

**OECD INFRASTRUCTURE AND POVERTY  
REDUCTION TASK TEAM: WATER  
INFRASTRUCTURE FOR POVERTY REDUCTION  
FINAL REPORT**

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Commissioned by  
Swiss State Secretariat for Economic Affairs (seco)

Zurich, 22.November 2004

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## Part I: Background and Major Issues

Although not considered as a sector capable to contribute much to macroeconomic growth, investments in the domestic water supply and sanitation sector have considerable **impacts at the meso and micro level of the economy** and in particular with regard to the reduction of poverty and the improvement of the livelihood of the poorer segment of society. Investments in drinking water and sanitation yield high economic dividends: significant reduction in disease, averted health-related costs, time savings to bring the water from the source to the homes, which usually transform into higher productivity and better attendance to school, benefiting to a large extent the more vulnerable segment of society: poor people, women and children.

In adopting the **Millennium Development Goals** (MDG) the countries of the world pledged to reduce by half the proportion of the global population without access to safe drinking water and to basic sanitation by 2015 and to achieve universal access to water supply and sanitation by 2025.

Water is one of the most important issues in the world and achievement of water security will do more against poverty and for development than any other conceivable action.

The contribution of water and sanitation investments to advance the other Millennium Development Goals is considerable:

<b>MDG Goals</b>	<b>Contribution of improved drinking water supply and sanitation</b>
Goal 1: Eradicate extreme poverty and hunger	<ul style="list-style-type: none"> <li>- Reduced sickness of adults and children due to safe drinking water and adequate sanitation results in higher productivity</li> <li>- Reduced health costs which are a big burden to poor families</li> <li>- Healthy people are better to absorb nutrients in food</li> <li>- Higher productivity due to reduced time to collect water</li> </ul>
Goal 2: Achieve universal primary education	<ul style="list-style-type: none"> <li>- Better school attendance due to better health and reduced time to collect water</li> <li>- Separate sanitation facilities for girls and boys in schools increase girls' school attendance</li> </ul>
Goal 3: Promote gender equality and empower women	<ul style="list-style-type: none"> <li>- Improved health, less care-giving for sick children and reduced time for water collection give women more time for productive activities, education and leisure</li> <li>- Water and sanitation closer to homes reduce risks of assault for women and girls while collecting water or searching for privacy</li> </ul>
Goal 4: Reduce child mortality	<ul style="list-style-type: none"> <li>- Improved sanitation and drinking water sources reduce child mortality</li> </ul>
Goal 5: Improve maternal health	<ul style="list-style-type: none"> <li>- Improved water sources reduce labour burden and health problems, reducing maternal mortality risks</li> <li>- Safe drinking water and basic sanitation at home and in health-care facilities ensure basic hygiene following delivery</li> </ul>
Goal 6: Combat HIV/AIDS, malaria and other diseases	<ul style="list-style-type: none"> <li>- Improved sanitation and drinking water sources, and water management in human settlements reduce water-bound diseases and transmission risks of malaria and dengue fever</li> </ul>
Goal 7: Ensure environmental sustainability	<ul style="list-style-type: none"> <li>- Adequate treatment and disposal of waste water contributes to ecosystem conservation and to the reduction of the pressure on freshwater resources</li> <li>- Careful use of water resources prevents contamination of groundwater</li> </ul>
Goal 8: Develop a global partnership for development	<ul style="list-style-type: none"> <li>- Development agencies and partnerships recognise the fundamental role of safe drinking water and basic sanitation in economic and social development</li> </ul>

The **funding requirements** to achieve the Millennium Development Goals are huge. For drinking water supply, sanitation and hygiene it is estimated that around 30 billion US\$ would be required annually which would mean that the present allocations to the sector would have to be doubled<sup>1</sup>.

<sup>1</sup> Financing Water For All, Report of the World Panel on Financing Water Infrastructure, March 2003 ("Camdessus Report")

To overcome the deficiencies, finance will need to be drawn from all sources. Today domestic governments cover most of the cost of new investments, with the balance coming from foreign aid, international loans, private investment and voluntary donations. Water users barely pay the running costs of their services without any contribution to capital costs.

The **financial sustainability** of water and sanitation services has to be substantially improved through intelligent financing models and the introduction of sustainable cost-covering tariffs for water use and sanitation services combined with targeted subsidies for the poorest.

**Participation of women** it is a specifically important issue in the water and sanitation sector. Women and children are suffering most from poor access to water and sanitation and can also benefit most, provided their participation in all aspects and at all stages of project development, implementation and operation is guaranteed. Women will also be able to transform the benefits gained through improved access to water into economic activities and consequently enhance the livelihood of their families.

An **integrated approach to water supply**, linking domestic water supply to sanitation and waste water treatment, hygiene and water saving education, and integrating small scale productive water use is essential to maximise the positive effects of water provision on the livelihood of the poor.

## Part II: Issues and Possible Joint Positions

The following layout includes aspects of:

- **Decentralisation:** the roles of central and local governments, water utilities, municipal and communal water organisations and the private sector with regard to regulatory frameworks, planning, engineering, project implementation and operation, use of local resources for investment and maintenance.
- **Sustainable service delivery:** methods of targeting the poor, the role of subsidies and tariff structures to achieve a balance between affordability and financial sustainability, and the involvement and role of the private sector in service delivery.
- **Governance:** accountability, competence and capacity building of public water institutions; development of regulatory frameworks; participation of the poor and women.
- **Other issues** raised by the member countries or deemed important by the Consultants.

Different approaches are required and should be discussed for the above aspects for:

- rural areas and small towns
- urban and peri-urban slums
- urban centres.

This Final Report contains a compilation of "Issues" based on the questionnaire, complemented by issues from the literature survey and considered to be relevant by the Consultants. Under "possible joint positions" the answers to the questionnaires, see Annex, the results of an analysis of strategy papers on poverty reduction and water published by member countries (as far as available and not dating back more than 5 years) are compiled, complemented and adjusted by the results of the Berlin workshop.

Specific project examples submitted by the member countries have been analysed and selected. These are presented in boxes in the text to strengthen the understanding on a possible common position on water and sanitation issues.

The evaluation of the answers to the questionnaires showed not very promising results with several member countries not replying comprehensively to all the

questions and many of the answers remaining on the surface of the problem. The analysis of published strategy papers of the ODA organisations of various member countries, which have been consulted in addition, did provide some essential additional indications for possible joint positions. During the Berlin workshop, several issues could be clarified, allowing formulating joint positions more precisely.

The water and sanitation field is very broad and we have restricted the analysis to the sub-sectors most relevant for poverty reduction, i.e. to domestic water supply (drinking water and small scale commercial uses) and sanitation in rural and urban areas.

## 1. Decentralisation

### 1.1 Division of roles between central government and local institutions

#### **Issues**

- Roles of central and local government, municipalities, water utilities and community-based water organisations in investment planning and resource allocation, planning and designing of water infrastructures, project implementation, and operation and maintenance.
- Importance of independence of water and sanitation organisations from political pressure and direct political influence.

#### **Box 1.1: Serving sparsely populated and poor rural communities in Guyana**

DfID together with the World Bank, Caribbean Development Bank, Inter-American Development Bank, EU and European Investment Bank is supporting the Guyana Water Sector Programme (GUYWASP). The programme aims at achieving healthier and more productive lives for poor people by providing universal sustainable access to safe and affordable water.

The Hinterland population is by far the poorest in Guyana but neglected due to the high cost per capita of interventions. One component of GUYWASP is aimed at ensuring that the new publicly owned operator (merger of two former public utilities) has the organisational infrastructure and human resources to maintain adequate services to the Hinterland communities. The programme has been designed to encourage community-managed supplies in the rural communities to reduce the high costs of centrally managed and maintained systems. The water company will then only be liable for providing technical assistance as and when required. One, as yet unresolved, issue relating to this set-up is that of ownership and hence liability of assets.

- Importance of sector reform and new regulations at central government and municipality level, to facilitate decentralisation and new models for investment and operation.
- Influence of decentralisation on the role and the voice of the poor.

### **Possible joint positions**

- The member countries agree that decentralisation in domestic water supply and sanitation can contribute to poverty reduction and allow to address in the longer term corruption issues, but donors have to make sure that decentralisation leads to increased accountability, focuses outputs on the

#### **Box 1.2: Water sector reform programme in Zambia**

GTZ in cooperation with KfW, DED and CIM implements a programme in Zambia that addresses primarily poor sections of the population (especially women) in periurban areas, and the urban population. The programme consists of four components: (1) policy advisory services on urban water management, (2) management consultancy for two water utilities, (3) policy advisory services on rural water and sanitation (in cooperation with KfW), and (4) policy advisory services on integrated water resources management.

The sector policy entails the separation of functions, devolutions of WSS service responsibilities to local level with the involvement of consumers, improvement of service delivery, increased Government spending, use of appropriate technology, cost recovery in the long run and universal coverage. In order to achieve this, the Government of the Republic of Zambia set out seven sector principles as a guide and established the „National Water and Sanitation Council“ (NWASCO) to implement the policy. Another permanent institution that was established was the Department of Infrastructure and Support Services to mobilise funds for investment and elaborate the WSS policy. Service provision has been devolved to the local authorities, which are to set up CUs and could engage the private sector in order to increase efficiency and separate policy making functions from service provision.

The separation of functions among different institutions enabling them to focus better and increase transparency, as well as the involvement of more stakeholders has brought many opportunities but made the system more complex. Consequently, strong cooperation among the actors is required. The water sector has suffered serious lack of coordination so far but efforts to improve the situation are being made.

benefits of the poor, increases participation at the local level and happens in a context of a responsible social policy. Decentralisation of responsibilities has to be linked to fiscal decentralisation, i.e. central governments have to ensure that adequate resources are available at local level. Decentralisation requires that the central governments accept their responsibility for the

related reform of the sector including the legal and regulatory frameworks and the establishment of independent regulatory bodies.

- Lack of well-functioning local government structures, of technical and managerial know-how and appropriate financing mechanisms, and resistance to decentralisation from central governments are the focal problems leading to failure of decentralisation efforts. This requires specific interventions aimed at:
  - capacity building of local governments, municipalities and water organisations;
  - making available the necessary financial resources on local level;
  - improving the involvement of local institutions in decision making and implementation;
  - increasing ownership and participation of the population, in particular the water users;
  - improving transparency and accountability of local government institutions and water organisations;
  - increasing independence of water and sanitation organisations from direct political pressure and influence, and channelling political interests into a structured and transparent planning and decision-making system.
- This requires donor support to related government reforms and their implementation and monitoring, including assistance to the development and implementation of the legal and regulatory framework.

## 1.2 Local resources for investment and maintenance

### **Issues**

- Lack of funds of local governments, municipalities, and water institutions for infrastructure investments and maintenance; utilisation of local resources for investment and operation; need for fiscal decentralization for the budgeting and funding of investment, operation and maintenance. Over-dependence from central government funding and delayed or inexistent fund transfers, minimum local tax revenues, inadequate water tariffs, inexistence of local funding institutions, and limited local technical, managerial and financial know-how and capacity lead to inadequate funding of investment and maintenance and to low quality of services in water and sanitation.

- The majority of the world's poor population lives in rural areas and urban slums, in financing terms in high risk – low profit situations. It is unlikely that these areas can attract major private investments.
- Possibilities of budget support funding by donors; systems of donor and counterpart funding; direct donor funding of sub-sovereign governments, municipalities and water institutions.
- Innovative approaches to address local resource constraints on water and sanitation infrastructure investment, operation and maintenance: e.g. in-kind contributions of the water users to the investment, acceptance of sustainable tariffs as precondition for outside financial inputs, water users determine the quality and quantity level of their services, availability and access to domestic capital e.g. through local banks and micro finance institutions.
- Methods and principles to establish and operate, in a financially sustainable manner, an autonomous water supply and sanitation institution with reflection of the interest of the poor.
- Problem of domination by local elites and patronage: Achievement of transparency through democratic processes (approval of budgets, tariffs, accounts, election of the executing organs) within water organisations resulting in improved accountability.

### **Possible joint positions**

- As the bulk of the investments in water supply and sanitation is presently funded by governments with only around 5-10% from ODA, the direct influence of the donors on funding mechanisms is limited. Donors should therefore increase their grant funding and link their investment projects to strong components of institutional and administrative reform, capacity and institution building at all levels and related technical assistance. Related conditions should be agreed during project formulation and enforced during implementation.

- Innovative approaches are necessary to mitigate local resource constraints:
  - Promote local and/or self-financing institutions (e.g. credit agencies owned by municipalities for municipalities, local banks, saving schemes, water funds, micro finance) that will allow municipalities, communes and local enterprises to access loan financing. Donors can support this through provision of guarantees, insurances and risk sharing opportunities and assistance to the development of local capacities.
  - Support stable, robust and shock-resilient financial systems in partner countries and strengthen appropriate funding mechanisms that link domestic capital markets to poor people's own resources.
  - Promote and support municipal and communal water organisations, participative planning and project definition, in-kind contributions of the beneficiaries.
  - Through intelligent financing models combining government contributions and well-targeted grant funding of investments by donors with affordable

**Box 1.3: Promotion of local currency provision to viable infrastructure projects**

GuarantCo is a Private Infrastructure Development Group (PIDG) investment DfID, Sida, seco, EIB and FMO/DGIS. GuarantCo's role is to promote local currency provision of capital to viable infrastructure projects in low and lower middle income countries by addressing (i) transfer, convertibility and devaluation risks derived from mismatching revenue streams and foreign currency borrowing in project finance structures; (ii) the costs for hedging above risks when available; and (iii) the absence of local long-term bank funding.

GuarantCo will help mobilise local currency debt with long tenors without the requirement for sovereign counter guarantees. Its main product will be guarantees of long-term bonds. By providing "investment grade" credit enhancements, GuarantCo will compensate for local investors' limited capacity to assess default risks. In this manner, GuarantCo will facilitate for project companies to place debt instruments with domestic institutional investors. In addition GuarantCo will help develop local capital markets.

The 'GuarantCo' vision is therefore to support the creation of financial capacity and know-how and in doing so increase the role of local currency in infrastructure financing. The objective is not to create an institution for the sake of it. To realise this aim, however, it will be desirable to set up an insurance entity which will enable GuarantCo to underwrite the local currency financing of both PSP and municipal infrastructure projects. Supported by technical cooperation funds, this will help create a centre of excellence in local currency financing issues, necessary to the adoption of such solutions in infrastructure provision.

The challenges of providing local currency support to such transactions in such countries should not be underestimated, however. In addition to the economic conditions being right (in terms of relatively low and stable domestic inflation and a level of short term government borrowing which does not crowd out private sector activity), the regulatory environment (particularly that regarding capital markets) needs to be conducive.

local credits, financially sustainable and affordable tariffs may be achieved, acceptable to a large majority of the population.

- Promote private sector participation to increase efficiency and to reduce costs.
- Avoid or gradually reduce donor contributions to operation, maintenance and depreciation costs over time and enforce their replacement by local resources of the water organisation.
- Insist on project-specific central budget allocations to local budgets and enforce timely fund transfers.

### 1.3 Participation of the private sector

#### **Issues**

- **Private sector water operations:** policies and measures to make service delivery by the private sector efficient, reliable and affordable for the poor segment of society. Regulatory framework and appropriate form of contract for the service provision by the private sector: Transfer of ownership (privatisation), long-term concessions, lease, and management and service contracts.
- Involvement of the **local informal sector** (e.g. water vendors) and local small scale independent providers, required regulations to protect the poor, capacity building, benchmarking.
- Involvement of the **local private sector** to provide water- and sanitation-related goods and services: engineering, construction, supply of materials and equipment, installation, maintenance, repair and its significance related to the system costs and for the indirect targeting of the poor (job creation).
- Methods and measures to support and to promote the local private sector to improve performance through capacity building, technical assistance and training.

#### **New trends:**

Past experiences with privatisation and concession projects show, that the high expectations with regard to securing infrastructure financing, lower costs, higher

reliability and efficiency of services have often not been achieved. Therefore new approaches are under discussion:

- Involve the private sector primarily in all areas where competition exists, i.e. in engineering, construction, manufacture, installation and maintenance.
- Avoid private companies as owners of natural monopolies.
- Promote the local private sector.
- Involve private operators, international and local, under competition and short or medium term management or service contracts only.
- Promote ownership and management responsibility of municipal and communal water organisations.

Seco together with Swiss Re, an international reinsurance company, are jointly developing guidelines for private sector participation in the water supply sector, which may be relevant for the further discussions (see [www.pspwater.org](http://www.pspwater.org) for details).

### **Possible joint positions**

- Private sector development is a tool for poverty reduction. It plays an important role in terms of job creation, knowledge acquisition, technology transfer and generation of fiscal revenues.
- Public and private sector partnerships (PPP) are important to combat poverty. Partnerships with the private sector help focus the role and responsibilities of the state on its core functions of regulation, promotion of favourable framework conditions for growth and poverty reduction, and ensuring sustainable financing of social and public services.
- In the water supply and sanitation sector this implies in priority the involvement of the **local private sector** providing water-related goods and services: engineering consultants, construction contractors and suppliers of materials and equipment including installation, maintenance and repair service providers. The role of the local private sector can be significant in terms of reduced system costs and indirect targeting of the poor through job creation. This requires support to the local private sector in various aspects: business development and management support, technical know-

how transfer, access to credits and guarantees, assistance in developing local supply chains. The development of the local private sector can be further promoted by facilitating cooperation between local and international firms and firms in other developing or transition countries (match making), and investment facilitation.

- Involvement of the **local informal sector** (e.g. water vendors) and local small-scale **independent providers** running small networks from some households to 100'000 customers often linked to the network of the public or private operator, particularly in urban slums and low income areas. This requires capacity building support and adequate regulations to protect the poor.

**Box 1.4: Ways of promoting the local private sector: water kiosks and franchising**

GTZ in cooperation with KfW, DED and CIM implements a programme in Zambia that addresses primarily poor sections of the population (especially women) in periurban areas, and the urban population.

As part of the component "policy advisory services on urban water management", water kiosks are promoted and constructed with financial support of a Devolution Trust Fund. While the water provider engages the community in the establishment of the kiosks, the provider remains responsible for the operation. Private vendors (at least 50% are women) are contracted by the provider so the system can be managed in a simple and transparent way. Billing of vendors is done according to metering which also leads to the reduction of water consumption. Kiosks under professional operators linked to the main network can offer low social tariffs and still meet operation and maintenance costs. Water kiosks are also an interesting source of income for private vendors if their number is limited.

ONEP (Office National de l'Eau Potable) is mostly a bulk water supplier operating in Morocco. The challenge for ONEP is to (i) supply many thousand customers more in (ii) many more villages and small towns where the utility is already losing money and (iii) to stay financially and autonomous (no subsidies).

In order to reduce costs in small towns and villages, ONEP uses three main contracting arrangements: (a) Outsourcing technical services to local enterprises (but turnover in village is not enough to keep alive a professional enterprise), (b) Outsourcing some retail sales (standposts), and (c) Franchising local small enterprises for water distribution. Franchising is the most promising solution to cut running costs in rural solution areas: a contract for all the local operations is feasible: operating the system, managing the standposts, installing house connection, managing customers (metering, connection, billing, recovering).

- Advantages of private provision of water and sanitation services by larger **national or international water companies** can be increased efficiency and reduced cost, and the ability to bridge the huge financing gap through securing infrastructure financing. Alternatively to privatisation and long-term

concessions as supported by IBRD and other donors in the past, medium term leases, management and service contracts are to be promoted to avoid monopolisation by private enterprises and to keep the system ownership in public hands, combined with incentives for the private sector to serve low-income areas.

- The following conditions are essential to make **private provision** of water and sanitation services pro poor:
  - Legal, political and financial frameworks which make the poor financially attractive.
  - Political and stakeholder commitment to maximise pro-poor benefits.
  - Adequate capital and insurance markets and guarantees.
  - Incentives to attract private operators to rural and poor urban areas and to maximise their efficiency.
  - Strong regulations, the existence of an independent regulator and financial transparency.
  - Transparent and competitive procedures in selecting and contracting private operators.
  - Competence and capacity in the public sector for tendering, contracting and monitoring.

## 2 Sustainable Service Delivery to the Poor

### 2.1 Targeting the poor

#### **Issues**

- Methods and specific criteria of targeting the poor directly (area /geography, income, women/female headed-households).
- Roles of NGOs, local governments, municipalities, user groups, and the private sector in effectively targeting the poor.
- Targeting mechanisms through micro credit systems (connection costs).
- Approaches towards targeting the poor indirectly.
- Enhancement of the effects of investments on the livelihood of the poor e.g.

through combination of drinking water supply and sanitation interventions with hygiene education and with domestic water supply for commercial uses at household level.

- Ex-ante poverty impact assessments of projects and their linkage with broader programmatic impact analysis at sector and national (PRSP) level.

### **Possible joint positions**

- Providing access to affordable water and sanitation services has a significant direct impact on the poor. This does not happen automatically. It is therefore important to develop guidelines to targeting the poor directly and to enhance the effects of access to water and sanitation on the general livelihood of the poor.
- Targeting the poor implies targeting rural areas, urban slums and conflict-affected areas with special emphasis on the most vulnerable segment of society. A view on the latest WHO assessment report<sup>2</sup> would also justify concentrating water and sanitation interventions to rural areas, urban and peri-urban slums.
- Efficient targeting requires access to the right information sources, has to be gender sensitive and can be geographic. Information sources for targeting the poor are national/regional statistics on income and health (IBRD, UN), government statistics, HDI ranking, information bases of NGOs and interviews. Invisibility and illegality (e.g. in slums) of the poor is a crucial political obstacle to effective targeting. Effective tools for targeting are Participatory Poverty Assessments (PPA) and Sustainable Livelihood Analysis.
- NGOs, user groups and the local private sector have an important role in effectively targeting the poor and have to be involved.
- Ex-ante poverty impact assessment should be increasingly adopted as an important tool to improve targeting and to enhance the poverty reduction effects of infrastructure projects.
- Integrated monitoring systems and periodic evaluations are necessary to

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<sup>2</sup> Meeting the MDG Drinking Water and Sanitation Target. A Mid-Term Assessment of Progress. WHO and UNICEF August 2004

assess efficiency, effectiveness and benefits of ongoing projects in achieving the poverty reduction targets and to enhance the quality of the learning process.

- Direct targeting the poor through establishment of well-designed systems of subsidies and the establishment of micro-credit schemes or special funds to pre-finance connection charges.
- Indirect targeting the poor through engagement, promotion and support of the local private sector providing all types of water-related goods and services with subsequent job creation for the poor, see chapter 1.3.
- Promote the integration of productive aspects of water and waste (house gardens, animal husbandry, handicrafts, etc.) to enhance the effects of investments in water and sanitation and increase the family incomes and improve the livelihood of the poor.
- Combine investments in water supply with sanitation and wastewater treatment, hygiene and water saving education.
- Interventions in the water and sanitation sector should be aligned with the national PRSP.

**Box 2.1: Ways of targeting the poor**

AusAID focuses in its infrastructure development project in the Mekong Delta Region of Vietnam on rural areas and services to vulnerable families defined through family composition, e.g. women headed, single parent, minority group and poor.

JBIC supports a project on rural water supply in Tunisia. This project is to increase access to safe water in the 100 poorest counties across Tunisia over the 2004-06 period by constructing and rehabilitating water supply facilities, and by assuring operation and maintenance with local community participation.

Under this project, target regions are selected through compilation of each county's Poverty Indices such as Headcount Index of Poverty and Human Deprivation Index. The former uses the proportion of subsidy to the poor family among national family assistance program (PNAFN) as a proxy. The latter is composed of the following four indicators; (1) ratio of lack of access to the health services, (2) female illiteracy ratio, (3) primary school dropout ratio, (4) ratio of population lacking the access to safe water. Once a poor county is defined by the poverty indices, subprojects are selected taking into consideration of the existence of the basic information such as water resources and village population, investment amount per capital and per water source.

## 2.2 The role of subsidy and tariff structure

### Issues

- Options, models and methods for designing and implementing water and sanitation projects and programs to achieve the right balance between affordability of access and financial sustainability of operation (cost recovery) and to assure affordable and reliable water supply and sanitation for the poor in both urban and rural areas.
- Tariff structures and their implication on targeting the poor: advantages/disadvantages of increasing block tariff IBT (progressive tariffs), design of alternative pricing systems.
- The impacts of indirect tax rate increases, enforcements in revenue collection and increased profitability of the operators, increased quality of the technical systems, cream skimming in infrastructure planning and investment slowing down investments in the poorest regions, on the poverty situation.
- The role of the water users and their organisations to decide upon the quality and quantity level of water services they can afford and are willing to pay.
- The role and importance of subsidies for better service delivery for the poor and methods of designing pro poor tariff structures and systems of subsidisation.
- Possible sources of subsidies: (a) cross subsidies within a system (rich>poor) or within a country (urban>rural); (b) ODA funds; (c) government funds.
- The importance of water metering, transparent water billing and customer-friendly payment systems.

### Possible joint positions

Sustainability and affordability of water service provision remains an important issue. Focusing access of the poor may imply lowering tariffs which is against the

financial sustainability of the operating body. The use of subsidies can often not be avoided but has to be designed, targeted and implemented with care.

In many cases financially sustainable tariffs can be achieved, provided that the users and their organisations have the right to decide upon the quantity and quality level of service they can afford and they are willing to pay. Combined with user contributions to the investment cost (e.g. in-kind contributions), government funds and targeted grant funding by donors, the right balance between affordability of access and financial sustainability of operation can be achieved, and affordable and reliable water supply and sanitation services for the poor in both urban and rural areas assured. Subsidies are then only required for the poorest of the poor. In rural societies it is often usual custom that the community allows the poorest to receive water free of charge.

- Acceptance of the basic principle of financially sustainable tariffs for water supply and sanitation to achieve long-term sustainability of the systems, where necessary complemented by well-designed subsidies for the poor.
- Select low-cost approaches and appropriate technologies for construction and operation. Prefer rehabilitation of existing systems instead of new construction.

**Box 2.2: Revolving fund for financing new connections in poor areas**

Seco supports the financing of infrastructure projects with non-refundable grants. The project in El Alto (Bolivia) is the first project of this kind and aims at connecting the poor and densely populated district no. 7 of El Alto to the communal water supply and sanitation network.

The WSS services are operated by a private operator (concession awarded in 1997). Based on the contract the operator is not obliged and has no commercial interest in extending the network to district no. 7 that is not part of the core service area. The extension of the primary infrastructure, i.e. main connections and the treatment plants, is therefore financed by the donors and the house connections (low cost condominial approach) are financed in advance. The connection fee can be reduced by in-kind labour contribution but has to be repaid into a revolving fund within 5 years. New connections will then be financed by the revolving fund; it is estimated that 18'000 new connections will be financed with the 4.5 mio USD of the revolving fund.

In order to adapt the project to local conditions and to include health and livelihood aspects into the project activities, local community is encouraged to participate in construction services and a community strengthening program is carried out. Technical assistance is provided regarding the construction of sanitation facilities (sanitation support program).

- Give priority to local funding of investments including in-kind contributions of beneficiaries.
- Demand-responsive approach: Technology level, quality and quantity of services are selected by the community / consumers.
- Introduce water metering, transparent water billing and customer-friendly payment systems combined with water saving education to reduce water consumption and costs.
- Subsidies are often necessary to achieve affordability for the poor, who cannot pay more than 3-5% of their household income for water and sanitation. Subsidies should ideally cover connection charges or should be "smart", i.e. transparent, time-bound and carefully designed, implemented and monitored.
- Use of micro-credits to pay connection charges in cases where expected productivity gains of water provision would make repayment over time feasible.

### 3 Governance

#### 3.1 Accountability and capacity building of water institutions

##### **Issues**

- Direct political influence and interferences in water operations, lacking know-how and training, weak overall institutional capacity, inexistence of transparent incentive systems, lack of regulations for private sector operations, weak and intransparent financial situation of project partners, and corruption at all levels are the major governance problems.
- Governance problems with private and public infrastructure investment, operation and maintenance. Issues of equity and social obligation of the general community to the poor through the policies of infrastructure institutions. Low accountability and transparency of water related institutions in developing countries.
- Reasons and conditions to prefer provision of water services by public water

utilities, community- based water organisations and/or NGO-based provision system.

- Methods and measures to support and to promote public and community-based water organizations to achieve good performance in water operations through institution and capacity building, technical assistance and training including south-south know-how transfer and public-public partnerships.
- Requirement to set clear and quantified targets and milestones and to establish a continuous public monitoring and periodic evaluation of performance and improvement of services provided by the (public or private) water operator.
- Approach towards partner demands on infrastructure investment, operation and maintenance.
- Promotion of public participation and the formation of water user committees through complementing investment projects by stakeholder participation programmes with the aim to achieve social justice in the level of services and the tariff structure.
- The role and significance of improving access of the public to information through establishment of proactive information systems, and establishing customers' services and customer complaint centres.
- Requirement to establishment dispute-resolution mechanisms to manage conflicts peacefully at local level.
- Tackling corruption in implementing projects and programs.
- Tackling corruption on the daily business level (speed money, water meter reading, etc). According to some surveys this is a major issue and affects especially the poor (exclusion of service, increase in effective cost of water).

### **Possible joint positions**

- Sustainable and reliable provision of infrastructure services requires efficient operation of service providing institutions. Such institutions must be operated and managed by commercial principle, based on transparent incentive structures and avoiding the kind of inefficiency and lack of accountability that was common in public institutions. Thereby the focus has

to be rather on performance and success criteria than on the question of public or private provision.

- The following measures are promoted to improve the situation:
  - Clear definition of roles and functions of the project partners and definition of targets and milestones during project design; close monitoring and evaluation during project implementation.
  - Technical assistance to build, support and strengthen municipal and communal water organisations.
  - Design and introduce demand-oriented and participative investment planning and monitoring tools.
  - Improve performance of water organisations through application of business management concepts, introduction of financial autonomy, independence from political interference, concentration on core services and outsourcing of non-core services.
  - Fight corruption through setting up of transparent systems and procedures at all levels, support of related government efforts, and introduction of “good governance” conditionalities.

**Box 3.1: Reinforcement of self-organization of target group in Tanzania**

The project ‘Water supply Uroki-Hai District, Phase I, Tanzania’ was initiated by the German Federal Ministry for Economic Cooperation and Development (BMZ). It’s aim is to reduce the health risks for the population living on the western slope of the Kilimanjaro in the Hai District – including the residents of the district centre Uroki Boma N’gombe – resulting from diseases directly induced by water. The main project purposes were reliable supply of hygienically safe drinking water for the target group that meets their basic needs and an improvement in hygiene practices. To this end, water was collected along the western slope of the Kilimanjaro at springs and mountain streams and then conveyed to the consumers via supply mains.

The project’s key socio-cultural effects are its reinforcement of the self-organization of the target group, which founded an efficient operator organization on its own initiative. This also strengthens village democracy. Within Tanzania the user-based form of organization of a Water Supply Trust is considered exemplary. The project illustrates the high degree to which participatory project design can have a positive influence on project success.

- Appropriate new institutional alternatives to the traditional public sector monopoly in water supply and sanitation are
  - private provision of services, see chapter 1.3
  - commercially operated public provision of services
  - user partnerships.

- Under the following conditions **public provision** of water and sanitation services remains the preferred option:
  - In conflict and disaster affected areas or in areas with high concentration of low income, i.e. low profitability.
  - Lack of capacity and financial strength of the local private sector combined with lack of interest of international water companies.
  - Natural monopolies combined with inadequate policies, weak regulations and lack of local monitoring capacity.
  - The existing public utility is run efficiently and independently, covering the long-term operation and maintenance costs.
- Ownership and management responsibility by **local public institutions** including community-based water organisations is often the best option in rural areas.

**Box 3.2: Capacity building and framework for monitoring and evaluation**

The aim of AusAID's project in Vietnam is to improve the welfare of the residents of Bac Lieu, Ha Tien and Sa Dec through rehabilitation and extension of water supply, sanitation, drainage and solid waste facilities and services and development of the capacity of the local institutions and community groups.

Measurement of how the project activities are addressing the given objectives is through the monitoring and evaluation framework developed for the project. AusAID has very good performance monitoring tools including Technical Assessment Groups which periodically visit the project sites and review progress as well as six monthly reporting against performance key indicators. The framework is good at reporting on the design and physical outputs of infrastructure, but evaluation of impact of projects needs to be improved. While the framework is comprehensive the collection of reliable information has been problematic and is an area for development.

## 3.2 Participation of the poor

### Issues

- Problems in employing participatory approaches and how to address them including participation of the poor in infrastructure activities and to the management of water supply and sanitation institutions.

- Involvement and equitable participation of all relevant stakeholder in planning, implementing and operating, importance of power-balanced partnerships.
- Experience with pro-poor water sector reforms and level of their participation, influence of the voice of the poor at the regulatory body.

### **Possible joint positions**

- In order to maximize the impact on pro-poor growth, participation of the poor during project design and implementation is important. Participation of the poor in the design phase can ensure that projects are designed and implemented in ways that incorporate their needs. The poor can also benefit through direct participation in the construction/execution phase of a project, i.e. by employment.
- The replies to the questionnaires mainly mention problems to involve the poor without proposals for solutions and also the Berlin workshop did not provide additional inputs to this issue:
  - Employing participatory approaches in development activities is very time-consuming, especially for the women.
  - Difficulties to identify local leaders that truly represent the poor.
  - Channeling funds through local groups with little or no formal standing is difficult to impossible.
  - Long consultation processes are necessary.
  - Difficulties to reach and to involve people including the poor are highest in urban areas.
- User participation including participation of the poor in all relevant stages of a WSS project is increasingly important and should be further promoted. This requires access to information and capacity building. NGOs and the media can play an important role to create awareness and to provide information.

**Box 3.3: Participation of beneficiaries with special emphasis on women**

JBIC supports a project on rural water supply in Tunisia that aims to increase access to safe water in the 100 poorest counties across Tunisia over the 2004-06 period by constructing and rehabilitating water supply facilities, and by assuring operation and maintenance with local community participation (see Box 2.1.).

This project requires voluntary participation of the local beneficiaries for its planning, operation, maintenance and management. For this reason GICs (Groupement d'intérêt collectif), associations of the beneficiaries, must organize themselves by the time the water supply project begins. The particular nature of GIC is the fact that it is in a form of corporate entity and the governor of the respective prefecture must authorize their establishment. GICs are governed by a General Assembly comprising its members and a Board of Directors made up from executive members selected at the General Assembly. The GIC establishes a contract with the regional branch of the implementing agency for the operation, maintenance and management of each water facility. A separate contract is established between the GIC and the beneficiaries, in which the beneficiaries pledge to pay for water at the price determined by each GIC as well as the annual fee, and engage themselves to conserve water and appropriately maintain the facility.

The studies conducted during the project preparation phase revealed low level of participation of the women in the beneficiaries' associations. In order to reflect women's views at each stage of the water supply project, female sociologists and facilitators were assigned in awareness raising programs during the period when the beneficiaries organized themselves. In addition, the following measures are taken in this project; (1) the Regional Agricultural Development Office invites such NGOs as promoting women's participation to the social and economic activities and other parties of the similar nature and (2) the project associates with the other gender awareness programs conducted in the same area.

### 3.3 Regulatory framework

**Possible joint positions**

- The introduction of **integrated water resource management** (IWRM) and the understanding and agreement of all stakeholders that water has to be managed and protected on basin level considering all resources (rainfall, surface water, ground water, backflow), and uses (power, domestic, industry, agriculture, ecosystem including water quality, flood and drought control) is the essential precondition to achieve sustainable water use and to avoid water-related conflicts. The importance of cross-boundary and cross sector water management, i.e. the allocation of water to the various users and countries based upon hydrological forecasts and enforced through hydrological monitoring is increasingly recognised.

- Necessary reforms of the political, legal and regulatory framework for the water supply and sanitation sector. Central governments bear the main responsibility in the reform process. Related bureaucratic resistance has to be reduced.
- Creation of regulatory institutions independent from government at the appropriate level: national (more independence from local power and influence, more sector know how and possibility to compare) or local/regional (more attuned to specific local conditions and customs, more exposed to local pressure)?
- Necessity to address legal issues related to illegal settlements (i.e. in urban and peri-urban slums) like property rights and tenure security, through development of legal or extra-legal forms of ownership of land and related assets
- Governance can be strengthened by supporting measures from donors. Such «soft» measures must be at the policy level, e.g. sector policy dialog with the authorities, at the institution level, e.g. assist in building local government institutions and promote participation and awareness of the water users, and/or at the operational level, e.g. improve performance of water organizations through application of business management concepts, introduction of financial autonomy and independence from political interference. In order to reach a multiplier effect of governance-enhancing measures coordination of donors is essential.

## 4 Other Issues

- Problems to define and to assess poverty.
- Donor coordination: Need for harmonisation of regulations, methods, equipment, institutional arrangements and procedures between donors, e.g. through information networks, resource centres, coordinated approaches at country level, sector professional networks and organisations (e.g. GWP, WSSSCC, etc.).
- Division of roles / tasks IFI – bilateral organisations: Increased cooperation between Development Banks and bilateral donors to link up bilateral inputs to major credit schemes and to coordinate the new sector thinking and reforms. Develop and implement joint funding mechanisms.
- Links with the health sector
- Interdependence of investments in various sectors, potential synergies and higher effects on poverty reduction through multi- and cross-sector approaches and integrated development strategies.

## ANNEX: Summary of the Answers to the Questionnaires

Common and different elements in the approaches used by the DAC member countries in reducing poverty through water supply and sanitation infrastructure are highlighted below. All findings are based on the answers given in the ten questionnaires that were submitted by the DAC member countries, i.e. Australia, France, Germany, Ireland, Japan, Sweden, Switzerland, United Kingdom and United States of America as well as from the International Labour Organization (ILO). A synoptical analysis of all questionnaires is available with the Consultants.

The questionnaires are in general not very detailed and it is not clear whether the statements given are in line with the policies and/or strategies defined by the bilateral development agencies of the respective countries.

### 1. Decentralization

#### *a) Division of roles between central and local government*

Although the advantages of decentralisation are widely acknowledged, all countries agree that there are many problems and constraints for providing infrastructure related to decentralisation. The major constraints mentioned are:

- Insufficient capacity at the designated level of decentralisation (limited technical know-how, lack of managerial know-how)
- Lack of involvement of local communities in planning and implementation
- Lack of local financial resources, i.e. limited access to investment but also inappropriate management of incomes of the water services
- Unclear competences/responsibilities between local and central governments

Specific problems related to decentralisation that are reported:

- USA encounters in its programs in Iraq and Afghanistan security problems.
- A general resistance towards decentralisation can be observed in Nepal.

ILO mentions that there is little hard evidence for a systematic relationship between decentralisation, economic development and poverty reduction.

The responding countries agree that financing capacity building programs for local authorities is a good measure to leverage the effects of decentralisation. Besides this, the answers on how to approach the constraints mentioned above in their aid programs and/or projects widely differ:

- Australia and Germany both support governance reforms/national legislation in partner countries
- Switzerland and ILO suggest to coach representatives of local beneficiaries and to facilitate community participation in planning and implementation of infrastructure projects
- Switzerland tries to clarify the roles and competences of all actors and to define clear milestones that can be monitored
- ILO tries to see the constraints related to decentralization not as an excuse but to regard them as challenges and address the problems seriously. For example does ILO attempt to see the involvement of local politicians not as a negative impact but tries to channel interests of local politicians into a structured planning system in which transparency and decision making is secured in an orderly manner.

*b) Local resources for investment and maintenance*

Few answers are given when asked about the problems that are encountered by the donor countries in designing and implementing aid projects/programs in terms of counterpart financing:

- UK and USA agree that budget releases are often delayed due to administrative bottlenecks or non-existent (Nepal, Iraq, Afghanistan)
- Japan, Switzerland and Ireland would like to have adequate financing to cover recurring costs or maintenance.
- Japan thinks that water tariffs are kept too low for political reasons.

- ILO states that local governments often have low tax revenues, limited technical capacity, and are over-dependent on funds from centralised agencies.

Different examples and innovative approaches are given on how to address the lack of funds of the local governments:

- UK suggests to find in-kind contributions, e.g. in the form of direct work (Germany), or other innovative solutions to resolve lack of funds.
- One measure to efficiently use the limited local funds is to award proposals submitted by local communities. Other approaches are to give guarantees to local financial institutions or to decrease donor contributions over time which forces local governments to seek for own resources (Pakistan).
- Ireland and USA would expect to receive in-kind or cash contributions from communities to projects where priority is given by the communities. The in-kind contributions have to be identified in the project design.
- Switzerland requires from the recipient countries specific budgetary allocations in the local budgets or tries to find a solution with the central budget. Local authorities should be allowed to decide independently about setting tariffs or taxes.
- Australia, Germany and Switzerland believe that institution building measures, technical assistance and a trend towards privatisation will lead to cost reduction and efficiency gains.
- Japan wants to provide incentives to local beneficiaries to bear the costs.

## 2. Sustainable service delivery to the poor

### *a) Targeting the poor*

All respondents with the exception of Japan use geographical criteria (rural areas, small towns, poor neighbourhoods) to directly targeting the poor. Beside this common approach there are other criteria and approaches used to identify the poor:

- While Switzerland conducts analysis of countries, others rely on national and/or regional statistics on income and health that is provided e.g. by the World Bank, exchange information with governments, NGOs or conduct interviews with the poor (Japan).
- UK uses HDI ranking or specifically helps conflict affected areas.
- Australia invests in regions where no other donors or NGOs are working.
- Germany mentions 'invisibility' and 'illegality' of poor as crucial political problems

Based on the questionnaires, NGOs, user groups and the private sector all have an important role in effectively targeting the poor:

- UK and Ireland think that NGOs play a very important role in identifying targeting the poor.
- USA made the experience that NGOs are often the principal implementers for SME and other small scale water projects in poor areas, especially in regions where the local government is weak (Ireland).
- Switzerland thinks that NGOs and local small scale private sector are important for serving the poor that are not connected while the international private sector helps improving the efficiency and effectiveness of the services.
- Australia has experience in involving communities by the local service authority (India, Vietnam).
- Germany regards NGOs as 'voice of the unheard' or an agent that ensures information flow in both directions.

Switzerland was the only country to give an answer to its approach towards attributing impact to the indirectly targeted poor. They try to integrate productive aspects of water and waste, e.g. gardening or animal husbandry, which should lead to an increase in the families' incomes.

Few experiences are given for ex-ante poverty impact assessment:

- UK is about to introduce a Livelihood and Social inclusions Monitoring System

- UK and Switzerland strongly link poverty impact to PRS impact assessment (Tanzania).
- Germany experienced sometimes discrepancies with national data. Also results may be difficult to accept and therefore to adopt by national governments.

*b) The role of subsidy and tariff structure for striking a right balance between affordability for access and financial sustainability of operation (cost recovery)*

Few and unclear answers are given to the question on how the issue of access versus affordability can be addressed:

- Switzerland tries to select sectors where cost recovery is high.
- Australia supports low cost approaches.
- Ireland thinks that 95% of capital costs for Water Supply and Sanitation has to be funded in rural areas. Technology should be chosen and maintained by the community.

Some examples but also constraints are given to the question on how the private sector can make service delivery efficient, reliable and affordable:

- Switzerland sees the private sector as a way to secure financing for infrastructure. The Swiss Government together with the reinsurance company Swiss Re is elaborating Guidelines for Private Sector Participation that aim reducing the risks of private sector involvement in the water sector.
- Ireland, France and Switzerland see a need for strong regulation and financial transparency to make sure that poverty reduction is achieved.
- Ireland and France advocate for transparent award of contracts and the introduction of competition.
- Incentives for serving rural areas (Japan) or to maximize efficiency (Ireland) are proposed.

The following conditions allow for public provision of water services:

- UK sees public provision when conflicts, disaster or high concentrations of poor/low income areas exist.

- Conditions for the USA are a lack of capacity or financial strength of the local private sector, natural monopolies combined with an inadequate policy, or when local monitoring or regulatory capacities are insufficient (Japan).
- France support public provision if profitability is low.
- Switzerland allows only for provision of purely public goods and if free-riders can not be excluded, or if the public utility is efficiently run and independent from politics (Germany), or if revenues cover the long-term operation and maintenance.

All respondents regard subsidies for the poor as a necessity. Concerning the role and design of subsidies, the following opinions can be summarised:

- UK and Germany prefer rising block-tariffs and subsidised connection charges that help ensure a minimum service level for the poor (Guyana).
- USA think that subsidies should be established and managed separately from the delivery of the service.
- Switzerland and Ireland see the main problem to affordable consumption in the connection fees rather than the consumption fees. An alternative approach to subsidies could be micro-financing systems or income generation.
- Ireland thinks that subsidies for sanitation have to be accompanied by a strong program of hygiene education.

### 3. Governance

#### *a) Accountability and capacity building of infrastructure institutions*

- UK, Switzerland and Germany see the inference of politics/governments as one of the main governance problems with public infrastructure investment.
- USA, Germany, Japan and Australia identify the lack of training and overall institutional capacity as critical.
- UK and Australia would like to have more transparent incentives structures.

- Other governance problems that are mentioned: corruption (Germany), poor and intransparent financial situation of partners (Japan, Switzerland), lack of regulation of the private sector (Ireland)

Only few answers and approaches are given on how to address low accountability and on the role of technical and financial assistance (TA):

- UK suggest firstly to build, support and strengthen CBOs to hold service providers accountable (also Ireland), and secondly to implement monitoring tools.
- Switzerland tries to clearly define the roles and functions of the project partners and to define milestones that can be evaluated. Withdrawing from a project as a last option.
- UK strongly focuses on TA that also leads of limited expenditure.
- Germany and Ireland agree on TA for demand oriented investment planning and limited financial cooperation to bridge the investment deficit.

All countries (no answer from Japan and France) agree that corruption should be tackled through setting up transparent systems and procedures, support of governmental efforts and introduction of good governance practices.

*b) Participation of the poor*

- UK sees one problem of employing participatory approaches in high number of development activities that can become very time-consuming, especially for women.
- USA think that it is difficult to identify local champion or decision-makers that truly represent poor groups. Also it is difficult to channel funds to sub-sovereign groups that have little or no formal standing.
- Germany experience is that it is much more difficult to involve people in urban than in rural areas.
- Switzerland and Japan see a problem in taking into account everybody, e.g. women are not reflected.
- Japan mentions the long process of consultation that is needed to reach an agreement.