

FINAL VERSION

**FRAGILE STATES GROUP
WORKSTREAM ON SERVICE DELIVERY**

WATER AND SANITATION SUB-GROUP (WATSAN)
Phase 2: Capturing Lessons and Identifying Good Practice

Yemen Case Study

prepared for

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1. Introduction

Yemen

In 2003, Yemen was one of the least developed countries in the world, with a GDP per capita of US\$889 (PPP) and a Human Development Index ranking of 151 out of 177 countries – the worst performance among Arab states.¹ The country has a population of 19.7 million (74.3% in rural areas), of which 42% live below the national poverty line. Among the major problems are limited access to basic services, malnourishment (close to 50%), high illiteracy rates especially among females (71%), extreme water scarcity and a very high population growth rate that is estimated at 3% per year. The prospects for the Yemenite economy remain weak, with the country's level of economic growth (2.4% in 2005) likely to fall far short of the World Bank target of 8% needed to achieve sustainable development.² Inflation is likely to increase to 15.8% in 2006, from an estimated 10.5% in 2005. While Yemen remains highly dependent on oil revenues, its oil reserves are gradually dwindling. With oil production in terminal decline, the government will be forced to introduce economic reform. However, fears of angering an already restive population are likely to keep reform progress slow and haphazard – as illustrated by the government's partial retreat over fuel subsidy cuts and the planned general sales tax (GST) in mid-2005.



The early years of the reunified Yemen were characterised by significant positive political developments: The country enjoyed a level of press freedom, political pluralism and popular participation that was remarkable for the region and unique on the Arabian Peninsula.³ The constitutional referendum of 1991, in which male and female voters approved a collective presidency and an elected parliament with considerable powers, was followed by the first multi-party parliamentary elections ever held on Yemenite territory (and the Arabian Peninsula as a whole) in April 1993. While the Freedom House Index ranked Yemen as

¹ UNDP 2005

² The Economist Intelligence Unit 2006: 4ff.

³ ICG 2003: 4

“partly free” at the beginning of the 1990s, the country fell back to “not free” after 1994.⁴ This deterioration was mainly due to the increasing manipulation of all elections since 1993, the extreme concentration of executive power and restricted press freedom with recurrent attacks on non-governmental journalists. The political pluralism of the early years seems to be eroding. The qualification assessment for the US funded Millennium Challenge Account, for example, determined that the Yemenite regime had moved backwards from previous assessments.⁵ In the 2005 round, Yemen failed all six “ruling justly” indicators and three of the four indicators of “investing in people”. Also, Transparency International has repeatedly noted widespread and growing corruption, ranking Yemen near the bottom of the corruption scale.⁶

Yemen as a fragile state

Yemen has recently figured very prominently in the debate on state fragility and state failure. The recently published “Failed States Index”, for instance, ranks Yemen 8th out of a total of 60 listed countries.⁷ This ranking is based on very low scores for indicators such as uneven development, economic decline, delegitimation of the state, public services, security apparatus and factionalised elites. Beyond the question whether these indicators are really adequate measures of the degree of state failure, it generally seems rather exaggerated to include Yemen among the ten most failed states in the world, not least since the country is very far away from Congolese, Afghan or Somali scenarios. Altogether, it seems therefore more reasonable to endorse the assessment of the International Crisis Group (ICG) that claims that “Yemen is not a failed or failing state but it is a fragile one”.⁸

Yemen is one of many examples where state fragility does not derive from the decay of state structures but rather from a historical process of “delayed state-building”.⁹ From the early 18th century until 1990, there was no unified state on the land comprising the current territory of Yemen and the country experienced a long-standing split between the North and the South: While the Yemen Arab Republic (YAR) in the North was ruled by a heterogeneous coalition that reflected persistent internal divisions between republican and tribal forces, the People’s Democratic Republic of Yemen (PDRY) in the South became the only Marxist state in the Arab world and was ruled by a socialist party with considerable Soviet and Chinese backing. The united Yemenite state established in 1990 thus inherited strikingly different political traditions.¹⁰

Although the political system of the new republic achieved remarkable early progress (see above), genuine unification did not.¹¹ Until 1994, each part of the country generally remained under the control of its former ruling party. Southerners accused the government in Sanaa of being unresponsive to their needs,

⁴ Cited after: Glosemeyer 2005: 126f.

⁵ Cited after: Yemen Times, 22 December 2005

⁶ Ibid.

⁷ The Fund for Peace and the Carnegie Endowment for International Peace (2005): 59

⁸ ICG 2003: ii

⁹ Glosemeyer 2005: 122

¹⁰ ICG 2003: 2ff.

¹¹ Ibid.: 4ff.

while northerners felt the South was reluctant to accept the former YAR's greater demographic weight. In October 1993, President Saleh's Congress Party (the former ruling party of the YAR) took the initiative to abolish the constitutional principle of collective leadership whereby power had been equally shared between northern and southern leaders. This move sparked increasingly violent clashes between the two parts of the country and culminated into a full-scale civil war in early 1994 that was won by the military domination of Saleh's northern forces by July 1994. Since then, Saleh has retained and consolidated his control of the country. While this has formally ended North-South hostilities, discriminatory state policies continue to threaten the stability of Yemen: Large numbers of Southerners have been marginalized in public life and feel that they receive an insufficient allocation of the wealth produced by the country's natural resources that are mainly located in the South.¹²

The persistent fragility of the Yemenite state can be best framed in institutional terms.¹³ Here, state fragility is a condition where the given institutional arrangements in a state embody and preserve the potential for conflict and the conditions of crisis.¹⁴ Fragile states commonly involve a situation of "institutional multiplicity", which means that formal (or statutory) institutional arrangements are seriously challenged by informal rival institutional systems at all levels of society. In the case of Yemen, the Yemenite state has never been able to establish an effective monopoly of violence over its whole territory and remains unable to control its borders, particularly those shared with Saudi Arabia.¹⁵ Large areas of the vast and sparsely populated country – primarily the mountains and deserts of the northern and eastern governorates – are beyond the effective control of the central government and important parts of the population continue to live by traditional institutional systems and actively resist stronger government authority. In this context, one has to emphasise the traditional autonomy of Yemen's numerous tribes that provide social services and continue to wield considerable power – a situation that is facilitated by the widespread availability of small and even heavy arms.¹⁶

Due to the absence of an effective monopoly of violence, Yemen continues to be affected by social unrest in both urban and rural areas that take the form of tribal clashes, kidnapping, military-tribal confrontations, demonstrations and bomb attacks.¹⁷ The incomplete control over its territory, combined with the existence of a variety of home-grown Islamist movements, has over the last several years attracted increasing international attention: The Yemenite origin of leading al-Qaeda operatives and the assumed presence in Yemen of many al-

¹² Yemen Times, 22 December 2005

¹³ Institutions are defined as "the rules of the game of a society, or, more formally, are the humanly devised constraints that structure human interaction. They are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behaviour and self-imposed codes of conduct), and the enforcement characteristics of both" (North 1993: 23).

¹⁴ Crisis States Programme 2005: 7-8

¹⁵ Yemen Times, 22 December 2005

¹⁶ Today, men living in both urban and rural areas are likely to own at least one pistol or rifle, often an AK-47. Outside the main cities, overtly carrying weapons in public is accepted as normal (ICG 2003: 1).

¹⁷ Ibid.: 13ff.

Qaeda members who fled Afghanistan on the one hand, and, on the other, a series of politically motivated attacks on U.S. and European targets (including, those on the *USS Cole* in October 2000 and on the French oil tanker *Limburg* in October 2002), have placed Yemen under the spotlight of the international debate on the war against terrorism.¹⁸ The Yemenite government has since 11 September 2001 cooperated with the US and taken steps against al-Qaeda. In the light of the widespread popular hostility towards the US, however, this is an extremely delicate balancing act for a fragile country like Yemen.¹⁹

Altogether, Yemen as a fragile state is rather difficult to categorise. As already indicated above, it seems most convincing to portray Yemen as a country that is still in a difficult process of state-building and continues to be affected by institutional fragility – a situation that may be very pronounced in Yemen but is generally quite common for many low-income countries. If one attempts to apply the typology developed by the DAC Fragile States Group, things become more complicated and blurred. This is largely due to its rather vague underlying concepts of political willingness and capacity that are generally very difficult to apply to countries as a whole. Nonetheless, one may be inclined to argue that the current Yemenite context resembles a situation of (enduring) recovery where a stable government is in place and basic state functions are slowly being established. Despite authoritarian tendencies and high levels of corruption, national leadership is demonstrating political will to make progress in developing the infrastructure of a modern state but the performance and capacity of government remains rather weak in terms of policy development and implementation.

2. The Yemenite water sector

Yemen is one of the most water-stressed countries in the world and faces a number of serious problems in the water sector, which have to be solved quickly if living conditions are not to deteriorate in many parts of the country.

Water resources and water use

Yemen has a predominantly arid climate with average annual rainfall ranging from less than 50mm in the coastal areas and the deserts to more than 1000mm on the western slopes of the mountains.²⁰ The country has no permanent rivers and is generally *extremely water scarce* (see table 1). In 2000, actual renewable water resources (km³/year) were estimated at 4km³, which amounts to a per capita water availability of 198m³/person/year. This is a very low figure not only by global standards (the global per capita average is 8548m³/person/year) but also far below the “water poverty line” of 1000m³/person/year. Even in the generally water scarce Middle East & North Africa (MENA) region, per capita water availability levels still average 1505m³/person/year.

¹⁸ Ibid.: 1

¹⁹ Ibid.: 23f.

²⁰ FAO 1997

Table 1: Water availability and water use, 2000²¹

	Yemen	MENA
Actual Renewable Water Resources, Total (km³/year)	4	
Actual Renewable Water Resources, per capita (m³/person/year)	198	1.505
Annual water withdrawals (km³)	6.6	324.6
Annual water withdrawals, per capita (m³/person)	368	807
Annual withdrawals, Agriculture (%)	95	86
Annual withdrawals, Industry (%)	1	6
Annual withdrawals, Domestic (%)	4	8

In 2000, total water withdrawals were estimated at 6.6km³/year, thereby exceeding by more than half the annual renewable freshwater resources (see table 1). Notwithstanding the scepticism about the accuracy of the above estimates, the overall picture is clear:²² Yemen is facing an exacerbating imbalance between water supply and water demand, especially affecting groundwater. The water crisis is starting to take a catastrophic nature in a number of basins where aquifers are depleting very fast, as reflected by rapidly falling groundwater levels at rates reaching 6m annually in some basins. Even Sanaa is liable to run out of water within the next decade. Smallholdings are most affected by the rising water poverty, since in Yemen water rights follow land rights.²³ Also, declining water tables boost investment cost for pumping, thereby favouring the larger farmers. Finally, water conflicts resulting from growing competition are becoming frequent in many basins (see below).

95% of the annual water withdrawals are used for agricultural purposes, while domestic use and industry account for 4% and 1% of total water use (see table 1). Overall water use (or irrigation) efficiency in agriculture is very low (below 40%).²⁴ Most of the cultivated area is still directly rain-fed (55%), but the groundwater irrigation share has exploded from 5% to 45%. 30% of the water used for agriculture is going into water-intensive qat production - a non-food crop that occupies 11% of the cultivated land. Qat can be ascribed a major role in groundwater depletion.²⁵ If the existing situation continues as it is, then qat farming will in the end deplete rural water and consequently wipe out the rural economy.

With respect to domestic water use, the proportion of unaccounted water (losses) of urban water supply utilities is very high, sometimes approaching 45-50% of water production.²⁶ At the same time, water demand for domestic use is continuously increasing, especially in cities due to rapid population growth and urban migration. It is estimated that an extra 100 million m³/year are needed for

²¹ WRI 2005: 208

²² Republic of Yemen 2004: 7

²³ KfW 2006

²⁴ Ibid.

²⁵ Republic of Yemen 2004: 12

²⁶ Ibid.: 8f.

the urban WSS sector by 2015. Therefore, the re-allocation of water resources from agricultural to domestic and rural to urban use seems inevitable.

Beyond dramatic levels of water scarcity, the pollution of water resources has become a growing problem.²⁷ Cities and industries discharge untreated domestic and industrial wastewater into aquifers in peri-urban areas. While dangers of urban wastewater pollution are more visible, there is also a potential pollution hazard to aquifers from untreated rural wastewater. In addition to environmental impacts, uncontrolled disposal of raw wastewater poses a direct health hazard to urban and rural populations.

Water supply and sanitation

Access to improved sources of drinking water and sanitation remains a problem throughout the country (see tables 2 and 3). The major challenge is that service coverage has not kept up with the high population growth.

Table 2: Improved drinking water coverage (%), 1990 – 2002²⁸

	Yemen (1990)	Yemen (2002)	Western Asia (2002)
Total access to improved drinking water	69	69	88
Total house connections	31	33	63
Urban access to improved drinking water	74	74	95
Urban house connections	64	64	79
Rural access to improved drinking water	68	68	74
Rural house connections	22	22	31

In 2002, improved drinking water was available to only 69% of the population – 74% in urban areas and 68% in rural areas. The coverage rate has not improved since 1990 and remains significantly below the Western Asian average of 88% (see table 2). This means that almost one third of the Yemenite population continues to rely on “unsafe” sources of drinking water (e.g. unprotected public wells, rivers, tanker trucks), in particular the poor. It needs to be noted that the water provided through the LCs is generally much cheaper than that provided by private water tankers (e.g. donkey carts, lorries).²⁹ In Zabrid, for example, 1m³ of water provided through a donkey cart costs around 200 YR, while the official price ranges from 50 YR in the lowest consumption bracket to 125 YR in the highest.

The Yemenite sanitation coverage rate has risen from 21% in 1990 to 30% in 2002 but remains significantly (!) below the Western Asian average of 79% (see table 3). While 76% of the urban population have access to improved sanitation services, this is only the case for 14% of the rural population. This situation has

²⁷ Ibid.

²⁸ UNICEF / WHO 2004: 31

²⁹ Buhl 2005: 13f.

obvious negative implications for the hygiene and health of the population, especially in rural areas.

Table 3: Improved sanitation coverage (%), 1990 – 2002³⁰

	Yemen (1990)	Yemen (2002)	Western Asia (2002)
Total access to improved sanitation	21	30	79
Total house connections	8	11	59
Urban access to improved sanitation	59	76	95
Urban house connections	39	35	82
Rural access to improved sanitation	11	14	49
Rural house connections	0	2	14

Water institutions and policy development

For centuries, Yemen remained a society based on agriculture, which was almost entirely supported by rain and surface water resources.³¹ An elaborate system of formal and informal norms and laws slowly evolved to govern the use of surface water in a sustainable and fairly equitable manner. This began to change from the early 1960s, with the advent of modernisation characterized by population increase, rising food demand, rapid urbanisation, initial industrialisation, and the availability of modern technology such as pumps and drilling rigs. As a consequence, the share of groundwater in irrigation started to increase rapidly and soon reached unsustainable levels. These fundamental changes took place in no more than two to three decades and clearly outpaced the evolution of the Yemenite social adaptive capacity. At present, there are inadequate institutional and organisational capacities at all levels of government to regulate water resources development.

While Yemen had for a long time no water legislation, the country has enacted a Water Law in 2002.³² The latter provides a legal basis for controlling groundwater abstractions and includes measures such as licensing and registration requirements for wells and rigs, and more strict control regimes in water stressed catchments. It also supports decentralization in the form of encouraging the formation of basin committees and requires working closely with Local Councils in the implementation of water management measures. But for all of this to translate into effective water management, more than just the legal framework is needed. While well-drilling licensing has now become obligatory, the implementation of this licensing system still faces many difficulties.³³ In the absence of a system of generally accepted and effectively enforced water rights, water allocations remain determined by resource capture. This holds particularly true for groundwater resources where traditional customs grant a land owner the right to exploit whatever water that may exist underground – a classical “com-

³⁰ UNICEF / WHO 2004: 31

³¹ Republic of Yemen 2004: 6f.

³² Ibid.: 10f.

³³ Ibid.: 7ff.

mon pool resources dilemma” that continues to fuel the unsustainable depletion of groundwater.

At the organisational level, the Yemenite water sector was initially characterised by multiple actors and fragmented responsibilities. In recent years, however, Yemen has been slowly moving towards a more integrated sector governance structure. This began in 1996 with the bundling of water resource management functions under one entity – the National Water Resources Authority (NWRA) – and was consolidated by the establishment of the Ministry of Water and Environment (MWE) in 2003.³⁴ For the first time, all agencies dealing with water and environment – with the notable exception of the Ministry of Agriculture and Irrigation (MAI) – are now within the fold of the new ministry (NWRA, NWSA, LCs, GARWSP and EPA). While the MWE is generally responsible for sector investment planning and the coordination between all water sector agencies, it is currently still at a capacity development stage and suffers from a lack of competent staff.³⁵ As a consequence, it has only the mandate (through NWRA) but not the power to enforce a more sustainable approach to national water resources management, in particular vis-à-vis the influential MAI and vested agricultural interests.³⁶

The NWRA is responsible for the planning and implementation of national water resources management – a process that is generally very difficult due to a lack of reliable data and general problems to enforce laws and regulations concerning water use in Yemen. Yemen follows an approach of “basin co-management” whereby stakeholders and state institutions forge a partnership for managing water resources at catchment level.³⁷ Concerted efforts need to be made for translating this from a management model into reality: While a few Basin Committees have been formed (e.g. in the Sanaa, Sadah and Amran basins), efforts to create community-based water organizations on a wider scale are constrained by the fact that NWRA at present lacks sufficient financial and human resources and has only a limited regional and local presence. For the co-management approach to work, NWRA has started to prepare regional water management plans for some areas (e.g. for the Taiz, Hadramawt, Tuban-Abyan and Sadah basins), but the pace of plan preparation remains slow because technical capacities for IWRM are still weak and the necessary water infrastructure to collect information (e.g. hydro-meteorological monitoring networks, reliable water quality labs) is either non-existent or has only very limited coverage.

In the field of WSS, the Yemenite government has since 1996 engaged upon a reform programme to expand the coverage and quality of services.³⁸ The general orientation of this reform is the gradual departure of the government from its traditional role as an exclusive investor and service provider to a role of sector facilitator and regulator. In the urban WSS sub-sector, the National Water and Sanitation Authority (NWSA) was initially fully responsible for service provision at the central level. The ongoing reform programme foresees a decentrali-

³⁴ Ibid.: 14f.

³⁵ GTZ/ KfW 2005: 9

³⁶ Interview 2, 24.01.2006; Interview 3, 24.01.2006

³⁷ Republic of Yemen 2004: 10f.

³⁸ Ibid.: 18f., 27ff.; Interview 2, 24.01.2006

sation of service provision by transferring responsibility to autonomous Local Water Supply and Sanitation Corporations (LCs), designed to be self-financing in the end. Implementation of the reform programme is proceeding and to date nine LCs have been created. While the decentralisation process has generally made good progress and is most advanced by regional standards, it is nonetheless far from being achieved.³⁹ Both NWSA and LCs suffer from a lack of qualified personnel and the manning of key posts within LCs has repeatedly been based on political allegiances rather than on professional competences. Also, the precise mandate of the LCs remains unclear, as the necessary by-laws have yet not been adopted. The envisaged involvement of the private sector, finally, has so far been hampered by insufficient physical and legal security and uncertainties about actual levels of water availability. Nonetheless, there has been some progress: While plans for private sector involvement in Aden have been suspended, LC Sanaa has been authorised for a management contract and LC Taiz has just signed a PPP agreement with a Dutch utility operator.⁴⁰ In the rural WSS sub-sector, a reform policy is currently in the Cabinet for approval. Here, the government intends to preserve a stronger role in view of poverty alleviation – a role that is delegated to the General Authority for Water and Sanitation Projects (GARWSP).⁴¹ However, the actual approval of the rural WSS reform policy remains pending due to a conflict over the sanitation part of the document: The Yemenite government fears that all of the rural population will demand sanitation systems if the strategy is approved as it is.⁴²

Concerning the financial viability of the service utilities, full cost recovery has yet not been achieved.⁴³ At present, cost recovery practice by each LC varies according to the local situation: The accepted norm is for the tariff to be set such that at least the cost of operation, maintenance and depreciation of electro-mechanical equipment are recovered, while the government pays for new schemes, replacements and expansions. In practise, however, the financial situation of many service utilities remains critical – a situation that is largely due to weak management, insufficient maintenance, overstaffing, motivation problems and rising costs of water production.⁴⁴ While cost-recovery seems somewhat feasible for drinking water supply, it currently remains wishful thinking for sanitation services. Regarding the poor, there is a degree of pro-poor cross subsidy in the block-tariff structure, where an affordable “lifeline” rate is charged on the first block to benefit the poor.⁴⁵ However, the better off currently also benefit from the lifeline rate and the tariff-system needs further pro-poor revision. Connection fees, for instance, are a considerable problem for poor and vulnerable households.⁴⁶

At the policy level, Yemen has in late 2004 adopted a consolidated strategy for the water sector as a whole – the *National Water Sector Strategy and Investment Program* (NWSSIP) that was initiated through a comprehensive multi-

³⁹ GTZ/ KfW 2005: 6f.

⁴⁰ Interview 2, 24.01.2006

⁴¹ Republic of Yemen 2004: 27ff.

⁴² Interview 2, 24.01.2006

⁴³ Republic of Yemen 2004: 29

⁴⁴ GTZ/ KfW 2005: 7f.

⁴⁵ Republic of Yemen 2004: 29

⁴⁶ Buhl 2005: 14

stakeholder process spearheaded by the MWE.⁴⁷ The NWSSIP adopts the vision of IWRM and develops a coordinated set of policies and objectives for five water sub-sectors: (1) water resources management; (2) urban WSS; (3) rural WSS; (4) irrigation; and (5) environmental aspects. It is targeted for five years (2005-2009) and principally oriented towards MDG achievement. In the field of rural WSS, however, MDG goal achievement was considered unrealistic and therefore targeted at 50% (“half the MDGs”). In order to achieve these goals, the NWSSIP investment programme for 2005-2009 totals about \$1.5 billion, of which about \$1 billion is committed/ pipelined by government and donor funding.

Altogether, Yemen has recently made important progress in the institutional and organisational consolidation of its water sector.⁴⁸ At the policy level, the NWSSIP identifies the key sectoral problems and is clearly operationalised. However, the sectoral budget allocations for the next years remain clearly insufficient to implement the whole array of water policies underlying the NWSSIP and continue to exhibit an urban bias (79% of sector investment share).⁴⁹ Even more importantly, the overall positive trend is mitigated by persistent structural deficits at the operational level (MWE, NWRA, NWSA, LCs), in particular a lack of professional and competent human resources to carry out the huge management and development tasks in the water sector.⁵⁰ As long as key actors such as the MWE and the NWRA remain weak – especially vis-à-vis the MAI and vested agricultural interests – a more sustainable approach to national water resources management will be difficult to implement. Here, it is certainly not enough to develop institutionalised coordination mechanisms between the MWE and the MAI as suggested in the NWSSIP. Instead, institutional and organisational improvements with view to IWRM require policy decisions at a higher political level (Cabinet, President).⁵¹

The water sector and state fragility

The debate on service delivery in fragile states generally assumes that a fragile environment will likely weaken or disrupt (water) service delivery. To a certain extent, this assumption also holds true for the case of Yemen: As many other low income countries, Yemen is still in the difficult process of state-building and continues to be affected by institutional fragility – a situation that gives rise to weak state institutions and organisations and creates difficult framework conditions for all sectoral policies, including water. Nonetheless, the Yemenite case shows that one has to take a close look at each individual policy sector when assessing the impact of state fragility. While one might expect that the incomplete monopoly of violence hampers the development of a national water policy, this is not always the case: Most tribes recognise the role of the central government in providing WSS services, even in a “trouble spot” like Sadah where government control is traditionally very low.⁵² This situation might be explained

⁴⁷ Republic of Yemen 2004

⁴⁸ Interview 2, 24.01.2006

⁴⁹ KfW 2006

⁵⁰ GTZ/ KfW 2005: 3

⁵¹ Interview 3, 24.01.2006

⁵² Interview 2, 24.01.2006

with both the high profile of water issues and the characteristic of water as a rather non-ideological service (as opposed to education for example) that requires important investments in infrastructure. This is not to deny that the fragility of the Yemenite state does have a negative impact on the water sector. Nonetheless, one has to raise the question whether these difficulties are really any different from the problems encountered in most low-income countries.

If one admits that the fragility of the Yemenite state has a negative impact on the water sector as a whole, there is furthermore reason to assume that state fragility varies in its impact on different types of water services – depending on the public good characteristic of the respective service. The water sector is generally comprised of different kinds of goods:⁵³ (a) a container of potable water is in many settings a private good (high rivalry and excludability) that is bought and sold; (b) water from a river or pond is a common-pool resource; (c) water from a communal well is a public good (albeit highly localized); and (d) piped water is a toll good (low rivalry, high excludability) that is provided either by government or by an independent agency under public regulation. In theory, state fragility is least likely to affect communities without wells or pipe networks, and communities that rely on water vendors – an assumption that is confirmed in the Yemenite case. More vulnerable are publicly-provided and –maintained wells and standpipes, and especially piped water supply networks: Piped water supply occurs within a context defined by legal and regulatory structures set up by districts and central government to govern water rights, real property, and utilities – structures that remain inoperative or inadequate in Yemen. On the other hand, one may argue that the poorest water users – and here in particular women – are most affected by the persistent deficits in the water sector since they continue to rely on unsafe and often expensive water sources.

Furthermore, the case of Yemen illustrates that the relationship between state fragility and the water sector may actually be reciprocal rather than unidirectional. On the one hand, state fragility has a negative impact on the water sector, while on the other hand water-related issues exercise a negative influence on the stability of the Yemenite state. A study conducted by the International Crisis Group (ICG) shows that nearly half the cases of inter-tribal violent conflict – only the tip of the iceberg as there are no official statistics – are, or were initially, related to land or water.⁵⁴ The drilling of new wells, for instance, is particularly controversial in the light of widespread water scarcity and has given rise to recurrent hostilities.⁵⁵ Along with the shortage in social services and employment, increasing scarcity of water resources has thus been a major cause of tension and instability. If levels of water scarcity continue to worsen, there is reason to expect increasing internal migration towards the less water-scarce coastal areas – a scenario that implies a high conflict potential and threatens to further destabilise the Yemenite state.

⁵³ Meagher 2005: 16f.

⁵⁴ ICG 2003: 14

⁵⁵ GTZ/ KfW 2005: 8f.

3. International donor agencies and the challenge of state fragility: The experience of German-Yemenite development cooperation

Donor-recipient relations

The Yemenite government generally adopts a very cooperative approach vis-à-vis international donor organisations.⁵⁶ It has actively encouraged far reaching donor participation in the preparation of the NWSIP and explicitly welcomes initiatives for better donor coordination. The country participates in the OECD (DAC) Learning and Advisory Process on Difficult Partnerships (Fragile States),⁵⁷ even though it refuses the label “fragile”.

German-Yemenite relations are generally described as cooperative, open and trustful.⁵⁸ The Yemenite government recognises the importance of German support to its water sector, in particular the German “multi-level approach” (see below). Despite good cooperation at the operational level, German claims for more integrated institutional responsibilities in water management – in particular with view to strengthening the MWE vis-à-vis the MAI – have so far not been taken into account.

The German support to the Yemenite water sector

Yemen features very prominently in the field of German development cooperation: The country is not only one out of currently 40 priority partner countries but was also selected one of four pilot countries under the “Action Programme 2015” to halve poverty by 2015. In this context, the German government supports the Yemenite water sector with a comprehensive set of development projects through German Technical Cooperation (GTZ) and German Financial Cooperation (KfW). The German support started as early as in 1980 and amounted to a total of €268 million for the period between 1980 and 2006.⁵⁹ This makes Germany the most important international donor in the Yemenite water sector alongside the World Bank.

Yemenite-German development cooperation in the field of WSS is intended to contribute significantly to the overarching goal of poverty reduction as formulated in the German government’s “Action Programme 2015”.⁶⁰ Specific sectoral goals include:

- securing the sustainable availability of scarce water resources and crisis prevention through IWRM;
- giving priority to the demand management side;
- protecting water resources from pollution and over-exploitation;
- securing access for all citizens to clean drinking water and sanitation in order to improve the health situation;

⁵⁶ Interview 1, 23.01.2006

⁵⁷ DfID 2005: 2

⁵⁸ Interview 2, 24.01.2006; Interview 3, 24.01.2006

⁵⁹ GTZ/ KfW 2005: 1; Interview 2, 24.01.2006

⁶⁰ BMZ 2002: 3f.

- working towards decentralised and commercially oriented management of water utilities;
- promoting private sector involvement in the field of service provision and investment;
- facilitating the active participation and responsibility on the part of all users (women, farmers, small and micro entrepreneurs, industry); and
- fostering water saving in agriculture through the re-use of water and the application of water saving irrigation techniques.

KfW provides the bulk of German financial support to the Yemenite water sector. The current KfW portfolio (€198.53 million) includes a total of nine infrastructure projects that all focus on equipping urban areas with adequate water and/ or sanitation facilities.⁶¹ While a few measures target the improvement of sewage disposal only (Aden), most projects focus on both access to clean drinking water and adequate sanitation services (see table 4). The overarching goal is to provide adequate WSS services and thereby improve the health situation of the population in the target areas. To ensure the sustainability of the infrastructure networks, some of the projects include separate complementary measures that provide training and advisory services (Aden, Sadah, PTP II). The Aden sanitation project, for instance, includes both an education and training component and a “Utility Support Programme” (USP) designed to strengthen the LC for the Aden Governorate (LWSCA) and prepare its future transformation into an autonomous, commercialised water supply enterprise.⁶² Also, KfW has conducted comprehensive socio-economic baseline and poverty surveys, which have improved the poverty- and target group orientation of German support to the Yemenite water sector and established a basis for poverty-oriented action at the local level.⁶³ Beyond the mere focus on WSS, KfW projects also aim at the protection and integrated use of scarce water resources (e.g. Sadah, PTP II). This goal is to be achieved through complementary measures that foresee securing water availability, equal sharing of water resources and the establishment of conflict resolution mechanisms and thereby contribute to (water) conflict prevention at the local level. Finally, it needs to be noted that KfW is also heavily involved in sectoral/political dialogue with the Yemenite government at the macro level (the German coordinator for the Yemenite water sector is a KfW representative).

Table 4: KfW urban and water sanitation projects and special study funds⁶⁴

(1)	Water Supply and Sanitation in Ibb (€26,5 million)
(2)	Extension of sewage treatment plant in Ibb (€4.85 million)
(3)	Sanitation in Aden (€38.35 million)
(4)	Sanitation in Zabid (€6.6 million)
(5)	Sanitation in Bajil & Beit El Faqih (€15.85 million)
(6)	Water and sanitation in Sadah (€14.11 million)
(7)	Provincial Towns Programme (PTP I) – water and sanitation (€57.77 million)

⁶¹ GTZ / KfW 2005: 1; KfW 2005b

⁶² GTZ / KfW 2005: Annex 2

⁶³ Interview 2, 24.01.2006

⁶⁴ GTZ / KfW 2005: 12; KfW 2005b

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|------|--|
| (8) | Anti-terror funds – work-intensive infrastructure measure in the context of PTP I (Amran & Yarim) (€3 million) |
| (9) | Provincial Towns Programme (PTP II) – water and sanitation (€30 million) |
| (10) | Study and Experts Fund for water and poverty related issues (€1.5 million) |

German Technical Cooperation (GTZ) currently operates a set of five development projects (with a total volume of €21.6 million) that provide technical support to the ongoing Yemenite water sector reform and promote institutional and organisational capacity-building (see table 5).⁶⁵ A first project supports the Technical Secretariat for WSS Sector Reform in the development of the national water sector framework according to the reform principles of decentralisation, corporatisation, commercialisation and private sector participation.⁶⁶ More specifically, the project aims at strengthening planning- and policy-making processes at the national level, enhancing the development of adequate institutional, legal and organisational arrangements for the urban WSS sector and developing planning and monitoring instruments. While the first project focuses on national water policy development, a second project provides specific advisory services to the autonomous and commercialised LCs. This involves support to company organisation and –management, financial management, operation and maintenance and the introduction of a cost-recovering tariff structure. Measures for organisational capacity building are complemented by a public awareness project component where especially trained Community Mobilising Workers (CMWs) explain the adopted water reform policies to the local population (see below).

Table 5: GTZ support to the Yemenite water sector⁶⁷

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|-----|---|
| (1) | Support to the Technical Secretariat for Water Supply and Sanitation Sector Reform (€5.11 million) |
| (2) | Advisory Services to the Water Supply and Sanitation Sector (€10.1 million) |
| (3) | Personnel Development in the Water Supply and Sanitation Sector (€3.18 million) |
| (4) | Introduction of a GIS-based Operations Management System (OMS) in Urban Water Supply and Sanitation Utilities (€1.25 million) |
| (5) | Integrated Water Resources Management (IWRM) Programme (€2 million) |

A third, highly related project focuses on personnel capacity-building in the water sector whereby the staff of both national agencies (MWE, NWSA) and the local WSS utilities is trained and qualified through a large variety of personnel development instruments. The organisational capacity-building approach underlying the previous projects is complemented by a fourth project that introduces GIS-based Operations Management Systems in selected urban WSS utilities. While the first four projects focus on urban WSS, a final project aims at establishing the organisational structures for IWRM at the basin level. This involves both support to NWRA and the creation of basin committees in Amran and Sadaah, where involved parties and stakeholders work towards the elaboration of integrated water management plans. In order to (1) strengthen the coordination

⁶⁵ GTZ / KfW 2005: 1

⁶⁶ Ibid.: Annexes 9-15; GTZ 2004a,b; GTZ 2005

⁶⁷ GTZ / KfW 2005: 12

and alignment of the projects, (2) further emphasise institutional and organisational capacity building and (3) increase the poverty orientation of aid, GTZ has recently decided to shift from a project to a programme approach whereby the five projects are integrated into a programme entitled “Institutional Development of the Water Sector”.⁶⁸

The German support to the Yemenite water sector through KfW and GTZ is highly integrated and complementary.⁶⁹ As KfW and GTZ work in close cooperation, the nature and success of their work has to be seen and analysed in conjunction. While all GTZ projects focus their support on those areas where KfW finances the development of urban WSS infrastructure, KfW provides the GTZ projects with the indispensable (financial) leverage and establishes the necessary basis for the realisation of technical cooperation (e.g. through baseline and poverty surveys). The integrated and complementary approach between GTZ and KfW applies to all levels of intervention since the two German agencies assume both the support to the decentralised WSS utilities and the sectoral advice/dialogue in close coordination. On the whole, German support to the Yemenite water sector has so far been very successful, as it has contributed to a number of important structural improvements.⁷⁰ At the macro level, the sectoral dialogue through GTZ and KfW has acted as a key facilitator to the elaboration and revision of the NWSSIP and provided substantial support to the ongoing decentralisation of WSS services. Furthermore, the GTZ and KfW advisory services to the urban WSS sector have led to very positive results: The various capacity-building measures in support of the decentralised WSS utilities and their embedding in civil society (through dialogue with water users) have led to significantly improved company management, measured with indicators such as water losses, cost-recovery and consumer satisfaction. The WSS utilities supported by German Development Cooperation now serve about one million people and are probably among the most successful in the entire region. Despite the overall success of German development cooperation, some projects continue to suffer from delays in implementation that can be mainly attributed to the insufficient and declining availability of necessary water resources (e.g. in Amran, Yarim or Ibb), recurrent problems with land acquisition and enduringly modest capacities of project executing organisations despite undeniable improvements.⁷¹

Service delivery adaptations, trade-offs and sustainability

As argued above, the Yemenite case resembles most a fragility scenario of (enduring) recovery where a relatively stable government is in place and basic state functions are slowly being established. Despite authoritarian tendencies and high levels of corruption, national leadership is demonstrating political will to make progress in developing the infrastructure of a modern state. This general assessment also holds true for the Yemenite water sector: While the capacities of the government remain weak and critical issues such as water resources vs. agriculture are still not high on the agenda, Yemen nonetheless

⁶⁸ GTZ 2006: 1f.

⁶⁹ Interview 2, 24.01.2006

⁷⁰ Ibid.; GTZ 2006: 1ff.

⁷¹ GTZ / KfW 2005: 4, Annexes 1-8; KfW 2005a: Annex 4

displays increasing commitment to move towards the institutional and organisational consolidation of its water sector. Altogether, this recovery setting of modest capacities but existing political willingness offers rather favourable framework conditions for the involvement of German donor agencies. In this context, one may even raise the question whether the existing framework conditions in the Yemenite water sector are really more difficult than those encountered in any low-income country.

Against this background, it is generally difficult to discuss the German support to the Yemenite water sector in terms of service delivery *adaptations*: Given the relatively favourable sectoral framework conditions, representatives of GTZ and KfW seem to perceive their activities as an innovative example of support to water sector reform in a water scarce low-income country rather than a deliberate response strategy to a situation of state fragility.⁷² Nonetheless, it is plausible to interpret the German approach as an adequate response to the given fragility scenario: In line with the assumptions discussed in the literature on donor engagement in fragile states,⁷³ German development cooperation addresses the Yemenite recovery setting by adopting a “working with government” approach. Interestingly, this approach is designed as a “multi-level strategy”⁷⁴ that combines forms of cooperation with both central and sub-national governments and also introduces elements of community participation.

The first aim of this “multi-level strategy” is to facilitate the establishment of autonomous WSS utilities at the *micro* level that receive multi-faceted support through GTZ and KfW in form of infrastructure and capacity-building measures. At the same time, German development cooperation also intervenes at the *meso* level, e.g. by supporting the development of river basin management plans. Finally, German supports targets the *macro* level by strengthening processes of water policy development at the national level, in particular the creation of adequate institutional, legal and organisational arrangements for the urban WSS sector. The basic aim behind this multi-level approach is to foster synergies and learning between the different levels of intervention, that is to transfer the experiences and knowledge gained in the context of projects at the micro/meso level to project measures at the macro level (and vice versa).⁷⁵

This “*scaling up of aid*” strategy is followed by both KfW and GTZ and has generally been successful in creating valuable synergies between the different levels of intervention. The new KfW PTP II, for instance, establishes comprehensive milestones to be achieved at the micro (project executing agencies, local government) and the macro level (MWE, NWRA) and thereby anchors the programme in the overall water sector reform.⁷⁶ In the case of GTZ, far-reaching synergies exist between the two GTZ projects “Support to the Technical Secretariat for Water Supply and Sanitation Sector Reform” (macro level) and “Advisory Services to the Water Supply and Sanitation Sector” (micro level), while

⁷² Interview 1, 23.01.2006; Interview 2, 24.01.2006; Interview 3, 24.01.2006

⁷³ Meagher 2005: 17f.

⁷⁴ GTZ 2006: 3

⁷⁵ Interview 3, 24.01.2006

⁷⁶ KfW 2005b: Annex 14

the “multi-level strategy” has been less successful in other cases.⁷⁷ The projects in support of personnel development and IWRM, for instance, remain so far largely limited to the subsectoral (or micro) level. In the context of the shift from a project to a programme approach (see above), GTZ has therefore decided to strengthen the “multi-level approach” by systematically applying it to all components of the new programme. The “scaling-up of aid” to the macro level is particularly relevant in the case of IWRM since uncertainties in national water resources management tend to have an adverse impact on infrastructure measures and the sustainable operation and management of the service utilities.

One of the main innovations of German support to the Yemenite water sector is that sectoral reform measures are directly communicated to the affected water users.⁷⁸ The GTZ project-trained Community Mobilizing Workers (CMV), mainly women, do not only provide training in hygiene and water borne diseases but also promote the decentralisation and commercialisation of service utilities using a wide range of culturally sensitive ways.⁷⁹ They address schools, mosques, individual households and qat sessions to raise awareness for the tariff system and explain how to make effective use of the new service facilities. CMWs seem to have been successful in promoting the new service delivery approach, especially among poor households that now display an increased willingness to pay for the services. Also, the newly created customer relations departments of the service utilities have employed a number of CMWs – a fact that further underlines the success of the project component. Altogether, the CMV initiative is an innovative example on how to enhance citizen “voice” at the local level and improve the accountability relations between service providers and water users. Ultimately, this may not only improve the quality of service provision but also enhance community participation and thereby contribute to a process of state building from below.

Another important aspect of German support to the Yemenite water sector is a number of measures to prevent water-related conflicts that typically arise over water quantities/quality or the introduction of water tariffs. While the deployment of CMWs as discussed above already exhibits a clear conflict focus with view to minimising conflicts over water tariffs, German development cooperation also supports the Advisory Committees of the decentralised service utilities that assemble relevant stakeholders and help to institutionalise the existing conflict potential.⁸⁰ In the field of water resources management, GTZ and KfW projects provide for the creation of basin committees in Amran and Sadah where involved stakeholders work towards the elaboration of integrated water management plans – a procedure that balances competing user interests and thereby reduces the risk of future water conflicts. The increasingly explicit conflict focus of German water projects can be best illustrated at the example of the new KfW project PTP II.⁸¹ As the Ja’ar/ Zinjibar project component displays high conflict potential due to competing water demands between the Abyan branch and LC Aden, conflict-relevant aspects have to a very high degree been taken into con-

⁷⁷ GTZ 2006: 3

⁷⁸ Ibid.: 2

⁷⁹ Buhl 2005: 12

⁸⁰ GTZ / KfW 2005: 8

⁸¹ KfW 2005b: Annex 15

sideration during the planning process: The issues of securing and maintaining water availability, equal sharing of water resources and the establishment of conflict resolution mechanisms at the governorate and inter-governorate level are now integral parts of the project concept. Altogether, the German focus on water conflict prevention exercises an important function in the Yemenite context: As water scarcity and resulting water conflicts tend to enhance state fragility (see above), conflict prevention measures may contribute to the long-term consolidation of the Yemenite state. Against this background, it is no coincidence that the Yemenite government has specifically proposed to include “trouble spots” such as Abyan or Sadah (low government control, Islamist activities) among the project areas.

With respect to the sustainability of aid, one may generally expect a trade-off between short-term service delivery in situations of state fragility and medium and longer-term building of local and national governance structures. In the Yemenite recovery setting, however, framework conditions are sufficiently stable to minimise the tensions between the two priorities. German development cooperation has therefore devised an integrated “multi-level strategy” that anchors measures for improved WSS in (more) sustainable governance structures at all levels of government. Nonetheless, the sustainability of German aid should not be taken for granted. The most important obstacle to the long-term sustainability of German support to the Yemenite water sector is the insufficient and declining availability of water resources.⁸² Furthermore, capacity building measures do not always have the desired effects. The Technical Secretariat for WSS Sector Reform, for instance, has received substantial GTZ support but still remains to be integrated into the structure of the MWE.⁸³ This has created a parallel structure that may hinder organisational capacity building and undermine the urgent strengthening of the MWE. Finally, high levels of corruption remain an important concern. While there is little, if any information on corruption in the water sector, it seems plausible to assume that “working with government” approaches can further enrich corrupt networks that feed on sectoral resources. Even though German donor agencies undertake considerable effort to minimise the danger of corruption (e.g. through spending audits, procurement regulations), it is systemic and thus very difficult to reduce to zero.⁸⁴ On the other hand, large-scale corruption is more likely to occur in the oil or gas sectors.⁸⁵

In sum, German development cooperation addresses the Yemenite recovery setting (high political will, modest capacities) through a “multi-level strategy” that combines “top down” and “bottom up” approaches to state building: German donor agencies provide comprehensive support to sectoral reform at the macro/meso level and to the creation of decentralised and commercialised service utilities at the micro level. This is bolstered by a number of public awareness and conflict prevention measures designed to ease the high conflict potential of water resources in the Yemenite context. While the German support to the Yemenite water sector is clearly beneficial to the ongoing elaboration of a

⁸² Interview 2, 24.01.2006

⁸³ GTZ 2006: 1

⁸⁴ Interview 2, 24.01.2006

⁸⁵ Interview 3, 24.01.2006

sound sectoral framework, one has to bear in mind that the overall framework conditions for water resources management in Yemen remain largely unsustainable. As long as key actors such as the MWE and the NWRA remain weak – especially vis-à-vis the MAI and vested agricultural interests – a truly sustainable approach to water resources management will be difficult to implement. Here, the recent decision by GTZ to focus its new water programme on institutional reform at the macro level can only be a first step in the right direction. Instead, institutional and organisational improvements with view to long-term sustainability require political pressure at a higher political level (Cabinet, President) – a challenge that needs to be assumed by BMZ and coordinated with other donors.

Donor coordination

Mutually complementary cooperation on the part of the German implementing agencies is of vital importance for the realisation of a sustainable sectoral framework.⁸⁶ With view to a German development policy “cast from the same mould”, GTZ and KfW do not only work in close collaboration among themselves (see above) but also cooperate with other German organisations such as the German Development Service (DED), the Federal Institute for Geosciences and Natural Resources (BGR) or the Centre for International Migration (CIM).⁸⁷ Coordination between KfW and GTZ has intensified over time and is now regarded as “excellent” (see above). Since 2005, both organisations are coupled through a “milestones concept”, which means that the KfW project cycle establishes milestones that are – with GTZ support – to be achieved by the Yemenite side. While inter-German coordination can generally be regarded as comprehensive and successful, it also involves substantial costs. A cost-benefit analysis has so far not been conducted.

Coordination between international donor organisations is of crucial importance. There are currently many international donors that are active in the Yemenite water sector. The by far most important ones in terms of aid volume include the World Bank, Germany and the Netherlands, while the water-related support provided by UNDP, Japan, France, USAID and the EU is less relevant.⁸⁸ Arab funds (Arab Fund, OPEC Fund, Islamic Bank, Abu Dhabi Fund) provide erratic but large-scale support that is not coordinated at all. Donor coordination has so far been ambiguous. While it has generally improved in recent years, there is still little project-related collaboration at the operational level.⁸⁹ Where coordination exists, it takes place between the “large” donor organisations (see above).

Strategic donor coordination, on the other hand, has made substantial progress in recent years.⁹⁰ Here, the elaboration of the NWSSIP – that was itself largely donor-driven – has provided a common reference point and thereby improved the overall prospects for donor coordination. In this context, Germany has started an initiative for better donor coordination that was explicitly welcomed by

⁸⁶ BMZ 2002: 14

⁸⁷ GTZ 2006: 3f.

⁸⁸ BMZ 2002: 13; Interview 2, 24.01.2006

⁸⁹ GTZ 2006: 4f.

⁹⁰ GTZ / KfW 2005: 2; GTZ 2006: 4f.

the Yemenite side and led to a “Joint Donor Declaration” by a total of 10 donor organisations in January 2005. Current discussions among the “core donor group” (Germany, Netherlands, World Bank) focus on the possibility of adopting a Sector Wide Approach (SWAp).⁹¹ While the Netherlands and the World Bank seem to be in favour of a SWAp (albeit at different paces), Germany has yet to define its position on this question. A SWAp may generally be regarded a good opportunity to improve the alignment and harmonisation of aid and give important leverage to the donor community, in particular with respect to working towards a more sustainable sectoral framework. On the downside, a SWAp might also lead to problems in the context of weak sector organisations and high levels of corruption.

4. Lessons learned

Contemporary Yemen is still in a difficult process of state building and continues to be affected by institutional fragility – a situation that might be especially pronounced in Yemen but is generally quite common for many low-income countries. The Yemenite case resembles most a fragility scenario of (enduring) recovery where a relatively stable government is in place and basic state functions are slowly being established. Despite authoritarian tendencies and high levels of corruption, national leadership is demonstrating political will to make progress in developing the (water) infrastructure of a modern state but the performance and capacity of government remain rather weak in terms of (water) policy development and implementation. Altogether, this recovery setting of modest capacities but high political willingness offers rather favourable framework conditions for the involvement of (German) donor agencies. Here, one may even raise the question whether the framework conditions in a Yemenite-like recovery setting are really any more difficult than those encountered in most low-income countries.

Bearing in mind the OECD “Principles for good international engagement in fragile states”⁹², the lessons learned from the German donor engagement in Yemen can be summarised as follows:

- 1. Take context as a starting point and differentiate between sectors.**

The Yemenite case underlines the (only seemingly trivial) need to calibrate analysis and action to particular country/sector circumstances. While Yemen is often considered a particularly fragile or even failed state, a closer look reveals that the framework conditions in the Yemenite water sector are not particularly fragile. Most tribes recognise the role of the central government in providing water and sanitation services, even in “trouble spots” where government control is traditionally very low. Instead, the recovery setting of modest capacities but high political willingness allows for donor strategies that resemble “traditional” support packages to water sector reform. For comparative purposes, it would be interesting to find out whether the framework conditions in other sectors

⁹¹ Interview 2, 24.01.2006; Interview 3, 24.01.2006

⁹² OECD 2005: 8ff.

are more difficult and require more “fragility-specific” donor strategies (e.g. in education that is a more ideological and contested service).

2. **Focus on state-building...** The long-term vision for international engagement in fragile environments must focus on supporting the creation of viable sovereign states. A Yemenite-like scenario of (enduring) recovery with modest capacities but high political willingness offers relatively favourable framework conditions for state-building approaches: As there is no need to work around the government, donors can focus their attention on supporting the government in the creation of sustainable (water) governance structures.
3. **... and intervene at different levels.** Donor strategies in recovery settings should combine “top down” and “bottom up” approaches to state building. German donor agencies have devised a “multi-level strategy” that includes (1) support to sectoral reform at the *macro* level; (2) the strengthening of river basin organisation at the *meso* level; and (3) the creation of decentralised and commercialised service utilities at the *micro* level. The basic strength of this multi-level approach is that it fosters synergies and learning between the different levels of intervention, which means that the knowledge gained in the context of projects at the micro/meso level is transferred to measures at the macro level (and vice versa). The *scaling-up of aid* to the macro level is particularly important since proposals for (water) sector reform are based on practical experience at the micro/meso level – a sequence that will enhance the credibility of the reform.
4. **Enhance dialogue and participation.** State-building strategies in recovery settings should be based on dialogue and participation. The German support to the Yemenite water sector offers an innovative example of how to enhance dialogue with water users: GTZ project-trained Community Mobilizing Workers (CMV) do not only provide training in hygiene and water borne diseases but also promote and explain the decentralisation and commercialisation of service utilities (e.g. through awareness campaigns on water tariffs). Such initiatives help to strengthen citizen “voice” at the local level and improve the accountability relations between service providers and water users. Ultimately, this may not only improve the quality of service provision but also enhance community participation and state building from below.
5. **Move from reaction to (conflict) prevention.** Preventive action can minimise the risk of future conflict and contribute to long-term stability and development. This is particularly relevant in water-scarce countries like Yemen where water-related conflicts constitute an important source of (future) state fragility. German development cooperation has taken up the challenge by shifting from reaction to conflict prevention: Several WSS projects include risk analyses and support the establishment of conflict resolution mechanisms at the governorate and inter-governorate level. In this context, the concept of IWRM may help to contribute to long-

term state consolidation. Altogether, the Yemenite case shows that water can both ease and worsen state fragility.

- 6. Align with local priorities.** Where governments demonstrate political will but lack capacity, international donors should fully align assistance behind government strategies. German support to the Yemenite water sector is fully aligned, as the various projects are all based on Yemenite (sector) strategies and rooted in Yemenite structures (no project implementation units).
- 7. Coordinate between international donors.** Coordination between international donor organisations is of crucial importance to promote the state building agenda. In the case of Yemen, strategic donor coordination has made important progress in recent years: Here, the elaboration of the NWSSIP has provided a common reference point, followed by a “Joint Donor Declaration” in January 2005. The currently discussed option of a SWAp might help to improve the alignment of aid and give more leverage to the donor community, in particular with respect to working towards a more sustainable sectoral framework. On the downside, a SWAp might lead to problems in the context of weak sector organisations and high levels of corruption.

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