) the issuing of pooled bonds by groups of municipalities; (iv) the use of local savings (pension funds, insurance



companies, and individual investors) to finance bonds for water infrastructure; (v) the emergence of new, smaller and regionally-based private sector players; (vi) the offer of local-currency loans by multilateral financiers, using the proceeds of bonds raised in local capital markets and (vii) the extension of services by credit rating agencies to sub-sovereign bodies as a spur to improve financial discipline and creditworthiness.

Output Based Aid (OBA) is a subsidy approach in which public funds are used to reimburse private operators for part of their investment, once they demonstrate they have delivered the service contracted for. The role of the local private sector needs to be taken into account as it has the capacity to improve service coverage, especially in areas not easily reached by municipal utilities (shanty towns, rural isolated areas, etc). Local private sector involvement in water provision refers to local domestic companies, small-scale vendors and, in some cases, non-profit operators such as NGOs, users associations and community-based organisations.

Governments are starting to explore the possibility of using OBA to modify or augment existing infrastructure PSP arrangements. For example, OBA can be used to finance new connections in low-income areas, or to enhance sanitation targets, even when there is an existing franchise holder (Box 8). In Tanzania, GPOBA will be supporting a range of pilot projects to test the applicability of output-based aid in the water sector in order to generate sufficient data to validate its development nationwide in more than 200 secondary towns. A particularly innovative feature of the proposed action will be its heavy reliance on private suppliers, both local and non-local, even though these are not very active in this market at present.

#### **Box 8: Output Based Aid – a financing tool to enhance access to water services**

Output-Based Aid (OBA) projects also will be implemented in Jakarta, as part of a programme to accelerate and expand coverage and improve the level of services offered to low-income communities (particularly those living in illegal settlements areas). They will be targeted at investments aimed at improving access to piped water services for Jakarta's urban poor. The associated grant amounts to a maximum of 5 millions USD, the operator pre-financing the investments. Once the OBA mechanism had been set up, the households' demands were identified, as was the level of community organization. The operator, PALYJA, has designed a catalogue of service levels and commercial options to be offered to low-income communities. Thus, between 5,000 and 10,000 new connections should come on-line in low-income communities in the current year.

In Paraguay, Aguateros are small, domestic private water companies, whose systems typically supply a cluster of houses and consist of a well, a pump house, and heavy polyethylene hosing; these systems are relatively cheap and easy to install. Aguateros form an important part of the water sector and bear all the investment costs and risk. Their main source of revenue for amortizing their investments is the connection fee paid by customers. The installation's precarious nature and legal insecurity in the medium term means that the investments must have a short payback term, generally 3 years. A new World Bank-funded initiative seeks to attract aguateros and construction firms active in the water sector to unserved rural areas and small towns by providing a per-connection subsidy. Between 2002 and 2004, several contracts were signed and the installed systems seem to be satisfactory.

A private operator is being selected through a bidding process to sign a concession contract for an OBA project in La Union Province, Philippines. The private operator must be at least 60% Filipino-owned and will be paid on the basis of performance, receiving a payment for each connection made to a poor household.



A notable initiative is the development of special water facilities such as the EU Water Facility for the African, Caribbean and Pacific countries (ACP-EUWF) and the African Water Facility. The ACP-EUWF gives local actors in partnerships direct access to international funding based on their needs through a call for proposals. Once the call for proposals is launched, it reduces the process and time required for project preparation considerably. The process of evaluating the proposals confirmed the need for strengthening the capability for project development and structuring. The competition which is inherent in the ACP-EUWF approach has the added value of stimulating capacity building for project preparation. This approach is worth emulating by other funding agencies.

Decentralised funds are based on local, national and international solidarity and complementing the official development assistance. Decentralised financing initiatives are based on a local-to-local relationship, without passing through State services or bodies. Twinning arrangements of cities, towns, utilities and operators gain more and more ground. Solidarity mechanisms often finance small-scale projects, involving small sums, and target zones where access to water and sanitation is lowest, especially in rural and peri-urban areas that are frequently not reached by national programmes. Funds are raised in various ways: like surcharges on water bills, monetised water savings, bill round-ups etc. Solidarity mechanisms can be institutionalised in order to give them more transparency, legitimacy and efficiency. For example in France, the 1992 law on territorial administration recognized the right for French local authorities to sign agreements with foreign partners and the National Commission for Decentralised Cooperation was created to inform on and take stock of such activities. The 2005 Oudin Law gave a framework for decentralized cooperation activities in the field of water and sanitation.

The potential of solidarity and decentralized funds is considerable. Decentralized cooperation activities in the field of water and sanitation have already resulted in 30 million Euros of funds raised annually in France. The Oudin Law and its 1% solidarity mechanism provides a framework for expanding such initiatives which are expected to increase contributions in France to more than a 100 million Euros per year. If all Western European countries were to implement similar strategies, an annual total of 650 million Euros could be possible. Extended to all OECD countries the potential rises to €2 billion.

In place of money, people can provide technical and managerial assistance by giving up their time and putting their skills at the service of people without access to water, as do members of Aquassistance, the association created in 1994 by employees of Lyonnaise des Eaux. Likewise, the Japanese Government has decided to assist its local governments in coordinating and structuring projects dedicated to helping local governments in developing countries manage natural disasters. Direct assistance to municipalities is more efficient since knowledge and techniques are directly put in practice within the trainee's home community (box 9).

### Box 9: Decentralised Cooperation – serious business

The provincial government of Drenthe, in the Netherlands, and 11 municipalities of the province have developed 12 joint-venture contracts with 12 local governments in East Indonesia. The non-profit organisation created by the province and the 11 municipalities in the Netherlands buys 51% of the shares of the Indonesian local water utility, improves its operating and managerial efficiency and then resells the shares back to the local government when the utility is healthy. If the price of shares has increased in the mean time, the municipality pays the difference and the non-profit organization uses the money in another project (revolving fund). *Source: Netherlands Waterboard Bank, 2006*

► If all Western European countries were to implement similar strategies, an annual total of 650 million Euros could be possible. Extended to all OECD countries the potential rises to €2 billion.

● Providing communities and local private sector with access to affordable credits can boost the mobilisation of local social capital necessary for investments in community water facilities.

Providing communities and local private sector with access to affordable credits can boost the mobilisation of local social capital necessary for investments in community water facilities. Governments provide more effective and diverse credit systems for investments made by others, whether communities, the private sector or other organisations. This can take many forms, including through existing banking systems, direct credits to NGOs or other organisations and credit systems. Bilateral donors could support the establishment of such credit systems.

Micro-finance as such is not new but its application in the WSS and agriculture sector is. Micro-finance is the source of funds mobilised or saved for financing actions which are traditionally excluded from bank-run credit schemes, because their beneficiaries, nature and volume are not attractive to banks or do not fit their normal parameters. Populations targeted by micro-financed projects are low-income households. Micro-finance used to provide resources for some productive sectors but is still rarely used for water and sanitation related activities. However, some experiences show that the relationship between micro-finance and the water and sanitation sector could be strengthened, as it has been in Senegal with the REGEFOR (Reform on Water Points Management with finance from Credit Mutuel du Senegal), and FOCAUP (micro-credit scheme from the Community Fund for Sanitation). The Grameen Bank is one of the best-known examples of a micro-credit institution. ●

#### **Box 10: Micro-finance and community involvement - reform of the rural water points management in Senegal**

The project started in 1999 and concerns 300 power-driven wells in 4 regions in Senegal: Diourbel, Fatick, Kaolack and Thiès. The objective of the reform is to ensure viable conditions for the supply of drinking water in these rural areas by disengaging the State from operational tasks of central authorities and the involvement of local governments, communities and the private sector. To do so, well users associations, called ASUFORs, have been created to ensure the management and the ongoing maintenance of each well.

If long-term investments (the wells, water towers, and main networks) are to be supported by the State, its gradual disengagement and transfer of costs to ASUFORs will become possible after rehabilitation of the oldest installations, installation of water meters (sale of water by volume to reduce wastage) and improvement of the quality of service notably by densification and extension of the networks. The Government with the help of AFD has financed investments for rehabilitation of existing wells and new infrastructure and ASUFORs are responsible for operating, maintaining and renewing the wells. ASUFORs have opened bank and savings accounts in the Credit Mutuel du Senegal, a major Senegalese micro-finance institution, where they put money from water sales. This has allowed ASUFORs to obtain micro-credits from the Credit Mutuel du Senegal for infrastructure renewing. At the end of 2003, savings of ASUFORs at the Credit Mutuel du Senegal represented 400 million of CFA Francs (€600,000) and 8 credits had been provided for infrastructure renewing.

*Source: Presentation of Mohamed Dia at the Workshop and micro-finance and innovative financing mechanisms in the water and sanitation sector, Dakar, Senegal, December 2005.*

# IV. FINANCING WATER FOR AGRICULTURE:

FILLING GAPS AND REMOVING BARRIERS - A PROGRESS REPORT *written by J.T. Winpenny*

Following a series of regional consultations, a number of key issues were raised. The consultation process will continue after the Mexico Forum to further address these points and follow up on promising approaches. Its eventual aim is to contribute to an agenda for further action by members of the international community in its many constituents.

## The Broad Picture

In the coming decades feeding the growing world population and satisfying its need for raw materials will call for increased output from both irrigated and rainfed agriculture. Some of this will come from an increase in the irrigated area, though the scope for this will be much more limited than in the past. The larger part of extra output will have to come from the more efficient use of water resources already being exploited, epitomised in the slogan more crop per drop.

Agriculture is by far the largest user of the world's water and can expect growing competition at the margin from other sectors for its use, particularly from the encroachment of growing cities onto farmland. More crop per drop implies among others the reduction of losses from the transport and distribution of irrigation water, and its more efficient application to crops through more widespread use of sprinkler and drip irrigation methods. The more efficient use of water in rainfed systems will have a major part to play, in some cases supplemented by irrigation water. Communities and households will need to capture more water through catchments for local productive purposes.

These developments call for major changes in the way in which water is used in agriculture and rural activities, and have major cost and financing implications. It has been estimated that the annual costs of managing water resources to meet the MDG Hunger goals could lie in the region of \$45-50 billion over the next ten years, rising to \$65-70 billion thereafter. These costs relate to conventional irrigation, upgrading rainfed systems, and complementary investments in soil and water management, research, extension, etc. Investment is needed in the rehabilitation and adaptation of present infrastructure as well as the creation of new structures and systems. Some investment, especially in major infrastructure, will fall to governments and public agencies. Much, however, will be undertaken by private farmers at all scales and of varying types.

Water for agriculture is currently financed from a mixture of sources. The prospects for a major expansion of government subsidies or guarantees are not bright, given fiscal constraints and the many competing claims on the public purse. However, other potential sources – ODA, MFI loans, commercial bank loans, small-scale informal sources, etc – are likely to be in more elastic supply. Finance of all kinds will, however, be conditional on supportive policies, reformed institutions, sound projects and creditworthy borrowers. In order to attract the required amount and types of funds the sector as a whole will need drastic reform.



► Many public irrigation agencies are effectively bankrupt and have difficulty attracting finance without large public subsidies.

One of the fundamental obstacles the sector faces in attracting finance is the fact that in more undeveloped economies irrigation water provided from public schemes is either free or massively under-priced. Free or cheap water for farmers is in many countries seen as a necessary part of national policies of food security or food self-sufficiency. But the use of cheap water in their pursuit may be unsustainable and could produce distortions, which become self-destructive. The Aral Sea is an extreme example of the social and environmental results of the reckless use of water for irrigation.

Food security, which is an understandable concern of governments, entails universal access and entitlement to food, a good national system of storage and transport, and purchasing power to make imports as required. Barriers to trade in foodstuffs threaten food security and induce governments to follow policies of self-sufficiency, which lead to an unsustainable and uneconomical use of water.

In most cases irrigation water prices are well below the cost even of operating and maintaining the infrastructure, and make no contribution to recovering capital costs. This does not discourage farmers from investing in facilities for their own private use, but does explain why there has been so little commercial finance for the supply of irrigation water. Many public irrigation agencies are effectively bankrupt and have difficulty attracting finance without large public subsidies. In this situation not enough new and replacement investment takes place and the infrastructure is condemned to a lingering death.

Financing prospects also depend on forces outside the control of farmers and their national governments. The prices of internationally-traded crops are set in world markets, and even domestically-consumed products are influenced by external trading conditions. International trade is not a level playing field: countries use a combination of import and export barriers, export subsidies and exchange rate practices to influence the terms of trade in their favour. Developing countries often complain about the trading practices of others, though some of them gain from preferential access to important markets.

### **Complexity: no “one size fits all” solutions**

Water is used in agriculture in a great variety of situations: the popular image of rice farmers working in paddy fields in large public irrigation command areas only focuses on part of a large mosaic, each component of which needs to be properly funded. Aside from large public irrigation schemes, a major part of this sector consists of privately-financed tubewells using groundwater. Commercial farms and estates often have their own diversion and storage structures. At the other extreme are small farmers and rural households using various sources including catchments, some temporary, or in combination. The sector is complex, and proposals should avoid “one size fits all” solutions. One example is the growing importance of women farmers, who represent a specific target group for finance.

Financing also needs to recognise the many different functions entailed in water for agriculture. Apart from providing water from surface or underground sources for irrigating crops and watering livestock, the topic includes drainage, water quality management, the enhancement of rainfed farming, aquaculture, multi-purpose projects including flood control and hydropower, and water supply to rural households for productive use, amongst other aspects. Agriculture also performs social functions which may justify public subsidy. Farming is a social safety net, sustaining both dependent families and returning migrant workers in their retirement, sickness or unemployment.



### Box 11: Womens' access to financing in agriculture

The feminisation of agriculture is a cross-cutting issue that is highly relevant to finance. In the absence of male workers, women become de facto heads of household and chief farmers. Depending on their situation they may concentrate on mixed subsistence production for their families, or they may earn cash from the sale of more specialised products. Women farmers tend to have different needs and working modalities, compared to men (for instance, pumps and equipment designed with men in mind may be difficult to operate by women, and need modification). Where women are the actual operators, finance negotiated on their behalf by men may not be very suitable. Women tend to have different approaches to negotiation of finance and are typically more reliable debtors. A number of microcredit schemes already cater exclusively to female farmers.

The river basin is the unit for management of spatial resources lake land and water, and it allows looking at the full range of water resource management issues. The links and synergies between these different aspects are stressed in the Integrated Water Resource Management approach, which is rapidly gaining ground among policymakers. The creation of IWRM data, plans and coordination capacity itself needs proper funding. Some of the abovementioned functions are easier to finance than others, and for certain of them (e.g. provision of "public goods" such as flood control and data collection) public funding will be necessary. The various constituent parts of water for agriculture should hang together financially.

### Change is urgent and unavoidable

The future shape of water supply for irrigation will be determined by a growing scarcity of water and competition for its use. Given the high degree of physical and economic water scarcity and the growing demands and competition for water from other sectors, there are fewer opportunities to expand irrigated areas. The emphasis must therefore shift to improving the productivity of water, and access to water by poor people, within the overall framework of an integrated, holistic, approach to water resources management (IWMI, 2003). However, in Africa there is a hemendons opportunity for intensification as well as expansion. Statistics show that only about 3 to 4% of the annually renewable water resources is utilised and that only about 20% of the irrigation potential has been developed.

The next generation of investments will be different from the last, in type, scale, sponsors, and modes of finance. There will be a variety of irrigation models. The distinction between large and small-scale irrigation projects is crucial - small schemes based on shallow pumps tend to be easier to finance, and more profitable. On present trends there will be with the exception of Africa<sup>5</sup>, few new publicly financed irrigation schemes involving surface water systems, due to the high and rising cost of new schemes, low agricultural commodity prices which depresses economic returns, environmental costs of water demand on rivers and aquifers, severe pollution from poorly managed irrigation schemes, and the fiscal constraints on continued public funding. Instead, the keynotes actions are modernisation and rehabilitation of current systems, improved operation and management and a review of the roles of institutions involved in irrigation. (Clever & Gonzalez, 2002)

► The future shape of water supply for irrigation will be determined by a growing scarcity of water and competition for its use.

5- The lack of infrastructure in Africa makes runoff the river schemes and storage facilities also amenable for financing.

Urbanisation is changing the economic and social environment of agriculture. On the one hand it creates a growing demand for crops and products produced on a commercial scale and to the standards expected by a sophisticated urban market. This is increasingly the domain of highly capitalised and commercially-oriented farmers, well able to afford the necessary water infrastructure. But there is another side to urbanisation, where workers (usually male) migrate to the cities in search of jobs, leaving their dependent families behind on farms to survive on remittances, supplemented by subsistence farming.

## **Transformation of institutions: new wine in new bottles**

Existing irrigation agencies and other supply-side agencies will need to change to adapt to these new demands. They also have historical legacies of failure and inefficiency to recoup. Reform programmes should be sufficiently ambitious and challenging, but also realistic, and it is naïve to expect the reform agenda to be driven exclusively by the state or existing vested interests. The reform movement needs to involve stakeholders from many walks of society, and be eclectic in its choice of pathways and models, choosing what works, even if it is not ideal.

Irrigation and other supply-side agencies need to critically review what they are there to do (their “mission statement”) in the light of changing demands on their services, and the growth of broader concerns for poverty-reduction, environmental sustainability and other factors. They should look more broadly at who their stakeholders are, listen to their core clientele - the farmers - and become more responsive to these various demands. They should be willing to take account of criticisms made and to make appropriate changes, which is the essence of accountability. Finance of all kinds will, however, be conditional on supportive policies, reformed institutions, sound projects and creditworthy borrowers. In order to attract the required amount and types of funds the sector as a whole will need drastic reform.

As for Water User Associations (WUA), the trend to give them more delegated responsibilities needs to be accompanied by sufficient delegation of powers (“voice and choice”) to enable the WUAs to function effectively in the new environment. For example, reforms in the Office du Niger in Mali exemplify a number of these principles: focus on core mission, delegation of non-core functions to other partners, involvement of farmers in decision making over spending, accountability, and capacity building supported by external partners.

Empowering WUAs needs consideration of such factors as: their recognition as legal entities (a precondition for their obtaining finance); enlargement of their responsibilities to take in other functions closely related to the concerns of their members (e.g. upstream and downstream activities); a voice on decisions to do with priority setting in works, budget allocations, fees and tariffs; collection and retention of revenues; and developing their capacity to take on these new and more onerous responsibilities.

If serious changes and reforms are to be made in agricultural water institutions, a strong focus will be required on capacity development, including participation, empowerment, technical assistance and organisational development. The re-education and training of staff is an important part of this. Staff exchanges, benchmarking, “south-south” cooperation, twinning, and other kinds of technical assistance all have a potential role to play.

► The trend to give Water User Associations (WUA), more delegated responsibilities needs to be accompanied by sufficient delegation of powers (“voice and choice”).



## Adapting conventional sources of funds

Much of the current flow of finance for investment in water for agriculture comes from governments and parastatals, donor agencies and IFIs. Recurrent costs (O&M) are covered by government subsidies and user charges. These will remain the first recourse of the sector in future. However, future flows even at current volumes, let alone increased amounts, cannot be taken for granted without changes in the way the sector is operated. The funding sources themselves will need to review the way they work in this area in order to play their part in supporting the needed changes.

Revenue raised from users is a grossly under-tapped source of finance with great potential, and is the only really sustainable source of finance for recurrent operations. However, service agencies will need to be more customer-oriented and provide a better service if this potential is to be realised. Increased revenues from users will be a measure of the reforms, as well as a contributor to them.

The re-evaluation could appropriately start with governments. Their budgets for this sector are often underspent, and tend to be largely spent on wages and salaries at the expense of materials and replacement items. Future spending should be more functional to support necessary reforms. Departments should examine the reasons for any underspending that occurs and take action to remove administrative blockages.

External aid will continue to be needed in this sector, though on a more selective basis than in the past. In general, for Africa the initial need is for investment in water and other infrastructure development to create a sort of minimum platform for secure agricultural production. Donor and lending agencies have much to learn from the past disappointing performance of many agricultural projects. Aid is likely to be appropriate in the following roles: support for research and the collection and dissemination of information; facilitation rather than direct provision; leverage and catalysis rather than blanket funding; training and capacity building; providing initial equity & "seed" capital; dialogue & advice on improving the enabling environment, etc.

The tide of opinion may be turning against the use of recurrent subsidies, and the introduction of cheap public money undercutting nascent local financial and product markets. It may be better to use scarce grant aid on purposes showing "public good" features and high externalities. "Smart" subsidies are now in favour - targeted, transparent and tapering. For project aid, donors and host governments should reflect on the hard-won lessons of experience before including credit components in agricultural projects.

IFIs are re-positioning themselves for lending to the improvement and modernisation of existing irrigation systems, rather than creating new ones. In Africa the need for new development will, however, still dominate but countries have to focus on improvement in efficiency in existing systems first. So far, experience in this new style of operation is limited. Although surface irrigation is likely to be the largest component of IFI lending for water management, there are also major financing needs for groundwater development, drainage and water quality management, rainfed agriculture and multi-purpose operations.

The appraisal, planning and implementation of dams and other major works financed by IFIs and other lenders now has to conform with much more comprehensive and rigorous standards, involving a wider range of stakeholders, and more lengthy consultation, than previously. Projects that emerge from this process are likely to be more sustainable and acceptable than an earlier generation

► Service agencies will need to be more customer-oriented and provide a better service.





► Farmers are more likely to acquiesce in paying higher charges if there is a good prospect of improved service.

of schemes. However, there is a risk that “the best is the enemy of the good” insofar as lending agencies, banks and private investors are deterred from lending by “reputational risk”. For their part, some borrowing countries despair of the delays and uncertainties imposed by the new procedures, and either go it alone without IFI support, or fail to implement urgently-needed projects.

In order to secure finance for essential major infrastructure from IFIs and commercial lenders, working arrangements are required which take account of key elements of the World Commission on Dams report. However these should avoid unnecessarily complex and time-consuming procedures, which deter both financiers and borrowers and work against the needs of the poor. There should be a specific study of the experience of financing dams and other major hydraulic projects concluded since 2000 with IFI involvement.

Water charges raise essential funds for the operation and maintenance of systems, and turn passive recipients of water into paying customers, potentially with an important voice in how services are provided. Recently the case for raising irrigation charges has been clouded by a controversy over how far tariffs can influence farmer’s use of water. It is argued that the use of charges to alter farmers’ behaviour is more problematic: charges would need to be very much higher than at present, which would run into stiff resistance. There would also have to be some credible system of measuring water use and an effective collection system. Accepting the argument that charges may not greatly influence farmers’ use of water in no way weakens the case for recovering more costs from users to raise essential funds for O&M and eventually capital costs of systems. However, the timing and context of raising such charges are crucial.

Farmers are more likely to acquiesce in paying higher charges if there is a good prospect of improved service. This is unlikely where such revenues flow back to the Treasury and the irrigation agency has no control over their use. The success of a more active charging policy depends on either giving the irrigation authority financial autonomy, so that farmers would see direct benefit from higher charges, or enabling farmers’ organisations to hire irrigation services on their own account. In either type of regime, farmers would be transformed into clients who “owned” the process of reform, and would be able to exert pressure on the authority to make its operations efficient in order to keep costs down. Further study is desirable of cases where irrigation tariff reform has been successfully introduced, and their lessons for implementation

## Developing innovative solutions

The key to involving a wider range of financial sources in water for agriculture is to identify the specific risks of this sector to investors and lenders, and to address these risks through financing structures. There is scope for co-financing from various sources, with each funder assuming appropriate parts of the risk.

Lenders and investors in agriculture expose themselves to a variety of risks. Some of these are generic and not specific to this sector, though they may apply with greater force in agriculture than elsewhere. Some risks affect individual producers, others concern the whole sector. The main risks to note are: project profile & cash flow; production, client & credit; market; environmental; climatic; foreign exchange; sub-sovereign; political, contractual & regulatory.

These risks can be addressed and mitigated by a mixture of measures (Box 12). In some cases this entails designing the project to make it more risk-proof. In other cases the provision of complementary infrastructure would reduce risk.



In the realm of financial engineering the options include: structuring the project finance package; insurance, guarantees, choice of suitable loan terms, use of derivatives; adequate capitalization and liquidity of the borrower; collective security; Central Bank action to refinance illiquid loans, etc.

### Box 12: Mitigating risks - a mixture of measures

FIRA, an agency of the Bank of Mexico, collaborates with commercial banks in the finance of irrigation investments, which include a 50% state subsidy. FIRA offers 5-7 year investment credits, stretching to 15 years for large projects, using collateral from land and water rights (which can now be bought and sold) plus machinery. FIRA offers hedging for interest rates in order to stabilize financing costs, and “weather derivatives” to offset the fall of farm incomes due to shortfalls in deliveries of irrigation water.

The Embalse Illapel project in Chile involved a concession for the provision of irrigation services from the Illapel Dam. The Chilean state provides an initial subsidy covering a high proportion (75%) of the construction cost and a subsidy for operation in the form of a shadow tariff for storage services. The concessionaire’s responsibilities are to build the dam, which is thereafter owned by the government, and store and deliver the volume of water implied by the water rights of permanent water users in the valley. Revenues consist of direct payments from users at an inflation-indexed tariff, and the ability to sell surplus water to other buyers.

The Kafue Basin in Zambia exemplifies the use of a basket of funds from all available sources. The state disburses grants to farmers through its Rural Investment Fund as part of its policy to promote food security. Government also guarantees the private funding of hydropower schemes. Costs are recovered from users through charges for the use of raw water. Communities are expected to raise at least 20% of the required investment in kind (materials and labour) and are responsible for paying O&M costs. Other capital contributions have been made by the Mwanachingwala Conservation Fund and the NWASCO Development Trust Fund, both supported by external donor agencies. For their part, NGOs provide grants, microcredit and revolving funds to farmers in this region.

There are innumerable examples of private investors in groundwater development for their own use, and – in South Asia – for sale to neighbouring farmers. But private finance of irrigation water for sale on a commercial basis is less common. There are now a number of private companies with service and management contracts with public irrigation agencies, and a smaller number of private contracts involving commercial risk on investment, with costs recovered from users. In most cases the motive for seeking private sector participation has been a desire by governments to reduce the level of subsidies going to operate and maintain irrigation and drainage systems. Where PPPs have happened, like in the Guerdane project in Morocco (Box 13) farmers tend to be organised into groups or associations.

Although farmers’ needs for seasonal credit are widely catered for from a variety of sources, the situation for term finance is very different. In developing countries there is frequently a shortage of institutions offering term finance to farmers, apart from large commercial operators such as plantations and agro-business ventures.

This is a serious brake on rural development, which reflects the financial markets’ view of the risks in agricultural term lending, compared to financing other sectors. These risks are of different types, and are very situation-specific.

Irrigation and storage facilities may actually reduce a farmer’s risk, while financing tree crop plantations is risky. Loans to experienced farmers for machinery

► In developing countries there is frequently a shortage of institutions offering term finance to farmers.

### Box 13: Public Private Partnerships in irrigation service provision – the Guerdane system in Morocco

Morocco's Guerdane project involves a private concession in the supply of irrigation water to farmers. It includes a substantial injection of state subsidy to reduce the tariff to affordable levels, the sale of high value-added produce in profitable markets, and the alleviation of specific risks in areas over which the concessionaire had little or no control. The project consists of the construction and operation of a 40-mile long water conduit and an irrigation network totalling 300 km. The investment cost of the project is around US\$80 million. To finance this, a public-private partnership has been arranged. The Government will fund roughly half of the cost, split evenly between a grant and a loan on concessional terms. Farmers are expected to contribute c. 7% through one-off connection fees, and the concessionaire will provide 43% of the overall cost. Bidders were asked to tender for a 30-year concession, against the criterion of minimum price per m<sup>3</sup> that they would accept.

and equipment are not necessarily more risky than seasonal credit. Financing the expansion of existing activities is less risky than funding start-ups or diversification into new occupations. Successful providers of term finance tend to operate in areas with good infrastructure (including irrigation) and proximity to markets or processing companies.

Term loans normally have lower transactions costs than shorter-term credits, but repayment schedules should be tailored to the expected cash flow of borrowers. To cover against the systemic risks inherent in agriculture term lenders need a strong equity base and access to refinance facilities and risk-sharing options. Term finance is best offered in the context of relationship banking (a long-term relationship between client and bank, including a full range of products (a "one-stop shop"). Loans should be priced according to client risk, and a flexible approach taken to collateral. (Hollinger, 2004)

Despite its spread into other sectors, microfinance has made limited penetration into agriculture. One reason is that many governments cap interest rates that can be charged to small farmers, which makes such loans unprofitable to commercial lenders given the high transaction costs typical of this sector. Another reason is the lack of a sufficient density of clientele, especially those needing credit for non-farm activities.

Countries where microfinance has been successful in rural areas, such as Bangladesh, Bolivia and Indonesia, have allowed "policy space" to decentralised finance, have an adequate legal and regulatory framework, and possess the necessary density of market for its services. Public authorities and agencies have an important role in the promotion of MFIs and DFIs but this is often most usefully exercised in indirect ways, such as created an enabling environment. Well-meaning interventions should avoid the risk of crowding out local players and thereby suppressing the growth of local capital markets.

Governments, donors, and IFIs, with the support of international networks and other stakeholders, should develop appropriate fora (e.g. Round Tables) involving local financial service providers to identify ways of promoting microfinance in water for agriculture. Governments should also review the impact of existing credit and capital market controls on the potential development of a microfinance market. ♦

◆ Term loans normally have lower transactions costs than shorter-term credits, but repayment schedules should be tailored to the expected cash flow of borrowers.





# RECOMMENDATIONS

## **Water Service Action Plans to enhance access to finance for local governments**

For water sector finance to reach its potential both national governments, especially those with PRSPs, and local governments give in their planning investments in water services for all the proper priority. This needs to be accompanied by the necessary reforms and capacity building to establish the required enabling environment.

National governments and Local Governments need to develop action plans to facilitate an increase of the levels of investments in water services at municipal and district levels. Quantitative and qualitative targets need to be set on water services goals, associated financial expenditure and cost recovery mechanisms (fees and subsidies). They need to ensure in their strategies the appropriate budget subsidies, cross-subsidies between users and subsidies targeting the poor. The Task Force believes that without such plans and their determined implementation the efficient management of the world's most crucial natural resource, its access to all and its benefits for the poor will remain mere rhetoric.

The National Water Service Action Plans should distinguish clearly between urban and rural water supply and outline a package of interrelated measures incorporating:

- National objectives in terms of outputs like number of people to reach various types of access to water services.
- Policy reforms for sustainable cost recovery including: (i) efficient tariff systems with adequate public subsidies, cross-subsidies and pro-poor subsidies; (ii) Long term visibility to the parts of the funding that will come from public budgets; and (iii) policies regarding change of tariffs.
- Strengthening of dialogue structures between national and local governments on the implementation of investments, tariff structures and subsidy arrangements.
- Strengthening of local capacity for project structuring and development of proposals, based on partnerships of government, users, financiers and service providers.
- Enhanced regulation on service provision and tariff structures including private sector participation modalities.
- Policy reform to develop and enhance access to local capital markets for local governments and water service providers.
- Development of a national framework to facilitate co-operation between local authorities in order to improve their borrowing capacity (pooling mechanisms).
- Policy aiming at lowering the cost of money and enhancing the duration of loans for water investments by local authorities/operators when they have not the



creditworthiness that allow them to secure long-term loans at affordable rates. These policies can include fiscal incentives, pooling mechanisms, guarantees or subsidies (soft loans) from the central government.

- Monitoring mechanism at national level.

Local Governments need to make Local Water Service Action Plans outlining:

- Local objectives in terms of outputs like levels of service and number of people to reach various types of access to water services in the various areas.
- Financial schemes that will ensure the overall short-term and long-term funding.
- Efficient tariff systems with adequate public subsidies, cross-subsidies and pro-poor subsidies.
- Creation of dialogue structures with users and communities on levels of services, payment for service and tariff structures.
- Phased investments plans – commencing with improvements in efficiency and reliability of existing service provision in association of the introduction of agreed tariffs and subsidies.
- Development of investment partnerships of government, users, public and private operators and financiers.
- Monitoring mechanism at local level.

All governments must examine and take steps to increase the flow of budgeted allocations for water, focussing in particular on blockages in the flow of funds to local entities responsible for extending water services. More responsibility and financing should be devolved to local government authorities and municipalities to enable local financing, improved service delivery and direct links with customers and access to local capital markets.

Ministries of finance should allow local governments and service providers better access to local capital markets as part of their empowerment process, thereby reducing their reliance on foreign currency loans and the inherent exchange risk.

Bilateral and multilateral financing agencies coordinate aid to stimulate development of local capital markets making local currency loans possible and more attractive. Leveraging capital in these countries allows donors to provide more resources to those countries where financial markets are weak or non-existent to invest in their water infrastructure. Concertation of efforts of IFIs and bilateral donors in this direction will enhance the effective use of the limited resources available.

Aid donors commit themselves to taking urgent action to increase the share of water in ODA and to increase the level of disbursement to the water sector. In particular, international aid donors pledge themselves to overcoming impediments to increased spending in the water sector.

Donor commitments and monitoring should be focussed on outputs like people provided with access to safe water and sanitation instead of dollars spent. Local and National Governments need to open monitoring processes to civil society and development partners to ensure that expenditure is effective and proportional to needs.

Governments, donors and IFIs to make sure that poorer groups are benefiting from their action and use financing mechanisms that facilitate this like output based aid, micro-finance and decentralised funding.

Regional Development Banks to gather information about pooling mechanisms, credit-enhancement frameworks and interest-rates available to medium-size local authorities/operators in the countries of their region.

## Financing Water for Agriculture

Water institutions will need to make a strong effort for capacity development, including participation, empowerment, technical assistance and organisational development. The re-education and training of staff is an important part of this. Staff exchanges, benchmarking, “south-south” cooperation, twinning, and other kinds of technical assistance all have a potential role to play.

The trend to give Water User Associations more delegated responsibilities needs to be accompanied by sufficient delegation of powers (“voice and choice”) to enable them to function effectively in this new environment.

Future spending by national governments should be more functional in order to support necessary reforms. Departments should examine the reasons for any under-spending that occurs and take action to remove administrative blockages.

External aid will continue to be needed in this sector, though on a more selective basis than in the past. Donors should be more receptive to new roles for aid, with the keynotes being facilitation, leverage and capacity building.

For Africa however, support to water and infrastructure development should be considered as part of public funding along with the reforms institution building and facilitation.

In order to secure finance for essential major infrastructure from IFIs and commercial lenders, working arrangements are required, which take account of the key elements of the World Commission on Dams report. However, these should avoid unnecessary delays and complex procedures, which deter both, financiers and borrowers. There should be a specific study of the experience of dams and other major hydraulic projects concluded since 2000 with IFI involvement.

Water charges to users are a grossly under-tapped source of finance with great potential, and the only sustainable source of finance for recurrent operations. However, service agencies will need to be more customer-oriented and provide a better service if this potential is to be realised. Further study is desirable of cases where irrigation tariff reform has been successfully introduced, and their lessons for implementation.

The key to involving a wider range of financial sources is to identify the specific risks of this sector to investors and lenders, and to address these risks through financing structures. Co-financing from various sources is feasible, with each funder assuming appropriate parts of the risk. Further study is recommended of recent cases of PSP in this sub-sector.

Governments, donors, and IFIs, with the support of international networks and other stakeholders, should develop appropriate fora (e.g.Round Tables) involving local financial service providers to identify ways of promoting microfinance in water for agriculture. Governments should also review the impact of existing credit and capital market controls on the potential development of a microfinance market for this purpose. 💧



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## ► Photo credits

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## ► Annex II - List of action cases

### **Contributions of the Task Force members:**

#### **African Development Bank**

- The African Development Bank and non-sovereign financing
- The African Water Facility
- Study on financial instruments to facilitate investments for water infrastructure, December 2005
- Collaborative programme on investment in agricultural water management
- AfDB/World Bank, IFAD, FAO and IWMI

#### **Asian Development Bank**

- Document Series Water for All
- Small Piped Water Networks: Helping local entrepreneurs to invest, Hervé Conan, Asian Development Bank Water for All publications

#### **City of Paris**

- Approval by the City of Paris of the creation of an international solidarity mechanism for water and sanitation

#### **City of Tshwane**

- Winterveld citrus project on agricultural water

#### **Dexia Credit Local**

- Water Infrastructure in Spain: How the Aguas de Sevilla innovative scheme could open the tap for new ways of financing a sector thirsty for investments by Rene Kassis & Anne-Laure de la Roche, Dexia Credit Local
- The Hague Waste Water Treatment PPP Project: A Ground-Breaking Deal by Mireille Barthez and Engel Koolhaas
- European Water Deal of the Year 2004, Nuove Acque: An Italian First, published in Project Finance, February 2005

#### **IFC/ Municipal Fund**

- Tlalnepantla Municipal Water Conservation Project, Mexico – municipal bond issue, 2003
- City of Johannesburg, South Africa – municipal bond issue, 2004

#### **Inter-American Development Bank**

- Private Sector Participation in water and sanitation services in Cartagena de Indias, Colombia (La participacion del sector privado en los servicios de agua y saneamiento en Cartagena de Indias, Colombia)
- Private Sector Participation in water and sanitation services in Salta, Argentina (La participacion del sector privado en los servicios de agua y saneamiento en la Provincia de Salta, Argentina)

- Analysis of the concession of water supply and sewerage system in the city of Monteria, Colombia, 2003 (Análisis de la concesión de acueducto y alcantarillado en la ciudad de Monteria, Colombia, 2003)

### **Islamic Development Bank**

- Intervention of the bank in the water sector

### **Japan Water Forum**

- PPP in water supply project in China
- Japan's ODA to micro-credit programme in Bangladesh
- Japan's disaster management structure and local financing
- Japan's ODA to disaster management in Asia
- Japan's Postal Life Insurance loans to local governments

### **Nederlandse Waterschapsbank N.V.**

- Success Factors in Self-Financing Local Water Management from the Netherlands Water Board Bank
- Water control boards in Surinam from the Netherlands Water Board bank
- Fact sheet Semarang, Indonesia from the Netherlands Water Board bank
- Water supply for Eastern Indonesia - Preliminary concept and revolving fund mechanism
- Linking water supply and irrigation services in Cape Verde

### **WaterAid**

- Tanzania - Where local councils are allocated just \$0.11 for each person they are expected to provide with safe water and sanitation, WaterAid, 2005
- An Empty Glass - The EU Initiative's contribution to the water and sanitation Millennium Targets, WaterAid, 2005

### **UN-HABITAT**

- UN-HABITAT Experiences in demand side of financing for water and sanitation
- LAC Region decides to launch a program on water and sanitation in LAC cities within the UN-HABITAT W&S Trust Fund
- Sri Sathya Sai water supply project, Ananthapur (India): A new approach to financing pro-poor investment for drinking water supply
- Slum sanitation in Pune
- Indo-USAID FIRE-D - Improving access to capital markets through performance enhancement of local governments and their utilities
- Output-Based Aid consumption subsidies in Chile
- The Guinea declining, Output-Based Aid subsidy project

## ► Annex III - Selected Extracts of Case Studies

### **Tax incentives to mobilise small scale private water providers in Ho Chi Minh City**

The Municipality of Ho Chi Minh recognizes that small water operators can contribute to improve coverage, especially in new peri-urban and rural areas around the city. In 2002, the Municipality and its municipal water supply company prepared a regulation to facilitate investments by local private companies to (i) increase water production, (ii) improve the level of service in areas not served by the municipal water utility, (iii) rehabilitate the piped network and reduce water leakages. The regulation is designed to put the utility and small providers together. For instance, the municipal utility is supposed to provide technical, administrative and materials procurement support; and small providers are given a tax-exempt status by the Municipality. This legal framework engages local private companies to invest and develop small-scale water networks in the City.

*Source: Hervé Conan; Small Piped Water Networks: Helping local entrepreneurs to invest, Water for All publications; Asian Development Bank.*

### **PPP in existing water treatment plant and construction of a new plant in The Hague, the Netherlands, 2003 (Delfluent Project)**

The Delfluent project in The Hague is the first PPP wastewater treatment project in continental Europe. The project aims at renovating an existing waste water treatment plant, to meet the new environmental European standards, as well as building a new plant. Once completed, this project will serve a population of 1.7 million inhabitants. This project of 370 million Euro was awarded the « European Water Deal of the Year 2003 » by the Euromoney/Project Finance magazine.

Under the financing terms of the transaction, a €370 million project finance package was put together by Dexia Credit Local and Rabobank International, as joint mandated lead managers, and the European Investment Bank (EIB). The total debt package consists of (i) a €190 million Senior Term Loan; (ii) a €125 million EIB Term Loan (iii) a €20 million Standby Facility, and (iv) a €43 million Equity Bridge Facility. The project benefits from very attractive financing terms in terms of maturity (27 years). The Hague waste water treatment project is the third PPP project to close successfully in Holland.

Partners:

Dexia Mandated Lead Arranger of the total debt package along with the Dutch Rabobank. Following an international tender process that started in 2001, the project was awarded in late 2002 by Waterboard Delfland, the public body responsible for the treatment of wastewater in the Rotterdam and The Hague regions, to Delfluent, a consortium formed by Veolia Water (40%), Delta Waterbedrijf (20%), Waterbedrijf Europoort ("WBE") (20%), Rabobank Participaties II (10%), Heijmans (5%), and Strukton (5%).

*Source: direct contribution – Dexia*

### **EMASESA transaction: using a purchase of rights on "improvement fees" to finance water infrastructure investments on a non-recourse basis, Spain, 2003**

The financing to improve the water supply and treatment infrastructures for more than one million inhabitants in the Seville area is structured as a purchase of EMASESA's (the municipal water company of Metropolitan Seville) rights to charge end-users with an "improvement fee" ("Canon de Mejora") established under a Decree promulgated by the Regional Government of Andalucia for the specific purpose of financing the works programme. The total amount of the

project is €100 million. The main merit of this scheme, from the municipal water company's perspective, lies in its nature as a sale of rights on a non-recourse basis, with therefore no impact on the level of indebtedness of the municipality.

Partners:

Dexia acted as arranger of the structured financing. FSA acted as guarantor. Dexia and Ahorro Corporacion Financiera have arranged the ground-breaking structured financing for Aguas de Sevilla. The financing also involved the European Investment Bank ("EIB"), as well as the monocline insurer Financial Security Assurance ("FSA", a Dexia company) acting as their guarantor.

*Source: direct contribution - Dexia*

### **Design, construction, operation and maintenance of the irrigation network of Aigues del Segarra Guarrigues (ASG), Spain, 2005**

The project consists in the design, construction, operation and maintenance of the Segarra Garrigues secondary irrigation network, which will irrigate the lands of the various regions surrounding the municipality of Lérida (Lleida), in Catalonia. This irrigation network will provide water for 70,000 hectares of land, owned by more than 20,000 farmers.

The construction of the whole irrigation network will take 10 to 11 years, and will comprise a total of ca. 150 sub-projects (corresponding to smaller areas of irrigation), the implementation of which will take place in a sequential manner, such that irrigation will start in the first constructed areas as soon as 2006. Total project costs are expected to amount to approximately US\$ 1,275 million / €1,072 million. Total debt envelope amounts to approximately US\$ 1,050 million / €884 million. The financing covers around 80% of the project cost, corresponding to the percentage of the works paid by REGSEGA (the provincial government-owned entity in charge of the Project, with a guarantee of financial stability provided by the province of Catalonia), the balance being paid by the farmers benefiting from the project, whose risk is not taken by the banks.

The financing was structured as an envelope financing, each separate sub-project being financed under a "Modelo Aleman" scheme whereby banks are lending against contractor guarantees during construction and, upon completion of such sub-project, repaid by a true sale of receivables over a 20-year period from REGSEGA. This structure is highly innovative in the sense that it allows for a high level of flexibility, which is required because of the high number of projects that are financed under the scheme, and of the long construction period. There is no construction design for the whole project defined at the outset, but rather a general Master Construction Plan. Each sub-project will then be implemented according to the Master Construction Plan, the design of each sub-project being developed by ASG and presented for approval to the administration and to general public review. Once a project design has been approved by REGSEGA, ASG will proceed to the selection of the contractor that will carry out the project, in a way that ensures that each contractor (being one of the major sponsors, or a combination of local contractors acting through a joint venture, the UTE Lleida) is assigned a percentage of construction works corresponding to its equity share in the ASG.

Partners:

Dexia Sabadell Banco Local was financial adviser and mandated lead arranger. Other partners: FCC Construcción S.A. (24%), ACSA AGBAR Construcción S.A.

(22%), Construcciones y Obras Públicas y Civiles S.A. (21%), COPISA Constructora Pirenaica S.A. (20%), Benito Arno e Hijos S.A. (UTE LLEIDA, 5.5%), Arids Roma S.A. (UTE LLEIDA, 1.375%), Constructora de Calaf, S.A. (UTE LLEIDA, 1.375%), M. y J. Gruas S.A. (UTE LLEIDA, 1.375%), Romero Polo, S.A. (UTE LLEIDA, 1.375%), SOREA (AGBAR Group, 1%), AQUALIA (FCC Group, 1%).

*Note: UTE Lleida is a JV comprised of several local contractors.  
Source: direct contribution - Dexia*

### **PPP for operation and upgrading of the water system in the Alto Valdarno, Italy, 2004 (Nuove Acque Project)**

The Nuove Acque project is based on the legal environment fostered by the Galli Law, whose principal purpose is to consolidate the number of water system operators from 8,000 small businesses to 91 larger operators. Nuove Acque involves the operation and upgrade of the water system in the Alto Valdarno region in Tuscany. Specifically, the project consists of expanding the bulk water supply, constructing and upgrading treatment plants and distribution networks, extending the sewerage network, and refurbishing wastewater treatment plants. The project covers 37 municipalities of the provinces of Arezzo and Siena. The total amount of the project is EUR 181 million total project cost of which EUR 69.8 million debt.

The involvement of the state at equity level is a model that is increasingly used for PPP projects with many small-ticket investments staggered over a concession. Effectively, the rolling mandate cuts down on bid costs and takes advantage of the economies of scale of a large single financing.

Financing comprises EUR 69.8 million lead arranged by Dexia and MPS Banca per l'Impresa and EUR 34.3 million equity. The lead banks guarantee a EUR 44 million 17-year EIB facility and are providing EUR 15 million in 17-year money from their own account. Both facilities have an availability period of 7 years, whose length reflects the need to fund a capital expenditure programme over the term. MPS's credit subsidiary Banca Monte dei Paschi di Siena and Banca Etruria are jointly underwriting a revolving facility of EUR 9.4 million that will provide working capital. The revolver will be refinanced by the EIB loan.

Partners:

Dexia Crediop is mandated-lead arranger. MPS Banca per l'Impresa as lead mandated arranger and BP Etruria e Lazio as co-arranger.

*Source: direct contribution - Dexia*

### **Creating Access to Finance - Tlalnepantla Municipal Water Conservation Project, Mexico**

Issues and Challenges: The primary challenges were allowing the Municipality of Tlalnepantla de Baz and its Municipal Water Company (OPDM) access to long term funds at reasonable rates, broadening their funding options; and reducing currency risk in financing the first wastewater treatment and recycling plant in the Mexico City metropolitan area. There was also a challenge to design a financing structure that was not reliant on federal transfers yet sufficiently attractive to provide confidence to long-term institutional investors.

Action Undertaken:

To fund the project in the local capital market, a private Mexican trust issued unsecured revenue bonds backed by the Municipality of Tlalnepantla de Baz



and its Municipal Water Company (OPDM). The IFC, working with Dexia Cr dit Local as co-guarantor, provided a partial credit guarantee in Pesos. The partial credit guarantee enabled the municipality and its municipal water company to access financing at relatively low costs and over a longer term as the bonds were rated AAA national scale by both Standard and Poors and Moody's Mexico, a two-notch increase over the municipality rating.

#### Impact and Results:

With the partial guarantee, both Standard and Poors and Moody's Mexico, rated the bonds AAA national scale, a two-notch increase over the municipality rating. The issue was fully subscribed by eight domestic financial institutional investors. More importantly, the structure introduced a new model of municipal finance, that could be replicated in the future, that is secured by the revenues of the municipality or the municipal entity rather than by federal transfers.

In addition, the bond issue contributed in further developing the domestic capital markets in Mexico and diversified the longer term investment opportunities for local financial institutional investors.

Summary: Terms and Conditions	
Amount	Mx\$95.9 mn (approximately US\$9.1mn)
Currency	Mexican Peso
Issue Date	June 2003
Maturity	10 years, extendable by one year
Interest Payment	UDIS+5.5%, payable semi annually
Principal Payment	Starting on Year 1 to Year 10 in equal semi annually amounts
Rating	AAA by the local affiliates of Standard and Poors and Moody's
Enhancement	IFC and Dexia guarantee the due payment of the principal and interest
Enhancement Amount	Principal and interest for an amount equal 90% of the outstanding principal and interest amount, up to US\$8.2mn

#### Analysis of Context:

Tlalnepantla de Baz, is a municipality of 800,000 people on the outskirts of Mexico City. The traditional finance structure used to fund states and municipal infrastructure projects in Mexico is one where banks lend to the local entities under an agreement between the Central Government and the local authorities. In the event of default, the banks have recourse to the central government for all amounts due by deducting the corresponding debt payment from the state or municipality's allocation of federal transfers.

The structure adopted in Tlalnepantla de Baz departs from this traditional approach in that it uses the municipal water company's own revenues to service the debt and uses a combination of structure and credit enhancement to achieve the target AAA rating.

Substantial interaction with local authorities, especially with the CNBV (National Banking and Securities Commission - Mexican SEC), was key to the success of this transaction. With IFC's support, Dexia and Protego (the financial advisor) successfully handled the interaction with the rating agencies and the road show, including several presentations to a large pool of interested investors, including pension funds, insurance companies and investment banks.

On the technical side, considering this was OPDM's first wastewater treatment plant, as well as the World Bank Group's first foray into municipal finance without

sovereign guarantees, IFC obtained trust fund resources to help the Municipality appoint Halcrow Ltd. as an Independent Technical and Environmental Advisor to advise and assist OPDM in ensuring successful implementation of the project.

#### Replicating Results:

The Bank market has responded positively to the Tlalnepantla transaction. Banks have been willing to provide funding for longer maturities to better match the long-lived nature of infrastructure investments that municipalities make. Other similar municipal issues based on local taxes and levies are under active consideration. There has also been interest in the form of Non Bank Financial Intermediaries to finance municipalities. In October 2005, the municipality repaid the bondholders in order to have greater flexibility with regard to its future funding needs. The plant is ninety five percent complete.

*Source: IFC Washington DC - direct contribution*

### **Creating Access to Finance - City of Johannesburg, South Africa**

The primary challenge was how best to finance the City's long-term capital expenditure plan focused on water, city streets, and distribution of electrical power – in particular, to provide basic services to the poor.

An inability to access affordable funding in combination with post apartheid amalgamation of poor and relatively well-off jurisdictions had resulted in service backlogs, deferred maintenance, and failure of infrastructure systems to keep pace with population growth. With huge investment needs the City was keen to diversify its financing sources and in particular, was keen to match funding tenors with the life of the assets being funded.

In order to diversify the City's sources of financing and extend the maturity of the debt to match the life of the assets a long-term municipal bond issue was structured. The bond allowed the City to tap into the institutional investor market as an alternative source of funding. Use of a partial credit guarantee provided by IFC (AAA international) and the Development Bank of Southern Africa (DBSA) (AAA local) raised the bond's credit rating three notches to AA-.zaf and allowed for an extension of the bond's final maturity to 12 years.

Summary: Terms and Conditions	
Amount	R1,000,000,000 (approximately US\$153mn)
Currency	South African Rand
Issue Date	June 23, 2004
Maturity	12 years
Series	1 Series
Interest Payment	11.90%, payable semiannually
Principal Payment	Six equal semiannual payments over the last 3 years
Rating	AA-.zaf by FitchRatings
Enhancement	Principal and interest for an amount up to 40% of principal outstanding, shared by IFC and DBSA on a several but not joint basis

IFC assisted in structuring the transaction and provided credit enhancement in the form of a partial credit guarantee sized at 40% of the principal outstanding shared equally with DBSA on a several but not joint basis. The guarantee can be used to repay up to the full amount of principal and interest falling due and payable to bondholders on any given payment date (subject to guarantee limits).

The partial credit guarantees provided by IFC / DBSA raised the bonds credit rating to AA-.zaf and allowed the City to extend the final maturity to 12 years. The appeal of this offering to institutional investors was great as it was oversubscribed 2.3 times with initial pricing of 150 – 200 basis points over the benchmark government bond. The oversubscription allowed for a re-pricing which brought the final spread to 164 basis points above the benchmark reflecting a strong endorsement by the market of the credit-enhanced structure.

The City of Johannesburg's long bond created a new asset class in South Africa and established a benchmark for unsecured long-term municipal debt. It was the first structured municipal bond in South Africa and the longest-dated municipal bond ever issued in South Africa.

South Africa's constitutional reforms created a sound legal framework for municipal governance and finance including predictable levels of inter-governmental transfers, a ban on central government guarantees for municipal borrowings, and a clear framework for resolving events of municipal financial distress.

The City of Johannesburg, South Africa's largest city with a population of 3.2 million is the country's main business center, contributing more than 16% of the national GDP. Integration of metropolitan Johannesburg with surrounding communities in the 1990s allowed extension of services to formerly disadvantaged areas but added stress to municipal finances resulting in low capital expenditures, service backlog and deferred maintenance.

The City now provides the full range of municipal services, ranging from power transmission to waste management. City revenues come primarily from power, water and sewerage tariffs, property taxes, and business taxes. The City operates a balanced budget.

In April 2005, the City launched its first bond under a Domestic Medium Term Note program, a new program to raise debt instruments to meet its capital expenditure needs and address infrastructure backlogs. The bond, worth R700-million will run over an eight-year period, with a redemption date of 2013. This offering extends the ability of the City to issue bonds without credit enhancement. It is the first in a series of offerings intended to raise R6-billion from capital markets over the next five years. Showing a good level of investor confidence, the issue was 3.8 times over subscribed and cleared 154 basis points above the benchmark of R157.

As demonstrated by these offerings, the market for investment grade municipal bonds in South Africa is gaining strength with a deep institutional investor base. Forms of credit enhancement similar to that provided by IFC in 2004 should be forthcoming from the local banking syndicates at competitive prices which allow for an affordable all-in cost of capital for local municipalities. Alternatively, the Bank market could respond to municipalities' long tenor funding needs by extending the maturities of their offerings.

*Source: IFC Washington DC - direct contribution*

### **Private Sector Participation in water and sanitation services in Cartagena de Indias, Colombia**

In 1994, a new law allowed private sector involvement in delivery of water and sanitation services in Colombia. Facing a crisis of the water sector, the municipality of Cartagena de Indias decided in 1994 to create a public-private company. A 26-year concession contract was signed between the municipality and Aguas de Barcelona. A new company was created, ACUACAR (Aguas de Cartagena) with the following shareholding: Municipality of Cartagena 50% (as the 1994 law requires), Aguas de Barcelona 45.9% and local private investors 4.1%. The project enjoyed technical and financial support from the World Bank and IADB. Between 1995 and 2002, quality and coverage of services have been improved and the financial health of the semi-public company has been restored.

The decentralization process carried out in partnership has facilitated municipal authorities' acceptance of the regulations issued by the Water Supply and Sanitation Regulatory Commission, particularly the price-setting regulations. The decision of incorporating the private sector into water and sanitation services was made because of the crisis of the sector and because the District of Cartagena was unable to secure the necessary financial resources. The private sector participation process faced the opposition of the newly elected administration, which led to renegotiations and delay. That kind of opposition is frequent in private sector participation process. Arrangements between the concessionaire and the administration must be carefully designed to ensure that the concessionaire meets its investments commitments and the impact of the new investments on public budgets is minimized. The district's share of the company profits provides an element of stability in the PPP participation arrangement. The political and institutional support contributes also to the stability of the system.

*Source: direct contribution – Inter-American Development Bank*

### **Private Sector Participation in water and sanitation services in Salta, Argentina**

Following a reform of the water sector, the provincial government of Salta, Argentina, sold in 1998 90% of the shares of its water company, Aguas de Salta. The Argentinean construction firm NECON S.A. was awarded a 30-year concession contract to provide water and sanitation services to 43 municipalities in both urban and rural areas, which were previously served by Aguas de Salta (municipal departments or cooperative-type organizations provide services to the rest of the population). NECON S.A. bid included an investment and work plan totalling US\$ 97 million for the first 15 years of the concession. The concessionaire initiated an individual negotiation process with municipalities out of the initial area covered. A system of direct subsidies for low-income costumers was implemented. The concession agreement establishes that the Province must assume responsibility for paying bills of poor customers. The provincial agency ENRESP (Public Utilities Regulatory Agency, a separate legal entity) is responsible for ensuring that services are provided at required quality levels, in a legal, uniform and universal manner in accordance with approved user charges, while protecting the environment.

The water coverage has been one of the reform's priority objectives. The regulatory agency helped ensure that investments were focused on expanding water services, making an increase in coverage possible from 76% in 1998 to 95% in 2002; and the provincial government executed expansion works using funds from its own budget. The flexibility of the agreement, especially in dealing with "unprofitable communities", has helped the concession to develop. The concession agreement establishes that, where it's impossible to derive a profit

from providing services, the concessionaire may propose alternative delivery options to the regulatory agency, but under no circumstances may it cease to provide services. But the provision of “unprofitable communities” has not been implemented yet since the concessionaire and the regulatory agency have not agreed on how to do so. The concession agreement explicitly provides space for renegotiation (to negotiate new areas of the concession) in order to give increased flexibility, which in turn is designed to prevent disruptive renegotiations. The concession is being developed as a partnership between the concessioning entity and the concessionaire. The direct relationship between the concessionaire and the municipal authorities has been key to the concession success (voluntary incorporation of 50 municipalities of the Province).

The concession implicit price schedule has never been implemented, and the current system is viewed as temporary. The price schedule, with a multiple of unclear cross-subsidies, provides no incentives for the customers and for the concessioning entity to reduce losses. Although the original system of subsidies was conceived as a way to compensate the concessionaire for low bill-collection levels, it has become a system of direct subsidies for demand. The subsidies system may collapse because of inclusion-related errors that raise the cost of subsidies for the state (87% of those currently receiving subsidies should theoretically not receive them). Social acceptance of private sector participation in the delivery of utility services requires continuous action on the part of the concessioning entity and the concessionaire in the communities and customers and civil society. In Salta, the regulatory agency has reached out the communities through flexible mechanisms for handling customer complaints and settling disputes.

The establishment of a multisector regulatory agency in the Province of Salta appears to have been well-conceived (shared human resources, uniform criteria, independence vis-à-vis the concessionaires and the government).

*Source: direct contribution – Inter-American Development Bank*

### **Analysis of the concession of water supply and sewerage system in the city of Monteria, Colombia, 2003 (Análisis de la concesión de acueducto y alcantarillado en la ciudad de Monteria, Colombia, 2003)**

In 1994, a new law allowed private sector involvement in delivery of water and sanitation services in Colombia. Signing of a concession contract in Monteria was particularly long and difficult (more than 3 years 1996 – 2000). The concession contract was not an initiative of the municipality of Monteria to solve its water supply problem, but the government and multilateral agencies were launching private participation operations, and found that Monteria offered a good opportunity to implement a pilot project. The FFC (Spain) - Veolia-Water (France) consortium was awarded a 20-year concession contract in 1999. The company PROACTIVA de Aguas de Monteria was formed to manage the concession. The commercial, operational, and exchange risks design and those associated with the construction fell on the concession holder; and the State assumed the risks associated with the uncertainty of rates and regulatory matters, as well as the risk of non-repayment of counterpart contributions by the “municipio” or the national government. In term of water supply the number of users grew from 30.000 to 46.000 in the first 3 years of the concession, surpassing the number of new connections stipulated in the contract. Sewer service coverage rose from 27 to 40 percent. The concession holder also undertook actions to reduce leaks and fraud. During the first months of the concession, relations between

the concession holder and the community were strained because a sudden rate increase was applied before the community had time to perceive improvements in the service. This factor jeopardized further development of the concession.

However some factors have contributed positively. Bidders were required to have experience operating water and sewerage systems and a good reputation (a failure in Monteria could mean losing larger markets). The contract included requirements for policies, fines and formula for terminating the contract for causes attributable to concession holder. The low equity requirements encouraged greater participation of bidders. Investments plans were flexible, and the concession holder was free to meet service targets with the resources available. Although information was lacking for the concession holder (superficial technical assessment, incomplete analysis of demand and willingness to pay), the long-term contract (20 years) made it possible to mobilize a large amount of funds to improve services and extend coverage in the first years of the concession. Flexible institutional environment: contract adjustments prevented from the early termination of the contract. The concession holder and the supervisory firm (agency responsible for overseeing the contract) had a common interest on earning the approval of the population and meeting the terms of the contract. The local government's was not involved in the concession process. The national government provided a lot of sound legal documents. Each step of the bidding procedure was made public and was submitted not only to the supervisory firm but also to the political levels in the city of Monteria through public workshops.

Some negative aspects should be avoided in the future. The municipality should delegate to the concession holder the work needed to acquire land property and to relocate people if necessary. Information gaps during the contract preparation stage can lead to early termination of the contract. The municipality should be supported in framing the private participation processes.

In conclusion, the Monteria project illustrates enormous transaction costs involved in structuring projects for private sector participation in municipal services. The preparation of a well-structured contract as the one of Monteria is unthinkable at the municipal level. The support of the national government is necessary to develop pilot models and capitalize experiences. In large cities, this type of arrangements, if well structured, can provide a definitive solution to sanitation services problems. Institutional mechanisms should be developed based on capitalized experiences.

*Source: direct contribution – Inter-American Development Bank*

### **Japan's ODA to micro-credit programme in Bangladesh**

The Japan Bank for International Development (JBIC) provided a 2.986 million yen loan to the republic of China to be disbursed to the local Grameen Bank, a micro-finance institution, with a guarantee of the Presidency of China for on-lending to rural borrowers to construct or repair housings, wells, sanitation facilities or for capital purchases. The scheme creates makes a borrower group responsible for its members repayment activities. Only after a repayment of a member is completed, the next member is allowed to take out an individual loan. The repayment rate of the project is really high.

The innovative repayment collection system, that applies the force of the peer pressure, incites people to repay the loan and ensures the success of the scheme. Opportunities for cash income, other than only traditional agriculture, are necessary.

Successful cases are more frequent with educated beneficiaries – 94% of the clients are female but the availability of an adult male workforce in the household is a success factor. A micro-credit institution should operate as a for-profit institution and not as a charity organization.

Grameen Bank's micro-financing scheme has been implemented in 34 countries with its replicability proved. To meet the demand of micro-credit and ensure the replicability of the Grammen scheme, the Grameen Bank initiated a training programme for micro-credit practioners, the Dialogue Programme.

Up-scaling of the system could jeopardize the successful payment recollection and cost-efficiency of the loan projects.

Funds provided by development agencies or development banks could be blended with private funding.

*Source: direct contribution – Japan Water Forum*

### **Japan's disaster management structure and local financing**

In 2005, Japanese Government announced it would provide more than US\$2.5 million in the next 5 years for disaster reduction and reconstruction in Asian and Africa, of which US\$1.5 million as grant aids. Japan assisted its municipalities with coordinating and structuring projects on disaster management to be implemented in developing nations. JBIC (Japan Bank for International Development) cooperated with municipalities in Japan with technical, on-site experiences to provide practical assistance requested by local governments in developing countries. JICA (Japan International Cooperation Agency) provided technical training by hosting workshops and site visits in Japan for municipal technicians working in a sector responsible for water and sanitation administration. Water supply and sanitation were the areas of focus.

Direct assistance to local municipalities is preferable since knowledge and techniques are directly put in practice at trainee's home community. Technical cooperation, in which experts are dispatching to provide technical guidance, is proving to be very effective.

Several flood management projects have been implemented in different places in Philippines, in Bangladesh and in Indonesia.

*Source: direct contribution – Japan Water Forum*

### **PPP in water supply project in China**

For the construction of a new water treatment plant and water pipes to supply the City of Chengdu, China, for a total cost of US\$107.6 million, the AsDB provided a US\$26.5 direct loan and assistance in structuring the project and mobilizing additional funds; and EIB provided a US\$26.5 million direct loan to the municipality. The remaining, US\$21.5 million, come from commercial lending. A BOT contract was signed between the municipality and the CGE consortium (Veolia-Water, France and Marubeni Corporation, Japan). This is the first project in China to rely on municipal credit risk without national government guarantee. Thus, the municipality guaranteed to purchase bulk quantities of treated water, reducing investors' risk associated with local competition and uncertainty in the future demand. The project was signed in 1999 and started the plant operation in 2002. Foreign investors started to collect profit in 2003.



Increasing the number of co-investors to collect more financial input is an option to up-scale investment pool but it would complicate the structure of the operation.

The project's financial scheme gained international recognitions for its innovative financing scheme, making the case for international lenders to invest in a long-term, high-risk public utility project in direct partnership with municipality.

Finally, information sharing, efficient communication and trust-building among the stakeholders under a well-defined, careful planning is a prerequisite for successful PPP. Transparency in the bidding process is necessary. Positive and negative impacts need to be examined in advance and understood by all parties to achieve win-win condition. A common ground should be identified to determine equilibrium of different interests.

*Source: direct contribution – Japan Water Forum*

### **Success Factors in Self-Financing Local Water Management from the Netherlands Water Board Bank**

In the Netherlands, the water management system is organized through water boards, sometimes organized in regional unions, represented at the national level by the Water Boards Union. After the Second World War and the floods of 1953, these organizations faced with the task of repairing dykes and pumping stations that were destroyed or poorly maintained. Funds from levy or tax were not sufficient and banks were experiencing a post-war capital shortage. Most of boards lacked the financial expertise to approach the problem or find alternative solutions. The Union of Waterboards could not assume any more its role of intermediary between the water boards and investors to obtain funds and decided to transfer the financial interests of the water boards to a separate legal entity. The waterboards, which are public-sector organizations, decided to incorporate a company under private law, the Nederlandse Watershaphsbank N.V (or Netherlands Water Boards Bank) by becoming shareholders. As the water boards are regarded as credit-risk-free, the Bank was afforded real trust and short term financing was provided by commercial banks. Today, the NWB is regarded internationally as extremely creditworthy (AAA credit rating by Standard and Poor's and Moody's). NWB was asked to advise the Hungarian Water Board Union in the period 1992-1996 to set up its own financial institution, using the Dutch model. But the project never started, probably because of the dissimilar nature of water boards and a tax regime not properly structured.

*Source: direct contribution - NWB*

### **Twinning: Polder systems in the city of Semarang, Indonesia**

On June 2001, the Dutch government and the Indonesian government signed a 2002-2005 MoU. A project was identified that aimed at solving the flooding problems in the seafront city of Semarang. The perspective was that investments in infrastructure would be financed by the World Bank, whereas previous steps such as the realization of a community-based institution would be carried out by the Indonesian and Dutch partners. The objective of the project is to start with the institutional strengthening of local water management by establishing a kind of Water Board Organisation, a Polder Authority set up and (partly) financed by people themselves. The pilot area (Banger area) has been identified in 2004.

Following milestones have to be defined: first polder authority in Indonesia selected by peoples participation, establishment of a polder authority, pilot area that shows that a polder solution works as flood protection within cities.

*Source: direct contribution - NWB*

### **LAC Region decides to launch a program on water and sanitation in LAC cities within the UN-HABITAT W&S Trust Fund**

Latin America and the Caribbean (LAC) decided that, in line with similar programs in Asia and Africa (Water for African Cities and Water for Asian Cities programs), a program on Water for LAC Cities should be established under the UN-HABITAT Water and Sanitation Trust Fund.

In a preparatory meeting for the Fourth World water Forum, participants discussed the four topics of the Forum: Governance, strengthening Institutional Capacities, Value of Water and Participatory approaches.

The participants unanimously endorsed the need for the creation of a program on Water and Sanitation for Latin American and Caribbean cities.

It was considered that since the majority of the residents in the region are and will be living in cities, such a program would have a profound impact on achieving the W&S MDG's in this part of the world

To facilitate this process, the participants recommend the establishment of a dedicated window for a program on W&S in LAC cities within UN-HABITAT W&S Trust Fund. They further recommended development of a strategic partnership between UN-HABITAT and IDB (Inter-American Development Bank) with the aim of facilitating the follow up investments in the W&S Sector.

*Source: direct contribution – UN-HABITAT*

### **Cape Verde – Linking Water Supply and Irrigation Services**

Productive uses of 'domestic' water can lead to improved financial sustainability. Household water users may be more likely to be able and willing to pay water charges when they are cultivating gardens or keeping some livestock as well as consuming water for normal domestic purposes.

In March 2005, IRC undertook a study to assess the financial sustainability of water supply systems for five municipal Autonomous Water and Sanitation Companies (SAAS) on Santiagosland in Cape Verde. Some wellfields here are used to supply water for domestic consumption as well as water for irrigated agriculture around the towns, and the water companies manage supply for both users. But the water companies do not recover enough water fees to cover costs and currently they face serious problems of financial sustainability. The main reason for this situation is a subsidised tariff for irrigation water, which is much lower than production costs that the water companies have to bear. Furthermore the water companies face an additional problem: decentralised government institutions have large outstanding debts owing to the water companies.

The tariffs for irrigation are maximum CVE15/m<sup>3</sup> (USD 0.17) for traditional irrigation and CVE8/m<sup>3</sup> (USD 0.09) for farmers using drip irrigation. These rates are established by the Ministry of Agriculture as an incentive for agricultural production and are beyond the direct control of the water companies.

However, the average cost of production per m<sup>3</sup> to the water companies is much higher: between CVE37/m<sup>3</sup> and CVE110/m<sup>3</sup> (0.42 - 1.24 USD respectively). This difference is paid for by drinking water consumers. The burden falls disproportionately on those who pay the highest prices per m<sup>3</sup>: poor consumers who rely upon water provided by tankers and fountains. Effectively, the poorest in the towns are subsidising the low price of water for irrigation. But the water companies do not have enough drinking water consumers to cover the “hole” in their accounts created by the sale of water for irrigation. Each month, the financial deficit of the water companies grows worse. To make the situation more complex, a poverty analysis shows that the small towns with the highest percentage of extreme poverty (where income is less than CVE 2.403 (27 USD) per capita per month), have the largest irrigation areas. In some cases, the minimum monthly domestic water tariff reaches up to 21% of the income of the poorest.

In this case, due to the way in which tariffs are set, productive use for irrigation from a multiple use water supply is leading to serious problems of equity and financial sustainability which threatens to undermine the entire system.

*Source: Moriarty, P. et al , 2005 through NWB*

### **Sri Satya Sai water supply project, Ananthapur (India): A new approach to financing pro-poor investment for drinking water supply**

The district of Ananthapur, in the Indian state of Andhra Pradesh is the second most arid district in the country. Chronic water scarcity has adversely affected food security and income earning opportunities of the people, particularly the rural poor. Furthermore, the presence of fluoride in the ground water, on which population use to rely, threatens the health of people in the region. Responding to a request of the people, a unique public-private partnership was forged in 1995 at the initiative of the non-profit-making private charitable trust Sri Satya Sai Central Trust. The Trust committed the entire fund (approximately \$ 69 million, coming from community contributions) that was needed for the implementation of this massive project. The Trust launched the Sri Satya Sai Drinking Water Supply Project, implemented through a partnership of Sri Satya Sai Central Trust itself, a civil society organization as the funding and coordinating agency of the project, the Government of Andhra Pradesh as the facilitator through administrative and technical support, a private sector professional organization for actual implementation, and the community and the people beneficiaries of the project themselves for their support and physical contribution.

The project provided 731 villages and 3 towns in Ananthapur District (1 million people) with safe drinking water. After completion, the project was handed over by the Trust to the state government which has assumed responsibility for its maintenance, operation and management in partnership with grass root level democratic institutions. That project presents an innovative model of public-private-people partnership. Key to this partnership is the rare motivation generated by the Trust among the partners. Even after six year of operation, an evaluation study has revealed a rare sense of commitment from all partners. The sustainability of the scheme is probably due to the strong sense of ownership of the communities and to the creation of a Statutory Board in 1997 for operation and maintenance by the state government. Since the completion of the Ananthapur project, Sri Satya Sai Trust has undertaken and implemented equivalent projects in two other arid districts of Andhra Pradesh and a project in Chennai (state of Tamil Nadu). Similar projects are also under way in El Salvador and Mali.

*Source: direct contribution – UN-HABITAT*

## **Twinning water supply for Eastern Indonesia - Preliminary concept and revolving fund mechanism**

The drinking water supply company of Drenthe (WMD), which is owned by the provincial government of Drenthe and 11 municipalities in the Netherlands and is organized as a non-profit organisation, has developed 12 joint venture contracts with 12 local governments in East Indonesia.

The objective is to reforming existing water utilities over a 15-year period into autonomous and financially sustainable utilities. To do so, WMD enters into joint venture with each assisted local government. A limited liability company is formed with 51% owned by WMD and 49% by the local government. The targets are to improve services delivery and improve operational and financial management of the utility. At the end of the 15-year period, the local government has the option to purchase back the assets from WMD. If the value of the assets has increased, the local government will pay WMD the difference. Money received by WMD is reinvested in other utilities using the same mechanism (revolving fund principle).

In a direct response to the Camdessus report, the Netherlands Minister for Development Cooperation launched a series of pilot projects to demonstrate innovative approaches for financing development of water supply services. One of these pilots is the project Water Supply East Indonesia (WSEI), fully geared to rehabilitate financial credibility and sustainability of water supply companies in Eastern Indonesia.

Water supply services in Eastern Indonesia are in critical condition. Infrastructure is outdated, in poor condition and stressed to the limits due to increasing urbanization and water demand. Water quality is very poor. Due to poor services, willingness to pay is as low as 30%, total accounted for water is often above 70%. Water supply companies lack funds, management and human resources capacity to turn the tide themselves. Water tariffs are far below operational costs but poor households without house connection do not benefit from this and need to fall back on high-priced vendor services.

The 12 local governments and water utilities service a total of 600.000 people (92.000 connections). WMD partnerships aim at increase house connections by 500% to over 3 million people in the next 15 years. Joint ventures are in full operation in 3 cities. At least 4 more will start in the early 2006 and many small communities have shown great interest in the approach. In 1994, WMD participated in a twinning project with the local water supply company of Kota Ambon. By 1998, the twinning relationship was expanding to create a joint venture operating agreement between WMD and Kota Ambon aimed at infusing the water utility with fresh management and capital.

Following a significant improvement in the operations of the utility, 15 other local governments and water utilities have contacted WMD to establish similar joint venture arrangements. WMD has now joint venture contracts with 12 local governments.

It is estimated that at least € 100 million is needed over the next 15 years to rehabilitate the East Indonesian water companies within the project. WMD has built up an initial € 11 million to form the East Indonesia Water Fund (€ 3.5 million from WMD and € 7.5 million from the Government of the Netherlands). This initial financing is used to create leverage for further financing by Multilateral Financial Institutions.

### **Slum sanitation in Pune**

Local bodies of Indian Cities are in charge with the responsibility of building and maintaining toilets in slums. But toilets use to fall into disrepair and disuse. The municipality of Pune decided to construct 220 toilet blocks in 1999-2000 and another 220 toilet blocks in 2000-2001 in slums. 440 toilets blocks (more than 10.000 toilets seats, with a ratio of use of 1 seat per 50 persons) have then been constructed at a cost of Rs 400 million. About half of the sums spent were expected to be recovered as subsidy from Housing and Urban Development Corporation, a public sector company, and from the Government of Maharashtra. NGOs were invited to make bids for building toilets and maintain them for 30 years by collecting contributions from the community. 8 NGOs were selected to carry the first phase of the project.

One NGO, Society of Promotion of Area Resource Centres (SPARC), working with people organizations, constructed 114 toilet blocks with more than 2000 toilet seats and more than 500 children's seats thanks to a mechanism of savings and credit organized by women. Women learnt how building toilets and how dealing with the bureaucracy. So that in the 1999-2000 phase maybe half of toilet blocks were built by slum communities and half by contractors under supervision. In the second phase, about of the blocks were taken up by slum dwellers themselves. A caretaker agency has been appointed which pools together the Rs 20 per family and per month contribution, centrally purchases supplies and helps appoint caretaker. Success factors are transparency and democracy, empowerment and capacity building of poor communities, especially women; and the partnership of state government, NGOs, community based organisations.

To replicate the experience, the alliance of SPARC and community organisations had already organized a number of exchange visits between Pune, Mumbai, Bangalore and other cities. Visiting the toilet construction, officials from Bangalore and slum board asked the alliance to build toilets in slums of the city.

*Source: direct contribution – UN-HABITAT*

### **Indo-USAID FIRE-D Case Study: Improving Access to Capital Markets through Performance Enhancement of Local Governments and their Utilities**

One of the ways of improving access to domestic and external capital markers is through improvements in the performance of local governments and local utilities. Several complementary approaches have been used for this purpose. One of them is a joint initiative of The United States Agency for International Development (USAID) and the Government of India launched in 1994 and known as the Indo-USAID Financial Institutions Reform and Expansion (FIRE-D) project.

The FIRE-D project uses a market-based approach to support the development of an infrastructure finance system and improve the delivery of urban environmental infrastructure services, especially, water supply and sanitation services. The core approach is to provide technical assistance aimed at improving technical and financial managerial efficiency of local governments and water and sanitation companies so that they can operate on a cost-recovery basis.

The project works with all three tiers of government in India - central, state and municipal - to create a supportive environment for cities to undertake vital reforms.

The chief characteristics of the approach are as follows:

Placing more emphasis on the role of non-profit community organizations as well as the private sector in complementing public efforts to extend water and sanitation services to the poor.

Helping to develop a structure for local governments to gain access to domestic capital markets through municipal bonds and the adoption of a locally developed municipal credit rating system. (The first of these bonds was the Ahmedabad Municipal Corporation bond which was issued in 1998. Since then, 30 other Indian cities have obtained credit ratings, and seven of these have been able to issue bonds for infrastructure. Ahmedabad used the bond proceeds and a loan guaranteed by USAID to build the Raska water supply system that serves 60 percent of the city population)

Introducing urban management reforms, particularly in financial management and accounting practices. (Through the help of this project, a technical guide on municipal accounting was prepared to spur reforms)

Developing state-level policy framework for water and sanitation services, and developing a national policy framework for improving solid waste management  
Sharing lessons learned through the establishment of a training network, organization of study tours, formation of city managers associations, and the establishment of a website.

#### Lessons Learned:

A number of lessons have been learned from this approach. It has demonstrated that significant achievements in creating access to financing are possible through capacity building. The specific achievements of the project at the national level include the preparation of a policy framework, creation of legal and fiscal incentives for local governments and utilities, and preparation of guidance on improved resource mobilization. Market-based financing options that have been introduced under the project include: municipal bonds, tax-exempt bonds, pooled financing development facility, and guidelines for financing options. The project has also helped to produce a model municipal law with sections on municipal organization, how to conduct business, and a structure for community participation in local government decision making, among others.

At the state level, the project has helped in the preparation of guidelines and a manual to improve municipal financial management through double entry, accrual-based accounting in Tamil Nadu. A Pooled Financing Development Facility developed under the project was first used in Tamil Nadu for water supply projects in 14 small and medium-sized cities. The Development Credit Authority of USAID issued a partial guarantee of the principal.

At the local level too, the project has achieved significant results, especially, in capacity development for project formulation, access to financial markets, enhanced creditworthiness, and in the promulgation of tools for financing and development of commercially viable water supply and sanitation projects. It has also introduced incentives to help local service providers to develop a track record of debt servicing, starting with small loans, which would facilitate their access to private funds. It should be possible to replicate this experience in other parts of the world, especially in small urban areas in middle-income countries.

*Source: UN-HABITAT, 2006 "Second Global Report on Water and Sanitation in the World's Cities: Secondary Urban Centres" forthcoming.; Note -2 on USAID'S FIRE-D PROJECT IN INDIA". Unpublished internal document of the Government of India and the USAID.*

### **Output-based Subsidies, the success and failure in Guinea**

Prior to the establishment of a contract, Guinean households paid US\$0.12 a cubic meter (1989 U.S. dollars) for water provided through the grid. This was far below cost-recovery levels. Initial projections showed that, to cover costs and ensure financial viability of providing expansion of water services over time, the average charge to consumers would need to rise to US\$0.76 per cubic meter in 1995, and then fall back to US\$0.68. This implied a tariff increase of up to 630 percent.

In 1989 the government decided to move towards cost recovery for the services; but it wanted to avoid a major tariff shock. To this end, it entered into a lease arrangement for private operation of water services in the capital city, Conakry, and 10 other cities and towns. At the same time, it secured a credit from the International Development Association of the World Bank Group (IDA) to be used over the first six years of the contract to subsidize a declining share of the private operator's verified supply costs. Through this arrangement, it was possible to gradually phase in the water tariff, starting from its pre-1989 level, in until it reached the cost recovery level. This arrangement also made it possible to introduce a transparent, limited duration (six years) subsidy of the consumer tariff while easing the burden on consumers and demonstrating improvements in performance before the full costs of planned improvements showed up on consumer bills.

Following an initial lump sum payment to the operator, the Guinean government disbursed the credit based on independently audited statements of collections by the lease contractor, issued every four months. Access to the credit was thus directly linked to service delivery and collections performance.

The contract provided for consumer prices to be adjusted based on a cost-plus formula, intended to reflect changes in service for the private operator (lease contractor) and the asset owner. Based on this cost adjustment process, the tariff continued to increase after the subsidy was phased out, reaching US\$0.83 in 1996, then holding constant in local currency for the rest of the lease contract. By late 1997 the minimum bimonthly payment for service was about US\$13 per customer - very high given household incomes. The result was a steep fall in collections and a rise in inactive connections.

The high tariff costs were driven in part by low labour productivity, a large continuing presence of expatriate staff, high debt servicing costs, and considerable bad debt. Moreover, regulatory pressures to control these costs were weak - as reflected, for example, in the government's failure to renegotiate a reduction of the lease contractor rate or revise the cost indexation formula after four years of operation. Complicating matters were disputes between the operator and the assets owning company over definitions of water losses and hence responsibility for actions to reduce them.

Although the contract led to many service improvements, it did a poor job of reducing physical and commercial losses and in achieving big improvements in access. These failures probably also contributed to the high tariffs, because production inefficiencies could be passed through to the tariff, and slow progress on connections meant that capital costs were covered by a small customer base. With the high price of water from the network, many residents could not or would not pay for it: in 1994 nearly 12,000 connections were inactive because of nonpayment.



As tariffs rose, collections fell to around 50 percent in 1991–92, rising to about 60 percent in 1993–96. Collecting from the public sector proved even more problematic, particularly after the early years of the contract, with collections falling to 50 percent in 1991 and 10 percent in 1993.

The lease operator sought legislation to penalize illegal connections and facilitate recovery of arrears, but the legislation failed to receive political support. Following this, little attempt was made to eliminate illegal connections.

#### Lessons Learned:

While the subsidy scheme worked smoothly, operating and regulatory performance were mixed. In a way, the use of a cost-plus formula largely neutralized the effect of the performance based subsidy; it did not provide sufficient incentives for cost cutting by the operator. Besides, there was lack of clarity about assignment of responsibility between the operator and the asset owner. This led to quarrels between the two. Furthermore, government contributions to the operator revenues were not guaranteed, and they fell behind.

Guinea's experience illustrates the challenges of creating effective performance incentives for private operators when regulations and monitoring are weak and the operator is not fully subject to commercial risk. The lease contract in Guinea, which expired in 1999, was not renewed, and the international partners left the country in early 2001.

*Source: Brook, Penelope J and Alain Locussol. "Easing tariff increases: Financing the transition to cost-covering water tariffs in Guinea". OBA Homepage, [www.gpoba.org](http://www.gpoba.org).*

#### **Output-Based Aid consumption subsidies in Chile**

The Chile started to reform its water and sanitation sector in the late 80's. New tariff setting methodology aimed at raising water prices to the true economic cost of the service. Introduction of individual means-tested, output based water consumption subsidies in the early 90's. Households that would be unable to pay for subsistence level consumption can benefit from the subsidy, which covers the shortfall between actual charges and willingness to pay (5% of the monthly household income). The subsidy follows as a rising block tariff model. By law, the subsidy can cover 25-85% of the water and sewerage bill for up to 20 cubic meters a month, with the client paying the rest. All consumption above this limit is charged at the full tariff to the consumer. In accordance with the law, companies bill the beneficiary client net of the subsidy amount and bill the municipalities for subsidies granted (the municipalities pay the subsidy from the earmarked funds they receive from the central government). The municipality is then a client of the service provider and can be charged of interests for late payment. In 1998, nearly 450.000 subsidies were distributed nationally.

The subsidy scheme has allowed Chile to raise water tariffs to levels reflecting costs without compromising its social and distributional goals. After the reform, water and sewerage companies reported a surplus of more than 3 times the cost of the subsidy scheme (excluding administrative costs). The cost for the government has been low.

Meter reading is a prerequisite for the Chilean system to work. Countries with low coverage of meters cannot use the system without extensive modifications. The means tested targeting requires a certain amount of institutional capacity, especially at the municipal level. Even in Chile, some municipalities still lack sufficient capacity to administer and control the subsidy scheme. Countries with less

institutional capacity could adopt simpler targeting mechanisms, for example a scheme based on a geographic poverty map (like in Colombia). Moreover a scheme using a connection rather than a consumption subsidy will require less institutional capacity since eligibility must be evaluated only once. Such an individual means-tested subsidy may be expensive to apply. Chile uses the same targeting instruments to distribute several welfare benefits, which lowers administrative costs. Applying such a scheme for only one subsidy programme may be too expensive.

*Source: Andrés Gomez-Lobo Making Water affordable: output-based consumption subsidies in Chile, OBA Book Homepage*

### **Public private partnership for sanitation sector financing - CAIXA Econômica Federal do Brazil**

Caixa Economica Federal do Brazil finances social programmes, including housing and educational programmes for the low income citizens. It is the principal governmental entity responsible for financing urban development and sanitation. Caixa is an important partner to Brazilian states and local governments in financing investments for basic sanitation, housing projects and other urban infrastructure works.

The Federal Government's programs in the field of sanitation and infrastructure are addressed to promoting the improvement on the population's health situation and quality of life, by investing on undertakings addressed to improving the scope of services on water conveyance, sanitary sewerage, urban draining, treatment and final disposal of waste, and studies and projects.

In the Caixa budget for 2004, US\$ 918 million were assigned for investments on sanitation and infrastructure.

Investments are supported by FGTS (Fundo de Garantia por Tempo de Serviço) resources. FGTS has been established in 1966 to provide the worker with a reserve related to the time in service in one or more companies in the event of dismissal, among others, as well as to fomenting public policies by financing programs on popular housing, basic sanitation and urban infrastructure. CAIXA, as the FGTS operating agent manages resources amounting over US\$ 52 billion, and a record of 447 million FGTS-related accounts of workers and 2 million of enterprises that monthly contribute to the Fund, what brings CAIXA to controlling the 3rd greatest record in the world.

The balance for the portfolio of investments on housing, environmental sanitation and infrastructure is US\$ 23,2 billion. Such resources provided for jobs generation to millions of Brazilian citizens, while contributed to reducing the deficits on housing, water and sewerage, by expanding housing supply, access to treated water, sewerage solution and improving urban collective transportation, thus providing dignity and citizenship to the Brazilian civil society.

The operationalization of this Fund endows CAIXA with the role of major agent of implementation of public policies and Governmental programs addressed to housing and environmental sanitation areas.

*Sources: IGD local action form for the 4th World water forum and Caixa best practices programme website [http://melhorespraticas.caixa.gov.br/sobre\\_caixa.asp?idioma=#item1](http://melhorespraticas.caixa.gov.br/sobre_caixa.asp?idioma=#item1)*

### **Tariff setting to connect the poor: Cancún and Isla Mujeres (Mexico)**

In 1993, population in the northern part of the state of Quintana Roo – mainly Cancun and Isla Mujeres – was growing at rates never experienced in the country, attracted by the expectation generated by the booming tourism industry. From 1976 to 1993 population grew 15 percent per year reaching 250 thousand people. Only 61% of the population had access to running water in their homes, and only 30% sewage. Sanitation was only for the hotels. 15 thousand families received water from communal fountains. From 1994 to 2005 population doubled, reaching 550 thousand inhabitants. Hotel rooms went from 18 thousand, to just over 26 thousand. By 2004, the area was hosting more than 3 million tourists a year. On top of that, urbanization plans were not respected, and most housing developments was outside the planned areas.

The challenge of the local authority was to provide services to continue the expansion of the tourist industry, and at the same time, reduce the infrastructure divide with the city. All amidst an explosive population growth rate, a relatively un-experienced government and only recently created public institutions.

Under these conditions, the government proposed an alliance with a private company, whose mandate was to extend the water and sanitation infrastructure to the entire population. To finance this project, a tariff structure was proposed based on cross subsidies from the hotels and tourist industry to the population at large. Upfront investments would have to be made to address infrastructure gaps.

In these years, water and sanitation services grew faster than population and tourism. There were 40 thousand water connections in 1994, by 2005 there were almost 140 thousand. In other words, while population doubled, water services more than tripled. At the same time, water production increased a little less than 40% due to improvements in the distribution system. Since 1994, 3 waste-water treatment plants have been built and are operational. Almost 80 thousand connections are metered, which represent nearly 90 percent of water consumed.

By the end of 2005, coverage levels were 100% water supply, 85% sewage and 100% sanitation (all collected water is properly treated before returned to the environment). At the same time domestic tariffs have remained lower, compared to other tourist areas and similar size cities. Hotels represent less than 1% of the customer base, consume nearly 30% of the water produced, but account for almost 60% of the revenues of the water system. Domestic users represent 93% of the connections, 61% of the water consumed, and only 27% of the revenues.

Besides the rapid population growth, the relatively non regulated urbanization and the recently created institutions which were mentioned earlier, it has to be mentioned that less than two years into the project, the county underwent a major economic crisis. The inflation rate soared, the peso lost two thirds of its dollar value and financial markets were inaccessible. On top of that, public investment stalled. Locally, the state government underwent reiterated political crises, which implied a credibility loss in front of society and federal institutions. Since the beginning of the project, there have been four municipal and two state elections.

At the country level, there was enacted a new water law, plus various institutional rearrangements, mainly the conformation of the Comision Nacional del Agua

(CNA) and the creation of the Environment Ministry under which scope is located the CNA. In sum, in twelve years the institutional, political and economic contexts have undergone various periods of instability. In spite of these, the project has continued and delivered good results.

What we have learned in our experience to effectively transfer resources from the rich to the poor is summarized in the following lessons:

In many water systems there is a small group of large users, which account for 30, 40 or more of the revenues of the company. They are industries, hotels, wealthy communities with large houses, ships, etc. These consumers represent an opportunity to generate financial resources to improve services to less advantageous users. 60% of revenues in the Cancun and Isla Mujeres region are provided by these group.

Even when large users finance the largest proportion of the system, everyone has to pay for water services. That would motivate rational consumption, facilitate social cohesion by granting rights and obligations to everyone, create a sense of ownership of the system, among others. 98% of water bills are paid for in Cancun and Isla Mujeres.

Notwithstanding the opportunity that large users represent, efficiency is a necessary condition to transform water revenues from large consumers, in improved access to water and sanitation services to all, but in particular to poorer communities. It is also a basic condition to transfer resources to environmental protection. Cancun is a unique case in Mexico, where all investments made in the last 12 years have come from the water company, and not from government subsidies. Furthermore, the water company has paid an important amount of money to the government via concession rights and other taxes.

Efficiency is not a goal in itself, it is the result of aligned incentives. Separating technical operational functions from political and regulatory ones, creates a favourable environment to be efficient. Quintana Roo has developed one of the most advanced regulatory frameworks for water operations. The state sets targets and standards, and supervises their accomplishment. The company operates according to those targets and standards.

Technical expertise is crucial, particularly in rapidly changing conditions. Given the high population growth rates and the relatively unplanned urban development, the company in charge of the system has been put to test over and over. The last episode was hurricane Wilma, the strongest ever recorded in the Atlantic. Hours after the hurricane, the population had access to water via truck or directly in water reservoirs put to function by the company. Less than seven days after, the system was reestablished and running water was pumped to all connections, even prior to the arrival of electricity in some cases.

*Source: Institute of Delegated Management, 2005.*

### **Decentralised cooperation between the SEDIF and the city of Pech Changva, Cambodia**

Cambodia is a small country of 11,5 millions inhabitants. 85% of the population live in rural areas. The country did not have any national government for 20 years and for the past 10 years, the State has been rebuilding. Ministries are still facing many difficulties in designing, implementing and coordinating priority policies.

In the field of water supply, only 25% of the population has access to an improved water supply system. To build the necessary infrastructure, national authorities rely on international funding, which is needed to supplement currently insufficient private investment.

The project carried out by the SEDIF (Syndicat des Eaux d'Ile de France) aimed at improving water supply in a rural areas and to design a replicable model. The project concerned the municipality of Pech Changva (70 km from Phnom Penh) with a population of 3.312 inhabitants.

SEDIF worked in partnership with a French NGO, Gret, and local partner organisations responsible for project implementation. Sedif and Gret ensure that local populations are informed and are involved in the decision process. The Cambodian local authorities, with the support of the Gret undertake the direct management of projects. In turn Sedif offers financial support, training and technical advice as well as assistance with planning, budgeting and institutional development.

The project carried out by the SEDIF is in accordance with the Santini-Oudin French Law that allows communes, public inter-communal cooperation establishments and the authorities responsible for the public service distribution of drinking water and sanitation to assign a maximum 1% of their water and sanitation budget to cooperation actions with foreign local authorities in the fields of water and sanitation.

This is a pilot action to support the design of a water policy in rural areas in Cambodia. Up-scaling to other villages and cities is envisaged.

The Cambodian government decided to promote a demand-led approach, linked to the decentralisation of public authority. This approach is based on local will, expressed and asserted at the same time in the definition or the acceptance of the investments to be made and in the choice of investment management system (users association management or delegation to a private operator). Moreover, the follow-up and the control of network managers requires a proximity that only the local level can guarantee. Within the framework of the installation of a true policy of water service with contractual obligations, control will be stronger and if it is locally exerted. And adequate resources are essential (training, knowledge sharing, support of professional actors players etc.). Social engineering is a big issue in the development of basic services.

The SEDIF carried out the project actions within this framework, and its commitment to development values such as participation, learning, capacity building, appropriate technologies ensure sustainability of these actions.

This is an initiative that could be replicated by other local authorities in France, and indeed is being replicated already in Europe. The SEDIF's example has shown that the combination of public mobilisation and water-industry support can leverage not only significant funds for water and sanitation projects, but can also impact national government policies. A representative committee of French local authorities decided on the level and the implementation of the fund. The key to such a strong and committed donor base is regular communication. SEDIF endeavours to enable local people to make informed choices about the water and sanitation services that best suit their needs and, wherever appropriate, to be involved in the building and ongoing management of their projects.

*Source: direct contribution - SEDIF*

### **Jakarta Water Supply - Output Based Aid, an instrument to boast coverage expansion**

In Jakarta, like in other developing countries, poor communities have little access to piped water. As a result, they either use contaminated ground water from shallow wells or pay exorbitant fees to water carriers. The Greater Jakarta area has a population of 8 millions inhabitants, and is supplied with water through two concession agreements. The purposes of the concessions managed by PALYJA, are both to increase access to piped drinking water and to improve the levels of services, as well as drinking water quality. In Western Jakarta, after 8 years of activities, PALYJA extended the service coverage from 30% in 1998 to 55% end of 2005, investing 90 million USD. The concession contract states as technical target access of 60% of the population to the water distribution network for 2007.

In spite of a severe financial and socio-political crisis, which stroke Indonesia in 1997 and lasted a few years after, PALYJA maintained the level of investment that had been contractually negotiated with the authorities. Actually, sales in water distribution service have arisen of 50% since 1998, allowing the network extension to be entirely financed by the concession agreement itself, without any governmental subsidies. 150,000 new customers have been connected (+ 70% of customers), while the number of low-income customers has grown by over 400%. All in all, one million people may benefit from those network extension and additional service connections.

In order to accelerate the expansion program, and to improve the level of services offered to low-income communities (particularly those living in illegal settlements areas), as well as for those living in already covered areas, Output Based Aid (OBA) projects will be implemented. They are targeted investments aiming at improving access to piped water services for the urban poor of Jakarta. The grant will amount a maximum 5 millions USD, which will be equally shared between the Western and Eastern concessions.

Thanks to this OBA project, PALYJA will expand services to the poor in 2006. After the set up of the OBA mechanism, the households' demand have been identified, as well as the level of community organization, PALYJA has designed a catalogue of service levels and commercial options to be offered to low-income communities. Therefore, 5,000 - 10,000 new connections should be delivered for low-income communities in the current year.

### **Matching Demand with Supply: The EUWI Water Finance Guide**

The European Union Water Initiative (EUWI) is an effort to increase the effectiveness of the significant financial and technical resources available within the EU and its Member States for overseas development assistance, in order to maximise its individual and joint efforts in meeting the needs of the world's poorest and achieving the Millennium Development Goals for water and sanitation (<http://www.euwi.net/>).

In 2003, the EUWI established a Finance Work Group (FWG), which performed several studies around finance mechanisms in the water sector. The FWG is made up of representatives from a variety of organisations from different sectors, EU member states, government departments, private sector funders, private sector operators, NGO's, and bilateral and multilateral donors from the European Union but also from other regions in the world. These organisations have significant experience using finance mechanisms in developing countries.

Through the FWG's exploration of finance mechanisms for the water sector, it became apparent that an information gap exists about how finance mechanisms work, and how they are used. Whilst some donors and International Finance Institutions provide information about their financial products online, there are no comprehensive sources of information about the universe of products on offer and how they work, particularly in relationship to the water sector (which includes water governance). Information about finance mechanisms from a demand-led perspective is patchy and often anecdotal, rather than organised in any systematic way.

Within the European Water Initiative, a website has been setup as a first response to the identified gap (prototype under development at <http://financeguide.euwi.net/>). The objective is to provide users of finance, typically in developing countries, with a means to identify different types of finance mechanisms that are available for the water sector, how they work (broadly), and provide linkages to other sites on the Internet, which can provide additional details and information. The present Water Finance Guide website is a first step towards creating a highly interactive "one stop" source of information about the range of finance mechanisms available for the water and sanitation sector, to increase knowledge and capacity for accessing finance.

The Water Finance Guide website is intended to be used by three groups of audiences:

- **WHAT-questions:** people who do not know anything about finance mechanisms and its instruments. For instance, people who want to know what a municipal bond is or what output based aid involves. This audience will be served with a glossary.
- **HOW-questions:** people who want to have a guide through concrete examples from other situations. For instance, people who want to understand how a mechanism is being applied in the water and sanitation sector, who want to learn from other people's experiences, failures and successes. This audience will be served with case stories.
- **WHERE-questions:** the website provides functionality equal to a marketplace. It enables demand and supply to be brought together.

The Guide provides an interesting opportunity to bring information together from various sources of supply of finance mechanisms and instruments. As such, the Water Finance Guide aims at creating synergy and preventing duplication of efforts. For this to work however, input and cooperation from a variety of finance providers is required both within and outside the European Union.

### **The Veolia – Greater Lyon solidarity fund for water**

The water department of the Greater Lyon Council allocates 0.4% of its water and sanitation revenues (i.e. nearly €500,000 per year) to capacity building activities in partner towns via decentralized cooperation programmes (€200,000); and to infrastructure financing in developing countries through a Veolia-Greater Lyon International Solidarity Fund for Water (€300,000).



The Fund, created in 2003, finances selected projects led by local NGOs under funding agreements. In F.Y 2005, the Fund has financed drinking water and sanitation systems in Madagascar, drinking water boreholes in Burkina Faso, drinking water connections and sanitation network for schools in Morocco and restoration of networks in Moldavia.

The first decentralized cooperation programme was signed with water offices in Beirut, in 1999. The agreement was extended in 2003. A new cooperation agreement has been signed with Madagascar in 2006. Such cooperation agreements are signed between the water department and a foreign local authority responsible for public water services. The objective is to reinforce the capacity of the public authority to improve the quality of services. Employees of the Greater Lyon water department provide training and technical support, and share their experience with employees of the partner water authority. Permanent representatives are also present in the field to ensure programme coordination, and partners are invited to visit the water department in Greater Lyon.

These programmes build long-term relationship and promote partnership and exchanges rather than transfer of knowledge. Programmes are underway in Lebanon and Madagascar.

*Source: direct contribution – Greater Lyon Council and Veolia Water*

### **THE ACP-EU WATER FACILITY: Innovative project development and financing to bring water and sanitation to the poor**

In 2004, the EU - ACP Council proposed and endorsed the creation of an ACP-EU Water facility to be endowed with an amount of 500 million Euro, to be made available in 2 tranches. A first Call for Proposals was launched in November 2004.

On the 31st of January 2005, the EC received 800 preliminary proposals. The total amount of presented projects was approximately 5 billion Euro, with a requested co-financing from the Commission for 2.75 billion Euro. The enormous demand for financing in the water and sanitation sector in the ACP countries by far surpassed expectations.

After a 2 phase evaluation process, 97 projects for a total requested amount of 230 M€ compared to a total project amount of 412 M€ (including other contributions) were selected. A reserve list is added containing 39 projects representing a total amount of 78M€. These projects have received sufficient scores for the various award criteria but cannot be financed because of limits to available funding.

The Call for Proposals covered 3 components: (i) Co-financing management improvement and governance of water; (ii) Co-financing of water and sanitation infrastructures; (iii) Co-financing initiatives of civil society.

A first analysis suggests that through these 97 selected projects (i) about 10 millions people will benefit from access to drinking water by 2010 and (ii) approximately 5 million people will benefit from access to sanitation by 2010.

Although the results of the evaluation process have not yet been studied in detail, the following can already be said:

First of all, a Call for Proposals of this size to select projects in the water and sanitation sector is a novel in itself for the European Commission. The usual way of project selection for projects to be financed from the European Development Fund (EDF) is through dialogue with the national authorities of the ACP countries, not through competition.

A second innovative element is the fact that through the call for proposals, a whole array of new partners in the implementation of projects is coming up. This time not only the national authorities are part of the game, but a whole series of institutions and bodies that otherwise never would be involved in the implementation of the EDF. They are being added as development partners, like NGO's, municipalities, regional and basin organisations, groupings of people, etc.

Before the launch of the Call for Proposals, potential applicants were encouraged to form partnerships and to present innovative set ups, on financing arrangements, on partnerships, management structure, or otherwise.

The high number of applicants and the relative high quality of proposals coming from Non-State Actors (NGO's and decentralised entities) were not only proof of the high interest amongst these stakeholders but also of the potential to forge partnerships with them in the financing of water and sanitation projects.

The 1st Call for proposals has shown that the applicants have presented many proposals that are innovative and creative in it self. Or in other words, the call for proposals method functioned as a channel allowing creative proposals from interested and motivated stakeholders to be presented for financing. Proposals containing the mobilisation of local private capital and the mixing of grant and loans are just a few examples.

The key element in the Call for proposals is competition. Only the best rated projects are being financed. In order to succeed, a proposal therefore has to contain all the assurances of viability, sustainability etc. These assurances are given, not asked for. This is contrary to the classical project selection approach, where assurances are obtained through mutually agreeing on conditionalities. It will be interesting to see whether there will be differences in the implementation and "ownership" of water and sanitation projects because of this different approach.

The relative short time it takes from submitting a proposal to obtaining a decision on financing (when successful) is another positive element of the call for proposal method.

*Source: EUWF Direct Contribution*

