WASH scenarios for 2015: A trends analysis paper

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International Water and Sanitation Centre

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Acknowledgements

List of acronyms

ADB	Asian Development Bank
AfDB	African Development Bank
AusAID	Australian Government Overseas Aid Programme
BP	Business Plan
CBO	Community-Based Organisation
CIDA	Canadian International Development Agency
CPIA	Country Policy and Institutional Assessment
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
DAC	DAC countries are countries of the OECD Development Assistance Committee
Danida	Danish International Development Agency
DFID	UK Department for International Development
DGIS	Directorate-General for International Cooperation of the Netherlands Government
EU	European Union
EUWI	European Union Water Initiative
GDP	Gross Domestic Product
GBS	General Budget Support
GNI	Gross National Income
GDP	Gross Domestic Product
GTZ	German Enterprise for Sustainable International Cooperative Development
INGO	International Non-Governmental Organisation
IMF	International Monetary Fund
IRC	International Water and Sanitation Centre
IWRM	Integrated Water Resources Management
LA	Learning Alliance
LDCs	Least Developed Countries
LICs	Low-income Countries
LMICs	Lower Middle Income Countries
MDGs	Millennium Development Goals
NGO	Non-Governmental Organisation
NRI	Networked Readiness Index
NWP	Netherlands Water Partnership
O&M	Operation & Maintenance
ODA	Overseas Development Assistance
OECD	Organization of Economic Cooperation and Development
PRSPs	Poverty Reduction Strategy Papers
RC	Resource Centre
Sida	Swedish International Development Cooperation Agency
SIDA	Swiss Agency for Development and Cooperation
STREAMS	Streams of Knowledge Coalition

SWAP	Sector Wide Approach
SWOT	Strengths, Weaknesses, Opportunities and Threats
UMICs	Upper Middle Income Countries
UNDP	United Nations Development Programme
UNESC	United Nations Economic and Social Council
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WB	World Bank
WHO	World Health Organization
WSP	Water and Sanitation Programme
WSSCC	Water Supply and Sanitation Collaborative Council

Executive summary

What will the world be like in 2025 for people who currently lack safe water and hygienic sanitation? And what will it look like to a Northern NGO like the IRC – International Water and Sanitation Centre in the Netherlands, which has as its mission, helping poor people and communities find a solution to these problems?

Some things seem certain. Endemic problems will continue, especially in Africa where progress has been slowest and least. The economic growth in China and India and their increasing self-confidence as global powers will mean that many developing countries will look east, not west for their support, and may be glad to free themselves from the conditions that western aid brings. Conflict and insecurity may become more entrenched and worse, contribute to a lack of trust, which will underline the need to develop local organisations rather than relying on outsiders.

In Europe it is unclear whether the current opinion that our one world is inter-connected and that we are responsible for helping to resolve each other's problems, will prevail. Or will the "fortress Europe" mentality currently fed by the "war against terrorism" make European countries turn inwards and become less willing to meet international aid targets that few are currently meeting anyway? Will the Netherlands maintain or give up its leading position in overseas aid?

Will money for aid be given as part of sector-wide approaches to multilateral agencies, or through bilateral, government-to-government deals? How closely will it be tied to foreign policy, and how far will accepting overseas aid mean accepting the condition of buying in expertise form the donor country?

IRC, like other organisations, has to plan without being sure what the future will look like. Four scenarios are put forward based on some possible outcomes of the most volatile and important variables. The pictures that emerge may look optimistic or pessimistic; perceptive forecasting or hopeless crystal ball gazing, but they show a range of outcomes that IRC will need to plan for and to which it must respond.

Northern NGOs no longer have a monopoly on information, knowledge and experience. Increasingly, NGOs and agencies from the South will seek to share their knowledge and spread their influence. Those who say they can help will have to convince developing countries that spending their money on their services is cost effective.

The four scenarios in this paper are based on an analysis of 17 existing trends including a continuing increase in inequalities, increasing pressure on water resources, an increase in ODA funding, but an emphasis on emergency aid and hardware, and a corresponding failure to address the neglected stepchildren of sanitation and hygiene.

The growth of the Internet, the effects of decentralisation and demand driven approaches, and the behaviour adopted by major donors will all affect the sector and the role of NGOs within it, as will increased competition between providers and the need to provide tailored information and services.

All these issues and more are considered as IRC prepares for the process of making a further five-year plan, in which it seeks to remain relevant and pioneering and make a real contribution in whichever scenario turns out to be closest to reality.

Part I. Introduction

What will have happened in the water, sanitation and hygiene (WASH) sector by the time the MDG target year of 2015 is reached? What will the operating environment be for a Northern NGO working in knowledge development, information management and capacity building? This report seeks to address this question. It was developed as part of a process of strategy development undertaken by the International Water and Sanitation Centre (IRC). The report includes the outcome of a process of sector trend analysis, and scenario building that was developed over a period of about a year as part of the development of a new five-year business plan for IRC for the period 2007 to 2012.

This IRC paper is therefore written from a very particular point of view, namely that of a medium-sized non-governmental resource centre, based in the Netherlands but operating exclusively in the South. The paper is also limited in scope. It does not deal with IRC's vision or mission or with IRC's intended strategy. It simply tries to look into the future, to understand what currently observable trends in the sector, the wider development world, and the rather specific area of Dutch development strategy may mean for us. It is being put into the public domain for a number of reasons:

- Firstly, and most importantly, we would like to share our understanding of sector development and seek critical feedback upon it.
- Secondly, we think that scenario building is an interesting approach that may be beneficial to similar organisations within and beyond the sector.
- Thirdly, we strongly believe in the need for greater transparency within the sector as a whole. By putting our understanding of the sector on public display, we believe that we will tell potential partners something about how we view the world.

This paper is divided into three main parts. This introduction explains the background to scenario building and to our approach to developing our new business plan. Part 2 of the report presents four short scenarios describing radically different futures for the WASH sector, and operating environments for IRC. Part 3 presents 17 detailed trend analyses which provide the basis for scenario building.

1.1.   Scenario building

Before presenting the scenarios and trends, it is worth giving a brief outline of the broader strategic process to which they form an important input, beginning with some key definitions.

- A vision is a concise description of a desired future state. Visions provide a picture of how we would like the world (or our organisation) to be at some future time. Consensus on this vision is required.

- A scenario is a description of a possible future situation. Scenarios are stories about the way the world might turn out tomorrow. They are based upon an analysis of trends in key factors that lie beyond our control, and they reflect uncertainty in the future development of those trends. They are developed to help identify the strategies that may be useful in achieving a vision of the future.

- A strategy is a medium- to long-term planning framework for moving towards the vision, within which concrete activities are identified. Strategies relate to the factors that we can control – for an organisation they include the activities and services we offer, the composition of our staff and so on. For each scenario, (multiple) different strategies can be identified to achieve our vision. Over time, an effective strategy should lead to achievement of the vision under the assumptions set out within a scenario. A strong strategy allows the vision to be achieved under most scenarios.

Figure 1 shows, conceptually, how strategies are tailored to scenarios with the objective of meeting a vision. There is more than one scenario because the future is inherently uncertain and unknowable. Scenarios therefore provide an outline of possible future operating environments in which we may find ourselves. To paraphrase Peter Schwarz, one of the gurus of the scenario building approach: Scenarios are not about being right; they are about avoiding being badly wrong.

To avoid being badly wrong, we identify among the factors we believe to be the most important to us, those whose future development is also inherently uncertain. It is this uncertainty in the future direction of key factors that lead to the different scenario storylines. And it is with these scenarios in mind that we need to design strategies to achieve our vision. The question we need to ask ourselves is, can we, under a given strategy/scenario, achieve our vision? In reality, there are multiple strategies to fit any scenario (see inset), but the best strategies are those that will achieve our vision under multiple scenarios, although, of course, in some scenarios our vision may simply be unachievable.
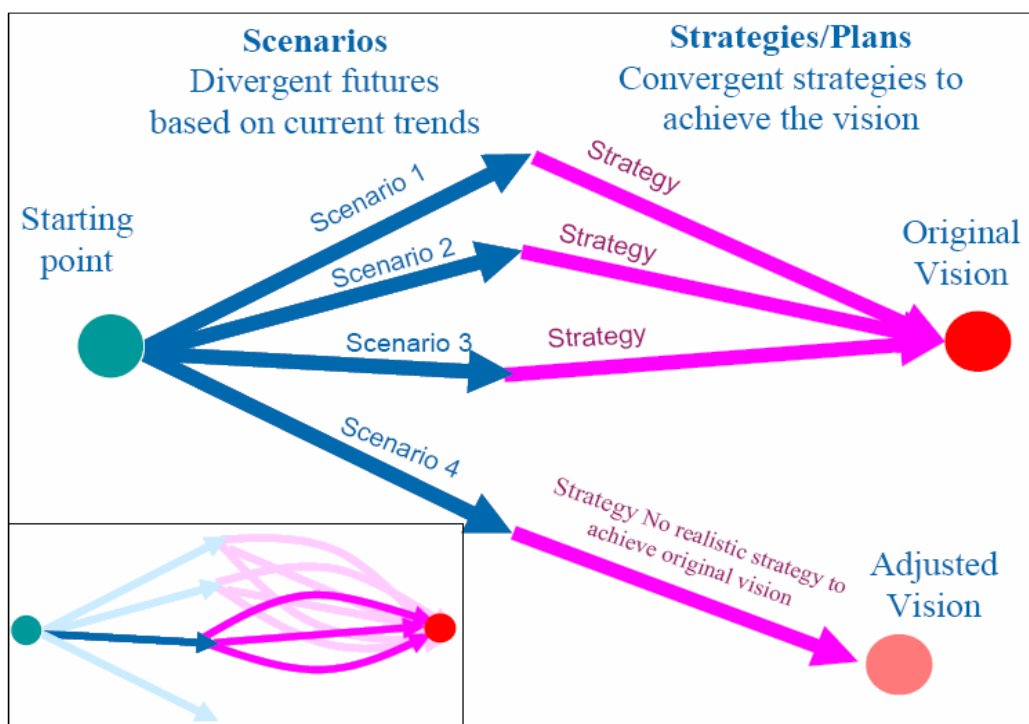
Figure 1. Vision, scenarios and strategies to achieve the vision (Moriarty et al., 2005)

1.2. Scenario building process followed by IRC

The scenarios presented in part 2 of this paper emerged from a "trend identification" meeting which was carried out at the beginning of 2005 as part of IRC's process of strategic planning. The four major scenarios that came out of that process describe possible future operating environments for the sector, indicating a variety of conflicting directions in which the WASH sector may develop in order to achieve the MDGs. Which direction (or mix of directions) will turn out to be the case is, of course, unknown and will be the outcome of a complex series of choices made by institutions and individuals. It is hoped that this paper will contribute to wise choices, and so to the fulfilment of the WASH MDGs by 2015, or soon thereafter. They are "food for thought for dialogue" within IRC and between IRC and partners.

The scenarios are based on the trend analysis that is discussed in detail in part 3. The trends reflect the factors that were considered the most important to IRC and its vision. To identify these factors, IRC looked at possible developments in five different fields:

- General development trends, which are not specific to the water sector but might have an impact
- Financial trends in the water sector
- The implications for approaches to working within the sector
- Information-related trends
- Water and sanitation content trends (a more general analysis)

Factors were initially identified during a brainstorm workshop by IRC staff, and have since been elaborated and fleshed out by a small team. One limitation has been the lack of time to make an analysis that looks beyond national average data. Averages have a tendency to hide discrepancies in terms of poverty alleviation, WASH coverage, etc. For example, some states in India are as poor and underdeveloped as sub-Saharan Africa, but this is not evident in the national statistics for India.

In another brainstorming session, following the work on factor and trend analysis, IRC staff categorised factors according to the matrix below. Factors in the top right hand quadrant (quadrant II) are the most critical for scenario development; since these are both of high importance and high uncertainty. Storylines are based on defining extreme states for each of the key factors in quadrant II, looking at different combinations of these extremes. In this way, it is possible to come up with many different scenarios. Factors in the other three quadrants are then woven into the broadly divergent story lines to give each scenario texture and to develop credible stories.

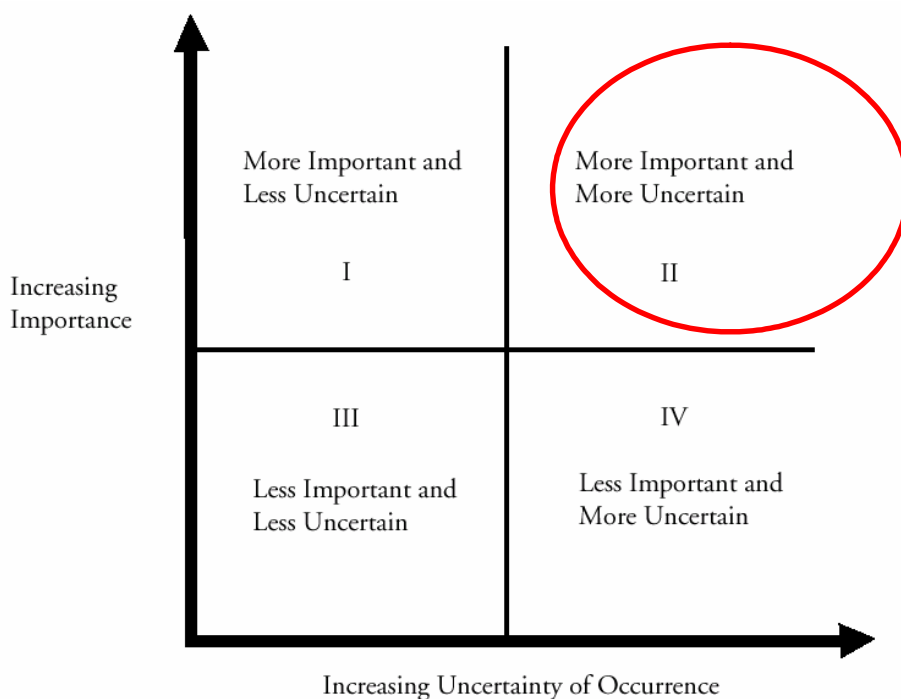Figure 2. Framework for developing narrative scenarios
Source: Schwartz, 1991

Figure 3 shows the matrix as it was filled in by the IRC team. The different extremes of the important and uncertain factors in quadrant II are listed below the factor itself. Based on this analysis, and drawing on material in the trend analysis, four different stories have been written about possible developments in the WASH sector:

- Scenario 1 – Business as usual – many gain, many left behind
- Strong Dutch support to the sector, predominance of bilateral aid with a strong construction emphasis within the sector;
- Scenario 2 – WASH dream – but beware of the capacity cowboys
- Strong Dutch support to the sector, predominance of bilateral coordinated aid and a strong emphasis on knowledge within the sector;
- Scenario 3 – SWAPs succeed – but instability and emergencies soak up aid
- Strong Dutch support to the sector, increase in multilateral aid and focus on hardware provision;
- Scenario 4 – WASH nightmare – Dutch disengage, MDGs left in the dust
- Little Dutch support to the sector and Africa left to find its own way.

Importance to IRC (10 years) / **Uncertainty of outcome**

Upper-left quadrant:
- Differential development (lead by strong Asian development) with a resulting focus on Africa and pockets of poverty in rural and urban fringes
- Increase of funds to WASH sector (globally)
- More competition from southern organisations and private sector
- Increased need for tailored information
- Increased focus on emergency situations
- Growing ICT disparities
- Gender not (well) addressed
- Sanitation and hygiene not (well) addressed
- Decentralization continues - need for planning/monitoring tools for intermediate level
- Urban areas & demand grow

Upper-right quadrant:
1. Dutch presence in ODA/WASH:
   a) High profile and spending
   b) Low profile and spending
2. Aid channelled through:
   a) Bilateral programmes
   b) Budget support/coordination
   c) Multilaterals
3. Development funding used predominantly for:
   a) Hardware – expanding coverage to meet MDGs
   b) Software – capacity building, KM – especially at the intermediate level
4. Levels of philanthropic giving to the sector
   a) Increasing
   b) Stable or decreasing

Lower-right quadrant:
1. The progress of HIV/AIDS and its impact on the sector
   a) HIV/AIDS progresses rapidly
   b) Spread of HIV/AIDS arrested
2. Malaria morbidity/mortality
   a) Rise due to increasing problems with drainage/irrigation in urban/peri-urban areas
   b) Fall due to innovative action
3. Diarrhoeal diseases
   a) Increase due to low water quality and lack of hygiene
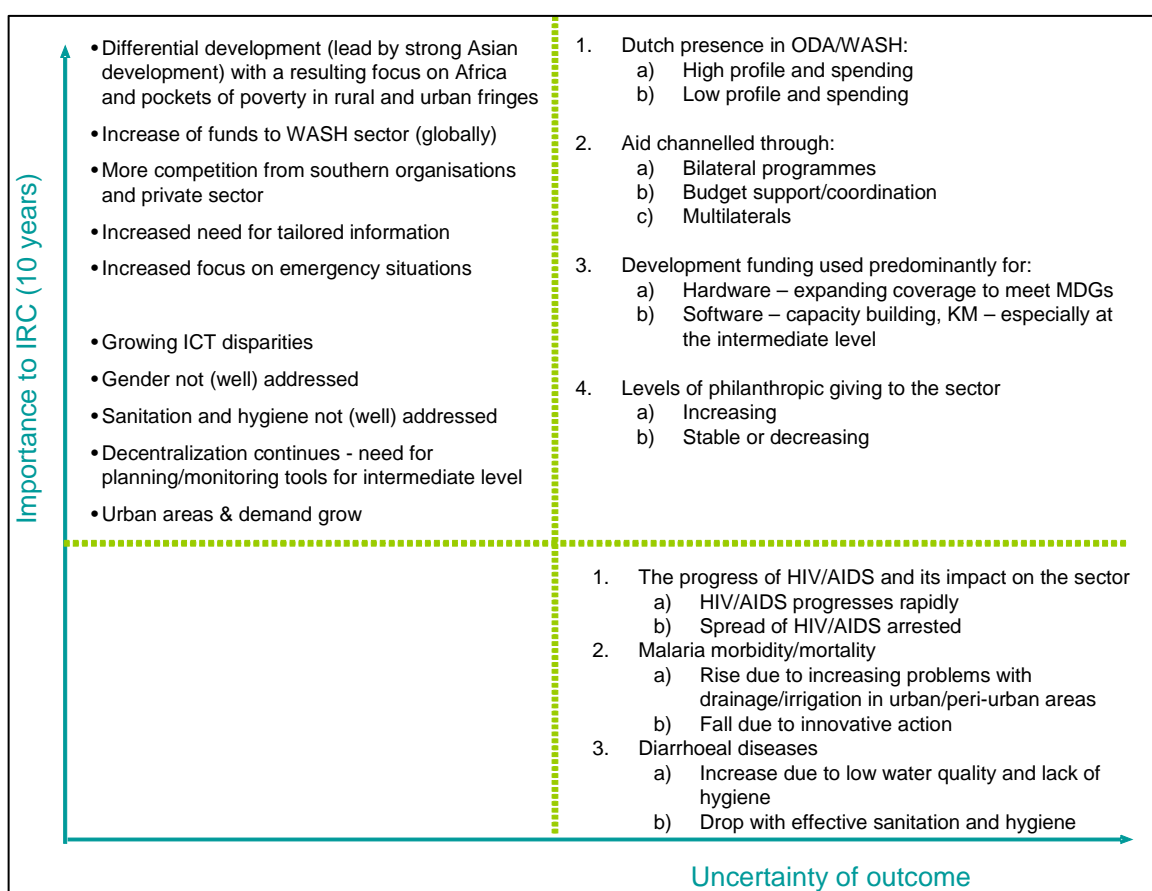   b) Drop with effective sanitation and hygiene

Figure 3. Framework for IRC narrative scenarios

Several key content factors are essential for IRC, its mission and future direction and are therefore included in the top left-hand (important but relatively certain) quadrant. However these are not dealt with in detail in the scenarios as, to put it simply, this was an exercise aimed at looking at the type of work IRC should do, not at its specific content focus. Nevertheless, it should be emphasised that staying on top of key emerging content areas is critical to IRC's role and position within the sector. For example, failure to address sanitation and hygiene or gender issues when these are of such overarching importance to the sector would mark a failure by IRC to address key elements of its mission.

These four scenarios have been written to be as different from one another as possible, based on a combination of the most important and at the same time uncertain trends. It is important while reading, to bear in mind that these are just stories – in some cases exaggerated (although not impossible) ones. The question is not "are they right?" or "do I agree with everything in them?" or "aren't they too radical?", rather, it is "are they possible?" It is necessary to explore different potential futures to be sure that a chosen strategy (or strategies) is sufficiently robust for an organisation to achieve its vision. If these extremes are not considered, and then some of them happen, it is then that an organisation can indeed find itself badly wrong.

It is also important to understand how the stories were created. The broad lines – the big differences – come from the important and uncertain factors. Into these are woven the other trends – especially the important but certain ones. So, for example, all four stories share a strongly developed Asia, a Latin America that is more or less as it is now, and development in sub-Saharan Africa that is lagging behind. Three reflect scenarios in which the Dutch remain an important sector actor – but with radically different behaviour. A fourth represents a scenario in which the Dutch decide to withdraw from the sector and from aid more generally.

We have described each scenario as if looking backwards from 2015, to stimulate the reader's imagination and to make the scenarios easier to assimilate.

1.3. Next steps

As mentioned, this paper forms part of an ongoing process of strategy development within IRC. We are currently also developing a new vision for IRC, that will be made public. Based on this vision and these scenarios we are also beginning the process of strategy development, for which this paper is an important preparation.

Part II. Four scenarios for WASH in 2015

Scenario 1   **Business as usual – many gain, many left behind**
              Bilateral aid spent primarily on hardware

Looking back from our perspective of 2015, it is easy to see an acceleration of several trends that had been nascent in the first five years of the millennium. India, now firmly established in the ranks of middle-income countries, had by its own estimate achieved the MDGs two years early in 2013. With a substantial and quickly growing foreign aid budget of its own in place, India formally announced that it had no further need for development assistance in 2010. Nonetheless, a number of donors remain active, giving direct support to NGOs who work with the huge urban and rural under-class left behind by ten years of breakneck growth.

The huge increase in national wealth in old and newly rich countries, the growing level of philanthropy that created several foundations specialising in the sector, and the desire to create a "world class" tier of local government led to an important market in capacity building and for consultancy services, which most countries are unable to meet by themselves. Global consultancies, from the North and the South compete for these contracts, with heavy competition from southern entrepreneurs, typically at rates well below those that international consultants could once charge to donors in the days of aid. A number of countries, led by South Africa, have emerged as important providers of developmental consultancy services. Most of these services focus on expanding coverage of water supply and, to a far lesser extent, sanitation. Monitoring activities, while decentralised, is on outputs, rather than on outcomes and processes. Gender is addressed mainly as women and numbers, and men are left out. There is, for example, no recognition that male youth use toilets least and that they listen to peers, not parents.

With near universal broadband access now available to anyone able to afford a $100 satellite receiver, the use of the Internet is ubiquitous in much of the world. Nonetheless, sub-Saharan Africa continues to lag behind both in access to the new technologies and in their use.

The adoption by the Dutch government of its "50 million served" policy represented an important shift in focus in the sector, a shift that was quickly picked up and emulated by other bilateral and multilateral donors. This led to a healthy funding environment driven in part by the Netherlands achieving its target of 0.1% of GDP being spent on the WASH sector. Nonetheless, this ambitious target meant that a focus on the rapid delivery of systems, with minimal attention to quality, sustainability and capacity building was inevitable.

Linked to the perceived lack of progress in multilateral initiatives such as the European Union Water Initiative (EUWI), this strong need to show results meant that by 2007 the

Dutch had more or less abandoned efforts to take part in SWAPs or to provide direct budgetary support – with its need for capacity building and careful monitoring – and instead adopted a policy of funnelling money through embassies and multilateral partners seen as being able to deliver.

The imperative to show numerical results also led to the Dutch focusing on a list of 15 partner countries, predominantly in sub-Saharan Africa, in which their contribution was a high enough proportion of total aid to bring with it considerable political leverage. By 2012, only Bangladesh and Egypt outside sub-Saharan Africa had a strong bilateral Dutch presence.

Approaching 2015, however, it became clear that, while the MDGs were likely to be met in all but a handful of the most crisis affected countries, the rush for coverage had left substantial weaknesses in capacity. A major assessment published in 2014 found that fully 25% of the new supply capacity was already broken down, even more in emergency areas.

Commercial production and marketing of household treatment, water supply and sanitation services has burgeoned. However, due to a lack of focus on poverty and a rush to pick "low hanging fruit", good quality water, water treatment and latrines are not within realistic reach of the poor. In 2005, the rich already had four times greater latrine use than the poor; this has now expanded to a six-fold gap. Of families who lack access to such basic necessities, 80% are families where one or more member is infected with HIV.

There have been predictable problems over lack of sustainability. The emphasis on construction has also led to increased drainage problems, which in turn led to an increase in malaria in dry/drought zones. The focus on coverage also led to hygiene promotion, and to a lesser extent sanitation, being largely ignored, so that in the last ten years there was no reduction in cases of and deaths from diarrhoeal disease. At the same time, there is strong evidence that water quality problems have actually increased. Today, 4300 children die each day because of dirty water or poor hygiene; a 10% increase of the 3900 children who died each day in 2005. Diseases transmitted through water or human excrement have become the leading cause of death among children in dry areas and at start of rains or floods.

Scenario 2   WASH dream – but beware of the capacity cowboys
Bilateral coordinated aid with focus on capacity building and
knowledge management

Looking back from our perspective of 2015, it is clear that 2007 marked a fundamental shift as, for the first time in three decades, capacity building and knowledge management started to be taken seriously, as measured by money spent. This shift in fortunes was a direct result of the successful "remember capacity" campaign by a broad alliance of NGOs, worried by the MDG rush for coverage of the early 2000s.

For the Dutch, this led directly to a doubling of the budget for WASH, as the implications of the promise to supply sustainable services to 50 million people by 2015 were recognised. The successful adoption of a "capacity is crucial" message by the European Union Water Initiative (EUWI) was another major success, leading by 2010 to the development of long-term decentralised capacity building plans (LTDCBPs) by 20 African countries. The success of the EUWI in achieving a measure of donor harmonisation meant that, by 2008, these plans were being supported by one European lead partner in each country. Although the effect was a shift away from SWAP-type multi-donor approaches, the underlying aim of greater coherence in aid was realised, and led to a strongly increased European profile in water in sub-Saharan Africa. In all 20 EUWI dialogue countries, a European country together with key sector organisations, became the de-facto lead for the sector.

The focus on capacity building, particularly within intermediate level organisations, was a boon for local NGOs and consultancies. The growing assurance of South Asian countries, and the rejection in 2008 by India of all further aid, led to an even greater focus on Africa. This, combined with a growing realisation in Europe that the way to tackle out of control immigration was to make life in Africa more bearable, resulted in the Kinshasa Consensus in 2010, under which major EU donors agreed to indefinite support for the provision of basic services in 20 of the continent's poorest countries. As a result, the last five years has seen an explosion in demand for those able to provide skills in a range of activities, from highly technical support, to planning, action research and knowledge management.

The huge growth in funding for capacity building, while welcome, has not been an unqualified success, due in large part to the lack of high quality capacity building organisations in both the North and the South. While the shift in policy led to a predictable mass rebranding of NGOs and consultancies around the world as "capacity builders", it soon became painfully clear that it takes more than a name change to undertake this difficult and time-consuming work. The growth in funding also saw an explosion in indigenous capacity builders, some of dubious quality and qualification, but able to offer quick results at a low price. Moreover, since 2008, African organisations have faced ever stiffening competition from the Indian and Chinese private sectors, for which the bilateral aid conditions did not prepare them.

The impact on environmentally safe sanitation, hygiene and gender, with more equitable relations between sexes, age groups, racial and ethnic groups, rich and poor, has been mixed. While dialogue and information sharing between partners have increased, the need to stay together has also watered down progress in larger alliances. Progress has come from small progressive groups in Africa, Asia and Latin America and from some successful cooperation with the commercial sector. The success in some African and Asian countries in meeting demand for self-manageable household and group systems and in effectively promoting hygiene, has greatly benefited other countries where HIV and AIDS have continued to spread.

Thanks to the Internet and the spread of Spanish and English sector information, more organisations have started to forge strategic alliances in a commercial sense, whereby differences between private sector, NGOs and research institutes have begun to fade. The provision by the EU of an Internet backbone for Africa, which started in 2009 and has now been rolled out in 15 countries, has led to exponential growth in access to the Internet, with a linked surge in demand for Africa and for regions within the continent, for information on all aspects of WASH provision; a demand that is to a large extent being met by adaptable Indian and South East Asian providers.

Nonetheless, it is now possible in 2015, to see the emergence of a strong critical mass of capacity building organisations of acceptable quality, and something of a quantum leap in the capacities of local government and other intermediate level actors in achieving and sustaining the MDG WASH goals.

Scenario 3   SWAPs succeed – but instability and emergencies soak up aid

Looking back from our perspective of 2015, we can now see how great changes occurred in WASH financing in Africa. The success of the Ghana EUWI dialogue process, starting in 2005, delivered strong results in terms of a new SWAP and, by 2007, had greatly increased donor coordination in all the other 20 EUWI dialogue countries. Half of the Dutch support (0.8 % of its GDP) is being fed into multi-donor SWAPs in the 15 poorest countries in sub-Saharan Africa and the remainder goes through multilateral channels (of which UNICEF is by far the biggest single recipient). SWAPs enabled developing countries to buy in their aid and resulted in accredited aid agencies. Of the Dutch bilateral programme, only Egypt and Bangladesh remain as recipients of major funds. In both cases, this is directly attributable to strong governments making it clear that while the Dutch are valued as a long-term partner in the water sector, they have no interest in developing wider donor platforms.

The focus on achieving the MDGs, and the shift to spending through government programmes, led to a focus on hardware provision that, despite the lessons learned in the 1980s, is only now starting to be questioned. What capacity building did take place during the last ten years has focused primarily on strengthening the capacity of central government to manage funds being provided under SWAPs – leading, for example, to greatly expanded scholarship programmes for study abroad. As a result, depending on who was trained where, some staff trained in a holistic approach (which treats water, sanitation, education and health as interrelated problems and solutions) had become successful innovators of much needed community-managed services for poor rural and peri-urban areas. Although their numbers and influence is still too small to counter the re-centralisation process, which is linked to the widespread perception of the failure of the holistic decentralised model, they have started to make inroads through cooperation with like-thinking donor partners and knowledge

The emergence of China and India as major regional powers, expressed not only in military presence but also greatly expanded aid programmes to South and South East Asia, meant that Europe has been effectively excluded from the region as a donor, although many consultants and NGOs remain active within the region, providing expertise to the Chinese and Indian programmes.

The period of global instability that began in the early years of this century with the war in Iraq and the Darfur crisis, has now become accepted as the norm, exacerbated by climate change that has tended towards the worst of the scenarios envisaged in 2005. The sharp rise in regional conflict and associated refugee crises – both politically and climatically driven – means that in 2014 fully 50% of ODA was earmarked for emergency relief of one kind or another. This trend has reinforced the MDG-driven focus on hardware provision. At the same time, it has stimulated the interest in and demand for alternative approaches by South-South and South-North coalitions as reports on failures of the hardware-only approach became available. Opportunities were taken up especially in eco-sanitation and neighbourhood/household-managed water (including wastewater) and catchment management. From a gender perspective this has sometimes led to an overemphasis on management of water and sanitation by women - who gained new skills and influence but also new unpaid tasks.

The importance of the Internet, which was rather limited in sub-Saharan Africa in 2005, has continued to grow sharply, particularly with the development of low-cost super-broadband satellite access. Coupled with a renewed focus on improved planning and monitoring as part of national SWAPs, this has underpinned a huge increase in the demand for knowledge management expertise, with a focus on the development of geographic management information systems (GMIS), the relevance and quality of many of which are now being questioned. At the same time, there was greatly increased demand for how to-type information products, with regionally valid case study examples of successful approaches to rapid increases in coverage.

The drive for coverage at all costs led to a greatly increased market for contractors capable of quickly and cheaply providing the required infrastructure, and is widely credited with the tenfold reduction in the costs of borehole drilling in much of sub-Saharan Africa. Coupled with an explosion in small-scale irrigated agriculture, this is leading to some parts of Africa following India into a negative pattern of rapidly falling groundwater tables, leading to seasonal water shortages that especially hit the poor and the weak. The hardware focus, coupled with the centralisation movement of the late 2000s, also led to the demise, or radical reorientation, of many local NGOs who were the backbone of the participatory movement of the mid-1990s. The great hope now are the new national innovators and knowledge networks, which are starting to demonstrate cost effectiveness in large-scale capacity building activities linked to implementation and rehabilitation projects, stimulated in part by the predictable failure of much of the cheaply installed infrastructure.

Scenario 4   WASH nightmare - Dutch disengage, MDGs left in the dust

Looking back from our perspective of 2015, it is clear that the lack of confidence in a multilateral and multicultural world, emphasised by the rejection of the European constitution in 2005, marked the beginning of the complete withdrawal of the Netherlands from the water sector. This has led to a considerable reduction in funding for multilaterals, specifically those focusing on WASH, notably UNICEF and WSP, and a change in representation in major multilateral agencies, where there was previously a strong Dutch presence. Many Dutch professionals are still in organisations such as UNICEF and the World Bank, but there have been no new placements for several years. The gap is only now being filled by a combination of Scandinavian and East European donors but not fully compensated by the other bilaterals, the EU or the philanthropic sector, a development which has hit sub-Saharan Africa most.

Donor coordination had been a priority since 1949, when US President Truman mentioned that aid "should be a cooperative enterprise in which all nations work together through the United Nations and its specialised agencies". By 2015, many developing countries were fed up with the increasing pressure for accepting donor coordination strategies because much of them were against their interests, and because of the time-consuming paperwork to get IMF, WB or EU funds. Many developing countries turned their efforts instead to "easy" Chinese and Indian grants and loans that did not require Poverty Reduction Strategy Papers, Comprehensive Development Frameworks, Financial Information Management System Reports, Reports on Observance of Standards and Codes, Medium Term Expenditure Frameworks, Debt Sustainability Analysis Reports, etc.

Whether the failure of the EUWI was a cause of, or caused by the Dutch withdrawal is difficult to say, but the end result is a network of overlapping, and often competing, bilateral donors using aid as an extension of foreign policy. Within this environment, it is very difficult for consultants or NGOs from any but the donor country to secure a role in projects and programmes.

While platforms such as the NWP are more active than ever, this is within the context of commercial marketing of Dutch expertise to the global water sector, much of it funded by large private sector entrants into the rapidly emerging markets of South and East Asia. It is predominantly in South and South East Asia that Dutch NGOs and consultancies are now active in the sector, as part of the nascent Indian and Chinese aid programmes.

A number of Dutch institutes are still training students from the South within an increasingly competitive market. Some managed to survive only by becoming incorporated into American and Indian Universities.

The withdrawal of Dutch funding has been partly compensated by funding from Scandinavia, giving Southern partners the means to develop programmes on gender, eco-

sanitation, hygiene and decentralisation, with some impact on disease reduction. However, there is much less investment in ICT and knowledge management.

The MDGs, which figured large on the international agenda in 2005, were quietly dropped in 2010, with the acknowledgment that sub-Saharan Africa, with the ravages of climate change, the HIV/AIDs pandemic and increased regional insecurity, was unlikely to achieve them in any easily foreseeable future, and that Asian countries were likely to meet the WASH goal without external help. However, new opportunities for work opened in Latin America. While Argentina, Brazil, Chile and Mexico had already reached upper levels of water development by 2010, Haiti, Guyana, Honduras and Bolivia became new investment areas.

The African problem will, once again, be addressed at a global forum to be held in 2016. However, there is a growing sense of ennui with the continent's seemingly insoluble problems, with an increasingly vocal minority calling for a complete withdrawal of all northern actors and agencies in order to give the troubled continent time to find African solutions to African problems.

Part III. Trend analysis for WASH

General development trends

> **Trend 1**
>
> The differences in speed and character of development between regions, countries and within countries will be remarkable. The world as a whole will be getting richer, absolute poverty will be decreasing but inequalities will grow. Countries and regions most in need will continue to be located in sub-Saharan Africa, and in both urban and rural areas.

- Since the early-mid 1980s, inequality has risen in most countries, and in many cases sharply (Cornia et al. 2001). For most of the countries in the world, inequality seems to grow with overall GDP growth. Economic growth is needed, but it is not the cure to reduce poverty (UN, 2005).

- "In fact, the higher the level of inequality, the less impact economic growth has in reducing poverty — for any rate of economic growth". Canada and Taiwan are two countries that provide evidence that economic growth is possible while keeping inequality low (Cornia et al., 2001).

- Extreme poverty (those living on less than a dollar per day) decreased from 40% to 21% between 1981 and 2001 (due mainly to the growth of China and India); in sub-Saharan Africa, extreme poverty increased from 42% in 1981 to 47% in 2001 (See illustration in figure 4).
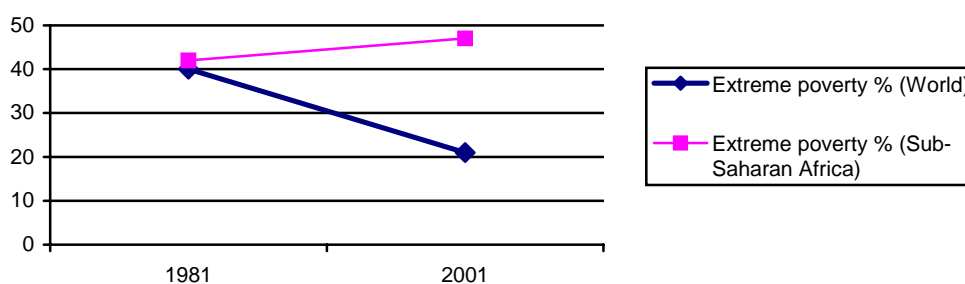

Figure 4. Extreme poverty (%) between 1981-2001 in the world and in sub-Saharan Africa
Source: UN, 2005

- An analysis of the causes of inequality points the finger at liberal economic policy regimes and the way in which economic reform policies have been carried out. Other perceived causes of inequality such as land concentration or inequality in access to

education, do not seem to be responsible for increasing inequality (Cornia et al.,
2001).

• New patterns of poverty are emerging in a number of countries: "an increased
tendency for people to rotate in and out of poverty, a rise in urban poverty and
stagnation in rural poverty, and increases in the proportion of informal workers among
the urban poor and in the number of unemployed poor" (UN, 2005).

• In many developing countries, the rise in income inequality is strongly correlated with
increases in rural/urban and regional income inequality (UN, 2005). Table 1 shows the
poorer countries of the world grouped by per capita GNI. Countries in italics and
underlined are the top ten key recipients of aid in the sector in 2001-2002. Countries in
brackets are those where IRC is involved in programmes and projects.

Table 1. List of countries grouped by per capita GNI in 2001

Least Developed Countries	Other Low Income Countries (GNI < US$ 745)	Lower-Middle Income Countries (GNI US$ 745–2975)	Upper-Middle Income Countries (GNI US$ 2976–9205)
Afghanistan	Armenia	Albania	Botswana
Angola	Azerbaijan	Algeria	Brazil
(Bangladesh)	Cameroon	Belize	Chile
Benin	Congo, Rep	(Bolivia)	Cook Islands
Bhutan	Côte d'Ivoire	Bosnia and	Costa Rica
(Burkina Faso)	East Timor	Herzegovina	Croatia
Burundi	Georgia	China	Dominica
Cambodia	(Ghana)	(Colombia)	Gabon
Cape Verde	(India)	Cuba	Grenada
Central African	Indonesia	Dominican Republic	Lebanon
Republic	(Kenya)	Ecuador	Malaysia
Chad	Korea, Dem Republic	(Egypt)	Mauritius
Comoros	Kyrgyz Republic	El Salvador	Mayotte
Congo, Dem Republic	Moldova	Fiji	Nauru
Djibouti	Mongolia	(Guatemala)	Panama
Equatorial Guinea	Nicaragua	Guyana	St Helena
Eritrea	Nigeria	Honduras	St Lucia
(Ethiopia)	(Pakistan)	Iran	Venezuela
Gambia	Papua New Guinea	Iraq	
Guinea	Tajikistan	Jamaica	
Guinea-Bissau	Uzbekistan	(Jordan)	
Haiti	Vietnam	Kazakhstan	
Kiribati	(Zimbabwe)	Macedonia	

Laos		Marshall Islands	
Lesotho		Micronesia	
Liberia		Morocco	
Madagascar		Namibia	
Malawi		(*Palestinian-admin*	
Maldives		*areas)*	
Mali		Paraguay	
Mauritania		Peru	
(Mozambique)		(Philippines)	
Myanmar		Serbia and	
(Nepal)		Montenegro	
Niger		(South Africa)	
Rwanda		(Sri Lanka)	
Samoa		St Vincent and	
Sao Tome and		Grenadines	
Principe		Suriname	
Senegal		Swaziland	
Sierra Leone		Syria	
Solomon Islands		Thailand	
Somalia		Tokelau	
Sudan		Tonga	
(Tanzania)		Tunisia	
Togo		Turkey	
Tuvalu		Turkmenistan	
(Uganda)		Wallis and Futuna	
Vanuatu			
Yemen			
Zambia			

Source: OECD, 2003a

Trend 2

Overseas development assistance is and will remain insufficient in quantity and quality to meet the Millennium Development Goals targets. G8 countries, although getting richer, will not deliver on the UN target of allocating 0.7% of GDP to ODA. Increases in ODA will be due to debt relief and not to a transfer of real money. Aid will continue to be an extension of foreign policy and tied aid will remain a reality.

- Most of the EU-15 countries are well far behind their commitments to ODA. Only five donors (shown in dark shadow in figure 5) meet or exceed the UN target of 0.7 of ODA as % of GDP. Some of the worst performers in 2004 were G8 countries (shown in figure 5 as chequered bars), especially Italy, Japan and the United States (OECD, 2005d).

- At the 2005 G8 Summit, the British government set a priority to support Africa's economic development by agreeing to write off debts to the poorest countries, and to increase aid significantly. However, much of the aid promises include the money set aside for debt relief. Since the terrorist attacks in London on 7 July 2005, UK government attention has focused on fighting terrorism.
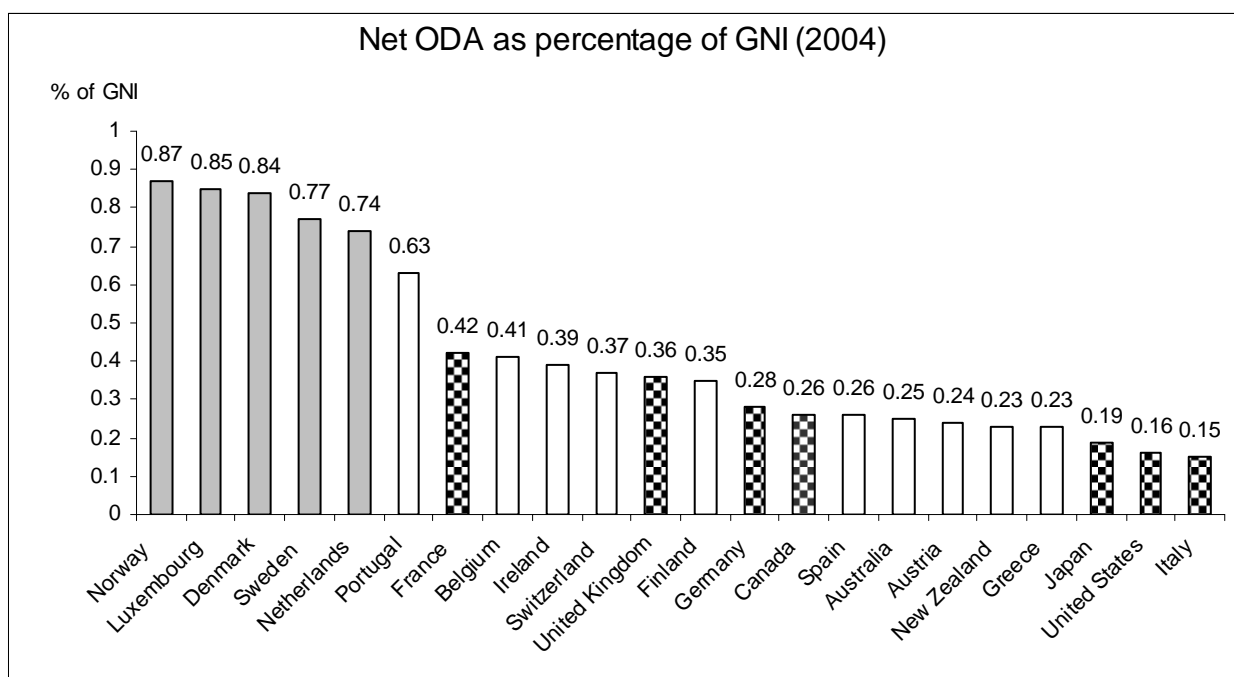
Net ODA as percentage of GNI (2004)

% of GNI

Country	%
Norway	0.87
Luxembourg	0.85
Denmark	0.84
Sweden	0.77
Netherlands	0.74
Portugal	0.63
France	0.42
Belgium	0.41
Ireland	0.39
Switzerland	0.37
United Kingdom	0.36
Finland	0.35
Germany	0.28
Canada	0.26
Spain	0.26
Australia	0.25
Austria	0.24
New Zealand	0.23
Greece	0.23
Japan	0.19
United States	0.16
Italy	0.15

Figure 5. ODA as proportion of GNI in 2004
Source: OECD, 2005d

- All donor countries got richer in 2004 and their total GDP growth during 2004 amounted to $2997 billion. For every $100 growth in donor GDP, just $2.62 was allocated to aid. For every $100 that DAC countries became richer in 2004, just 32 cents was devoted to increasing aid (Development Initiatives, 2005).

- Tied aid is still common practice. A recent report from Tearfund (Foxwood, 2004) showed that, of bilateral agencies surveyed, only Germany, France and the UK fulfilled all the criteria for untying aid. This leaves AusAID and USAID as well as most of the EC still tying aid to varying degrees.

- Tied aid means that a developing country must spend a large percentage of aid given to it by the donor country on products and services from the lending country. This is problematic because it can result in products and approaches being bought, not because they present the best solution for the poor, but because they are sold by companies from the donor country. Untying aid can result in overall savings of around 30% of the total aid amount – across all sectors (Martens, 2001).

- By 2000, 47% of the world's population was estimated to live in urban areas, while projections for 2030 suggest this may climb to 60% (nearly 5 billion people of whom 57% live in developing countries). Competing demands for water for domestic, commercial, industrial and peri-urban agriculture uses are putting enormous pressure on freshwater resources (UN/WWAP, 2003).

- Urbanisation rates in developing countries outstrip those in industrialised countries, with Africa – still predominantly rural (37.5% urbanisation in 2000) – showing the highest annual growth rates at almost 4.9%. See figure 6. Water supply is particularly problematic in areas of unplanned development (OECD, 2004b).
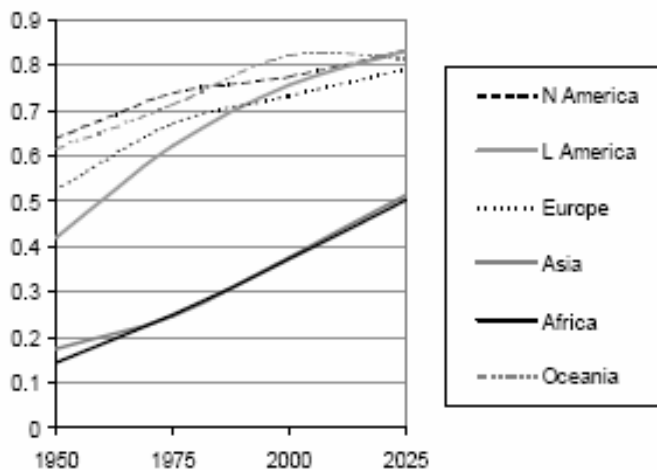

Figure 6. Urbanisation rate by continent 1950-2025
Source: UN, 2002

- Over the past 30 years, there have been considerable developments in desalination technologies and markets. Desalination technologies were first conceived some 200 years ago and, by the 1930s, several small desalination systems were constructed in the Middle East. A United Nations study on the extent of use of desalination technologies and their potential use in developing countries, conducted in the early

1960s (UNEP, 1998), indicated considerable potential for adoption of these technologies in Asia, India, Qatar, Saudi Arabia, Israel, and Kuwait.

- It is estimated that by 2025, up to 40% of the world's population will be living in water-scarce regions. Figure 7 illustrates these regions (UN World Water Assessment Programme, 2003).
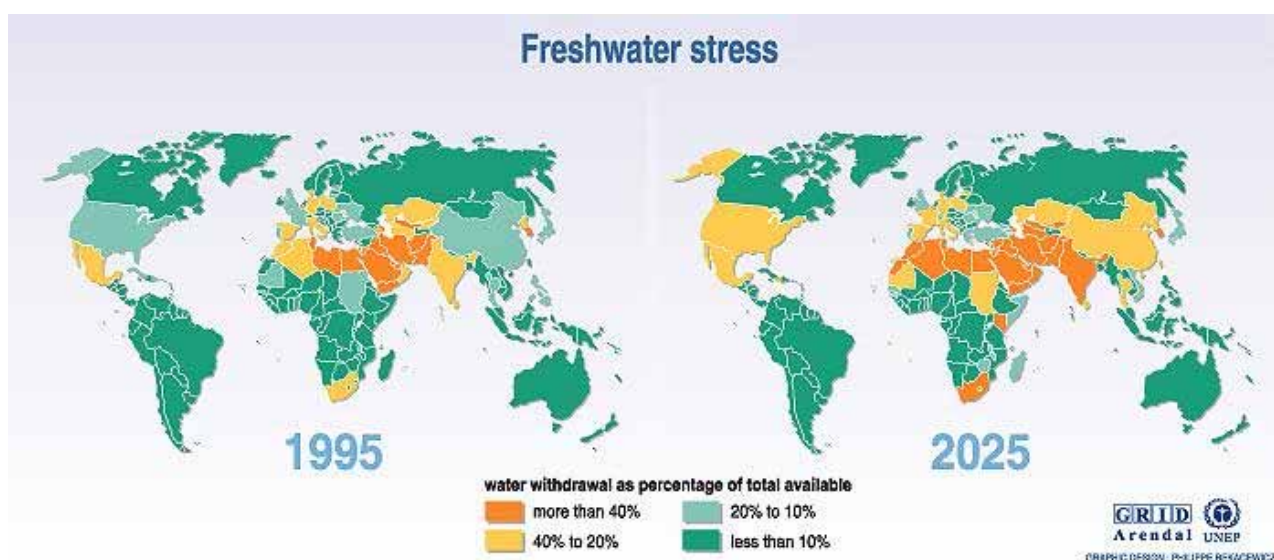

Figure 7. Impact of expected population growth on water usage by 2025, based on the UN mid-range population projection
Source: UNEP, 2002

- In 1990, 28 countries (335 million people) experienced water stress or scarcity. By 2025, from 46 to 52 countries, depending on population growth, will fall into these categories. Table 2 shows the countries experiencing water scarcity in 1955-2025 (projected).

- Among the countries projected to fall into the water stress category before 2025 is India, while China will narrowly miss the water stress benchmark in 2025, according to all three UN projections.

Table 2. Countries experiencing water scarcity in 1955, 1990 and 2025 (projected), based on availability of less than 1,000 cubic meters of renewable water per person per year

Water-scarce countries in 1955	Additional countries that became water-scarce by 1990	Countries expected to become water-scarce by 2025 under all UN population growth projections	Countries expected to become water-scarce by 2025 under UN medium or high population projections
Malta	Qatar	Libya	Cyprus
Djibouti	Saudi Arabia	Oman	Zimbabwe
Barbados	United Arab	Morocco	Tanzania
Singapore	Emirates	Egypt	Peru
Bahrain	Yemen	Comoros	India
Kuwait	Israel	South Africa	
Jordan	Tunisia	Syria	
	Cape Verde	Iran	
	Kenya	Ethiopia	
	Burundi	Haiti	
	Algeria		
	Rwanda		
	Malawi		
	Somalia		

Source: Population Action International, 1993

- In 1997, 75% of all industrial waste and 90-95% of sewage in developing countries was discharged into surface waters without any treatment (Hinrichsen et al., 1997). By 2015, with the present focus on quick results and infrastructure construction, there could be a significant development in building toilets without sufficient attention to sewage and drainage technologies to deal with the waste.

- Rising energy prices might add to the challenges to be faced by the urban WASH sector. A large part of the world's population in urban areas and cities spends as much as 60% of their energy budget on transporting drinking water over long distances and treating wastewater.

The following section draws heavily from the report of the Global Fund to Fight AIDS, Tuberculosis and Malaria, 2005.

- In Africa it is not clear if there is a relationship between urban growth, wastewater and malaria. Ninety per cent of malaria deaths occur in sub-Saharan Africa, killing at least 1 million people every year and contributing to another 2 million deaths, mainly children under five years old. The majority of infections are caused by the most dangerous species of parasite, P. falciparum, which is transmitted by mosquito vectors

that are highly efficient and difficult to control. The greatest number of cases occurs in Nigeria, the Democratic Republic of Congo, Tanzania and Ethiopia. Many malaria epidemics result from large movements of displaced populations, mainly because health services are disrupted.

- Malaria is more closely linked to endemic mosquito regions, poverty (which restricts access to health, education, food) and implementation of drug policies and prevention measures, than it is to urban growth. Poorer families are less likely to own insecticide-treated bed nets and their children are less likely to receive proper health care.

- There has been an appreciable increase in the use of insecticide-treated nets over the past ten years. Eighteen countries have reduced or eliminated taxes and tariffs, reducing the price of nets. A new kind of net, which retains its insecticidal properties for 4-5 years without needing re-treatment, has recently been developed.

- During the past three years, a number of endemic African countries updated their treatment policies and adopted the more effective (and expensive) artemisinin-based combination therapies (ACT). However, only five African countries were deploying the new medicines by 2004. Constraints to the use of more efficient drugs are largely financial. By 2002, 15 of the 25 African countries at risk of malaria epidemics had identified areas of risk and prepared plans to respond to epidemics. Malaria warning systems are performing well in southern Africa and are being developed in Ethiopia, Kenya, Uganda, the United Republic of Tanzania and Sudan.

- In South East Asia, unplanned urbanisation and the lack of environmental measures in peri-urban slums are factors for malaria transmission.

- In semi-arid lands in Africa, where malaria is endemic, water development projects such as multi-purpose reservoirs, irrigation canal systems, and urban drainage have been shown to increase the incidence of vector-borne disease in many cases, especially malaria. The risk of mosquitoes becoming a major problem can be minimised if preventive measures are incorporated into the planning/design phase (AAAS, 1991).

Trend 4

It is not clear if the proportion of people infected with HIV/AIDS will increase, but it will continue to be major factor in many developing countries. An increase in HIV/AIDS will lead to loss of skills, increased need for basic services and will add extra importance to WASH activities, especially in sub-Saharan Africa.

Data for this section comes from the UNAIDS report "The annual AIDS epidemic update report" for 2004, unless stated otherwise.

- The HIV/AIDS epidemic is worsening in parts of Africa and Asia, while in most of Europe and North America significant progress is being made in controlling the epidemic and averting mortality.

- One important reason for the inequalities generated by the HIV/AIDS epidemic relates to the availability and affordability of treatment. The relatively high cost of antiretroviral therapy prevents poorer individuals and governments from obtaining treatments that can both reduce the risk of HIV transmission and prolong the lives of those who are already infected. Poorer countries cannot afford the expensive drug therapies available abroad and are unable to produce cheaper generic equivalents locally (UN, 2005). Additionally, there is a generalised lack of infrastructure, skilled nurses and doctors, etc., to roll out prevention and treatment plans.

Sub-Saharan Africa remains by far the worst-affected region, with 25.4 million people living with HIV at the end of 2004 (see figure 8), compared to 24.4 million in 2002. Just under two-thirds (64%) of all people living with HIV are in sub-Saharan Africa, as are more than three-quarters (76%) of all women living with HIV.

Figure 8. Adults and children estimated to be living with HIV as of end 2004
Source: UNAIDS, 2004

- The epidemics in sub-Saharan Africa appear to be stabilising generally, with HIV prevalence at around 7.4% for the entire region. But, beneath the apparent constancy of steady prevalence levels lie devastating realities—especially in southern Africa, which accounts for one-third of all AIDS deaths globally. There is no single "African" epidemic. Some urban parts of East Africa display modest declines in HIV prevalence among pregnant women, while in West and Central Africa prevalence levels have stayed roughly stable at lower levels than in the rest of sub-Saharan Africa.

- HIV increasingly affects young people and women. In 2003, half of new infections were in young people aged 15-24 years. Of young people living with HIV, 60% were young women (WHO, 2004).

- There has been a sea-change in the global AIDS response since 2001. Global funding has increased from roughly US$ 2.1 billion to an estimated US$ 6.1 billion in 2004, and access to key prevention and care services has improved markedly.

- "The number of secondary-school students receiving AIDS education has nearly tripled, the annual number of voluntary counselling and testing clients has doubled, the number of women offered services to prevent mother-to-child transmission has increased by 70%, and the number of people receiving antiretroviral therapy has increased by 56%, according to a recent survey in 73 low- and middle-income countries which represent almost 90% of the global burden of HIV" (USAID et al., 2004).

- "Despite the improvements, however, coverage remains uneven and, in several respects, highly unsatisfactory. Approximately 440,000 people in low- and middle-income countries were receiving antiretroviral treatment as of June 2004. This means that nine out of every ten people who need antiretroviral treatment—the majority of them in sub-Saharan Africa—are not receiving it. If this low level of coverage continues, five to six million people will die of AIDS in the next two years" (UNAIDS, 2004).

- In addition to being at a disproportionately higher risk of acquiring HIV, females in the regions most seriously affected by the epidemic are more likely to bear the burden of caring for infected or affected family members. Girls, who often assume the responsibility of caring for sick parents and younger siblings, suffer the consequences of a truncated education, early entry into the unskilled labour force, possible exploitation and abuse, and subsequent poverty and social exclusion. The AIDS epidemic threatens to reverse the progress made in the past two decades in reducing the gender gap, particularly in access to education (UN, 2005).

- Those who are employed at water and sewage treatment works also occupy vulnerable socio-economic strata in society and would presumably also reflect similar

statistics for HIV/AIDS prevalence and mortality rates. If similar patterns of HIV/AIDS prevalence and mortality also apply to these operators in Southern Africa, it can be expected that some 30 to 50% of these individuals will also to be affected by HIV/AIDS (Ashton et al., 2002).

- In countries with high or increasing HIV/AIDS prevalence, it is necessary to incorporate the demographic effects of the epidemic into the planning and design of water services. Demand will need to be monitored regularly, as changes may be rapid, fairly unpredictable and very location specific. The need for improved basic services is most urgent in urban and rural communities affected by HIV/AIDS (Kamminga et al., 2003).

Trend 5

There is contradictory evidence about whether growing political instability will lead to a greater share of aid being channelled to emergency situations and conflicts, and therefore less going to "non-emergency" developmental aid. Countries with high levels of internal conflict are less likely to make progress. Post-conflict states may attract higher levels of donor funds.

- The number of countries requiring humanitarian assistance as a result of complex emergencies in the past year has remained constant with a total requirement of US$2.86 billion (UNESC, 2004), but there is a growing number of difficult to reach internally displaced persons (IDPs) and refugees (UNESC, 2004).

- In 2003, the overall number of IDPs due to conflicts and human rights violations is estimated at almost 25 million. More than three million people were newly displaced in 2003, primarily in Africa. "In May 2004, more than a million people became homeless in the Darfur region of Sudan. Some 700,000 people were uprooted in the east of the DRC alone, following a flare-up of violence as a result of the power vacuum that was left by the withdrawal of foreign occupation troops from neighbouring countries. Intensified fighting in northern Uganda forced an equally high number of people to flee their homes. Other countries, such as Colombia, the Central African Republic and Indonesia, also saw major population movements" (UNESC, 2004).

- The US National Intelligence Council identified 42 million people in need of urgent assistance in 20 countries in 2001–02. In 11 of these, internal conflict was the primary cause of humanitarian need while six were emerging from, but still plagued by, internal conflict. These figures illustrate that the need for humanitarian assistance today is overwhelmingly caused by internal conflict (Lange and Quinn, 2003).

- Development and peace are positively correlated. Developing countries that have achieved or are on track to achieve middle-income status, face a risk of civil war four

times higher than high-income countries. For low-income countries, the risk is 15 times higher. One billion people live in high risk countries for security. They constitute the core of the new development challenge (Picciotto, 2004).

- "The best predictors of conflict are low average incomes, low growth and high dependence on primary products. When income per person doubles, the risk of civil war is cut in half. For each percentage point by which the growth rate rises, the risk of conflict falls by a point" (Picciotto, 2004).

- Recent research (Macrae et al., 2004) does not find evidence to support poor performance of some countries over others (apart from failed and collapsed states). In fact, it is very difficult to identify a group of countries performing poorly on both of two key indicators (growth and infant mortality reduction) over both the 1980s and 1990s. Either way, the effect of performance problems, real or perceived, on reducing effective demand for aid for these countries is very much in evidence, and shows no signs of abating (Rogerson, 2004).

- DFID has assembled a list of 46 fragile states (table 3) based on the World Bank CPIA ratings and has been the first donor to make a case for more ODA to these countries. Fragile states are often in post-conflict situations and donors will need to invest heavily in governance and infrastructures if they want to make aid effective in these countries (DFID, 2005).

- However, a big injection of funds for infrastructure in these countries may produce visible results, and such "quick winners" may prove attractive to donors to balance the slow pace of progress in some African countries.

Table 3. List of "fragile" states, based on World Bank CPIA ratings

Afghanistan	Cote d'Ivoire	Kenya	Solomon Islands
Angola	Djibouti	Kiribati	Somalia
Azerbaijan	Dominica	Lao PDR	Sudan
Burma	Eritrea	Liberia	Tajikistan
Burundi	Ethiopia	Mali	Timor Leste
Cambodia	Gambia, The	Nepal	Togo
Cameroon	Georgia	Niger	Tonga
Central African Rep.	Guinea	Nigeria	Uzbekistan
Chad	Guinea Bissau	Papua New Guinea	Vanuatu
Comoros	Guyana	São Tomé &	Yemen, Rep of
Congo, Dem Rep.	Haiti	Príncipe	Zimbabwe
Congo, Rep of	Indonesia	Sierra Leone	

Source: DFID, 2005

- An increase in funds for conflict/emergency situations from major donors might lead to an increasing lack of independence from many NGOs funded by those donors. "In Iraq, the United States has pressured NGOs to display American logos on aid deliveries and to clear discussions with the press. Oxfam GB, which has 550,000 regular individual donors, was able to come out firmly against the war in Iraq; others, like American CARE (which gets about half of its $561 million budget from the US government), had to tread softly." (World Bank Press Review, 30 Aug. 2005).

Note: This trend could be expanded to study the increase of funds required to deal with natural disasters resulting from climate change. Natural disasters and environmental emergencies remain a global threat to the world's poorest. "In 2003, 700 natural events resulted in 75,000 deaths and economic losses of more than US$65 billion. This death toll is almost seven times that of the previous year (11,000). One-third of the deaths resulted from the Bam earthquake in Iran, which killed more than 26,000 people. Earthquakes in Algeria, China, Turkey and Morocco also exacted heavy human and economic losses, especially within urban centres" (UNESC, 2004). The tsunami in 2004, the Pakistan / India earthquake of 2005, and even the New Orleans hurricane and floods of 2005, were further reminders of how natural disasters take greatest toll on the poorest people. Coping with the impacts at local level will require a global effort which magnitude we not even have started to understand.

Financial trends in the WASH sector

Trend 6

The increased recognition of WASH for effective poverty reduction and for achieving a wider range of MDGs will result in an increase of available funds for the WASH sector (public and private) over the next ten years, but the funds will not necessarily be timely, directed to where they are most needed or be coordinated with health and education sectors. The emphasis on pumping money into the sector to achieve quick results will overemphasise construction at the expense of sustainability.

- ODA flows to the sector between 1999-2003 ranged between US$2.5 billion and US$3 billion. However, as a percentage of total ODA, allocation to the sector fell from 7% to 5%. Table 4 provides a breakdown per region.

Table 4. ODA flows to WASH per region

	ODA flows to WASH (in millions)			Flows to WASH relative to total ODA (in %)		
Regions	1999	2003		1999	2003	
Sub-Saharan Africa	US$603	US$583	↓	5%	3%	↓
Latin America/Caribbean	US$477*	US$318	↓	8%	5%	↓
South and Central Asia	US$499	US$515	↑	7%	5%	↓
Far East Asia	US$652	US$673	↑	9%**	7%	↓
Total ODA	US$2500	US$3000	↑	7%	5%	↓

*in 2000; **in 2001

Source: adapted from Cardone, 2005

- Until 2000, most of ODA in the water sector was channelled to lower-middle and upper-middle countries (and middle-income areas within these countries) making it predictable that growth in the coming years will be faster in these countries and in urban areas.

- However, by 2001-2002 the share of aid to least developed countries (LDCs) and other low-income countries (LICs) in total aid had increased since 1997-1998 from 50% to 70% as illustrated in Figure 9. Multilateral donors concentrated 94% of their ODA in 2001-2 on LDCs and other LICs.

- Many countries where a large proportion of the population lacks access to safe water receive very little of the water sector aid. Only 16% of total aid to the water sector in 2001-2002 went to countries where less than 60% of the population has access to improved drinking water sources. An analysis of the total amounts of aid per capita underlines that countries most in need receive very small amounts per capita, for example: Afghanistan, Chad, and Cambodia. (OECD, 2004a).
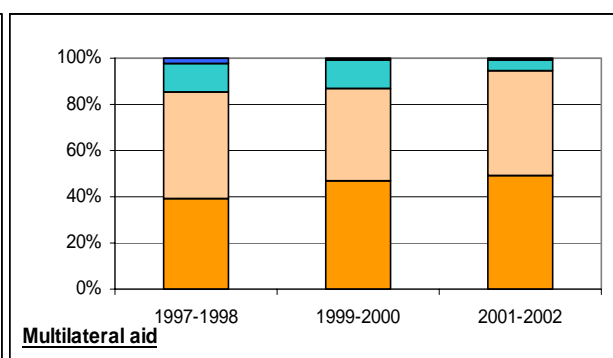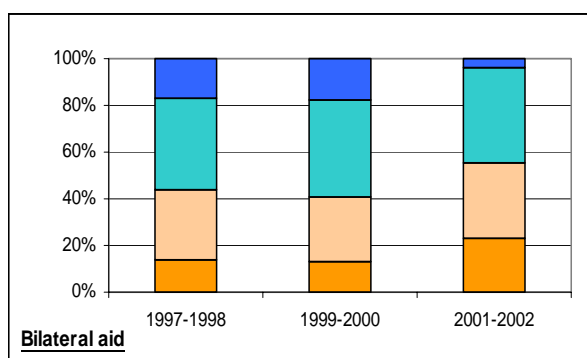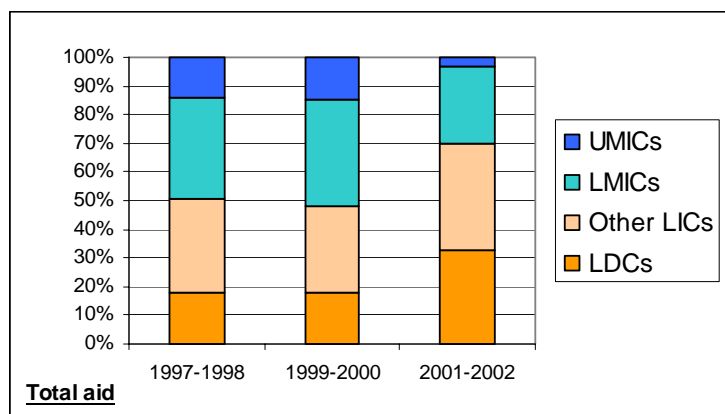
Figure 9. ODA to water supply and sanitation by income group, 1997-2002

- Figure 10 illustrates the ODA flows to the water sector in 2003. The focus is still very much on large infrastructures. Figure 11 illustrates the annual variation in the proportion of ODA that goes to each subcategory (Cardone, 2005).
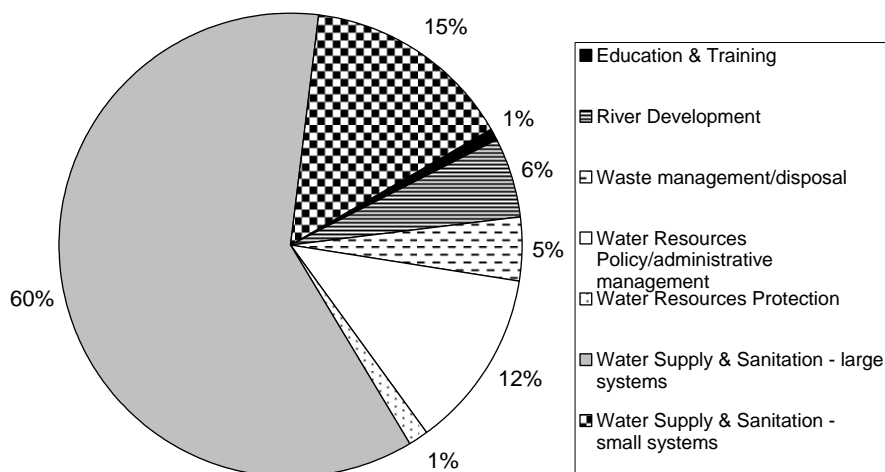
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Figure 10. ODA flows to the water sector in 2003
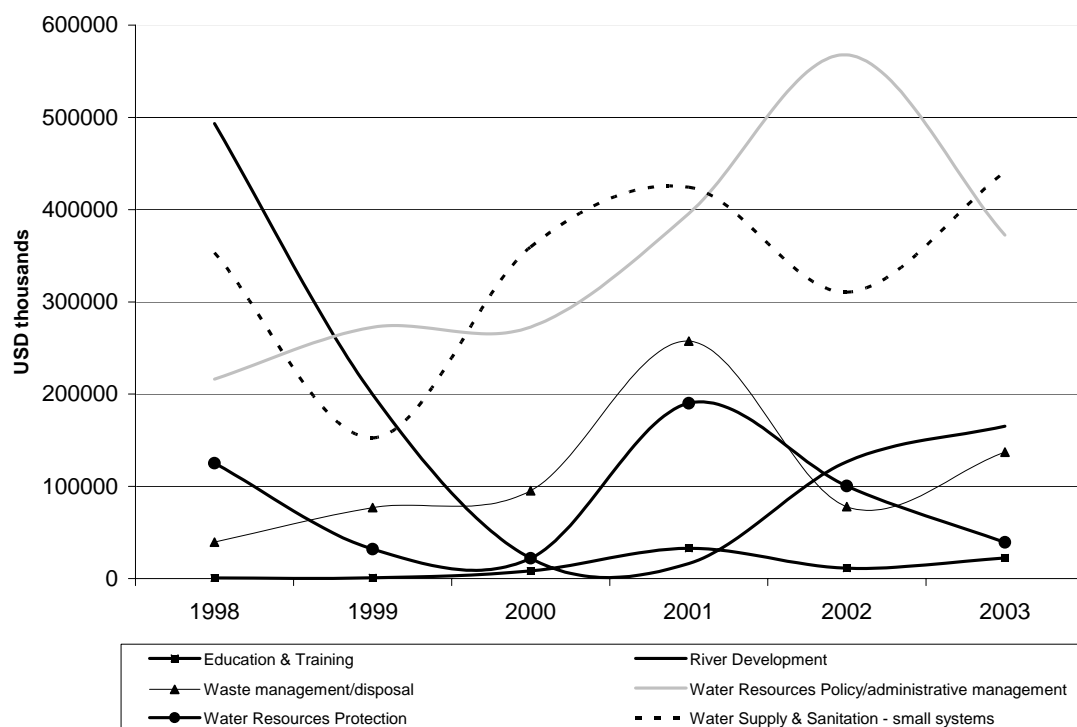Source: Cardone, 2005; OECD 2005c

Figure 11. ODA commitments to the WASH sector 1998-2003
Source: Cardone, 2005; OECD 2005c

- Variations in aid flows cause problems in the water sector, where projects can take many years to complete and so require stable funding flows. Aid for water is not only insufficient and variable, it also arrives very late, making it impossible for recipient countries to plan their activities properly. "In the water sector there is a several years' lag between the commitments and disbursements. The peak in disbursements occurs 4-5 years after the original commitment, but project implementation in the water sector takes on average at least 8 years. It could therefore be expected that disbursements of aid for water will increase in the next few years to reflect the large commitments made by donors in the middle of 1990s. Similarly, in 4-5 years from now disbursements are likely to decrease to follow the cuts in aid for water in recent years" (OECD 2004a). This means that even if donors decide in 2005/6 to increase commitments to the sector substantially, funds won't start to be released until 2010.

- International aid is the most volatile element in the budgets of developing countries. This is one reason why some more hopeful looking African countries are keener on debt relief than aid, as the former is a one-off contribution to their resources, and thus not vulnerable to abrupt changes in donor country policies (Economist, 2004b).

- Table 5 "gives an indication of how much the water and sanitation sector is losing out because of failure to spend budgeted funds. Arguably, therefore, both clarity and timeliness of water sector expenditure could be enhanced if funds were ring-fenced

and passed directly to the responsible authorities as happens in some other sectors."
(WaterAid 2005)

- There is no consistency of ODA funds to the water, health and education sector as a whole. In sub-Saharan Africa, whether by coincidence or by design, an increase in water sector funding has gone alongside a decrease in funding for the health sector. For a real impact on decreasing poverty, ODA funds for these three crucial social areas cannot be at each other's expense. Figure 12 provides an illustration per region.

Table 5. National utilisation rates of aid to the sector

Country	Utilisation rate	Comment
Ethiopia	38%	Reflects spending of just $65m from $173m budget
Ghana	56%	Average figure for Ghana Water Company Limited 1996-2000. Just 37% in 1997 and only reached 95% in 2000 because budget was reduced. Actual spending was near constant at around Cedis 80bn ($8.9m)
India	9%	This is in relation only to the rural sanitation budget of Rs34 billion ($718m) between 1999 and 2003
Mali	64%	Reflects 2002 spending of CFA 6,120 against CFA 9558 budget
Nepal	65%	Average for 1994/5-2001/2. Actually dipped as low as 48% in 2001/2
Nigeria	56%	Figure for water supply budget. Overall 74% of total water resources budget was released
Tanzania	43%	Reflects spending of just $13m against $30m budget
Uganda	55%	2003/4 figure. Reflects both disbursement – 68% of budget – and then spending (81%) of the disbursed funds
Zambia	33%	2001 figure. Previously as low as 2% (for capital expenditure). Reflects both non-disbursement and disbursements too late in the financial year for funds to be used

Source: WaterAid, 2005

Sub-Saharan Africa

South and Central Asia

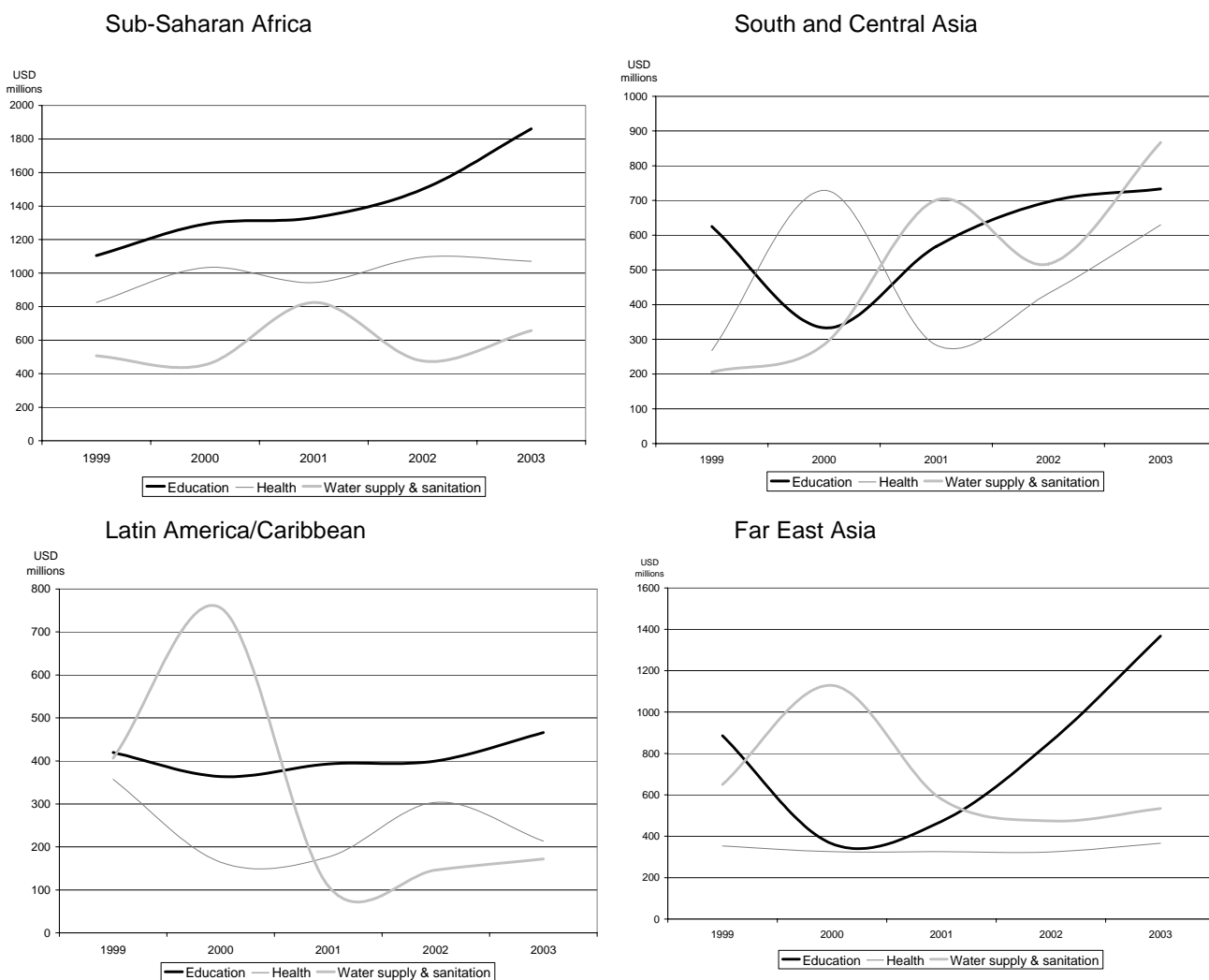## Latin America/Caribbean

Far East Asia

Figure 12. ODA commitments to education, health, and water supply and sanitation 1999-2003
Source: Cardone, 2005; OECD 2005c

- Increases in grants and loans from China and India to Africa, as well as the development of regional financing facilities, might boost the development of local capital markets in sub-Saharan Africa, allowing domestic finance to be used in the sector, through mechanisms such as debt-equity swaps, revolving funds at sub-sovereign level, guarantees and output-based aid. Such mechanisms are already being used in development in South Africa and Senegal (Cardone and Fonseca, 2005).

- For many countries, debt payments are as much as 22 times higher (Bangladesh) than the money required to finance gaps in the water and sanitation sector. Since the world's richest nations failed to agree at the G7 Summit in early 2005 on how to free Africa from debt and poverty (Reuters, 2005), this situation does not seem to be

changing in the near future. Table 6 shows the relationship between debt payments and the financing gaps for the water sector (WaterAid, 2005).

Table 6. Comparison on national debt repayments and water investment needs

Country	Annual financing needs		Water finance needs as a proportion of debt spending
	Debt payments	Water MDGs gap	
Bangladesh	$948m	$42m	4%
Ethiopia	$239m	$31m	13%
Nigeria	$1700m	$266m	16%
Tanzania	$141m	$84m	60%
Uganda	$155m	$57m	37%

Source: WaterAid, 2005

Trend 7

Dutch ODA to the water sector will increase to 0.1% of GDP. Half of the Dutch aid will go to Africa. It is unclear if aid from other major donors will be channelled increasingly through budget support, rather than through northern NGOs. It is not clear if coordination within the sector and between donors will increase.

- As illustrated by figure 5, the Netherlands has already exceeded 0.7% contribution of its GDP to ODA. Furthermore, the Netherlands is committed to increase the expenditure of the water sector to reach 0.1% of GDP by no later than 2007. However, it is unclear whether these funds will be channelled through bilateral budget support or through an increase in multilateral funding. "The Netherlands will maintain its position as a key donor to those UN agencies and international financial institutions […]It will also urge the European Commission to improve efficiency and effectiveness, and to work towards closer cooperation and harmonisation" (DGIS, 2003).

- The Netherlands has afforded Africa a central place in its foreign policy, including its development policy, partly out of solidarity and partly out of mutual interest. At least 50% of the bilateral development budget will go to Africa (DGIS, 2003).

- The question remains whether development aid in the coming 20 years will be delivered with a focus on the poorest and result in a real development and humanitarian drive, with a greater potential for cooperation and coordination among bilaterals and multilaterals. With the increase of the "war against terrorism", will ODA again become a tool of foreign policy strategy, with each country, including EU countries, maintaining its own aid programme (Harford et al., 2005; Harford and Klein, 2005)?

- On average, rich countries devote 0.2% of national income to development assistance compared to 2.3% for the military. Following the end of the cold war, resources allocated to aid have begun to rise again in absolute terms, but defence expenditures have been growing even more rapidly (Picciotto, 2004).

- On 2 March 2005, donors and partner countries participating in a Paris high level forum. They issued the "Paris Declaration on Aid Effectiveness", in which they agreed to increase efforts towards harmonisation, and to align their efforts so that aid money produces results that are more effective. They listed a set of actions and indicators capable of being monitored, to accelerate progress in these areas (OECD, 2005a). Donors and recipient countries agreed that at least 25% of aid should be provided as programme-based approaches by 2010 (World Bank, 2005).

- Better coordination in the sector is essential for "eradicating wasteful duplication in planning, funding and reporting systems between donors and recipient governments" (WaterAid, 2005). Although recent initiatives such as the EUWI attempt to increase donor coordination and harmonisation, the truth is that the number of aid organisations has proliferated. "In 50 years of aid no major institution has exited the market through closure or merger, with considerably more in existence today (over 40 northern NGOs) than when the share of aid in GDP was a third larger" (Rogerson et al., 2004). Until recently, very few donors aligned their water supply and sanitation support with national government sector plans. NGOs and international NGOs also tend to follow their own programmes and projects. See table 7.

Table 7. Major donor behaviour in WaterAid countries

	With	Without	
Unified single interaction with government	3	11	Broadly the case in Uganda. Some countries like Ethiopia have some donors working together but others remain outside the coordination mechanisms. NGOs are also likely to work "off-line"
Alignment with national water plans	2	12	Broadly the case in Uganda.

Source: WaterAid, 2005

- South Africa is probably the best known example of a sector-wide approach. Another recent example of donor coordination is the Kenya Water and Sanitation Programme, which is being jointly financed by Sida (Sweden) and Danida (Denmark). The objective is to prepare groundwork for a sector-wide programme that other countries can join (Development Today, 2005). Other examples in the WASH sector include (World Bank, 2005):

- Uganda: Germany has delegated cooperation agreements in the water sub-sector to DFID, UK;
- Honduras: government and donors have committed themselves to an implementation agenda for a common Poverty Reduction Strategy Paper (PRSP), involving the implementation of sector-wide approaches in water and sanitation;
- Indonesia: AusAID has agreed with the government, World Bank and ADB to standardise project reporting on all water and health activities;
- Zambia: several donors meet regularly in order to coordinate water sector reform and the EUWI Country Dialogue (chaired by Germany).

- Even when donor funding is channelled through general budget support (GBS), a study by ODI in 2002 (Lawson et al.) found that:
  - a variety of objectives are pursued by different governments and donors through GBS, conditions remain and the process appears fragile;
  - few, if any, of the expected benefits of GBS are automatic;
  - evidence that governments have been empowered is variable;
  - GBS has improved the efficiency of allocations, but not the predictability of funding.

The discussion on increased coordination and bilateral support might be put into perspective with the following quotes (Harford et al., 2005):

"After the collapse of communism a senior Soviet official seeking advice on the workings of capitalism asked - Who is in charge of the supply of bread to London? - An aid agency official transported in time from 1990 to 2030 might ask a similarly naive question about today's aid system. Nobody—not even a small group of institutions—is in charge of the aid industry of 2030."

"[In 2030] Consider a typical output-based aid project in Cameroon. It is designed by a small but expert Cameroonian service company, delivered by a huge Chinese multinational contractor, financed by a New York–based investment bank, and ultimately funded by donations gathered from all over Europe with the help of favourable tax treatment and an "aid matching" Web site. It seems quaint to suggest that government-to-government aid, long discredited in the eyes of rich and poor people alike, would have anything to do with such a project."

- If the SWAP/budget support trend continues, there is a greater possibility of increased competition from the local private sector with water and sanitation local NGOs. With the loss of core funds, NGOs will need to become more consultancy oriented, or make more use of economies of scale through innovative partnerships in order to survive. This might lead to less focus on information and advocacy-type of activities since it is difficult to get clients to pay for these. See also Trend 10.

- On the other hand, many bilaterals are increasing their funds to Northern based NGOs. "Britain already provides much of its aid through NGOs and plans to increase funding for key groups by 40 percent in the coming year, strengthening the role of NGOs in British foreign policy. The result is a blurring of lines between aid workers and soldiers, government agendas and charitable missions. It's increasingly clear that like governments or companies, NGOs have vested political interests, as well as financial motives: the need to attract aid to stay alive. But unlike governments, they aren't elected." (World Bank Press Review, 2005)

> **Trend 8**
>
> Large-scale philanthropic giving continues to climb rapidly in the North but not necessarily to the water sector.

- According to the Economist (2004a), there is an enormous amount of money available for good causes due to increasing wealth and an ageing population, while individual generosity is also increasing. Americans are the most generous, in particular to religious organisations.

- Charities also seem to be getting better at fund-raising, involving high level professionals to target the fortunes of many families and companies. Oxfam's Christmas campaign in 2004 was one example: rather than giving Christmas presents, people logged on to the Oxfam Web site in their thousands to buy chickens, school desks and even water tanks for an entire town (Oxfam New Zealand, 2004).

- New sources of development financing and solidarity initiatives in the water sector are booming (Fonseca et al., 2005). However, the money that can be raised by these sources is:
  a) relatively small when compared to ODA flows (see table 8);
  b) even less likely to be channelled to the least developed countries and to the water sector.

Table 8. Modalities for solidarity initiatives

Modalities for a solidarity initiative	Indicative amounts (€) that could be raised per year for EU25, but…	
Mandatory 1. Levy per cubic meter 2. Hypothecated taxation levy 3. Taxation for general development / share of development budget on W&S	**Amount** 1. €450,000,000 2. €2,000,000,000 3. *€15,000,000,000 this would close the funding gap*	**Calculation** 450 million people * 50m3/y * €0,02 levy 9800 billion GDP * 0,015% tax for watsan *9800 billion GDP * 0,7%ODA * 22,5% for watsan*
Promoted/facilitated voluntary 4. Bill ticking 5. Payroll giving 6. Fair Trade – "Fair Water" 7. Local authorities/Federations 8. Lotteries	**Amount** 4. €15,000,000 5. €30,000,000 6. €430,000,000 7. *€30,000,000* 8. €90,000,000	**Calculation** 150 million people * 10% take up * twice year * €0,5 175,300 water employees * aver. salary €37,700 * 0,5% 450 million people * 6% take up * 10% of av. bill €160 *France estimates only* 450 million people * €0,2 based on: €300m (Dutch lottery) * 1% to water / Dutch pop.
Voluntary 9. Individual (NGOs, charities) 10. Corporate Philanthropy/ Corporate Social Responsibility	**Amount** 9. €45,000,000 10. *€500,000 to €1,000,000*	**Calculation** Focused on UK water charity achieving €0.1 per person through water sector *Per French water company*

Source: Fonseca et al., 2005

- In addition to the solidarity funding sources mentioned, a study by Atkinson (2004) looked at seven other different types of new funding sources: global environmental taxes; tax on currency flows; creation of new special drawing rights; international financing facility; increased private donations for development; global lottery and global premium bond; increased remittance from emigrants. Both studies commented that country-specific initiatives might be more politically and socially feasible than a global initiative.

Trends in approaches to working within the sector

Trend 9

The ongoing trend towards decentralising decision making and responsibilities for service delivery makes local politicians more responsible and accountable. It is unclear if major donors will also shift their focus to work with local government and strengthen their capacities – see financial trends.

- The concept of multi-stakeholder participation has been recognised as a cornerstone of Poverty Reduction Strategy Papers (PRSPs). It underlines the role of local officials and decision makers and grassroots civil society organisations (CSOs), both at the strategy's inception and formulation stages and at the implementation, monitoring and evaluation stages (Jütting et al., 2004).
- Although most of the largest development agencies have a policy or statement on decentralisation (table 9), not all have clear objectives for implementing these. AfDB has promoted the participation of the local sector in national planning; directly financed local municipalities; supported national decentralisation; and forged partnerships with organisations to build capacity to provide services. Furthermore, GTZ is currently advising partner governments and other important stakeholders on political and organisational reform. The key objective here is to transfer responsibility from the national to the local level and make utilities more economical (Foxwood et al., 2004).

Table 9. Development agencies and their policies/statements on decentralization

Development agency	Is there a policy or statement on decentralisation?	Does it reflect international statements on decentralisation?
AfDB	✔	✔
AusAID	✔	✔
EC	✔	✔
GTZ	✔	✔
DFID	✔	✔
UNICEF	✔	✔
USAID	✔	✔
World Bank	✔	✔

Source: Foxwood et al., 2004

Trend 10

There will be more national and local level tendering. There will be more competition to northern organisations from southern organisations and consultants/private sector. Demand for facilitation of national and local learning processes will grow where donors set the agenda. INGOs in particular will position themselves increasingly as national level facilitators of learning processes.

- Northern aid agencies have dominated humanitarian action in Africa, mainly because they have secured funding from wealthier countries. However, international agencies need good local networks in order to deliver aid. "As security concerns of independent aid workers become an increasing concern in the humanitarian arena, Northern donors should channel more funding directly through local African NGOs" (Cater, 2004).

- The last couple of years have seen a major development in the local private sector, both formal (consultants, contractors, suppliers, utility staff, with an accent on bidding and contract design) and informal (entrepreneurs, cooperatives and user associations) (Ijjasz, 2005).

- It was predicted in 2000 that with decentralisation and the business sector development in South Africa, local NGOs would "play a critical interface between business and local communities" and would be "pressured to answer more long-term organisational questions as the basic demand for WSS services is met"(Waddell et al., 2000). However, in reality what happened is that many of these NGOs are surviving on short-term consultancies for local governments, in competition with the local private sector.

- Countries where decentralisation has taken place - and where most of the money comes from the national government in combination with donor money in the form of basket funding - will see a trend in which local governments are increasingly in charge of deciding on where the money for construction and service provision goes. Examples are seen in South Africa, Colombia and other Latin American countries. Local government is less likely to put emphasis on issues such as lessons learnt and knowledge sharing.

- Only in countries where donors set a large part of the development agenda, is there is a demand for facilitation of learning processes at national and intermediate level. INGOs are shifting "from direct implementation to supporting international resource mobilisation (financial, specialised skills, specialised knowledge) and managing intersectoral international relationships. […] INGOs can assist with the development of opportunities of a scale that makes sense for business interaction, by doing so in connection with their diverse networks" (Waddell et al., 2000).

- A quick analysis of the mission, vision and strategy of five major INGOS in the sector shows that some of them are focusing their activities more and more on strengthening capacities of the intermediate level for an impact at scale. Others still have a very general "giving people a voice" type of mission. However, only WaterAid mentions the cycle of "learning" (table 10).

Table 10. A brief analysis of the vision and mission of INGOs working in the sector

INGO	Extracts from vision and mission
CARE http://www.care-international.org/about%20care.htm	Strengthening capacity for self-help Influencing policy decisions at all levels
OXFAM http://www.oxfam.org.uk/what_we_do/issues/how_we_work/aims.htm	All people will have an effective voice in influencing decisions affecting their lives, will achieve their civil and political rights, and will enjoy equal status with others.
Plan International http://www.plan-international.org/about/work/	We believe that long-term improvements and change can only be sustained if children are "development actors": they participate, voice their opinions, are listened to and taken seriously because their opinions count. All children, young people and adults deserve access to learning and life skills that enable them to realise their potential
SNV http://www.snvworld.org/aboutUs/index.cfm?fuseaction=whoWeAre&bb_ID=18591	Our advisors contribute to this by strengthening the capacities of local organisations. Our clients: intermediate organisations and capacity builders in developing countries. Intermediate organisations play a crucial role in sustainable poverty alleviation. They are the voice and advocate of the poor. They also implement and shape macro-policies. Often, they cannot play their important role because they lack the capacity to do so. Moreover, they have a clear need for support in capacity building.
WaterAid http://www.wateraid.org/site/about_us/vision_and_mission/480.asp	WaterAid works by helping local organisations set up low-cost, sustainable projects using appropriate technology that can be managed by the community itself. WaterAid also seeks to influence the policies of other key organisations, such as governments, to secure and protect the right of poor people to safe, affordable water and sanitation services. It is appropriate to seek support and approval from local and national authorities for WaterAid-funded work. As a learning organisation, it is constantly evolving. An emphasis on research, analysis, evaluation and dissemination is vital to WaterAid's future.

- It is increasingly difficult in the Netherlands and in many Northern European countries for a non-European to obtain a visa, residence permit and working permit. This situation makes it very difficult to bring non-Europeans for training courses, workshops, programmes for the exchange of staff, etc. Contracting non-Europeans has become almost impossible under the present requirements. Even when one of the partners is Dutch, getting a residence permit for their non-European partner and children is also very difficult.

- The difficulty extends to keeping international skilled expatriates who are already living in the Netherlands. A poll of the mainly expatriate employees of international agencies in the Netherlands found that 77% of the respondents (out of 3406 responses) want to leave the country. The survey conducted by the International Organisations' Staff Associations in the Netherlands (IOSA-NL, 2005), which represents staff members of international agencies, highlighted discontent about anti-foreigner sentiments in Dutch society, as well as very high levels of dissatisfaction with bureaucracy, poor customer service in shops and from government agencies and with medical care.

Information-related trends

- Business objectives rather than development ambitions have driven the expansion of information and communication technologies in developing countries. "Set alongside the medieval living conditions in much of the developing world, it seems foolhardy to throw money at fancy computers and Internet links. Far better, it would appear, to spend scarce resources on combating AIDS, say, or on better sanitation facilities. Indeed, this was the conclusion reached by the recently concluded Copenhagen Consensus project, which brought together a group of leading economists to prioritise how the world's development resources should be spent. The panel came up with 17 priorities: spending more on ICTs was not even on the list" (The Economist, 2005).

- Within countries, all groups, even the poorest, are also increasing their access to and use of ICT. But within countries the "information haves" are increasing access and use at such an exponential rate that in effect, the division within countries is actually growing as well. These trends are repeated on many levels: in use of ICT, in affordability, in training, in relevant content, and in participation and growth of the ICT sector (Bridges.org., 2001).

- A recent report (Minges, 2005) finds that there is a close relationship between each country's digital opportunity index (DOI) and its gross national income per capita. However, the report shows that a number of economies such as South Korea and Taiwan are doing much better in ICTs than their incomes would suggest, while countries such as Austria and the United States have lower DOI scores than it would be expected. Africa sees perhaps one Internet user per 100 people. Africa-US bandwidth is less than one three-hundredth of the Europe-US bandwidth (World Bank GICTD, 2005).

- There is a threshold to reach before information and communication technology begins to spread more rapidly and there is effective use and greater impact of computer technology. The Centre for International Development (CID) at Harvard University has published for several years a Networked Readiness Index that measures both ICT use and enabling factors, and lists 102 countries in order (currently Singapore, Iceland and Finland at the top and from the bottom up, Chad, Nicaragua and Ethiopia). A certain critical mass in terms of number of users, or the availability of narrowband and broadband services, or of services online is essential before this is reflected in usage metrics. One sees that from 2001/2 to 2003/4, the NRIs of major regions of the world are converging over time. Availability of data has in fact been a key factor in selecting the 102 countries that form part of the study. As a consequence, regions suffering from a chronic lack of reliable statistics such as Africa and Central Asia find themselves underrepresented in the NRI index (Dutta, 2004).

- Cost is the deciding factor in determining whether the digital divide will ever be bridged. Low-cost devices like a fixed wireless system "can cut cost of access by more than half. But such innovation takes time and is itself expensive" (The Economist, 2005). New technologies such as WiFi, WiMax, CorDECT and VOIP (voice over Internet protocol) could prove far more cost effective than mobile telephony, and they have the added advantage of providing data services such as Internet (Association for Progressive Communications, 2005).

- There are considerable investment needs for ICT in developing countries. In the developing world as a whole, one recent estimate suggests that investment requirements for new capacity will exceed US$100 billion. Sub-Saharan Africa alone may spend over US$5 billion to cover new investment and maintenance of existing telecommunications stock (World Bank GICTD, 2005).

- Mobile telephones seem to be the exception. The introduction of mobile technology has dramatically reduced the per subscriber costs of telecommunications services. Even fixed line switching costs, that have dropped slower than many other prices in the sector, have halved over the past decade. Over the same period, telecommunications investment in the developing world has more than doubled (World Bank GICTD, 2005).

- At the end of 2003, there were 6.1 mobile telephone subscribers for every 100 inhabitants in Africa, compared with 3 fixed line subscribers per 100. Mobile penetration is much higher in other regions of the world – 15 per 100 inhabitants in Asia for example, 48.8 in the US and 55 in Europe. Even so, there were 51.8 million mobile subscribers in Africa at the end of 2003, reflecting an increase of more than 1000% in five years. Access to mobile telephony in Africa is also almost certainly far more extensive than the subscriber figures suggest, as each handset and subscription has many users (Vodafone, 2005).

- Potential uses of mobile phones in the water sector include:
  - Operation and maintenance: ordering of spare parts, contacting repair & maintenance teams
  - Monitoring: reporting monitoring data (verbal or text)
  - Hybrid question & answer services: questions by SMS, answers/documents by mail

- "Perhaps a more immediate way of addressing the cost of the technology is to rely on older, more proven means of delivering information. Radios, for example, are already being used by many development organisations; their cost (under $10) is a fraction of the investment (at least $800) required for a telephone line. [...]Hybrid networks may well represent the future of technology in the developing world." For example, in a rural village in South India, people receive much of their information from loudspeakers on top of a Knowledge Centre (Internet telecentre), or from a newsletter printed at the centre and delivered around the village. Such old-fashioned methods of communication can be connected to an Internet hub located further upstream (The Economist, 2005).

> **Trend 13**
>
> English web content and use of English as first and second language will continue to dominate among Internet users.

- English language users are consistently cited as around one-third of the overall, nearly 1 billion, Internet users. This reflects the relative affluence of Anglo countries and high Internet penetration rates in them, as well as the degree to which the United States

and US technology firms have led the Internet revolution. This lead may be eroding, due mainly to a rapid increase of Chinese users (Johnson, 2005), which broadly parallels China's advance on other fronts. In fact, if first language speakers are compared, Chinese ought, in time, to outstrip English by a wide margin (1.3 billion and still climbing for Chinese, 300+ hundred million but static for English).

- One widely quoted figure for the amount of web content in English is 80% - this enormous figure is somewhat self-reinforcing (widely cited, it "becomes true") and is probably too high. Other sources show figures 5-15 points lower, though still well over 50% (VeriSign, 2005; Smalley Bowen, 2001). There are two notable facts about these percentages:
    - The English web content is greater than the amount of first language English users by as much as 2 to 1. This underscores the degree to which second language users are employing English when using the Internet.
    - Given the enormous lead it already enjoys and its increasing use as lingua franca in other spheres, English web content may continue to dominate even as English first-language Internet users decline as a proportion of all Internet users. This is a classic positive feedback loop: new Internet users find it helpful to learn English and employ it on-line, thus reinforcing the language's prestige and forcing subsequent new users to learn English as well (Wikipedia, 2005).

- First language users among other relatively affluent countries appear generally stable, the two largest being German and Japanese, who each have 5-10% of the overall share. In future then, English and Chinese may have roughly equal positions at the top of the overall Internet first language users, but English will likely continue to dominate as the default choice for those accessing the Internet in a second language. Other world languages that could conceivably begin to challenge include Spanish and Arabic.

Trend 14

There will be an increasing need to tailor information for specific environments in countries and regions. In the rush for the MDGs and for concrete results, donors will be less willing to finance information and awareness raising campaigns.

- This trend is very much linked with the differences in speed and character of development between regions and the increasing role of local NGOs and the local private sector, which will lead to more information tailor-made for specific WASH problems. At the same time, the emphasis on pumping money into the sector and achieving quick results will overemphasise construction and emergency situations at the expense of sustainability. These three trends have been described in previous sections.

- The advance in web technology, specifically content management systems, makes it much easier to keep a website updated. In the past, updating a website was a cumbersome process, to be done by specialist staff or, more commonly, an outside agency. As a result, keeping a website up-to-date was costly and difficult. Using CMS, every organisation can keep its website up-to-date, greatly increasing the quality of information and the effectiveness of a website as a communication tool.

- Danida has been the first donor publicly to announce cuts to information dissemination and awareness raising. The Danish Development Minister has demanded that NGOs spend the DKK 32 million (US$5 million) earmarked for information purposes on activities in developing countries that benefit the poor directly (Development Today, 2005).

Content trends

> **Trend 15**
>
> Major gender and equity disparities continue to hinder development. Gender and equity issues remain insufficiently addressed in the WASH sector.

- The MDGs are meant to address the root causes of poverty, and to halve absolute poverty for those living on < $1/pp/day. In practice, this has been translated into a number of specific targets, including target 10: to halve by 2015 the proportion of people without sustainable access to safe drinking water and sanitation. A core challenge to achieving the spirit of the MDGs is to extend coverage to the very poorest. Extending water and sanitation coverage to the middle class in China, for example, contributes to achieving the MDG water coverage target, but it is not necessarily an improvement for poverty reduction. Picking the low-hanging fruit, so to speak, may help to achieve the targets, but won't help to achieve the MDGs (Fonseca and Cardone, 2004).

- Equity, gender and poverty are interlinked, and poverty exacerbates gender disparities. For example, inequalities between girls and boys in access to schooling or adequate health care are more acute among the poor. On another level, gender inequalities hinder development. While disparities in basic rights or in the ability to participate in public life take their most direct toll on women and girls, the full costs of gender inequality ultimately harm everyone. The World Bank report "Engendering Development" (WB, 2001) shows that gender discrimination hinders the accumulation of human capital in the home and the labour market; systematically excludes women or men from access to resources, public services, or productive activities; and so diminishes an economy's capacity to grow and to raise living standards.

- During the last century much had been achieved (WB, 2001):
  - Women's life expectancy increased by 15-20 years in developing countries. For the first time, in the 1990s, women in South Asia are living longer than men.
  - Female education levels improved considerably. The primary enrolment rates of girls about doubled in South Asia, sub-Saharan Africa, and the Middle East and North Africa, rising faster than boys' enrolment rates. This substantially reduced large gender gaps in schooling.
  - More women have joined the labour force. Since 1970 women's labour force participation has risen on average by 15 percentage points in East Asia and Latin America. This growth was larger than for men, thus narrowing the gender gap in employment.
  - Gender gaps in wages have also narrowed.

- However, major disparities continue to hinder development (WB 2001):
  - In no region do women and men have equal social, economic, and legal rights. The lowest equality rates are in South Asia followed by sub-Saharan Africa.
  - Women continue to have systematically poorer command over a range of productive resources, including education, land, information, and financial resources.
  - Those disparities also translate into greater risk and vulnerability in the face of personal or family crises, in old age, and during economic shocks.
  - In a number of countries women still lack independent rights to own land, manage property, conduct business, or even travel without their husband's consent. In much of sub-Saharan Africa, women obtain land rights chiefly through their husband as long as the marriage endures, and they often lose those rights when they are divorced or widowed.
  - Women remain vastly under-represented in national and local assemblies, accounting for less than 10% of the seats in parliament, on average (except in East Asia where the figure is 18-19%). In no developing region do women hold more than 8% of ministerial positions. Moreover, progress has been negligible in most regions since the 1970s.
  - While gender equality in education and health has increased noticeably over the past 30 years in today's low-income countries, disparities between females and males in school enrolment are still greater in those countries than in middle-income and high-income countries.
  - Gender inequalities in schooling and urban jobs accelerate the spread of HIV. The AIDS epidemic will spread rapidly.
  - over the next decade - until up to one in four women and one in five men become HIV infected, already the case in several countries in sub-Saharan Africa.

- After many years of raising gender awareness in the water and sanitation sector, the truth is that "the global commitments made in the areas of water and sanitation do not specifically address the equitable division of power, work, access to and control of resources between women and men" (CSD, 2004). Although there has been "a

recognisable shift from policies concerned with the advancement of women to those encompassing gender as a whole (the relative positions, participation and influence of women and men)" gender still does not penetrate deeply into policies and legislation. More work is needed to carry desirable principles through into implementation (Chancellor F. et al., 2003).

- A Gender and Water Alliance review showed that there is gender expertise available in many countries and regions, which means that it should be relatively easy to access a pool of expertise for policy dialogues and the development of model legislation (Chancellor F. et al., 2003). At an organisational level, more gender audits within the programmes of aid organisations will take place, following the examples of the Asian Development Bank and several ministries in Latin America.

Trend 16

Sanitation and hygiene will remain the neglected stepchildren of the WASH sector.

- 'Sanitation' alone is taken to mean the safe management of human excreta. It therefore includes both the hardware (e.g. latrines and sewers) and the software (e.g. regulation, hygiene promotion) needed to reduce faecal-oral disease transmission. The term "sanitation" also refers to the ultimate disposal (or re-use) of human excreta, and covers the concept of controlling all the factors in the physical environment which may have an impact on human health and well-being. In developing countries, it normally includes drainage, solid waste management, and vector control, in addition to the activities mentioned above (WELL, 1999).

- There are big differences between and within regions. Lack of sanitation in Africa means no pit latrine; in Latin America it means no sewer or that wastewater is not treated. However, with increasing urbanisation and scarce water resources, especially in Asia, Latin America and urban Africa, more attention will need to be paid to managing wastewater.

- Sanitation suffers from having a low priority among governments, donors and most water and sanitation programmes. By the mid-1990s, 71% of the people in developing countries had access to safe drinking water while only 42% had adequate sanitation. In absolute terms, 2.7 billion people still do not have adequate sanitation (WELL, 1999).

- In UNICEF-WES programmes, far less than 10% of the budgets are usually dedicated to sanitation and hygiene/health education.

- There are many reasons for the MDG sanitation target to be so far off-track:
  - Most countries do not have one single institution responsible for sanitation and there is rarely a national budget dedicated to sanitation and hygiene.
  - Many people and communities do not find sanitation and communal waste an appealing issue.
  - The technical aspects of low-cost sanitation are often not very interesting for engineers.
  - For Departments of Public Health and some donors, the level of finance and project time-lines are less attractive for sanitation than for water.
  - Sanitation programmes are challenging to organise and manage, as they require small sums of money to be spent over scattered areas, and require repetition to achieve consistent change in the private behaviour of many individuals.
  - Low-cost sanitation and hygiene are sometimes perceived as being a women's subject and therefore given lower priority.
  - Sanitation tends not to be a compelling political issue or a "vote getter" although there are interesting exceptions in Kerala, Viet Nam and Bangladesh.

- "Sanitation is the even poorer relation of an already under resourced sector. In Africa, eight times more is spent on water than on sanitation, even though twice as many people lack basic sanitation as lack safe water. Excluding the impact of population growth, an extra 115 million Africans lacked basic sanitation in 2002 than in 2000 (a change from a 60% coverage rate in 2000 to just 43% in 2002)" (WaterAid, 2005). If the present trends continue, then there is reason to believe that diarrhoeal diseases will remain at their present rate.

> **Trend 17**
>
> There will be increased emphasis on demand-driven approaches: water resources assessment, planning, financing and monitoring tools for local governments and decentralised water utilities (public or private).

- Since the end of the International Water Supply and Sanitation Decade (1981-1990), responsibility for water, sanitation, and to a lesser extent hygiene, services has shifted from centralised systems coordinated by national level government bodies to local and intermediate levels of government. Various factors, including the failure of centralised systems to deliver services, in particular to the poor, international conventions recognising the importance of decision making at the most local level of government possible, and the processes of decentralisation and structural adjustment, have contributed to this shift.

- The task facing local governments is formidable. A corresponding need for increased capacity and resources at intermediate levels must be addressed if local government is going to be able to cope with the range of responsibilities and competencies required to provide improved services.

- With increasing urban growth, some countries now have a large number of small municipalities without mechanisms to achieve economies of scale and to increase cooperation (World Bank, 1999). Municipal finance and financing mechanisms below national level in the water sector are also gaining momentum (Cardone and Fonseca, 2005; World Bank, 1999).

- The need for sector coordination and scaling up requires: needs assessment, priority setting, planning demand and benchmarking tools for utility efficiency, tariff setting, cross subsidies, etc. Local authorities and decentralised water utilities (public or private) have to do this with very limited information that is usually dispersed through several consultant reports and is hard to get from the National Water Authority in a country. There is an increased need for capacity building with a focus on planning.

References and further reading

AAAS (1991). *Malaria and development in Africa : a cross-sectoral approach.* Retrieved 5 Oct 2005, from the World Wide Web: http://www.aaas.org/international/africa/malaria91/

Ashton, P. and Ramasar, V. (2002). 'Water and HIV/AIDS : some strategic considerations for Southern Africa'. In: Turton, A.R. and Henwood, R. (eds.). *Hydropolitics in the developing world : a Southern African perspective.* Pretoria, South Africa, African Water Issues Research Unit (AWIRU). P. 217-235. Retrieved 12 August 2005, from the World Wide Web: http://www.hivan.org.za/admin/documents/ASHTON&Ramasar-HIVAIDS%20Chapter.pdf

Association for Progressive Communications; Digital Divide Data; IT4Change; Bread For All; and NEXUS Research (2005). *APC response to the real digital divide.* Retrieved 10 August 2005, from the World Wide Web: http://community.eldis.org/webx?50@18.gnUSa5Wqc6v.0@.eead9ff

Atkinson, A.B. (2004). *New sources of development finance : funding the MDGs.* (Policy brief; no. 10). Helsinki, Finland, UN University World Institute for Development Economics Research (UNU/WIDER). Retrieved 10 August 2005, from the World Wide Web: http://www.wider.unu.edu/publications/policy-brief/PB10.pdf

Bloomfield, S.F. and Nath, K.J. (2005). *Home hygiene : prevention of infection at home in developing country situations : a training resource for teachers, community nurses, community workers and other health professionals.* London, UK, International Scientific Forum on Home Hygiene (IFH)

Bridges.org (2001). *Spanning the digital divide : understanding and tackling the issues.* Cape Town, South Africa and Washington, DC, USA, Bridges.org. Retrieved 10 August 2005, from the World Wide Web: http://www.bridges.org/spanning/download.html

Cardone, R. (2005). *Analysis of donor flows to water supply and sanitation services.* Nairobi, Kenya, UN Habitat (forthcoming)

Cardone, R. and Fonseca, C. (2005). *Experiences in innovation : financing small town water supply and sanitation service delivery.* Nairobi, Kenya, UN Habitat (forthcoming)

Cater, N. (2004*). African NGOs urge more aid through local agencies.* (AlertNet, December 21, 2004). Retrieved 10 August 2005, from the World Wide Web: http://www.alertnet.org/thefacts/reliefresources/110363588295.htm

CEPAL (2005). *[Households with access to basic services*]. BADEINSO Social Indicators and Statistics Database. Santiago, Chile, CEPAL , Division of Statistics and Economic

Projects. Retrieved 31 August 2005, from the World Wide Web:
http://www.eclac.cl/badeinso/Badeinso.asp

Chancellor F. et al. (2003). *The gender and water development report 2003 : gender perspectives on policies in the water sector.* Delft, The Netherlands, Gender and Water Alliance. Retrieved 5 Oct 2005, from the World Wide Web:
www.genderandwateralliance.org/reports/GWA%20Annual%20Report.pdf

Chennai Group (2005). *Chennai Statement on up-scaling pro-poor ICT policies and practices.* Richterswil, Switzerland, Gerster Consulting. Retrieved 10 August 2005, from the World Wide Web: http://www.gersterconsulting.ch/docs/Chennai_statement.pdf

Cornia, G.A. and Court, J. (2001). *Inequality, growth and poverty in the era of liberalization and globalization.* (Policy brief; no. 4). Helsinki, Finland, UN University World Institute for Development Economics Research (UNU/WIDER). Retrieved 10 August 2005, from the World Wide Web: http://www.wider.unu.edu/publications/pb4.pdf

Development Initiatives (2005). *Briefing on aid in 2004.* Retrieved 4 Oct 2005, from the World Wide Web: http://www.devinit.org/dagfigs2004brief2.pdf

Development Today (2005). 'New blow dealt to Danish development NGOs'. In: *Development today*, no. 12. Retrieved 4 Oct 2005, from the World Wide Web: (subscription site) http://www.development-today.com/esubscriber/search.cgi?keyword=danish+development+ngos&category=all

Development Today (2005). 'Orgut wins prestigious Kenya water sector contract'. In: *Development today*, no.4-5. Retrieved 10 August 2005, from the World Wide Web: (subscription site) http://www.development-today.com/

DFID (2005). *Why we need to work more effectively in fragile states.* London, UK, Department for International Development (DFID). Retrieved 30 Sept 2005, from the World Wide Web: http://www.dfid.gov.uk/pubs/files/fragilestates-paper.pdf

Dutta, S. and Jain, A. (2004). 'The networked readiness index 2003-2004 : overview and analysis framework'. In: Dutta, S.; Lanvin, B. and Paua, F. *The global information technology report 2003–2004 : towards an equitable information society.* New York, NY, Oxford University Press. P. 3-22. Retrieved 10 August 2005, from the World Wide Web: http://www.weforum.org/pdf/Gcr/GITR_2003_2004/Framework_Chapter.pdf

Economist (2004a).'Doing well and doing good.' In: *The Economist*, 29 July 2004. Retrieved 4 Oct 2005, from the World Wide Web: http://www.economist.com/displaystory.cfm?story_id=2963247

Economist (2004b). 'Making poverty history'. In: *The Economist*, 16 Dec 2004. Retrieved 3 Nov 2005, from the World Wide Web:

http://www.economist.com/opinion/displayStory.cfm?story_id=3500269

Economist (2005). 'Behind the digital divide'. In: *The Economist*, 10 March 2005. Retrieved 31 August 2005, from the World Wide Web: (subscription site) http://www.economist.com/opinion/displaystory.cfm?story_id=3714058&tranMode=none

Eldis (2005). *International policy, aid financing and HIV/AIDS : the complete guide*. Retrieved 11 August 2005, from the World Wide Web: http://www.eldis.org/hivaids/intpolicy.htm

Fonseca, C. and Cardone, R. (2004). *Analysis of cost estimates and funding available for achieving the Millennium Development Goals targets for water and sanitation*. Delft, The Netherlands, IRC International Water and Sanitation Centre. Retrieved 4 Oct 2005, from the World Wide Web: http://www.irc.nl/page/16540

Fonseca, C.; Franceys, R. and Schouten, M. (2005). *Plugging the leak : can Europeans find new sources of funding to fill the MDG water and sanitation gap?* (Occasional paper series; no. 39-E). Delft, The Netherlands, IRC International Water and Sanitation Centre. Retrieved 4 Oct 2005, from the World Wide Web: http://www.irc.nl/page/24899

Foster, M.; Brown, A. and Conway, T. (2000). *Sector-wide approaches for health development : a review of experience.* Geneva, Switzerland, World Health Organization. Retrieved 11 August 2005, from the World Wide Web: http://whqlibdoc.who.int/hq/2000/WHO_GPE_00.1.pdf

Foxwood, N. and Green, J. (2004). *Making every drop count : an assessment of donor progress towards the water and sanitation target*. Teddington, UK, Tearfund. Retrieved 11 August 2005, from the World Wide Web: http://www.tearfund.org/webdocs/Website/Campaigning/Policy%20and%20research/MakingEveryDropCount.pdf

Global Fund to Fight AIDS, Tuberculosis and Malaria (2005). *The status and impact of three diseases – malaria*. Retrieved 4 Oct 2005, from the World Wide Web: http://www.theglobalfund.org/en/files/about/replenishment/disease_report_malaria_en.pdf

Harford, T. and Klein, M. (2005). 'The future of aid 2.: the big push'. In: *Public policy journal*, no. 285. Retrieved 11 August 2005, from the World Wide Web: http://rru.worldbank.org/documents/publicpolicyjournal/285Harford_Klein.pdf

Harford, T.; Klein, M. and Tilmes, K. (2005). 'The future of aid 1 : the rise of the undergrowth'. In: *Public policy journal*, no. 284. Retrieved 11 August 2005, from the World Wide Web: http://rru.worldbank.org/documents/publicpolicyjournal/284Harford_Klein_Tilmes.pdf

Hesselbarth, S.; D'Ansembourg, B. and Tambo, I. (2005). *Financing ICTs for development. efforts of DAC Members : review of recent trends of ODA and its contribution : report to the UN Task Force on Financial Mechanisms for ICT for Development (TFFM)*. Paris, France, OECD. Retrieved 11 August 2005, from the World Wide Web:
http://www.oecd.org/dataoecd/41/45/34410597.pdf

Hinrichsen, D.; Robey, B. and Upadhyay, U.D. (1997). *Solutions for a water-short world*. (Population reports; no. M14). Baltimore, MD, USA, Johns Hopkins School of Public Health, Population Information Program. Retrieved 30 Sept 2005, from the World Wide Web:
http://www.infoforhealth.org/pr/m14/m14chap4_1.shtml

Ijjasz, E. (2005). *Drivers, trends and policies in the water supply and sanitation sector*. Paper presented at the Water seminar: challenges, responsibilities and options, Helsinki, January 26-28, 2005. (Annex A, A2). Retrieved 11 August 2005, from the World Wide Web: http://www.ymparisto.fi/download.asp?contentid=35379&lan=en

Johnson, B. (2005). 'English grip on Internet being eroded'. In: *The Guardian*, 16 August 2005. Retrieved 3 Nov 2005, from the World Wide Web:
http://blogs.guardian.co.uk/technology/archives/2005/08/16/english_grip_on_internet_being_eroded.html

Jütting, J. et al. (2004). *Decentralization and poverty in developing countries : exploring the impact*. (Working paper; no. 236). Paris, France, OECD. Retrieved 10 August 2005, from the World Wide Web: http://www.oecd.org/dataoecd/40/19/33648213.pdf

Kamminga, E. and Wegelin-Schuringa, M. (2003). *HIV/AIDS and water, sanitation and hygiene*. (Thematic overview paper). Delft, The Netherlands, IRC International Water and Sanitation Centre. Retrieved 12 August 2005, from the World Wide Web:
http://www.irc.nl/page/3462

Lange, M. and Quinn, M. (2003). *Conflict, humanitarian assistance and peacebuilding : meeting the challenges*. London, UK, International Alert. Retrieved 12 August 2005, from the World Wide Web: http://www.international-alert.org/publications/57.php

Lenton, R.; Wright, A.M. and Lewis, K. (2005a). *Health, dignity, and development : what will it take?* New York, NY, USA, UN Millennium Project Task Force on Water and Sanitation and London, UK, Earthscan. P. 8 and p. 127. Retrieved 31 August 2005, from the World Wide Web:
http://www.unmillenniumproject.org/documents/WaterComplete-lowres.pdf

Lenton, R.; Wright, A.M. and Lewis, K. (2005b). *Health, dignity, and development : what will it take?* New York, NY, USA, UN Millennium Project Task Force on Water and Sanitation and

Stockholm, Sweden, International Water Institute. P. 13. Retrieved 31 August 2005, from the World Wide Web:
http://www.unmillenniumproject.org/documents/What_Will_It_Take.pdf

Macrae, J. et al. (2004). *Aid to 'poorly performing' countries : a critical review of debates and issues.* London, UK, Overseas Development Institute. Retrieved 30 Sept 2005, from the World Wide Web:
http://www.globalpolicy.org/socecon/develop/oda/2004/07ppcaid.pdf

Martens, J. (2001). *Rethinking ODA, towards a renewal of Official Development Assistance : a background paper for the United Nations Financing for Development Process.* (Working paper). Bonn, Germany, World Economy, Ecology & Development association WEED). Retrieved 30 Sept 2005, from the World Wide Web:
http://www.globalpolicy.org/socecon/develop/oda/2001/04rethinking.pdf

Meek, S. et al. (2005). *Tackle malaria today : a call to the international community.* London, UK, Malaria Consortium and London School of Hygiene and Tropical Medicine. Retrieved 12 August 2005, from the World Wide Web:
http://www.mmv.org/FilesUpld/249.pdf

Minges, M. (2005). *Measuring digital opportunity.* Geneva, Switzerland, ITU / International Telecommunication Union (ITU). Retrieved 29 October 2005 from the World Wide Web:
http://www.itu.int/osg/spu/ni/wsisbridges/linked_docs/Background_papers/DOI%20V2.pdf

OECD (2003a) *DAC List of aid recipients : as at 1 January 2003.* Retrieved 4 Oct 2005, from the World Wide Web: http://www.oecd.org/dataoecd/35/9/2488552.pdf

OECD (2003b). *Harmonising donor practices for effective aid delivery : good practice papers.* (DAC Guidelines and reference series). Paris, France, OECD. Retrieved 12 August 2005, from the World Wide Web: http://www.oecd.org/dataoecd/0/48/20896122.pdf

OECD (2004a). *Aid for water supply and sanitation : a report prepared at the request of the International Water Academy.* Oslo, Norway: International Water Academy. Retrieved 12 August 2005, from the World Wide Web: http://www.thewateracademy.org/docs/OECD-report.doc

OECD (2004b). *Future studies data and information : water.* Retrieved 4 Oct 2005, from the World Wide Web:
http://www.oecd.org/document/60/0,2340,en_2649_34213_1961596_1_1_1_1,00.html

OECD (2005a). *High level forum on joint progress toward enhanced aid effectiveness : harmonisation, alignment, and results. Next steps: Paris Declaration on Aid Effectiveness* (DAC News April-May 2005). Retrieved 4 Oct 2005, from the World Wide Web:
http://www.oecd.org/document/36/0,2340,en_2649_201185_34689188_1_1_1_1,00.html

OECD (2005b). *Budget support, sector wide approaches and capacity development in public financial management*. (DAC guidelines and reference series harmonising donor practices for effective aid delivery; vol. 2). Paris, France, OECD
http://www.oecd.org/dataoecd/53/7/34583142.pdf

OECD (2005c) Statistics analysis of OECD database available on
http://www.oecd.org/dataoecd/50/17/5037721.htm

OECD (2005d)
http://www.oecd.org/dataoecd/57/30/35320618.pdf

Oxfam New Zealand (2004). *Annual report 2004*. Auckland, NZ, Oxfam New Zealand. Retrieved 5 Oct 2005, from the World Wide Web:
http://www.oxfam.org.nz/resources/Oxfam%20Annual%20Report%202004.pdf

Population Action International (1993). 'Water-scarce countries'. In: Population Action International. *Sustaining water : population and the future of renewable water supplies*. Washington, DC, USA, Population Action International. Retrieved 4 Oct 2005, from the World Wide Web:
http://www.cnie.org/pop/pai/water-14.html

Picciotto, R. (2004). *Aid and conflict : the policy coherence challenge*. Paper presented at the WIDER conference on making peace work, Helsinki, Finland, June 4-5, 2004. Brighton, UK, University of Sussex. Retrieved 3 Nov 2005, from the World Wide Web:

http://www.wider.unu.edu/conference/conference-2004-1/conference%202004-1-papers/Picciotto-2505.pdf

Reuters (2005). *G7 fails to reach deal on debt relief*. Retrieved 16 Apr 2005, from the World Wide Web:
http://news.moneycentral.msn.com/breaking/breakingnewsarticle.asp?feed=OBR&Date=20050416&ID=4373431

Rogerson, A. (2004). *The international aid system 2005-2010 : forces for and against change*. (Working paper; no. 235). London, UK, Overseas Development Institute. Retrieved 31 August 2005, from the World Wide Web:
http://www.odi.org.uk/publications/working_papers/wp235.pdf

Secretariat of the International Organisations' Staff Associations in The Netherlands (IOSA-NL) (2005). *At home in Holland? : how staff members of international organisations view life in The Netherlands. : report on survey results*. Draft. Rijswijk, The Netherlands, Secretariat of the International Organisations' Staff Associations in The Netherlands.

Retrieved 29 October 2005 from the World Wide Web:
http://www.denhaag.pvda.nl/docs/enquete.pdf

Smalley Bowen, T. (2001).'English could snowball on net'. In: *TRN : technology research* news, 21 November 2001. Retrieved 3 Nov 2005, from the World Wide Web:
http://www.trnmag.com/Stories/2001/112101/English_could_snowball_on_Net_112101.html

Wikipedia (2005). *English on the internet*. Retrieved 3 Nov 2005, from the World Wide Web:
http://en.wikipedia.org/wiki/English_on_the_Internet,

World Bank (1999). *A strategic view of urban and local government issues : implications for the Bank*. Washington, DC, USA, World Bank. Retrieved 3 Nov 2005, from the World Wide Web:
www.worldbank.org/html/fpd/urban/strategy/full.htm

World Bank (2001). *Engendering development through gender equality in rights, resources and voice*. (Policy research report). New York, NY, USA, Oxford University Press. Retrieved 29 October 2005 from the World Wide Web:
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/0,,contentMDK:20186672~menuPK:489201~pagePK:148956~piPK:216618~theSitePK:336868,00.html

Turton, A. and Henwood, R. (eds.) (2002). *Hydropolitics in the developing world : a Southern African perspective*. Pretoria, South Africa, African Water Issues Research Unit (AWIRU). P. 223. Retrieved 12 August 2005, from the World Wide Web:
http://www.internationalwaterlaw.org/Articles/hydropolitics_book.pdf

UN World Water Assessment Programme (2003). *The world water development report : water for people, water for life*. Paris, France, Unesco. Retrieved 30 Sept 2005, from the World Wide Web:
www.unesco.org/water/wwap/wwdr/index.shtml

UNAIDS (2000). Report on the global HIV/AIDS epidemic. Geneva Switzerland, UNAID. Retrieved 7 Oct 2005, from the World Wide Web:
http://www.who.int/hiv/pub/epidemiology/pubepidemic2002/en/

UNAIDS and WHO (2004*). AIDS epidemic update*. Geneva, Switzerland, UNAIDS. Retrieved 5 Oct 2005, from the World Wide Web:
http://www.unaids.org/wad2004/EPI_1204_pdf_en/EpiUpdate04_en.pdf

UNEP (1998).'Desalination'. In: UNEP. *Sourcebook of alternative technologies for freshwater augmentation in some Asian countries*. New York, NY, USA, United Nations Development Programme. Chapter 4.1. Retrieved 30 Sept 2005 from the World Wide Web:
http://www.unep.or.jp/ietc/Publications/TechPublications/TechPub-8e/desalination.asp

UNEP (2002). *South Asia expert workshop on adaptation, India, 2002*. Nairobi, Kenya, United Nations Environment Programme. Fig. 8. Freshwater stress. Retrieved 3 Nov 2005, from the World Wide Web:: http://www.unep.org/dpdl/indiaworkshop/vitcligra/figure8.htm

United Nations (2002). *World urbanization prospects : the 2001 revision*. New York , NY, USA, United Nations. Retrieved 3 Nov 2005, from the World Wide Web: http://www.un.org/esa/population/publications/wup2001/WUP2001report.htm

United Nations (2005). *The inequality predicament : report on the world social situation 2005*. New York, NY, USA, United Nations. Chapter III. Trends and patterns of inequality. Retrieved 4 Oct 2005 from the World Wide Web: http://www.un.org/esa/socdev/rwss/docs/Chapter3.pdf

United Nations Economic and Social Council (2004). *Strengthening the coordination of emergency humanitarian assistance of the United Nations*. New York: United Nations Economic and Social Council. Retrieved 10 August 2005, from the World Wide Web: http://www.un.org/esa/coordination/ecosoc/ecosoc.final.drt.pdf

United Nations Economic and Social Council, Commission on Sustainable Development (2004). *A gender perspective on water resources and sanitation*. New York, NY, USA : United Nations Economic and Social Council. Retrieved 10 August 2005, from the World Wide Web: http://www.un.org/esa/sustdev/csd/csd13/documents/bground_2.pdf

USAID; UNAIDS; WHO; UNICEF and POLICY Project (2004). *Coverage of selected services for HIV/AIDS prevention, care and support in low and middle-income countries in 2003*. Washington, DC, USA, POLICY Project. Retrieved 5 Oct 2005, from the World Wide Web: http://www.who.int/hiv/pub/prev_care/coverage/en/

VeriSign (2005). *VeriSign announces plan to further enhance .com and .net global internet constellation sites with regional resolution servers*. Retrieved 3 Nov 2005, from the World Wide Web: http://www.verisign.com/press_releases/pr/page_029135.html

Vodafone (2005). *Africa : the impact of mobile phones*. (The Vodafone policy paper series; no. 2). Newbury, UK, Vodafone. Retrieved 12 August 2005, from the World Wide Web: http://www.vodafone.com/assets/files/en/AIMP_09032005.pdf

Waddell, S. and Cross, P. (2000). *Trends Amongst NGOs in the water and sanitation sector : a competencies-driven international and intersectoral analysis. Presentation to the Second World Water Forum and Ministerial Conference, The Hague, The Netherlands, March 17*. (Report to the UN Task Force on Financial Mechanisms) for ICT for Development (TFFM). Retrieved 21 Mar 2005, from the World Wide Web: (subscription site)
http://www.development-today.com/

WaterAid (2005). *Getting to boiling point : turning up the heat on water supply and sanitation*. London, UK, WaterAid. Retrieved 5 Oct 2005, from the World Wide Web: http://www.wateraid.org.uk/documents/Getting%20to%20boiling%20point%20-%20executive%20summary.pdf

WELL (1999). *DFID guidance manual on water supply and sanitation programmes*. Loughborough, UK, Water, Engineering and Development Centre (WEDC). Retrieved 29 October 2005 from the World Wide Web: http://www.lboro.ac.uk/well/resources/Publications/guidance-manual/guidance-manual.htm

World Bank (2005). *Harmonization and alignment for achieving greater aid effectiveness: available information on country level activities*. Draft. Washington, DC, USA, World Bank, Evaluation Cooperation Group. Retrieved 12 August 2005, from the World Wide Web: http://www1.worldbank.org/harmonization/Paris/FINALPARISDECLARATION.pdf

World Bank, Global Information and Communication Technologies Department (2005). *Financing information and communication infrastructure needs in the developing world : public and private roles*. Draft. Washington, DC, USA, World Bank. Retrieved 12 August 2005, from the World Wide Web: http://lnweb18.worldbank.org/ict/resources.nsf/InfoResources/04C3CE1B933921A585256 FB60051B8F5

World Bank (2004). *Global information infrastructure : pyramid research – EIU*. Retrieved 12 August 2005, from the World Wide Web: http://www.un.org/esa/sustdev/natlinfo/indicators/idsd/pdf/Information_Infrastructure_Indica tors_summary.pdf

World Bank Press Review, 30 Aug 2005. *The $1.6 trillion non-profit sector behaves (or misbehaves) more and more like big business*. Retrieved 29 October 2005 from the World Wide Web: http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,date:2005-08-30~menuPK:34461~pagePK:34392~piPK:64256810~theSitePK:4607,00.html#top

World Health Organization. (2004). Protecting young people from HIV and AIDS, The Role of the Health Services. Retrieved December 2005, from the World Wide Web: http://www.who.int/child-adolescent-health/publications/ADH/ISBN_92_4_159247_8.htm