



Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

The Zimbabwe Experience

Lessons from a review of 15 years of the Zimbabwe Integrated Rural Water Supply and Sanitation Programme



The Integrated Rural Water Supply and Sanitation Programme (IRWSSP) was conceived in the positive and supportive environment that followed Zimbabwe's independence. In 1980, the new government had massive public support, and was strongly committed to redressing pre-independence imbalances by redirecting resources towards the rural areas. Zimbabwe had also inherited well-managed central Ministries, which held valuable water and sanitation experience accumulated during the development of low-cost rural technologies during the 1970s¹. In addition, External Support Agencies (ESAs) were queuing up to provide funds for reconstruction and development. The time was ripe for these innovative technologies to be rolled out in national programs, and the IRWSSP was designed to do just that.

Initiated in the mid 1980s, the IRWSSP aimed to provide the entire population of Zimbabwe's communal and resettlement areas² with access to safe and adequate water and sanitation facilities by the year 2005. The program also planned to mobilize communities, transfer technical and organizational skills, and establish centralized operation and maintenance systems. The 1985 National Master Plan for Rural Water Supply and Sanitation (NMP) estimated that the IRWSSP would cost Z\$ 700 million³, and would need to construct some 35,000 primary water supply systems and 1.4 million

Blair Latrines in order to achieve universal coverage.

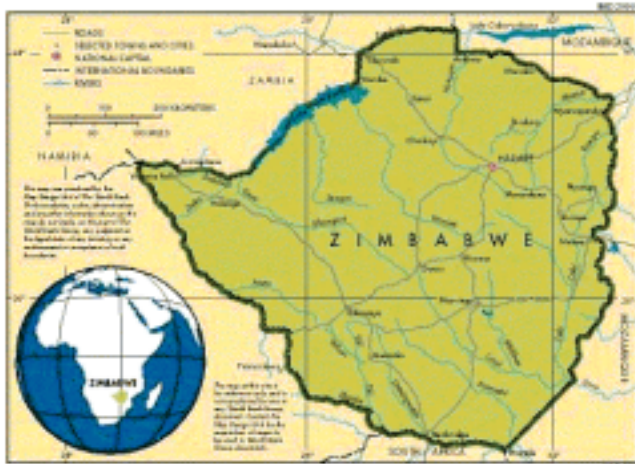
Today, only three years remain for the IRWSSP to meet its targets. Sadly, despite the advantageous initial conditions, and a total investment of over Z\$ 1 billion during the more than 15 years of implementation, it is clear that the main objectives of the IRWSSP are unlikely to be met. Nevertheless, the IRWSSP had some successes, and its story contains valuable lessons for water supply and sanitation practitioners.

The opening sections of this field note examine the context within which the IRWSSP took place, then chart its evolution, and detail its performance during the period 1985-99⁴. There follows a discussion of the approaches used by the program, and of chances seized and opportunities lost along the way. The field note closes by summarizing the positive experiences and lessons that can be drawn from the IRWSSP, and by examining their relevance to decentralized rural water supply and sanitation programs in other African states⁵.

Background

The happy coincidence of Zimbabwe's independence in 1980 with the start of the International Drinking Water Supply and Sanitation Decade, and the readily available domestic expertise in low-cost Rural Water Supply and Sanitation (RWSS) technologies (see Box 1), provided an ideal basis for the rapid expansion of the country's rural water supply and sanitation infrastructure.

Prior to independence, successes in Zimbabwe's RWSS sector tended to be the work of small, relatively efficient government units, working largely independently in their specialist fields. As a result, the knowledge and skills required for a large-scale national program were distributed between several ministries. The government recognized this problem, and commissioned the National Master Plan for Rural Water Supplies and Sanitation (NMP) to examine ways of improving inter-ministerial coordination within a national framework. When completed in 1985, the NMP provided a detailed analysis of the RWSS sector in Zimbabwe, and incorporated the latest thinking on the planning, implementation and management of RWSS programs.



¹ Notably in government institutions such as the Blair Research Laboratory and Agritex

² 'Communal and resettlement areas' cover all rural areas except commercial farms and estates

³ One United States Dollar (US\$) = 54.95 Zimbabwe dollar (as on 20 May 2002)

⁴ The period discussed in this field note generally predates the political, economic and social crises that Zimbabwe has recently been experiencing

⁵ The content of the fieldnote is largely based on an evaluation of the IRWSSP carried out by the Zimbabwe Institute of Water and Sanitation Development (IWSD) in 1999

Box 1

Homegrown RWSS technologies

Zimbabwe is the home of several important rural water supply and sanitation (RWSS) technologies, including the Bush Pump, the Upgraded Family Well, and the Blair Latrine. Of these, the Blair (or VIP) Latrine has had the most impact, both domestically and internationally. Its key feature is a screened ventilation pipe, which controls the flies and odors commonly found in unventilated pit latrines⁶, and suggests its more familiar name, the Ventilated Improved Pit (VIP) Latrine.

Developed and tested at the Blair Research Laboratory between 1973 - 75, the Blair (VIP) Latrine was adopted immediately by the Ministry of Health, and tens of thousands of the latrines were installed within the first few years of implementation. Many variants of the original design have followed, and recent estimates suggest that there are now more than 500,000 VIP Latrines in Zimbabwe alone. Today, the Blair (VIP) Latrine is popular with users, technocrats and politicians – its construction and use are even part of the school curricula. The technology is simple, effective and durable, and more than twenty five years after its development, the Blair (VIP) latrine remains a source of national pride, and a status symbol for many rural households.

Zimbabwe's experience demonstrates that innovative technology development does not have to depend on external support. By creating a supportive environment and by funding local research, Zimbabwe's scientists were able to apply their expertise in the field, and went on to develop globally recognized rural technologies well suited to local conditions.

Adapted from Morgan, 2002

The NMP set out ambitious goals for the IRWSSP, specifying that the following service levels should be provided to the entire communal and resettlement area population by 2005:

- 100% population to have access to safe drinking water from a 'protected primary water supply' within 500m of their home
 - 100% households to have (at least) a 'Blair VIP latrine'
- One of the fundamental principles outlined in the NMP was to become the basis of the IRWSSP. Namely, that water

supply, sanitation, and health and hygiene education activities must be 'integrated' in order to achieve the full health benefits of any improvement in RWSS facilities (see Box 2).

It was clear that the scale of the proposed program, and its integrated nature, would require a reorganization of the approach towards RWSS provision. The strategy proposed by the NMP was that the IRWSSP should be an inter-ministerial program, using existing structures and divisions of responsibility wherever possible to enhance sustainability.

Initially, to kickstart the program, the majority of the funds for the IRWSSP were to come from ESAs, and to be spent largely on constructing new facilities. Once the program was established, the NMP proposed that the Government of Zimbabwe (GoZ) share of funding should increase and that ESA funding should be carefully phased out. Parallel reductions in the ratio of capital investment to recurrent expenditure were also stipulated, with a view to generating sufficient funds for the operation and maintenance (O&M) of the ever-increasing numbers of facilities.

IRWSSP Evolution

The IRWSSP required new institutions to be formed at each level of the administration. The idea was that project proposals would flow upwards from water and sanitation

Box 2

Integrated Rural Water Supply and Sanitation

The integrated approach utilized by the IRWSSP involved:

- promotion of health and hygiene education
- mobilization and participation of user communities
- provision of appropriate water and sanitation facilities
- establishment of operation and maintenance systems
- transfer of technical and organizational skills

⁶ The design encourages air to flow into the latrine pit and out of the ventilation pipe, removing odors from the latrine; similarly, flies that enter the latrine pit are attracted to the light at the end of the vent pipe (the latrine interior must be kept dark) where they are trapped by the fly screen.

institutions at the local level, through existing District and Provincial planning and administration bodies to newly formed national level coordination bodies housed in the MLGURD⁷. Planning estimates for the RWSS sector would then be passed to the Treasury for approval, and budgets would be allocated to the appropriate ministries. The approved plans would then be passed back down the administrative system to the local level, where implementation could be monitored.

Box 3

Chronology of Zimbabwe IRWSSP

Initial Phase (1985 – 1991)

- 1985 National Master Plan for Rural Water Supply and Sanitation (NMP)
Manicaland Integrated Programme as pilot for IRWSSP
- 1987 Establishment of IRWSSP institutional structure
Formation of Water Division and '3 tier' maintenance system in DDF
Launch of first integrated inter-ministerial project in Mt Darwin District
- 1988 Rural District Council Act (amalgamating Rural Councils and District Councils)
- 1989 IRWSSP projects in 15 Districts
Workshop on Cost Recovery for RWSS
- 1991 IRWSSP projects in 21 Districts (with 17 other approved projects awaiting funding)

Decentralized Phase (1992 – 1999)

- 1992 Rural District Council (RDC) managed pilot projects in 3 Districts
Community Based Management (CBM) pilot projects
- 1993 Transition from Ward to Village as planning unit
- 1994 Introduction of Participatory Health and Hygiene Education (PHHE) programme
- 1996 RDC Capacity Building Programme
- 1998 Special Account set up for rapid disbursement of funds to RDCs
- 1999 IRWSSP projects in 47 Districts (some no longer active)
NAC approval of Community Based Management (CBM)

During 1985-87, the institutional structure of the IRWSSP was established: District and Provincial Water and Sanitation Sub-Committees were formed; the National Action Committee (NAC) and National Coordination Unit (NCU) were created; and, new guidelines and procedures were agreed for the planning and implementation of water and sanitation facilities.

The program grew very rapidly. In 1987, Mt Darwin was the only District implementing an integrated, inter-ministerial project. Within two years, there were 15 Districts implementing IRWSSP projects, and by 1991 a total of 21 IRWSSP projects were underway (with another 17 approved projects awaiting funding).

By the time these 'integrated projects' came online, the first flush of post-independence optimism was fading. Government finances were feeling the effect of the supply-driven approach, and many activities were being scaled down. However, the IRWSSP was a prominent and well-supported component of the government's rural development campaign, and it was about to move into a new phase: decentralized RWSS services.

Decentralization

Independent Zimbabwe inherited a highly centralized system of government, and the new government began devolving responsibility and power to lower levels of government soon after independence. The reform that most affected the IRWSSP came in 1988, when Rural District Councils (RDCs) were created through the amalgamation of the existing Rural and District Councils.

The RDCs were to assume responsibility for local service delivery, in keeping with global thinking on the provision of RWSS services. This was a move away from the existing supply-driven and centralized provision, towards more demand-responsive, participatory and local provision. However, decentralized RWSS provision required a radical increase in the capacity and resources of district-level institutions, and adjustments in the way the IRWSSP was managed and coordinated.

In 1992, therefore, the IRWSSP piloted 'decentralized' projects in three Districts⁸. Funds for these projects were channeled directly to the RDCs, who assumed responsibility for planning, managing and reporting on their IRWSSP projects. Over the next few years, the IRWSSP supported the decentralization process by ensuring that all projects were managed by RDCs, and by encouraging the District Development Fund (DDF) to hand over district and community level facilities and resources.

⁷ Ministry of Local Government, Urban and Rural Development

⁸ Kadoma, Mberengwa and Nyanga Districts

Unfortunately, most RDCs lacked the experience and capability needed for their suddenly expanded role, and their limited financial management skills often led to delays and frustration. Previously, the annual district allocations made by the IRWSSP were of the order of Z\$ 5 – 7 million, divided between and managed by several government departments. After decentralization, RDCs were solely responsible for managing and coordinating implementation. There was also a rapid enlargement of projects in the poorer districts as ESAs adopted a more poverty-focused approach. In some cases, newly created RDCs found themselves managing IRWSSP projects worth as much as Z\$ 200 million⁹, in addition to an increasing number of non-water and sanitation sector projects¹⁰.



Table 1: ESA support of RWSS sector¹¹

Year	Planned ESA sector funding	Actual ESA sector funding
1985	60%	35%
1990	55%	90%
2000	40%	95%

Source: IWSD, 2000

Dependency

A parallel trend during this period of decentralization was the steady decline of Zimbabwe's economy. In 1991, Zimbabwe was forced to implement an Economic Structural Adjustment Programme (ESAP), which involved restricting government expenditure. Inevitably, this led to an increase in dependency on external support. Consequently, during the 1990s, ESAs provided between 90 - 95% of RWSS sector funding for capital investment (see Table 1).

The high level of ESA support should have ensured that funding was readily available for RWSS provision, and that progress improved. However, between 1992 – 96, less than 50% of the funds provided to the IRWSSP were utilized, and progress slowed dramatically. As a result, the ESAs funding the IRWSSP began to push for changes in program management and co-ordination. One major reform that resulted was the introduction of a 'special account', which allowed the NCU to access ESA funds and pay RDCs directly. Individual ESAs also began to assume control of the district projects that they funded, and to experiment with new approaches to planning and implementation.

Operation and Maintenance

The 1985 NMP recommended a centralized operation and maintenance (O&M) system for primary water supplies, comprising a network of mobile maintenance teams

supporting local pump minders and community water point committees (WPCs). This approach was adopted by the District Development Fund (DDF) in 1987, and came to be known as the 'three tier' maintenance system (see Box 4).

In the initial phases, the 'three tier' maintenance system was considered relatively efficient, but as the number of water supply facilities grew and government expenditure constricted, its effectiveness diminished. In 1994, DDF noted the following problems:

- little involvement of users or stakeholders
- long pump 'down' times reported (two weeks to six months)
- availability of spares limited by efficiency of central and district authorities
- expensive system (unsustainable in the face of dwindling financial allocations)

Dependency on ESA support also had a significant impact on O&M, as most ESAs stipulated that the majority of their funds should be used for capital investment. The rationale for this approach was that, to increase sustainability, recurrent expenditure should be wholly the responsibility of government.

⁹ E.g. Lupane District

¹⁰ CAMPFIRE, District Environmental Projects, PAAP

¹¹ As percentage of total capital investment in RWSS sector

But government priorities lay elsewhere. As a result, the O&M budget fell spectacularly during the 1990s (see Table 2).

The sustainability of the struggling ‘three tier’ maintenance system was already in doubt, and the combination of its poor performance and expensive running costs, with the growing numbers of facilities and declining budgets, compelled a move towards more community based O&M. However, there were problems associated with Community Based Management (CBM), notably difficulties in community maintenance of the national standard handpump (Type B Bush Pump), which required lifting equipment even for the routine replacement of a piston seal¹².

Numerous meetings and consultations were held on sustainable O&M and cost recovery approaches during the 1990s. Sector specialists pointed out that there were few viable alternatives to CBM, but there was little political support for cost recovery. Accordingly, users received ever more conflicting messages. Pilot CBM projects, which encouraged users to collect monthly fees and manage their own facilities, were run alongside projects that provided IRWSSP-funded ‘three tier’ maintenance. Communities were asked to pay for the O&M of their water supply facilities, while the DDF retained ownership of the facilities, and pump minders remained solely accountable to the DDF.

Populist rhetoric about free rural water supply undoubtedly influenced the top levels of government in Zimbabwe against CBM. Meanwhile, unreliable water and sanitation services lowered users’ willingness to pay for government-owned community facilities. From the 1989 workshop on cost recovery for RWSS, it took ten years of deliberation, and the pervasive failure of the centralized O&M system, before the IRWSSP finally agreed to formally adopt the CBM approach.

Fragmentation

As decentralization progressed, structural problems and capacity shortages became increasingly apparent. Conflicts of interest arose as line ministries found themselves bidding

Box 4

‘Three tier’ maintenance system

- First tier: Water Point Committee, including pump caretaker
Responsible for operation, preventative maintenance and reporting breakdowns
- Second tier: Mechanically trained ‘pump minder’ (selected by community, paid by DDF)
Responsible for maintenance of several pumps, recording repairs, reporting to DDF
- Third tier: DDF maintenance team (water supply operatives supported by DDF vehicles)
Responsible for major repairs and rehabilitation of area pumps, supply of spares

The rationale behind the ‘three tier’ maintenance system was that it would meld the benefits of a community maintenance system with those of a central government system. Small repairs could be dealt with cheaply and easily by the pump caretaker or local pump minder, and experienced DDF water supply operatives were on hand to deal with more serious problems.

Adapted from IWSD Vol.II, 2000

for work from local authorities that they also provided with technical guidance and advice on implementation; overlaps between ministries¹³ remained unresolved; and, implementing agencies operated with little accountability.

New approaches championed by the ESAs undoubtedly lessened these problems, and improved the effectiveness of the aid funds being utilized. They also widened the gap between program institutions and those of government. The different approaches used, and resources allocated, caused large variations in the capacity and effectiveness of the local authorities and communities involved, and resulted in the increasing fragmentation of the IRWSSP.

Table 2: Declining O&M budget

Year	Nr. of handpumps	O&M Budget (Z\$ million)	O&M Budget (1990 prices)	Budget per pump (1990 prices)	Budget as % 1990 budget
1990/91	19,400	Z\$ 2.4 m	Z\$ 2.4 m	Z\$ 122	100%
1992/93	22,200	Z\$ 4.0 m	Z\$ 2.3 m	Z\$ 104	85%
1994/95	25,400	Z\$ 3.3 m	Z\$ 1.3 m	Z\$ 47	39%
1996/97	33,000	Z\$ 6.0 m	Z\$ 1.5 m	Z\$ 45	37%

Sources: DDF Water Division, 1994; SKAT, 1998

¹² Only 5% of the handpumps installed were user-friendly ‘open-top’ Bush Pumps (Erpf, 1998)

¹³ Department of Water Development (DWD) and DDF both undertaking borehole drilling; Ministry of Health (MoH) and DDF both undertaking well sinking; Ministry of Cooperative and Community Development (MCCD) and Ministry of Local Government, Rural and Urban Development (MLGRUD) both undertaking community mobilization; MoH and DWD undertaking data collection



Non Government Organizations

By 1999, the IRWSSP had implemented projects in 47 out of the 57 Districts in Zimbabwe. However, annual outputs were lower than ten years earlier, and many IRWSSP and government institutions were in danger of collapse¹⁴. The NCU was struggling to cope with the volume of work associated with special account disbursement, pump minders had been suspended by the DDF because of shortages of funds, and ESAs were rapidly losing interest in the program.

In part, the waning of ESA support for the IRWSSP was due to the emergence of alternative channels for RWSS development in Zimbabwe, notably the innovative approaches developed by local NGOs. These NGOs were implementing low-cost household technologies and effective hygiene education programs at scale, and for a fraction of the cost of similar efforts by the IRWSSP. Good examples include the provision of Upgraded Family Wells (UFWs) by Mvuramanzi Trust (see Box 5), and the creation of Community Health Clubs by Zimbabwe AHEAD (see Box 6).

In some recent cases, ESAs have been able to incorporate these new approaches into IRWSSP projects (see Box 7),

Box 5

Household level technologies

The outcomes of the IRWSSP illustrate striking differences between the operation and maintenance of community facilities and of household facilities. After more than fifteen years of research and implementation, the O&M of communal water supplies remains problematic. Yet, almost every evaluation has noted that household latrines and family-owned water supplies were well maintained. O&M of communal handpumps is undoubtedly more challenging than that of latrines or simple wells. However, the salient point is that the low-cost latrines and wells continue to function even as the more expensive handpumps, and the institutions intended to maintain them, fall into disrepair.

Researchers at the Blair Research Institute recognized the benefits of utilizing existing household facilities, and decided to investigate simple means of improving traditional wells to enhance their safety and water quality. Their work led to the development of the Upgraded Family Well (UFW). It is a simple and cost effective approach (per capita cost as little as one tenth that of a borehole fitted with a hand pump), which has proved remarkably popular with villagers. Despite initial resistance from the MoH (and NAC), the Mvuramanzi Trust (and others) managed to implement the UFW at scale. There are now estimated to be about 50 000 UFWs in Zimbabwe, serving as many as half a million people.

Under the Mvuramanzi Trust programmes, households are assisted in the construction of a UFW by the provision of a 30% subsidy. The family's investment in the well, and the fact of their ownership, generally results in it being properly maintained. Other benefits stem from the family having access to water on its own doorstep. Women save on the time and energy spent collecting water, but also tend to use more water in the home, and to use the water to start vegetable gardens, all of which can lead to significant hygiene and nutrition improvements.

Adapted from Mvuramanzi Trust, 1994 and personal communications from Peter Morgan, 2002

and have met with considerable success. In general, though, the upper echelons of the government in Zimbabwe have been slow to embrace new ideas, or to consent to private sector or NGO participation in the IRWSSP.

¹⁴ The NCU finally folded in Dec. 2001 (when NORAD discontinued its funding)

Community Health Clubs

Health and Hygiene Education (HHE) has been gaining importance in the IRWSSP as experience clarifies its role in generating demand for facilities, in ensuring that facilities are properly maintained, and in translating water and sanitation investments into health benefits. The introduction of Participatory Health and Hygiene Education (PHHE) was a major step forward, but it is now recognized that participatory training on its own does not necessarily lead to behavioral change, or to improved hygiene. Community Health Clubs provide an effective and structured method of administering PHHE, and appear to provide a sound basis for further community development.

The Community Health Club (CHC) approach was pioneered by Zimbabwe AHEAD¹⁵ in 1997. It involves members agreeing to meet for one hour a week of health education over at least 20 weeks. Gathering regularly for six months and debating relevant health topics such as germ theory, preventable diseases, environmental sanitation, and general hygiene, creates bonds between the members, and fosters unity of purpose and a culture of self-improvement. Membership cards provide a contract between project and beneficiary, outlining the topics covered, recording attendance, and encouraging completion of the course (added incentives have included the issue of certificates and t-shirts, and qualification for a latrine subsidy).

Community Health Clubs have proved remarkably successful in a very short time. More than 500 CHCs have been established in only five districts during the last three years. Recent findings reveal that:

- community health clubs are popular (more than 50% of members finish the 20 lessons)
- members' hygiene practices have been significantly improved
- community health clubs are a cost effective method of health education¹⁶
- the CHC approach generates a strong demand for sanitation

Adapted from personal communications with Juliet Waterkeyn

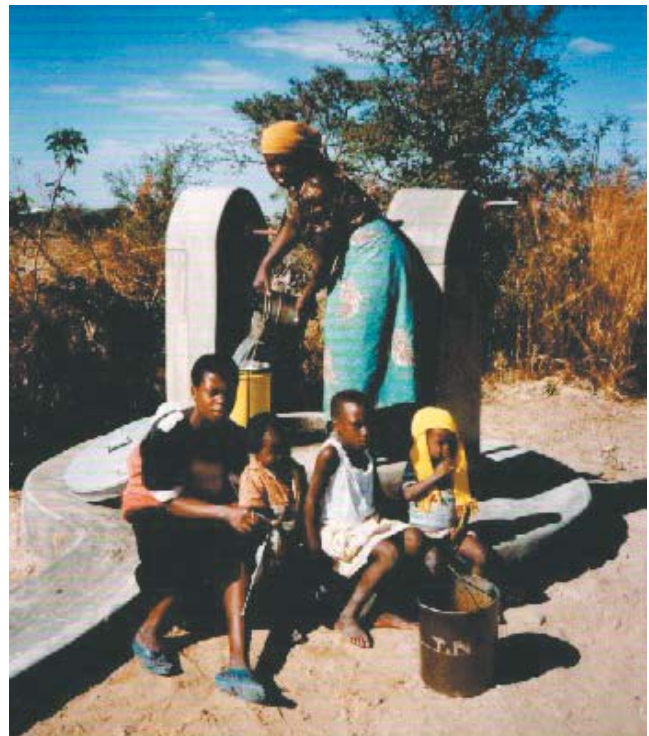
IRWSSP Performance Effectiveness

How effective was the IRWSSP in achieving the ambitious goals set out in the 1985 National Master Plan for RWSS? These goals were many, including:

- scaling up the construction of RWSS facilities
- integrating RWSS activities (water supply, sanitation, health and hygiene education)
- building capacity and institutions for sustainable RWSS provision

The IRWSSP has constructed a large number of RWSS facilities, yet as this fieldnote has already noted, it is unlikely to meet its overall goal of providing Zimbabwe's rural population with universal access to safe and adequate drinking water and sanitation facilities by 2005. This outcome reflects not only the program's failure to make best use of the generous ESA funding, and the considerable expertise at its disposal, but also the fact that the targets were unrealistic.

Accurate figures for the number of RWSS facilities completed are hard to come by, as data collection and analysis was an IRWSSP weakness. In total, the program



¹⁵ AHEAD = Applied Health Education and Development

¹⁶ In Tsholotsho District the cost of the training averaged only US\$ 3.33 per beneficiary (Waterkeyn, 2002)

Table 3: IRWSSP physical achievements

Facility	Planned Nr.	Facilities 1985	Facilities 1999	IRWSSP Nr.	1999 Rural Coverage
Protected Primary WS	36,000	9,000	34,000	25,000	73%
Sanitary latrines	1,400,000	100,000	560,000	460,000	32%

Sources: IWSD, 2000; Morgan, 2002

appears to have provided approximately 25,000 protected primary water supplies, which represents almost three quarters of the ambitious rural water supply targets of the 1985 NMP (see Table 3). Several districts reported reaching 50% coverage within a few years of beginning their IRWSSP projects (Shurugwi, Makoni), and rural access to safe water supply was estimated to be greater than 70% by the late 1990s. However, O&M shortcomings resulted in many of the IRWSSP facilities falling into disrepair, and most districts now report significant numbers of non-functioning water points.

Sanitation coverage in the communal and resettlement areas appears to have increased from 15% to about 32% between 1985 and 1998, corresponding to the provision of approximately half a million Blair VIP latrines¹⁷, roughly a third of the planned total (see Table 3). In general, the brick latrines constructed under the IRWSSP were durable and well maintained, but many of them are now more than ten years old, and approximately 15% of the sanitary latrines in the rural areas are now estimated to be either filled or collapsed.

The concept of integrating water supply, sanitation and HHE, has become a familiar and acceptable approach within the RWSS sector in Zimbabwe as a result of the IRWSSP. Despite this positive effect, there is evidence of a strong bias towards water supply hardware throughout the program. Typically, borehole drilling accounted for more than 50% of an annual district budget, while HHE was allocated less than 5%¹⁸.

The IRWSSP has provided a strong platform for development in Zimbabwe. Capacity building and training efforts have created a pool of artisans (well sinkers, latrine builders, pump minders, pump caretakers) and community development workers (community mobilisers, environmental health technicians), which represents a significant contribution to the country's 'human capital'. Training targets may not have been achieved, but the IRWSSP trained some twenty thousand Water Point Committees and almost thirty thousand technicians (see Table 4).

Table 4: IRWSSP training achievements

Trainee	Planned Nr.	Total Nr.	Total %
Latrine Builders	44,000	11,000	25%
Pump Minders	28,000	2,800	10%
Pump Caretakers	20,000	16,000	80%
WPCs	27,500	20,000	70%

Source: IWSD, 2000

Efficiency

Between 1989 – 96, the IRWSSP drilled and installed an average of 1,900 handpumps per year, exceeding the NMP target rate of 1,800 per year. However, this impressive achievement came at a price. The boreholes and deep wells on which the handpumps were installed were the most expensive technologies implemented by the program, in terms of absolute cost, cost per capita and O&M cost. The installation of these handpumps consumed the majority of IRWSSP funds, created a drain on O&M funds, and limited the use of more economic technologies like Upgraded Family Wells (see Table 5).

The 1985 NMP estimated that 80,000 latrines per year would be needed to achieve 100% rural coverage by 2005. Initially, the Ministry of Health controlled the rural sanitation program, and production climbed rapidly, reaching 47,000 latrines per year in 1987 (see graph below). Production then declined under IRWSSP management, reaching a low of around 10,000 per year as decentralization was being carried out during 1991 – 94. Latterly, annual latrine production rates have averaged about 20,000 per year, below even the 30,000 latrines needed annually to cover the 3% growth in the rural population.

There is clearly massive demand for Blair VIP latrines in Zimbabwe. Unfortunately, the IRWSSP was not able to meet many of these demands because of limited funds, rising material costs, and shortages of the foreign currency needed

¹⁷ Estimates of current rural sanitation coverage in Zimbabwe vary enormously (30% - 70%). The figures given here derive from an in-depth study carried out by the MoH during the 1998 National Sanitation Inventory

¹⁸ In Buhera District during 1993 - 98, the annual HHE budget was only Z\$ 6,500

Table 5: IRWSSP unit costs¹⁹

Facility	Nr. Users	Total Cost	Users' Contribution	Total cost per capita	Prog. cost per capita
Borehole	250	Z\$ 100,000	Z\$ 10,000 (10%)	Z\$ 400	Z\$ 360
Deep Well	150	Z\$ 30,000	Z\$ 3,000 (10%)	Z\$ 200	Z\$ 180
Blair VIP Latrine	6	Z\$ 3,000	Z\$ 2,100 (70%)	Z\$ 500	Z\$ 150
UFW	50	Z\$ 8,000	Z\$ 5,600 (70%)	Z\$ 160	Z\$ 48

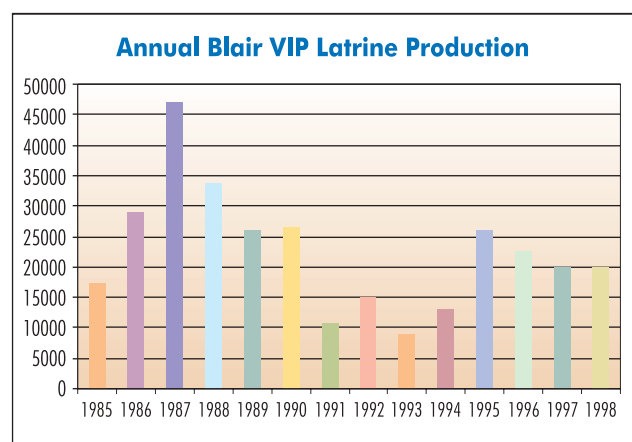
Source: IWSD, 2000

for the importation of cement and other non-domestic products. Undoubtedly, poor management and co-ordination exacerbated these economic constraints. Many households were 'mobilized', and dug their latrine pits, even though the mobilizers were aware that they had little chance of receiving the subsidies (or cement) needed to complete their latrines. As a result, the sanitation component has achieved only a fraction of the planned coverage, and has not had the health benefits expected.

Impacts

The progressive nature of the IRWSSP has attracted significant ESA funding and support throughout its life, and raised the profile of the RWSS sector in Zimbabwe. Unhappily, this has led to the government directing its limited resources elsewhere, and increased dependency on ESA support. Side effects of this dependency include separation of IRWSSP finances from those of central government, and limited accountability by line ministries to the local authorities that now manage IRWSSP projects.

The close support and detailed assistance provided in



Source: Morgan, 2002

the more successful district projects, such as Bikita (see Box 7) and Makoni²⁰, have led to greatly improved district capacity and performance, which in turn has attracted investment to the districts and promoted their development. These pockets of achievement are the result of impressive institutional strengthening and thus are likely to be sustainable, but they are also closely associated with ESA involvement, and with the long-term presence of external technical advisers. The magnitude and quality of support required by this approach, and its expense, must bring into question its replicability on a national scale.

Outside of the few successful district projects, the failure to develop an effective O&M system has reduced the impact of investments, and led to very low service levels in rural areas. Renewed efforts to implement Community Based Management, and greater recognition of the advantages of household level technologies, such as the UFW, provide hope for progress in the future, but significant reform will be needed before the water supply component of the IRWSSP has a more positive impact.

The Health and Hygiene Education (HHE) component has probably had the most noteworthy positive impact, despite the minimal amount spent in this sphere. Participatory approaches have been institutionalized through Participatory Health and Hygiene Education (PHHE) activities. There is also evidence of significantly improved hygiene behavior and of increased demand for sanitation facilities in areas where HHE activities have been effectively implemented, notably in wards where Community Health Clubs have been operating.

The IRWSSP appears to have had a negligible impact on the poorest households. There was little explicit provision for the poor, and inadequate targeting has meant that many of the benefits have gone to non-poor households. Latrine subsidies were offered on a first-come-first-served basis, which favored those who could easily

¹⁹ Based on current figures used for planning purposes by the National Action Committee, compiled by NAC based on market rates using 1999 prices

²⁰ Exemplary management by Makoni RDC has led to overwhelming ESA support, and the Council now manages 26 separate district projects

afford the 70% household contribution, as well as those who had influence with local authorities. In some districts, there have been attempts to link sanitation subsidies to membership of Community Health Clubs, but there has been political opposition to this move, despite the apparent advantages of providing the subsidy to people who have completed a detailed course of health and hygiene education.

Lessons Learned

1. 'Scaling up' decentralized service delivery is complex and takes time

RWSS productivity fell under decentralized IRWSSP provision, and recent performance



Box 7

Innovative approaches in Bikita District

Innovative approaches adopted by the DFID-funded Bikita IRWSSP project:

- community based management (with full cost recovery)
- community health clubs (linked to latrine subsidy)
- private sector participation (provision of materials; siting and drilling of boreholes; audits)
- strong technical assistance (capacity building, planning, financial management)
- provision of VLOM²¹ 'open-top' Bush Pumps and Upgraded Family Wells

Achievements since project inception in 1997:

- almost all boreholes reported functional
- water point committees collecting money on monthly basis
- pump down times reduced from several months to 48 hours
- latrine coverage increased from 9% to 16% in two years
- 113 active community health clubs (evidence of beneficial hygiene behavior change)
- annual financial audits completed by private auditors (latest exposed some mismanagement)
- RDC active and involved in project (top officers undertaking correspondence courses)

Adapted from IWSD, 2001

does not even match that achieved in the mid-80s. A lesson from this experience is that national programs need to start slowly, focusing initially on strengthening existing institutions, and on developing and testing appropriate approaches (e.g. through pilot schemes). Scaling up decentralized service delivery is complex. Success requires: transparent rules linking project size to local capabilities and experience; substantial investment in increasing local WSS capacity; and, realistic targets and performance incentives.

2. Effective co-ordination requires participation

At the outset of the program, the national level co-ordination bodies of the IRWSSP were held up as models. As decentralization progressed, it became clear that many of those responsible for service provision (local authorities, line ministries, ESAs, local NGOs, informal private sector) were not involved in co-ordination, and that, as a result, the IRWSSP was failing to respond to external changes or embrace new approaches. Effective co-ordination requires sustained participation by all sector stakeholders, using flexible and adaptable mechanisms to capture local lessons, encourage shared learning, and avoid the repetition of mistakes.

3. Invest in sustainable systems

Rural households in Zimbabwe have proved willing to invest significantly in assets that they can own and manage themselves. NGO programs offering improved traditional wells and lower-cost VIP latrines have made substantial gains in coverage and sustainability, without the need for large subsidies. Future investments in RWSS provision ought to recognize the benefits of low-cost household technologies.

²¹ VLOM = Village Level Operation and Maintenance



**Water and Sanitation Program-
Africa Region (WSP-AF)**
The World Bank, Hill Park,
Upper Hill
P.O. Box 30577
Nairobi, Kenya

Tel: (254-2) 260300, 260400
Telefax: (254-2) 260386
E-mail: wspaf@worldbank.org
Website: <http://www.wsp.org>

These technologies are based on familiar, traditional systems and favor user ownership, thus harnessing private finance and resources, and reducing subsidy levels. Most importantly, in Zimbabwe's case, they have also been shown to provide sustainable water and sanitation services, even in times of institutional and state failure.

4. Recognize the benefits of partnering

There are significant benefits in government learning to partner with NGOs, with communities, and with the private sector. During the late 1990s, as the IRWSSP waned, NGOs supplied much-needed energy and ideas to the sector, and proved themselves able and efficient providers of large-scale water and sanitation services. In Zimbabwe, community based management is in its infancy, and private sector participation is extremely limited. However, it is clear that these non-government stakeholders represent viable channels for WSS service delivery, and that, during the civil unrest that Zimbabwe is currently experiencing, they can play an important role in supporting the poor and in maintaining basic services.

Conclusion

The lifespan of Zimbabwe's Integrated Rural Water Supply and Sanitation Programme has coincided with dramatic changes in the rural water supply and sanitation sector, and in Zimbabwe's institutional and economic situation. The IRWSSP struggled to adjust to these changes, yet managed some significant achievements and raised the profile of the RWSS sector in Zimbabwe. New approaches and technologies were introduced, thousands of technicians and community workers were trained, and some twenty five thousand handpumps and nearly half a million latrines were installed.

Since 1999, when the review of the IRWSSP was carried out, the situation in Zimbabwe has deteriorated. ESAs have suspended their funding, the economy has contracted further, and government institutions are on the verge of collapse. Clearly, service provision under these circumstances is difficult, but it is hoped that the lessons learnt from the IRWSSP will provide some indication of the best way forward for the RWSS sector in Zimbabwe.

References

- IWSD (2001) 'Review of the Integrated Rural Water Supply and Sanitation Programme', Government of Zimbabwe National Action Committee for Rural Water Supply and Sanitation, unpublished
- Erpf, K (1998) 'The Bush Pump: The National Standard Handpump of Zimbabwe', St.Gallen: SKAT HTN Case Study
- Morgan, P (2002) 'Zimbabwe's Rural Sanitation Programme', updated case study
- Morgan, P, Chimbunde, E, Mtakwa, N and Waterkeyn, A (1996) 'Building on tradition: Zimbabwe's shallow wells', London: *Waterlines* 14:4
- Taylor, P and Mudege, N (1997) 'Sustainability the Challenge', IWSD: Harare
- Waterkeyn, J (1999) 'Structured participation in community health clubs', 25th WEDC Conference Addis Ababa, WEDC: Loughborough
- Waterkeyn, J (2002) 'Community Health Clubs: An effective health promotion strategy for achieving behaviour change in Rural Areas', London School of Hygiene and Tropical Medicine (forthcoming PhD thesis)

Acknowledgements

Thanks to Peter Morgan, Ngoni Mudege (IWSD), Juliet Waterkeyn (LSHTM), Stephen Hussey (Dabane Trust), Clare Barrington (DFID) and Anthony Waterkeyn for their valuable contributions to the fieldnote.

All pictures provided by: Peter Morgan

Written by: Andy Robinson

May 2002

The Water and Sanitation Program is an international partnership to help the poor gain sustained access to improved water supply and sanitation services. The Program's main funding partners are the Governments of Australia, Belgium, Canada, Denmark, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom; the United Nations Development Programme, and The World Bank.

**Created by
Roots Advertising Services Pvt. Ltd.**

Printed by PS Press Services Pvt. Ltd.