



MAY 2004 • KLAS SANDSTRÖM, MICHAEL SINGH

Assessment of a Sida financed
Water Demand Management project
in Southern Africa, 1997–2004

Water Demand Management in Southern Africa



Foreword

The Swedish International Development Cooperation Agency (Sida) initiated in 1996 an initiative with the overall objective to support integrated management of shared water resources in Southern Africa. The support has to a large extent been focussing on capacity building for sustainable management of internationally shared water resources.

Southern Africa is a region where water is distributed unevenly in time and space. With increasing population and its legitimate demand for an improved lifestyle, entailing expansion of industrial development and agriculture expansion, the region faces an enormous challenge in how to allocate, use and protect this limited resource. In addition, the region is affected by recurrent droughts and occasional floods which further aggravates the situation. These circumstances makes water demand management (WDM) and concepts like “more crop, nutrition and services per drop” as an essential element in all water resources projects and programmes in Southern Africa. WDM is also an important concept in Sidas’ policies and strategies in water resources management and water supply and sanitation.

Sida has provided support during a six-year period to WDM in Southern Africa, channelled through IUCN in two phases. This report includes an assessment of the results, experiences and learning from the two phases. It also contains a proposal on how to continue to support WDM on a long term basis in the region.

Sida is grateful to the authors of the report Dr. Klas Sandstöm and Mr. Michael Singh for presenting an informative assessment and challenging ideas for future support to WDM.

Stockholm in November, 2004



Bengt Johansson
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Executive summary

This assessment of the Water Demand Management Project Phase I and II in Southern Africa has been prepared for the Department of Natural Resources and the Environment of the Swedish International Development Co-operation Agency (Sida). The Project (phase I) started in 1997, followed by a second phase (II) in 2000. The project is due to end in August 2004, following a six months extension. The objectives of the Project is to evaluate and study national water demand management (WDM) practices in the region and to increase awareness, collect and disseminate sound information, improve the human capacity to promote and implement WDM, and to document the application and testing of WDM measures in pilot case study areas.

This document comprises six chapters. Chapter One introduces the purpose of this assessment, the Terms of Reference, the methodology used, and defines important terms.

Chapter Two reviews the status of WDM in Southern Africa and summarises key projects at the continental, regional, national and local levels focussing on WDM and Integrated Water Resources Management (IWRM). Most countries in the region already have or are planning to adopt new policies and legislation that will promote WDM.

Chapter Three contains the assessment of the WDM Project. First, it outlines project objectives and specified outputs, and how those have been revised in 2002. Thereafter, the project assessment is presented, following the outline provided in the ToRs for this assignment, but also other issues are discussed. The main conclusion is that the Project has been very successful in achieving stated objectives and outputs, and has produced a wealth of material, and also enhanced competence, awareness, and professional management in the region. The potentially most significant achievement has been the process of engaging people and institutions in WDM – through meetings, training, studies, networking or something else. This is no small feat, and as well a solid basis for future work in this field.

With regard to the four overall objectives of Phase II and their expected results, the following is concluded: little or moderate progress has been made on testing guidelines and methodologies in the field (a study in Zambia June/July 2004 will however undertake specifically that); good progress on increased awareness and capacity building; and strong

progress on collect and disseminate information on WDM. Hence, objectives have been reached, more or less, in three out of four areas. However, the project objectives, and in particular the original ones, give considerable emphasis to the implementation of guidelines. This has not happened, with the exception of a first (and only) study that is to take place in Zambia in June/July 2004. Given that Phase II of the Project is entitled “Promotion of Regional Action”, the lack of field implementation is regrettable.

Another shortcoming relates to how WDM is defined in theory while differently addressed in practice. In theory, it includes allocation issues and water use also by agriculture – a very important sector in the Southern Africa region. However, no or very few activities have been undertaken that focus on that. Moreover, it was previously stated that a series of guidelines (four) were to be developed as part of the Project’s Phase II. However, only one guideline for the urban/domestic sector has been produced. The Project has down-scaled objectives and outputs without clearly justifying this in a transparent way. As an extremely ambitiously designed project, such downscaling may have been appropriate, but should in any case have followed a transparent process.

The Review Team is generally impressed by the project’s management – until February 2003. From that date until today and the project’s termination in August 2004 (expected) there has been no Project Manager in place, and implementation appears to have suffered from this. This shortcoming, and as well the downscaling of some objectives and activities, should have generated substantial financial savings. There is a need to clarify the amount of financial resources thus not spent, and how the unutilised resources can be used to best benefit the project.

Has the project been cost-effective? Considering the hard work that undoubtedly has been carried out by the project’s management, the quality of the research and analytical papers, and the process-related results that have been generated, we conclude that the project has been cost-effective. However, considering issues such as an unknown sustainability of produced results and a lack of co-ordinated efforts to cooperate with other and similar projects, we are less sure of the project’s cost-effectiveness.

Chapter Four addresses the issue of whether or not Sida should support a new project on WDM in southern Africa. It reviews arguments for and against, and concludes with a strong recommendation in favour of such a new project. The main arguments are that 1) the Millennium Development Goals (MDGs) call for action; 2) there is a need for field implementation following the present project’s two phases; 3) the region needs a strategically designed WDM project, and; 4) the investments made in Phase I and II would be partly lost without a new project focusing on implementation.

Chapter Five presents three options for such a new project. The different options are entitled “A River Basin Focus” (1), “City-to-City Collaboration” (2) and “Long-term Demand Driven Implementation” (3). The Review Team favours the last option. The principle difference between these is the open structure that is included in Option 3. It provides an arena for demand-driven, coordinated, and supportive activities among cooperating actors. It has the potential to meet the

challenge for action called by the MDGs. The idea is to combine grant-based support (to promotion and outreach activities in order to facilitate field implementation) with loan-based support (to finance profitable investments in WDM). This option primarily addresses the demand for action, and is open to many types of collaborative activities. It can also provide a channel for future support from the European Union Water Initiative to WDM in southern Africa.

Chapter Six reiterates conclusions and recommendations.

Acronyms

DFAW	Department of Forestry and Water Affairs (South Africa)
DFID	Department for International Development (UK)
DRFN	Desert Research Foundation of Namibia
DNRE	The Department for Natural Resources and the Environment (Sida)
DWA	Department of Water Affairs (Botswana)
GWP	Global Water Partnership
IDRC	International Development Research Centre
IUCN	The World Conservation Union
IUCN-ROSA	The World Conservation Union Southern Africa
IWSD	Institute of Water and Sanitation Development
IWRM	Integrated water resources management
JPO	Junior Professional Officer
PSC	Project Steering Committee
SEI	Stockholm Environmental Institute
Sida	Swedish International Development Co-operation Agency
TCG	Technical Core Group (of the WDM Project)
WARFSA	Water Research Fund
WC	Water Conservation
WRMS	Water Resources Management Strategy Project
WDM	Water Demand Management
WSCU	SADC Water Division
SADC	Southern Africa Development Community

1 Introduction

1.1 Background

The Swedish International Development Co-operation Agency (Sida) has been engaged in the water sector in Southern Africa for many years. The scope has gradually broadened from water supply and sanitation to integrated water resources management (IWRM) and from the national to the regional level. In 1996 the Department for Natural Resources and the Environment (DNRE) launched an Initiative for Support to Sustainable Management of Water Resources in Southern Africa (the Water Initiative). The two immediate objectives of the Water Initiative are:

- To raise awareness and build capacity in sustainable use and management of water resources, and
- To support integrated management of international water resources

The Water Initiative was evaluated in year 2000. The evaluation concluded that with respect to regionality, poverty impact, effectiveness, manageability, viability and risk, and leverage of funds, a strategic focus on international river basin management would be the most viable option for Sida. This focus should be complemented by additional activities such as thematic activities, networking (e.g. through GWP), and advocacy and support to SADC Water Division. Sida should assume a brokerage and facilitative role; flexibility within clear financing criteria; and promote increased focus on hydropolitical issues, diplomacy and international issues.

The Water Initiative has led to the establishment of a number of projects addressing new issues and with new counterparts to Sida. One of these projects is the project being assessed in this report, the Water Demand Management Project (WDM Project).

The WDM Project was initiated in 1996/97 as part of the Water Initiative. Two phases were planned. Specific project objectives of the first phase were to commission five country studies on the status, opportunities and constraints for water demand management, to organise a regional workshop, and to produce a synthesis report of main findings. The second phase was to focus on increasing the awareness of WDM, to collect and disseminate information, to improve the capacity among professionals in WDM, and to initiate a pilot case study.

The first phase commenced in the last quarter of 1997 with a regional workshop and the second phase commenced in 2000. The second phase is still being implemented.

David Brooks on behalf of IRDC undertook a half-term review of Phase II in the first half of 2002. The larger Water Initiative was also evaluated in the year 2000.

1.2 Purpose and Scope

The objectives of this Consultancy are as stated in the Terms of Reference (ToR) provided by Sida (see Annex 1):

- a) Assess achievements vs. stated objectives (WDM Project Phase I and II);
- b) Assess the need and options for continued work on WDM under Sida's regional Water Initiative project portfolio;
- c) Analyse the options for further WDM activities and project delivery mechanisms;
- d) Give recommendations on how to sustain the products of the WDM Phase I and Phase II projects, and how to handle demand for further work on WDM following the first two phases; and
- e) Analyse the feasibility of a (future) regional WDM project.

The objectives are of two natures: (i) to evaluate the achievements of Phase I and II of the WDM project, and (ii) to take a forward looking perspective and the needs and options for continued work on WDM under Sida's regional Water Initiative project portfolio. Only the first paragraph (a) specifically deals with the assessment of past work, whereas the following four paragraphs focus on the future of WDM in the region and Sida's potential role in that respect. This relative weight of the Consultancy (towards future activities) was also emphasised during discussions with Sida staff at DNRE both in Stockholm and in Harare. The relative weight between past and (possible) future activities is also reinforced by Section 3 in the ToR: Scope of Work. Most of this deals with "special issues", i.e. the need for further work in the region in order to guide the design of future WDM activities. Hence, this Consultancy has its weight and focus on a possible future WDM project.

The assessment of the WDM Project's two phases I and II primarily focuses on achievements vs. stated objectives and the utilization of funds in that regard. Issues such as project management approaches and structures are only dealt with when relevant to the project's overall performance.

1.3 Methods

The ToR provided by Sida indicates the methodology to be applied in the Consultancy. Specifically, the following components were applied:

- Review project and other relevant documents;
- Interview key stakeholders within and outside the project;
- Review other on-going or planned WDM-related projects in the region and their activities and outputs;

- Make an analysis of the need for WDM in Southern Africa in the context of regional water resources management;
- Communicate with Sida staff;
- Visit sites (cities, neighbourhoods) where concrete WDM practices are being implemented.

It should here be noted that the Review Team was unable to meet Ms Tabeth Chiuta-Matiza, the current Project Manager, as she was not in Harare during our visit there. Neither were we able to meet the IUCN-ROSA Regional Director Mr James Murombedzi (time simply did not allow for that), nor any representative of the SADC Water Division in Gaborone. The unit's staff was committed to a large annual meeting while we were in Gaborone and despite several attempts, it was not possible to find a time slot. On the other hand, we were in several cases able to meet key project staff more than once.

The methodology also included intensive travelling in the region. All five Phase I case study countries were visited; Zimbabwe (Harare, Mutare, Kadoma), South Africa (Pretoria, Johannesburg, Cape Town), Mozambique (Maputo, Beira), Botswana (Gaborone) and Namibia (Windhoek). As part of this travelling, the Review Team was also able to meet representatives of several other projects that also focus on WDM (with Sida funding, funding by other bi- or multi-lateral donor agencies, and by national and local governments). See Annexure 1 for details on people met.

The ToR stated that the consultants should visit the town of Rehoboth in Namibia. Sida has supported this town in developing various WDM-practices (primarily a more updated tariff system) and the town is seen as a successful case in terms of improving cost recovery and reducing unaccounted for water. A meeting was planned, with date and time set, but this had to be cancelled at a very late stage following communication with staff at the Swedish Embassy in Windhoek. A meeting between a Sida engaged consultant and town representatives was not seen as appropriate at this stage.

The Project will be assessed using Sida's standard evaluation criteria, such as relevance, fulfilment of objectives etc. But it should be recalled that some project objectives such as awareness raising and competence development, are complex and long-term processes. The impact of for example a book or participation in a seminar may not be distinguishable among all the other factors that have contributed to raise awareness.

References are sometimes made in the text to various authors or organisations, but a reference list is not accompanying the report. However, if the reader should like to have such information, please contact the authors of this report. A list of persons interviewed is attached as Annex 2. The work schedule is contained in Annex 3.

1.4 The Review Team

This Consultancy assignment was carried out by Akkadia Consulting. The Review Team consisted of Dr. Klas Sandström (main consultant) and Mr Michael Singh (sub-consultant).

Klas Sandström is a founding member of Akkadia Consulting. His work focuses on consultancy and teaching in the area of water resources management, and on project design in the areas of water management and sustainable sanitation. Dr. Sandström has long experience of working with Sida, and was one of the consultants that undertook the evaluation of Sida's Water Initiative in the year 2000. Michael Singh is a water management professional from South Africa. Until recently, he was a Director at the Department of Water Affairs and Forestry. He now works with the Ethekwini (Durban) Municipality. Mr Singh has in the past had a minor engagement with the WDM Project.

The present assignment was initially discussed with Sida in December 2003. Preparations started in January 2004, and fieldwork was undertaken in February 2004. The Final Report will be submitted during the second quarter of 2004.

1.5 Definitions

This section discusses different definitions of WDM and related concepts. There are two or maybe three terms that are used repeatedly and often interchangeably within the context of WDM. These are Integrated Water Resources Management (IWRM), Water Demand Management (WDM) and to some extent also Water Conservation (WC).

The WDM Project uses the following definition on water demand management: *“A management approach that aims to conserve water by controlling demand. It involves the application of selective incentives to promote efficient and equitable use of water”* It is also stated that WDM in the context of WDM Phase II is concerned with, among many issues, *“ensuring greater allocation and use efficiency”* and that viewed within the context of IWRM, *“WDM is a means of achieving integrated water resources management”*

Global Water Partnership (GWP) states *“IWRM is a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”*.

What the difference is between WDM and IWRM is not at all clear. It varies from person to person.

It should also be said that in the Southern Africa context, the implementation of WDM is focused more on distribution management measures (repair leaking pipes and flowing taps) rather than consumer demand management measures.

2 A Review of the Current Status of WDM in Southern Africa

The following review of the current status of WDM in Southern Africa is based on a limited number of countries and not the entire Southern Africa region as defined by SADC. It describes the various WDM initiatives. Most initiatives are explicit WDM project (i.e. they include the development of WDM among several other objectives), except six initiatives in section 2.3.4 and 2.3.5 that describes WDM implicitly (i.e. they focus specifically on WDM), as part of IWRM, plus the Pungwe IWRM Study that has a the potential to involve many WDM principles.

2.1 Policy Implementation

Goldblatt and Artzen, both being part of the WDM Project, have presented a fairly concise overview on the status of WDM in Southern Africa. Countries in Southern Africa are at different stages of implementation of WDM. Namibia and South Africa are most advanced, with clearly formulated policies and strategies. Namibia is currently awaiting the formalization of this process. Large-scale WDM implementation has, however, not yet begun. Botswana is in the process of formulating policies and strategies. Zimbabwe has approved a new Water Act (1998) and a new Integrated Water Management Strategy, which creates a good platform for WDM implementation. Most other countries have not yet formulated specific WDM policies and strategies, but are exploring opportunities to do so. Information on specific countries is elaborated below.

Namibia has recently prepared a new Water Management Strategy and a new Water Act as part of the water policy and strategy review process. WDM is fully integrated into all aspects of water management and planning.

In South Africa the Department of Water Affairs and Forestry (DWAF) is responsible for facilitating the development and implementation of WDM. South Africa approved a new 1997 National Water Act and 1998 Water Services Act. Subsequently, a draft Water Conservation (WC) and Demand Management National Strategy Framework (WC/WDM) was produced with extensive consultations. Sectoral guidelines were drafted for agriculture, industry, and water service sectors. Key and essential elements of the final draft of the National WC/WDM Strategy

has been incorporated in the draft National Water Resource Strategy (DWAF, 2002); and WC/WDM strategy guidelines are being prepared for water services; agriculture; industry, mining and power generation sectors. In terms of Water Services Development Plans, which is a requirement of the Water Services Act, a water services authority is required by law to provide a Water Conservation and Water Demand Strategy, and to further annually report on progress regarding the implementation of the WC/WDM strategy. The final draft for the national and various sectoral strategies have been finally approved (DWAF, 2003).

WDM in Zimbabwe is an explicit component of the IWRM strategy (Government of Zimbabwe, not dated). Proposed interventions include market-based interventions (water pricing and effluent charges); technological interventions (loss reduction and recycling); special measures for irrigation, mandatory measures and public awareness raising. The Zimbabwe National Water Authority, and Catchment Area Councils will drive WDM implementation.

In Botswana, a National Water Conservation Policy and Strategy Framework document was prepared in 1999 (DWA, 1999) and subsequently, a water conservation unit was established within the Department of Water Affairs. Reducing the pressure on existing conventional water supplies is part of the overall goal of the WDM strategy; to be realized by curbing consumption, and the development of alternative water sources. A 25% to 35% reduction of water demand on traditional sources is the target, half of which is to be realized by non-traditional water sources and half by demand reductions. The strategy will rely on three main interventions: pricing and other economic instruments; technical measures; and public education/awareness raising. The water conservation unit is currently implementing a water conservation programme that includes awareness raising campaigns, technical interventions and consideration of water pricing. The forthcoming review of the country's first National Water Master Plan will pay explicit attention to WDM. Expected outputs of the review include a new Water Act and comprehensive Water Policy (due in 2004).

In both Namibia and South Africa they have decentralized water management to water basins and/or communities. Decentralization of water management in Botswana has been limited to operation and maintenance of village water supplies, to District Councils. In Botswana, there is no community involvement, and there are no catchment area institutions as yet.

Most countries covered by the second phase of the IUCN-WDM Project, do not have explicit WDM policy components, although *ad hoc* WDM cases are found throughout southern Africa. Their challenge is really to build on the in-country WDM cases, their IWRM water policy framework and experiences from other SADC countries with more advanced WDM policy formulation, and to establish their own WDM policy and strategy as recommended in most country studies. While recognizing the specific needs of individual countries, several common components can be identified that could assist WDM development.

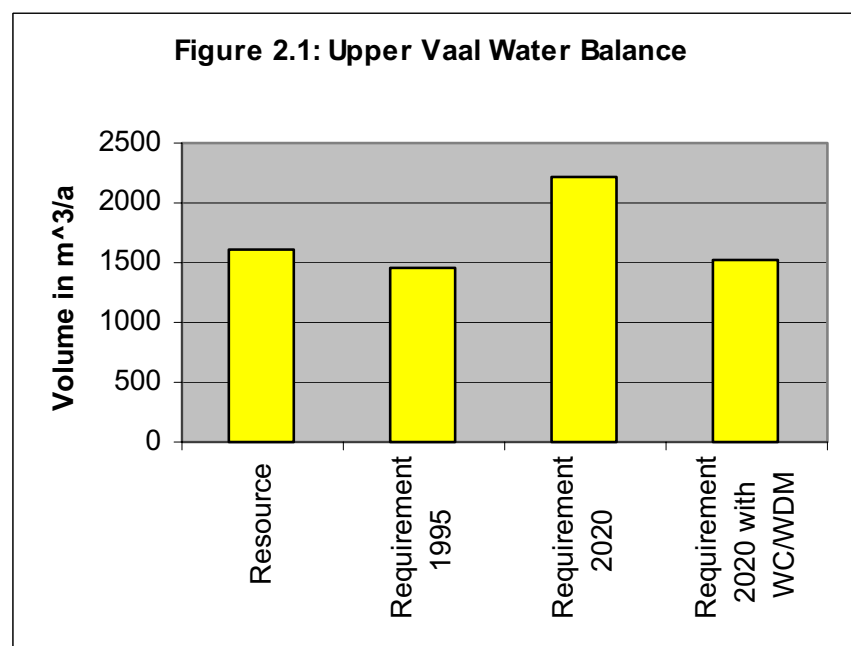
2.2 Role of WDM in Reconciling Supply and Demand

There are a number of water demand management and water conservation methods to meet the water requirements for future growth and development. The following are some of the options identified:

- Water demand management and conservation
- Surface water resource management (operation of dams) and conservation
- Managing and use of groundwater
- Re-use of water
- Eradication of invading alien vegetation
- Re-allocation of water
- Development of surface water resources (e.g. dams)
- Transfer of water

Although most of the above options can be evaluated using the traditional planning methods, the full appreciation of WDM can only be recognised through an Integrated Resources Planning (IRP) process whereby the planning parameters go beyond the scope of water resource considerations, applying the same principle, concepts and approaches adopted by IWRM. It raises the issue whether it would not be more viable to invest in WC/WCDM as an alternative augmentation option before additional dams and transfer schemes are built. It is anticipated and demonstrated that WDM measures are the more feasible solutions to meeting the water requirements in the water sector.

There are various potential scenarios of the role of WDM in meeting the future water requirements for future growth and development. Assuming that the full potential of WDM in the water services sector is feasible, the opportunity of WDM is to reduce the existing demand of water services by 40% without negatively affecting economic activity.



An example of applying this estimate to projected water requirements in the Upper Vaal water basins is the following. The Upper Vaal Water Management Area (WMA) supplies water to a large proportion of the Gauteng urban area. The urban water requirement is approximately 40% of the total demand. Figure 2.1 below indicates that without WDM and assuming an estimate growth in demand for the urban sector of 3% per annum, the water requirements by 2020 will exceed available resources considerably. If the full potential of WDM is achieved the water requirements by 2020 will however not exceed the current available water.

WDM can enhance economic efficiency and development and contribute significantly in meeting the water demands for future growth and development. It is estimated that water savings of up to 40% of the existing demand could be achieved, and that WDM could meet the future water requirements for more than 15 years.

Although there are significant challenges and constraints in the water industry that threaten the implementation of WDM, there is no doubt that WDM remains an extremely viable option given that an appropriately conducive framework of support exists and that practitioners within the water industry support, develop and implement WDM.

2.3 Existing WDM Activities

2.3.1 Introduction

All of the countries that participated in the WDM Southern Africa Phases I and II recognize the importance of sustainable water resources management within the context of water scarcity and have attempted to include elements of WDM in their water management strategies. However, implementation has generally been ad hoc and no country as yet has a comprehensive, functioning, countrywide approach to WDM. Thus while policy trends show an acknowledgement of WDM, legislation and implementation strategies lag behind policy at country level. Despite the absence of a comprehensive WDM programme, the region has some relevant and key local level experience and pilot projects. There are initial indications that WDM is being considered as an integral component of water resources planning. Various WDM initiatives at continental, regional, country and local levels will be described. Please note that this section is not intended to be exhaustive, nor comprehensive, rather it will describe some key initiatives that have relevance and bearing on future WDM work in the region.

2.3.2 Pan-Continental Initiatives

Managing Water for African Cities

The United Nations has recognized that many African cities urgently need to develop and implement effective water conservation and water demand management (WC/WDM) strategies that will utilize the limited water resources equitably and efficiently without wastage, and extend service coverage, particularly in the expanding urban low income settlements. To this end a collaborative project was initiated by the UN Centre for Human Settlements (Habitat) and the UN Environment Programme (UNEP) within the framework of the UN's Special Initiative on Africa.

The project promotes policies and programmes for integrated urban water management for seven African cities (Abidjan, Accra, Addis Ababa, Nairobi, Lusaka, Johannesburg and Dakar). The project prioritised the development and implementation of WDM programmes and measures. It should be noted that the second phase to the Managing Water for African Cities, with funding from the Canadian International Development Agency (CIDA), was launched at the UN's AMCOW Conference held in Addis Ababa during December 2003.

It must be borne in mind that this is also happening within the context of the WSSD, and its' associated Millennium Development Goals, which resolves to reduce by half the number of people without basic water and sanitation services by 2015.

2.3.3 Regional Initiatives

Southern Africa Development Community Water Division

SADC and its' member countries have adopted Integrated Water Resources Management (IWRM) as the approach towards the management of water resources in the region. Recognising that WDM is an integral and indispensable part of IWRM, SADC is obliged, and has indeed made the connection, to facilitating the promotion of WDM at a regional level. According to Mr Masedi (SADC Water Division) WDM has many linkages with the Regional Strategic Action Plan. Water Demand Management being an integral part of IWRM, it is therefore vital to identify synergies, and policy guidelines and directions through the water demand process that will feed into relevant projects of the RSAP. However it still remains to be seen whether this will translate into clear WDM policies, strategies, and plans to be developed and implemented at regional level, and of course national level.

The SADC Protocol on Shared Watercourse Systems is wholly based on the IWRM approach. The Protocol seeks to facilitate the establishment of shared watercourse agreements through river basin commissions; advance sustainable, equitable and reasonable use of shared water; integrated, coordinated and environmentally sound development and management; harmonise legislation and policies; promote research, technology development, and information exchange on shared watercourses. Although the Protocol does not mention WDM explicitly, several provisions and opportunities can be used to fully incorporate WDM into multilateral agreements and the implementation of the Protocol.

The Global Water Partnership

The Global Water Partnership for Southern Africa (GWP-SATAC) aims to promote IWRM in Southern Africa, through regional cooperation and influencing national and regional water policies and strategies. In its most recent initiative (Ruth Beukman, pers. com., 2004) a proposed pilot project to develop, test and implement the IWRM approach towards water resource management at river basin or catchment level will be implemented soon. The Mhlathuze River Catchment in KwaZulu Natal, South Africa has been selected as the pilot catchment.

The Pungwe River Basin Joint Integrated Water Resources Management Strategy

The Pungwe River Basin Joint Water Resources Management Strategy (IWRMS), the Pungwe Project in short, is a cooperative effort by the Governments of Zimbabwe and Mozambique to create a framework for the sustainable and equitable management, development and conservation of the Pungwe River Basin's water resources, with the objective of increasing the derived social and economic benefits for the people living in the basin. A key element in the development of this strategy lies in building capacity for its implementation and upgrading – to facilitate effective participatory management by both the authorities and stakeholders. The Pungwe River is a shared watercourse between the two countries. The Pungwe Project is financed by Sida through an agreement with Zimbabwe and Mozambique.

2.3.4 National Initiatives

Examples and the status of some national initiatives for the participating countries is described in the preceding sections, and will therefore not be repeated. In addition to this, the reader is referred to the Country Studies of both Phase I and II of the WDM Project. Below are additional implicit WDM project outlined.

Integrated Water Resources Management Project, South Africa, DANIDA

This 42-month project is due for completion in June 2004. Although it focused on IWRM and “integration”, there are three “core” components: (i) Institutional development that focused on supporting and establishing Catchment Management Agencies; (ii) Management of groundwater resources; and (iii) A water conservation and water demand management (WC/WDM) component focused on the domestic sector and local authorities. The project adopted a participatory and a partnership approach. The first part of the project involved the commissioning the development of various guidelines and tools; the second part, the selected pilot application and testing of the tools and guidelines, and the development and pilot testing of appropriate training for key role players; and the third part, involves the evaluation and review (refining) of the tools and guidelines based on the case study experiences.

This project has already secured a further 30 million DKK (Danish krone) for a second phase of the IWRM Project, and will focus on consolidating and promoting training and capacity building and national implementation of the various resources developed as part of the project, including the water conservation and water demand management component.

Water Conservation and Water Demand Management in Botswana, DANIDA

The aim of the Project is to develop and manage the water resources of Botswana in an equitable, economic and social manner without compromising the sustainability of the resource and the vital ecosystem it supports. The project objective is to create an enabling environment for improved water conservation and demand management practices and measures at national and local levels as an integral part of the implementation of the reviewed Botswana National Water Master Plan and the National Development Plan 9.

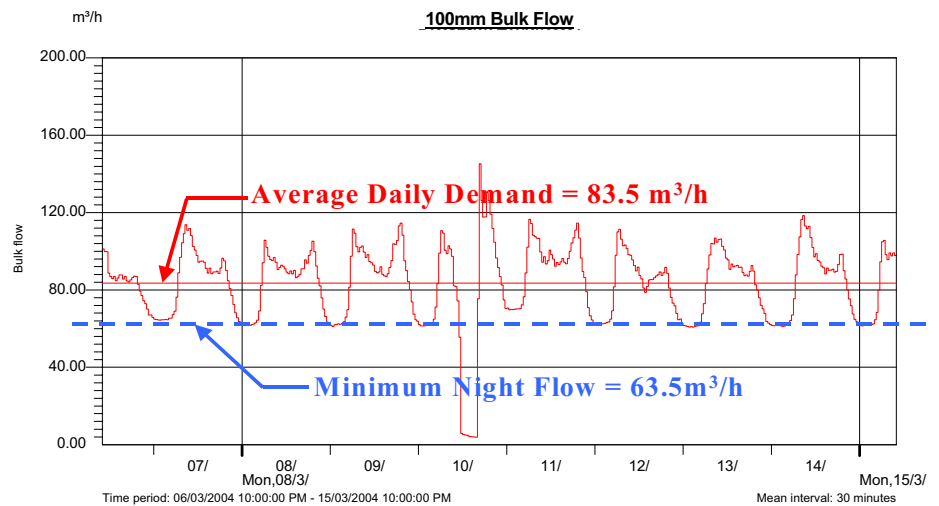


Figure 2. Whereas the average daily demand is 83.5 m³/h, the continuous night flow is 63.5 m³/h and thus the real consumption is only 20 m³/h. Night flow, when everyone is fast asleep, is three times higher than the actual consumption (the information by courtesy of Charles Chapman, Gabarone).

The anticipated outputs will include: (i) Improved technical and institutional capacity within the Department of Water Affairs (DWA) for WC/WDM; (ii) Integrate WC/WDM aspects into key national policy and planning processes; (iii) Develop public awareness, education plans and campaigns, targeted for different user groups, and field test; (iv) Identify and develop at district level, selected WC/WDM measures and practices; and (v) Study and field test innovative WC/WDM practices and technologies. The figure to the left shows night flow and how it compares with total consumption.

2.3.5 Local Initiatives

Although most participating countries in the region may not have comprehensive approaches and frameworks, there are numerous examples at local level, as determined by local circumstances, which demonstrate the relevance, value and applicability of WDM. Some initiatives will be briefly described, by no means is intended to be comprehensive nor exhaustive. They are all implicit WDM focused.

Khayelitsha Pressure Management Project, City of Cape Town

The Khayelitsha Pressure Management Project includes the largest advanced pressure control installation in the world and has been recognized as a “World’s Best Practice” by numerous respected international experts. It has been hailed as a great success by the City of Cape Town, not only for its technical excellence, but also for its contribution to improving the levels of service and environmental sustainability. The project which cost R2.5 million to construct is already saving more than R18 million per year through reduced leakage, and saves approximately 10% of the water to be supplied by the new Berg River Scheme (to cost R2 billion). This result was achieved by quite simple means: by installing a time-modulated pressure control system (i.e. the pressure varies over

time and depending on actual water use) the pressure is reduced at night time and mid-afternoon, when the demand is low, and thus greatly cut losses through leaking pipes and open household connections. Through these means, average daily flow was reduced from 2 500 m³/hr to 1 500 m³/hr and night flow from 1 600 m³/hr to 750 m³/hr.

The Khayelitsha project is an excellent case of one of the main conclusions the Review Team makes; well-implemented WDM is profitable and releases water that can be allocated to e.g. poor people, economic growth or the environment.

City of Kwekwe, Zimbabwe: A successful demand management approach

The City of Kwekwe, Zimbabwe, is one of the few examples of a successful comprehensive WDM programme, which used demand management as a means to displacing a supply augmentation project. The programme was instituted to cope with the 1992 drought but has continued to demonstrate great success in curbing demand. Through a range of measures, Kwekwe's average monthly consumption in 1991 of 1500 MI was reduced to 1000 MI by October 1992. After lifting the drought restrictions in 1994 the average increased to 1200MI, reaching 1300 MI in 1997, still well below the 1991 figure. It would appear that successful WDM imposed during restrictions could result in more permanent improvement in people's water management and use practices. Still, it is important to review how the reduced demand has affected actual water use by different socio-economic groups.

City of Rehoboth, Namibia: Focus on tariffs and billing

The City of Rehoboth is located one hours drive south of Windhoek in Namibia. Since a few years back, Sida has provided support to the city in order for it to improve its water distributions system. In many respects, the work has been a great success. Numerous problems still exist today, often related to the project's internal management, but water-related work, on WDM, is proceeding very well. In particular, the case of Rehoboth shows the *great potential* for both saving water (attend leaking connections and running taps) and improving water services – very much to the benefit of disadvantaged groups. By combining training, investments, better administrative routines, and reformed tariff systems, much can be achieved.

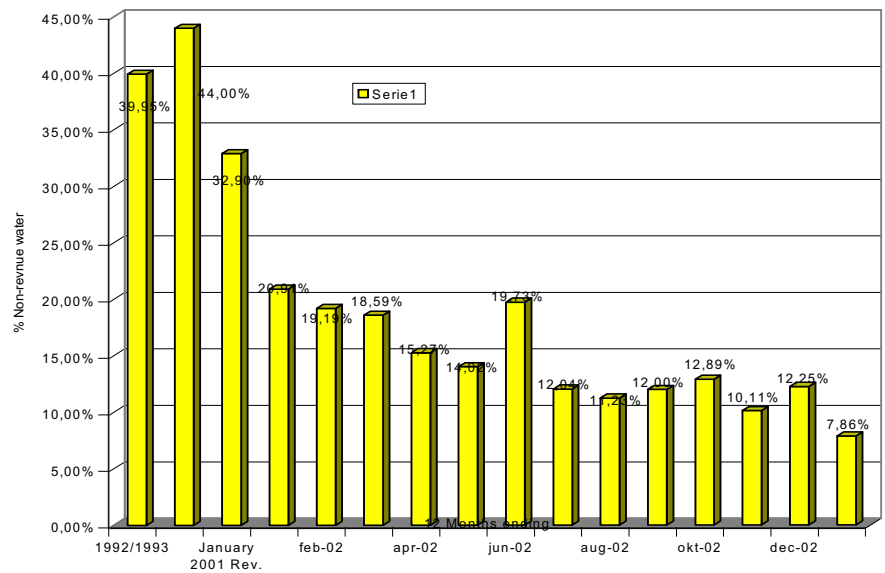


Figure 3. The non-revenue water was reduced from more than 30% to below 15% within 12 months. And the income increased due to better credit control and tariffs designed in such a way that most of the poor can afford water services.

Another example of WDM in Namibia is, of course, the success story of handling water in the country's capital, Windhoek. It is well known. By applying WDM practices, the city's water use is today equal to that of 20 years ago, although the population has doubled in the meantime and services now reach inhabitants in an equitable and fair manner.

3 Assessment of the WDM Project

In this chapter, we first make a short outline of the project's structure (this section), followed by a review of the two phases and their objectives and outputs. Following this we present the assessment of the achievements during the two Phases to-date.

The Project has been executed by IUCN-ROSA in Harare. The day-to-day project management has been carried out by IUCN South Africa in Pretoria. IUCN represents an institutional network that covers the region, professional expertise in water-related issues, good relationships with a range of international organisations, and has project-implementation capacity. IUCN has engaged a Project Manager and a Project Assistant to manage the project. In addition to this, staff from IUCN South Africa has supported the project's implementation when needed.

A Project Steering Committee (PSC) consisting of representatives from the participating countries, donors, and the project implementors meets regularly. Initially, the PSC had both an advisory and a steering role. This was seen as a problem, and a Technical Core Group (TCG) was created and took on the advisory role. The TCG has consisted of professionals from public water agencies and the water industry. They are primarily drawn from the region but also overseas consultants participate. The PSC have henceforth concentrated on its steering role.

3.1 Objectives and Outputs

3.1.1 Phase 1

After pro-active work by Sida staff, IUCN-ROSA in Harare submitted a funding proposal for "Research on Water Demand Management in Southern Africa" to Sida. The proposal was submitted in the second half of 1996, and was to be implemented during 1998 and 1999. In order to prepare for the project's take-off, a pre-study workshop was held in Harare in the second half of 1997. A proposal on this purpose was submitted to Sida in August 1997 and subsequently approved in September 1997. The objectives of the workshop were to invite key resource people, identify country study team leaders, define the scope of these studies, and to discuss the advocacy campaign and strategy planned for Phase I. The Project's overall purpose was to promote the use of WDM practices in dealing with the region's water resources.

The Project's target groups were senior policy makers in the Southern African region's water resources management sector and researchers involved in policy related issues. The project was also to provide linkages between organisations and individuals in the region concerned with WDM. No particular risk factor was found, primarily since IUCN and its regional network would implement the project. It was stated that this would ensure adequate political support in order to perform the country studies (the main outcome of Phase I).

Phase I of the WDM project had the following five objectives:

- To establish the levels of integration of WDM in water management;
- To assess the opportunities and constraints for WDM in water resources management;
- To promote awareness of WDM in the region, particularly among key decision makers;
- To contribute to capacity building through the research process;
- To establish and publicise lessons learned from WDM work in the region.

These objectives were linked to the following outputs to be produced, namely:

- A set of country case studies
- Fact sheets, newspaper articles, policy/issues papers
- A synthesis paper
- One regional workshop
- Reference group/steering committee meetings and minutes
- Research team meetings and minutes
- A publication on WDM in the SADC region

3.1.2 Phase II

The Phase II project proposal, a direct continuation of the first phase, is entitled "Promotion of Regional Action". It was submitted by IUCN-ROSA in March 2000, and approved by Sida in June 2000. Phase II was to end by February 2004, but has been extended to August 2004 because of delays incurred in 2003.

Sida's decision to support a second phase was based on the results of the first phase. These indicated that WDM practices were applied *ad hoc* in the region and that lessons learned were not adequately disseminated. Decision-makers are unaware of WDM, which in turn is necessary in order for the region to resolve its struggle related to water resources. It was therefore decided to provide a three-year continued support to promote the application of sustainable principles for making use of the region's water resources.

The overall purpose of Phase II, as stated in the proposal, is "to promote the adoption of water demand management approaches to the extent that their use precedes traditional options at national and regional levels". The proposal also states that "the envisaged end of project situation is for WDM to be widely accepted and being practiced systematically across the SADC region".

The specific objectives as given in the original project proposal are:

- To increase the awareness of WDM by politicians, professionals and the public as demonstrated by the adoption of WDM policies at regional and national levels
- To collect and disseminate sound information from research and other studies on WDM and assess benefits accruing.
- To improve the capacity of technical, educational and policy professionals to promote and implement WDM
- To document the application and testing of WDM measurers in pilot case study areas and facilitate or supporting the implementation of guidelines in different sectors in selected countries of the region.

These objectives were subsequently revised. A “Revised Project Strategy: Remaining Tasks WDM Phase II (July 2002–February 2004)” was presented in 2002. In this revised strategy, the objectives were reduced from four to three and the focus on pilot case studies was lessened.

The revised objectives are (abbreviated) as follows:

- To collect relevant information for the promotion of WDM through awareness creation.
- To generate awareness on WDM amongst selected water managers and decision-makers
- To improve the capacity of selected water managers to enable them to promote WDM through the development of guidelines (this objective includes a pilot study application of the guidelines)

The original objectives (of the proposal) were linked to the following categories of outputs:

- *Awareness & Networking.* The production of 6 policy briefs or information sheets, workshop reports, a website, and the promotion of a functional network of professionals. This awareness will be facilitated by a SADC Ministerial Conference, 2 regional workshops for policy makers and professionals. The results of these efforts should be evident as documented agreements in SADC recognising the benefits of WDM or by the adoption of WDM policies at regional and national level and promotional programmes for WDM that are put in place as a result.
- *Information Collection and Dissemination.* The following shall be produced: 6 policy briefs or information sheets, 12 priority research reports, 5 country situation analysis reports and summaries, 4 sectoral guidelines, 3 analytical papers for guidelines, and a functional comprehensive website in one of the partner institutions ensuring that sound information is available and is being collected from research and studies on how to implement WDM and the benefits accruing. In addition, a database of the network of participants involved in the WDM would be a key spin-off from the project.
- *Capacity Building.* A training module to guide curriculum reform, about 20 trainers trained by holding a training workshop, and adoption of these modules as the examples of reformed curricula in training

institutions (at least 2) to ensure that technical, educational and policy professionals will thereby have improved capacity to promote and implement WDM.

- *Application of WDM Measures.* The testing of the implementation of guidelines in a least 3 countries and 3 sectors which have been identified could also be facilitated through technical assistance provided for implementation in these selected countries. In addition, 4 case studies where WDM is already being applied and tested as pilot projects by different countries in the region will be documented to draw out best practice and feed into guideline development and implementation support.

These were also subsequently revised, in the same manner as the original objectives were revised, and specific output reduced in volume. The revised output was stated as:

- 5 country studies
- 7 research studies
- 3 analytical papers
- WDM guidelines
- Training, capacity building
- Project output consolidation

3.2 Project Performance

The following section makes an analysis of the project's relevance and effect on key target-groups; actual results, the reason for possible discrepancies as compared to stated outputs, and the performance of the project management and its possible role in project output delay; the project's cost-effectiveness and utilisation and dissemination of outputs, and the project in a regional and Sida perspective. A summary of lessons learned completes this section. Information utilized in this analysis is both qualitative and quantitative. Sources for these analysis's are project objectives, activities and results as stated in project documents; interviews with project staff and other people concerned with WDM in the region; WDM literature originating in southern Africa; and on-going or planned WDM activities in the region.

3.2.1 Relevance

The relevance of the project is here discussed under four headings (Our interpretation of given ToR: "Are the activities of the project relevant?" That is, the assessment concentrates on the relevance of activities actually undertaken. This need not necessarily be the same as the objectives).

- *To ordinary people in the region.* Irrelevant. There is little or nothing in stated project objectives and expected outputs (see list in section 3.3.) that are of primary concern to ordinary people in the region. Research reports, training of professionals, guideline development, etc does not have a direct bearing on poor people. Although project activities have a potential to contribute towards improved water services in the long run, this is yet to materialise.

- *To policy makers and governments:* Relevant. Project objectives and expected outputs (see list in section 3.3.) clearly include this group in many activities.
- *To professionals in water:* Highly relevant. All project objectives and outputs (see list in section 3.3.) include this group in their implementation.
- *To the water resources of the region and its development:* Highly relevant. The huge flora of literature, reports, projects, scenario's and other information sources that exist clearly indicates that an urgent need exists to reconcile available water resources with demand and to get more economic growth per volume of water. It must be concluded that IWRM and WDM is sorely needed in Southern Africa, and thus to the water resources of the region.

3.2.2 Achievement of stated project outputs

Phase I

Stated outputs from Phase I have all been completed and reported through given formats. The main output was five country studies, and these were all completed in accordance with the project document. The same is also true for stated outputs on training and the promotion of WDM awareness.

The quality of the different country reports differs. While some are more descriptive, others are more analytical. More stringent Term of Reference could have addressed this, but it is also reasonable to expect that delivered results differ when people with different backgrounds and perspectives are involved. Hence, the country reports are important outputs from Phase I, particularly so considering the very modest amounts of funds provided (see below).

Do completed outputs correspond to stated objectives for Phase I? Yes, they do. The status of WDM has been studied, awareness has been promoted, training has been undertaken, and lessons learned from WDM have been publicised.

Phase II

As Phase II is still ongoing it is not possible to assess the final outcome as detailed by the project objectives and stated outputs. In the following section, nevertheless, an assessment is made of project outputs to-date under the four main categories.

Country Studies. Altogether, situation analyses have been completed in nine SADC member countries (the study of Mozambique was repeated). The country case studies provide valuable insights into the benefits and problems experienced by the countries in implementing WDM. They are valuable by being status reports, indicating strangeness and weaknesses, how the countries compare with each other, and as capacity building exercises. Although WDM is neither integrated nor institutionalised, the participating countries have recognised the need for sustainable water resources management and have taken on or implemented WDM in some form. This is particularly evident in the area of policy and national water resource strategy initiatives.

Research and Analytical Papers. Given the limited resources available for the purpose, the Review Team is impressed by the standard and calibre of work produced by the various study teams. Despite limited resources (the cost of the research papers are approximately USD 12 000 per paper – a very reasonable sum), the study teams have produced valuable papers. The papers are valuable in terms of having overarching focuses (e.g. barriers to implementation, institutional requirements for WDM in southern Africa, how to incorporate WDM in national and regional strategies, etc) and by being Southern Africa specific. They therefore have a potential to make project outputs valuable also outside the WDM Project itself (i.e. by other projects, initiatives or training). Some management problems were experienced in the production of this output, as not all the proposed commissioned papers were delivered on time, but it was handled by the Project Management.

Guidelines and their testing: It was previously stated that a series of guidelines would be developed as part of the Project's Phase II (see list in section 3.1). However, substantial deviation from what was originally expected has occurred, and it appears that the final output at this stage only involves a guideline for the urban/domestic sector. We are critical of the process to reduce the number of sites where the guidelines were to be tested and/or implemented. The original project proposal as well as the revised project strategy of 2002 clearly state that four sites were to be selected. Instead of four, there is now one, in Zambia. In a letter to Sida (25 March 2004) the project management makes reference to a meeting held in Gaborone in 2003 when guideline subject areas and criteria for site selections were discussed. The letter does not, however, clarify why and how the number of sites was reduced from four to one. In our view, Sida was not informed in an appropriate way of the down-scaling from four to one field sites.

The Review Team is not of the opinion that everything has to remain as stated in original documents. Such a position would be inflexible and counter-productive to overall intentions. However, we do in this case question the procedure and reasons for scaling down this particular objective and outputs.

Tertiary Training Module: A tertiary training module has been developed by the project. This module has already been of use in water resources studies in institutions of higher learning in the region (e.g. WaterNet). This is good achievement. However, it was expected that more comprehensive and consolidated training programmes focusing on all key stakeholders in the entire water supply cycle were to have been developed.

General

Stated objectives and outputs have been achieved – although downward revision of objectives and outputs has taken place. In a comparison between actual results and *originally* stated objectives and outputs, there are considerable discrepancies as discussed in the above sections.

Another example of either over-ambitious original plans or an inability to achieve stated intentions is the following: in IUCN-ROSA's original proposal to Sida it is stated "*the envisaged end of project situation is for WDM to be widely accepted and being practised systematically across the SADC region*". As we know today, the situation is not even close to that. On the other hand, it is an unattainable goal and the project should not be blamed for not managing this. One could argue however that those involved in submitting and those accepting such a statement seem to have overlooked the institutional complexities involved with the introduction of new practices.

As discussed above, other project objectives and outputs have also been scaled down. This may have been necessary because of unrealistic original planning, or it may be the result of insufficient effectiveness of implementing agencies. Notwithstanding, outputs by the end of Phase II (in August 2004) are expected to meet the objectives of the revised strategy.

Another issue relates to the very meaning of WDM and the orientation of efforts. According to project documentation (e.g. the Revised Project Strategy 2002–2004), WDM is a "*management approach that aims to conserve water by controlling demand. It involves the application of selective incentives to promote efficient and equitable use of water*". The document also states (in the context of WDM Phase II) that WDM is concerned with, among many issues, "*ensuring greater allocation and use efficiency*" and that viewed within the context of IWRM, "*WDM is a means of achieving integrated water resources management*". However, we have seen little focus on *allocation* issues and for *agricultural applications* of WDM (the sector being by far the largest user of water in Southern Africa). There is no research or analytical paper on these issues, and neither is there a guideline focusing on allocation of water or agricultural use. But again, the Review Team does not really want to criticise the project management for not addressing these issues – many tasks have been undertaken anyway. Still, a conclusion is that the project is unlikely to provide the basis for future WDM work involving allocation issues or agricultural use of water (see discussion on the need for future WDM activities).

The Review Team is generally impressed by the project's management. It is a complex project and clearly challenging to management. The former Project Manager, engaged a few months into Phase II and active until about a year ago (February 2003) has shown excellent performance and ensured efficient implementation. However, while we can accept that it took some time to identify and employ her at the beginning of Phase II, we are not satisfied with the project's management over the last 12 plus 6 remaining months (February 2003 to August 2004). As we can understand, four different persons, each with his or her own capacity and competence, have been engaged in the project's senior management. This is probably a major reason behind the present delay in project implementation. It may also have contributed to the Project not being able to deliver in accordance with original plans. As the project management situation is yet to be resolved, the coming six months' extension may also be problematic in terms of effective delivery of outputs. In sum, IUCN has not performed as expected during the latter part of Phase II.

In both of the two above-mentioned areas of shortcomings (i.e. the vacant project management post and down-scaling the number of field sites) it is likely that substantial financial savings have been made. There is a need to clarify the amount of financial resources saved, and how they can be used to best benefit the project.

IUCN has offered to make a no-cost six months project extension from March 2004 to August 2004. Considering the above discussion on saving funds by not having project management in place according to contract, we find this offer most reasonable.

3.2.3 Effects on target groups

As there is no indication of who the target groups are in neither the original nor the revised Phase II project document, we here define the target groups as the same as those under the above heading on relevance.

- *To ordinary people in the region.* No effect. Few if any ordinary people have experienced an effect of the project. The reason for this is the type of activities undertaken so far – these have not focused on “ordinary” people, only on water professions, policy makers, and similar.
- *To policy makers and governments:* A considerable effect. A number of the project activities have targeted policy makers (regional workshops, information sheets/brochures, and the integration with SADC Regional Water Policy Framework). The project has contributed to an improved general understanding in the region of how to better manage scarce water resources and to make them last longer and produce more desired effects. However, to what degree is more difficult to state. It has contributed together with several other similar projects, but this project’s specific contribution is difficult to state. Hence our emphasis on the project’s overall process-related contribution (see further below).
- *To professionals in water:* A considerable effect. Through a long series of meetings, studies, and training and awareness campaigns this group has increased its knowledge in WDM and what it may entail in practice. From our travel across the region, we met many from this group and they were in general quite positive to the project’s performance. However, as most of them had a background in the project, this is maybe not a surprising finding. Water professionals without a project background were far less (or not at all) aware of the project and what it has sought to achieve.

An example of an engaged group of water professionals is the Zimbabwean country study team. Through the project they were given the opportunity to jointly summarise the state of WDM in Zimbabwe, participate in meetings with other country study teams, and be part of a joint publication on WDM in southern Africa. With ten country studies undertaken, and with possibly four water professionals involved in each, some 40 persons have been engaged in these studies. This is positive effect of the project to the region. This group is also important to build on in a possible future implementation project.

- *To the water resources of the region and its development:* In the short-term: No effect (as no field implementation has taken place). In the long-term: A positive effect could be anticipated if implementation is successful.

3.2.4 Utilisation and dissemination of outputs and outcomes

The project has given much attention to the dissemination of its outputs. A wealth of research papers, analytical reports, guidelines, and training manuals are available in the region. However, have they reached the target individuals or groups? We interviewed both project-connected people and such that had no past connection with the project. Obviously, the former group were quite well aware of what was available, although the latter group had no particular knowledge of available outputs. This raises the question of the project's integration into the region. Has it been integrated into regional demands for WDM development or has the project been formulated from the outside? This is linked to the sustainability of project outputs (section 4.1). To some extent, maybe it is too early to review this issue, as the project is still on going and some useful results are still not available (guidelines). But it puts a question mark on the demand of these outputs.

So far, we do not believe there is any particular utilisation of outputs outside the project itself. The "use" of these outputs is rather related to the production of them, i.e. being part of the process of WDM in the region (section 3.4).

3.2.5 Relevance in light of Sida's revised Water Initiative

To answer this issues we need to recall what Sida's revised Water Initiative implies: to raise awareness and build capacity in sustainable use and management of water resources, and to support integrated management of international water resources. The proposed management model to achieve this includes a focus on international river basin management, fewer but larger projects, more collaboration between projects, and increased use of consultants in key areas. Sida should also assume a brokerage and facilitative role, have flexibility within clear financing criteria, and give increased focus on hydro-political issues, diplomacy and international issues.

Below are these issues discussed in relation to project outcomes

Criteria	Project relevance
Raise awareness and build capacity in water management	The project is about promoting awareness and build capacity in sustainable water management.
Support IWRM	IWRM and WDM are almost interchangeable.
A focus on international rivers	The project does not focus on international rivers. It deals with any water, whatever source, but has an indirect connection by attempting to limit the demand and thus lower the stress on new supplies – primarily available from international sources.
Large projects	The project is large and a future new WDM project has the potential to provide an implementation mechanism of scale.
Collaboration	The project has collaborated with some other projects like WaterNet and WARFFA, but elaborated, strategic collaboration is not found. However, the project has not had that intention.
Use of consultants	The WDM Project has used a large number of consultants from the region. Essentially have all activities have been undertaken by engaged consultants.
Project monitoring and flexibility, brokerage/facilitating	These are internal Sida criteria or not relevant to the project

Based on the above, the project follows the intentions of the Water Initiative rather well. It does focus on IWRM/WDM, capacity building, sustainable water management, awareness raising, use of consultants, and it is rather large. However, the connection to international rivers is only indirect and collaboration and coordination with other projects is not an apparent characterisation. Neither does it provide Sida with an opening to focus on diplomacy and hydrogeopolitics. A new WDM project could, however, add strategic collaboration and co-ordination with other WDM activities in the region and thus further strengthen the Water Initiative.

3.2.6 Project performance in the light of critical water issues in the region

Water is scarce in southern Africa. The future will entail both an increased supply, primarily from transboundary, international rivers (supply-side management) and an improved use of already existing and already available water resources (demand-side management). Poverty eradication requires economic growth, which in turn requires both more and more efficiently used water. Project performance is analysed below vs. five main categories of critical water issues in the region plus the allocation of funds.

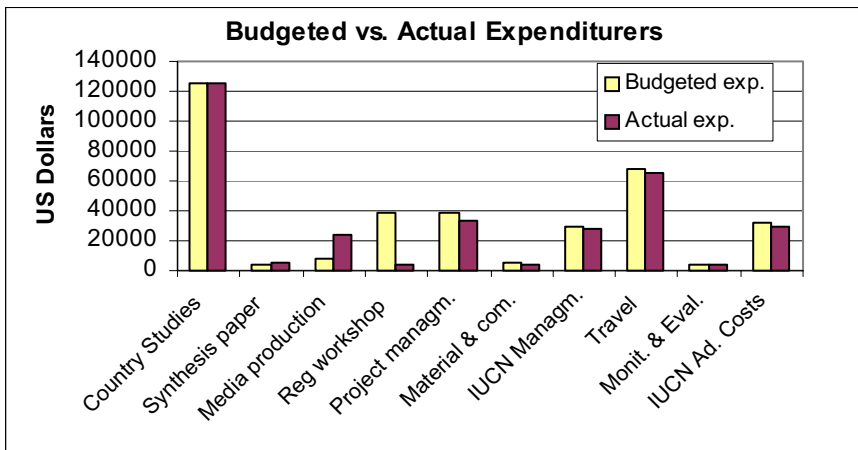
Issue	Project performance
Monitoring, collecting, analysing, archiving and use of hydrological information	This has not been a project objective. No effect. However, much information has been collected on WDM practices, need and approaches.
Capacity building, research, and awareness promotion	This has been one of the project's main objectives and it has succeeded well. The project has addressed a number of region-wide issues of importance to WDM, like barriers to implementation, economic aspects of WDM and guidelines.
Policy development	This is one of the project's main objectives. A host of activities (workshops, papers, networking) have contributed.
Scarce water resources – lack of adequate supply.	This has not been a project objective. No effect.
Inefficient use and management of available water resources.	This is the project's main and overriding focus. If WDM is implemented successfully, it can ease the pressure on new resources by limiting the demand, increase the output per volume of water, and thus address acute issues of economic growth, poverty, and regional and inter-regional tensions. WDM is also closely linked to IWRM, the globally stated panacea to most water-related problems.
Lack of funds to address critical issues.	This is obviously not a project objective, but it links anyway. Has critical funds been used optimally? Possibly yes, considering the process-related effects of working on WDM (building capacity, awareness and collegiality), but cases of overlaps and similar results compared to other WDM projects in the region exist. The guidelines to be produced may have a similar focus as compared to the UN Habitat produced WDM "cookbook" and DWAF's (South Africa) WDM guidelines. This could be a case of inefficient use of funds, although one could also argue that there is a need (at this stage) for more than one version of e.g. support literature. Our view concurs with the latter option.

3.2.7 Utilization of funds

The section makes a brief review of budgeted vs. actual and projected expenditures per main output category in Phase I and Phase II respectively. Fig 3.1 shows initially budgeted (in the project document) expenditures vs. actual expenditures for Phase I. The later figures have been collected from various statements made by the project accountants

(January 1998–June 1999). A final project report including actual expenditures was not possible to identify. Still, it seems like all activities are included in mentioned statements.

Fig. 3.1 Phase 1.



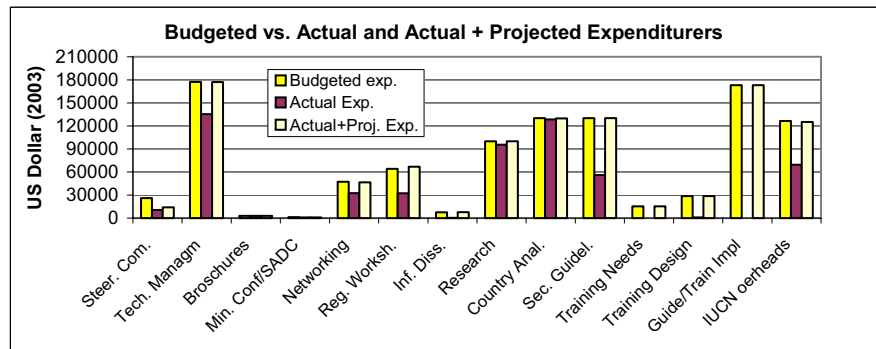
It is clear from Fig. 3.1 that actual expenditures closely match budgeted. The only difference appears at the “regional workshop”. According to the figurers, the workshop was either not arranged (or it was funded by a different source) or it only required about 10% of budgeted means. Still, in “Final Narrative Report March 2000” it appears like this meeting occurred as planned. It is not known to us what the case is.

The five country studies represent the main single expenditure in Phase I. These, together with associated costs (synthesis paper, media production) represent approx. 50% of the total Phase I budget.

Based on the above figurers on actual expenditures (i.e. excluding the workshop), and defining “project management” as all of the five posts “Project Management”, “IUCN Technical & Management Support”, “Travel” (Project Steering Committee, Reference Group, Project Managers), “Monitoring and Evaluation”, and “IUCN Administrative Costs” (10% of the total), the projects management – admittedly defined somewhat wide – adds up to 50% of total project expenditures. It is unknown how “IUCN Technical & Management Support” in general and project support by IUCN Rosa in Harare specifically (124 days at USD 200 per day) differs from the budget line “IUCN Overheads.”

The budget lines “Project Management” plus “Travel” in Phase I (equivalent to “Project Management” in Phase II) only represent almost 30% of actual expenditures. No cost is specified for the Steering Committee. It is unknown how it was financed.

Figure 3.2 shows budgeted vs. actual expenditures August 2000 – August 3003 and August 2000–August 2003 *plus* IUCN budgeted expenditures for the period August 2003–February 2004 (i.e. the whole of Phase II). All figures include both Sida and IDRC contributions. On the average, Sida’s share of the budget is approximately 70%. Both donors are jointly supporting most activities.



Again, actual expenditures match those budgeted very closely. What is surprising is the balance between activities undertaken over the 3 years August 2000–August 2003 vs. those planned for the remaining 6 months of the project (a period later extended to 12 months until August 2004). Actual expenditures over the first period are about USD 565,000 whereas the remaining project period (6–12 months) is budgeted at USD 466,000. This equals 45% of the total budget. This is an indication that it may be difficult to successfully finish by August 2004. There is no budget line on IUCN Technical & Management Support in Phase II as compared to Phase I where it represents 30% of total expenditures. This type of support is either not needed in Phase II or it is included under a different budget line.

A similar calculation to the one on “project management” in Phase I, but for Phase II, reveals apparently more efficient project management. Instead of 50% in Phase I, only 31% is required in Phase II. The budget line “Project Management” only in Phase II represents 17% of total expenditures (actual plus budgeted for remaining period). With the steering committee added, it would approach 20%.

Regarding some specific costs: The Phase II Research Studies have cost about USD 12,000 per study and the Analytical Papers even less. These are very modest sums for work produced by highly qualified experts.

3.2.8 Cost-effectiveness

As we regard the main overall outcome of the project being the *process of engaging people and institutions in WDM* (see below), it is difficult to evaluate the cost-effectiveness. What is the value of a lunch-break discussion on the most appropriate way of upgrading a leaking distribution system?

However, some of the above calculated figures require a discussion. Project management at between 30% and 50% of total expenditures is high. Plus overheads. Is that too high? First, the post project management does not include the costs of an office, computers, IUCN’s networking capacity etc, which is, of course, necessary to arrange with. Second, the high management percentages may be due to either high actual management costs (salaries) or low total costs for producing actual outputs. Costs in South Africa – where the project management group has been located – are much higher than in other parts of the region where many of the costs associated with actual outputs have been generated.

The Review Team is of the following view. Phase I: Considering that the main output was the five country studies, the level of project management (two persons) appears to be on the high side. Maybe it was neces-

sary in a start-up phase; but it still represents quite a large percentage of total project expenditures. Phase II: A long list of many small outputs has been produced and that requires close, and thus expensive, management. We do not question the cost of project management in that phase.

Summarising, considering issues such as the hard work that undoubtedly has been carried out by the project's management, the quality of the research and analytical papers, and the process-related results that have been generated, we conclude that the project has been cost-effective. However, considering issues such as an unknown sustainability of produced results and a lack of co-ordinated efforts to co-operate with other and similar projects, we are less sure that the project has been cost-effective.

3.3 Lessons learned – Sida

What lessons can be learned that can be of use in a possible future project?

The comments focus on Sida's involvement and are a balance between being project specific and having a more general development aid perspective. We encourage the reader to regard these comments as entry points for further discussion.

Unrealistic expectations. As mentioned elsewhere in the report, the original Phase I project document stated that “*the envisaged end of the project situation is for WDM to be widely accepted and being practiced systematically across the SADC region*”. These are unrealistic end of project situations. Sida and IUCN should not have signed a document stating this. What responsibility does it place on behalf of Sida? Does it imply that Sida is obliged to continue supporting WDM in southern Africa until it is *widely accepted* and *practiced systematically* across the SADC region? Probably not, but the question should be asked.

Active engagement. We believe that Sida should have been more pro-actively engaged in the project's management and implementation. It is not enough – if that has been the case! – to primarily follow the project's development from a distance and by attending PSC meetings. It has been said, “*as long as the project is doing all right and no signs of alarm show, we will let it run on its own*”. This is not enough. Closer attendance is needed in order to facilitate the opportunities for coordination and cooperation with other Sida-funded projects, and to ensure that the project is on line. As noted in this report, Sida did not respond to the considerable change (reduction) in output that IUCN suggested during a PSC meeting in 2002. In our view, that change should have been presented by IUCN in writing and also agreed in writing by Sida (which did not happen). We are aware of the workload, but we still believe that closer attendance by designated Sida staff would have benefited the project considerable.

An exit-strategy. Some development projects have specific needs to focus on. And when these have been achieved, no more support is needed. Others focus on long-term development. WDM is a major issue that will take time to succeed with. It requires the donor to have a long-term perspective in terms of financial support, thematic engagement, and cooperation and coordination. It also requires that an exit-strategy be

designed into the project. Sooner or later, donor support will end. When that happens, there has to be a carefully planned and realistic transfer of responsibilities – administrative, financial and competence – from the outside to the regional, national or local. The present project does not have an exit strategy. This is also partly the reason why the results are difficult to sustain.

Cooperation with other projects in WDM. Has there been adequate cooperation and coordination with other WDM projects and initiatives? Both yes and no. Yes – the project has e.g. engaged numerous experts from the region to undertake research studies. No – there has been no elaborated coordination with e.g. Danida and DfID and their programs in Botswana and South Africa. This also relates to how to sustain the results. Less cooperation makes this more difficult. We believe that more co-operation with other projects could have been arranged.

The Water Initiative. The Water Initiative and the projects it contain provide Sida with considerable opportunities to coordinate a broad spectrum of related, still different water projects. The list contains e.g. river basin management, research, training, and IWRM/WDM. We encourage Sida to make better use of these opportunities. Time and efforts should be given to analyse synergies, and to plan and coordinate “from the above” and to take initiatives that are gap fillers. The Water Initiative makes collaboration and coordination possible as few other water programs do.

3.4 Summary of Assessment of Phase I and II

The WDM Project Phases I and II have been a key and significant initiative to assist in the facilitation of awareness and support for the implementation of WDM in the SADC Region

The implementation of Phases I and II has made considerable progress in advancing the theme and practice of WDM in the SADC region. The focus has been on improving the understanding and knowledge of water demand management among decision makers and practitioners; influencing national and regional water policy and strategy in WDM; improving technical capacity; and producing guidelines and to test their application in the field.

Specifically, achievements made in Phase I and II of the project are in the areas of: awareness and networking, research and data collection, capacity building, and policy formulation.

Awareness and networking. Improved awareness in WDM has primarily developed in the 9 countries where country studies were commissioned, i.e. Botswana, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe.

In implementing Phases I and II, the project has also supported networking around WDM in the region. The linkages established with Waternet, WARFSA and SADC Water Division have helped to position WDM issues on the agenda of these networks. Since the inception of the project, focus on WDM issues has grown in the region. This has been the result of both the WDM Project but also due to other projects and their activities.

Research and debate. Although a lot of work is still to be done in this field, the two phases have generated research on WDM-related issues in the region. Current research on WDM in the region does show that WDM is practiced for various reasons. These include economic, technical and social reasons (the latter being lower water costs and increased access to water).

Technical capacity building. The country studies and research papers generated from the project have revealed information and understanding of water use and that proper institutional frameworks are critical for effective WDM. The tertiary training modules facilitated by Phase II is a move in the right direction by providing the foundation for comprehensive technical capacity building in the region.

Policy (and practice). The concept of WDM is today firmly on the informed-policy agenda in many of the region's countries (see Chapter 2). Although no elaborated strategies have been developed to facilitate the systematic implementation of WDM measures, a number of countries are actually integrating WDM into their national development plans.

Relevance to Sida's Water Initiative and regional water issues. It is relevant to most criteria that characterise the Water Initiative. However, a new WDM project should add strategic collaboration and co-ordination with other WDM activities in the region and thus further strengthen the Water Initiative. The project is highly relevant to regional water issues by focusing on making better use per drop of water used.

Having noted the above five areas as particular achievements, the Review Team should like to summarise this into the following three statements:

- In general: little or moderate progress has been made on testing guidelines and methodologies in the field (even though including the anticipated study in Zambia in June/July 2004); good progress on increased awareness and capacity building; and strong progress on collect and disseminate information on WDM.
- The above statement is close to what David Brooks asserted in his mid-term review in 2002. The Review Team also agrees with him on the single greatest achievement of the project: *the process of engaging people and institutions in WDM*, whether through meetings, training, consultancy studies, networking or something else. This is not a small feat. It is a prerequisite for a future project and its associated implementation activities.
- The project has not been directly relevant to poor people or women in the region or provided these groups with positive, tangible benefits.

Finally, the project provides some lessons that can be of use in future Sida supported water projects in the region. Specific issues include to have realistic expectations, provide active support, have an exit-strategy, coordinate and cooperate with others, and to make use of the opportunities the Water Initiative provide.

4 Water, development and Sida in Southern Africa

This chapter focus on two issues: Is there a need for further Sida support to WDM in Southern Africa? And if so, what should Sida support? This should be considered in light of the region's water situation, general development and Sida's overall objectives with the Water Initiative.

The water situation at large: In order to alleviate poverty in southern Africa, solid economic growth is required. And economic growth in requires that both more water is made available – the supply side – and that the water resources already being available are more efficiently used – the demand side. However, much water is already being utilized and remaining reserves are limited. Attention must be given to produce more “welfare per drop of water”.

On-going WDM development: In parallel with the WDM Project, many other and related projects and initiatives have been undertaken in the region. This is reviewed in Chapter 2. National governments, professional organisations, universities, NGOs, and external bi- and multilateral donor agencies have all contributed to this development. As a result, there are handbooks on WDM, competent and aware professionals, supportive policies (sometimes) and much more today existing in the region. This development has either been an internal process, as in South Africa, or externally initiated and supported, like the WDM Project and other similar donor-supported projects. These activities have often been lacking strategic cooperation arranged with similar projects. The cover today is far from complete; some countries have merely started the journey towards better and more efficient use of their water, whereas others have already come a long way. There is much to do.

As discussed elsewhere in this report, the WDM Project has resulted in two types of results; (i) a series of tangible outputs (like country studies, research reports, training sessions, guidelines, and field testing of WDM) and (ii) the process of working with WDM. The latter is difficult to specify, but it is evident. When people meet, talk and work together, they also gain knowledge of and capacity to apply their new competence in the field. However, another conclusion is that ordinary people have not gained from the project activities. Issues of poverty and gender have not been addressed.

Why is WDM not taking off? Many reasons exist. We should like to mention two:

- *There is a lack of appropriate policies and administrative routines (and/or their implementation).* An example is school water in Botswana: it is being wasted through leaking pipes and appliances. It represents a major cost, but little happens to prevent it. Why? The schools never see the bill. They have no incentive to cut the losses. A far away government department in Gaborone pays the bill without a connection to the individual school. Obviously, this should be addressed by a policy connecting the user with the payment and necessary administrative routines to correctly budget school expenses.
- *The cost-effectiveness of water sector investments is not adequately recognised.* Many examples exist where a relatively small investment in WDM could generate large positive effects to both consumers and distributor. Investments in WDM commonly have return-periods of weeks to months, but a lack of capital and a lack of support to develop technically, economically and socially feasible project proposals render these to never materialise. The problem is related to the importance of water revenues on city council budgets, often some 25–50% of the total income. The water revenues are as a result unavailable for investments, operations and maintenance within the water sector.

The two obstacles are linked. It is obvious that a lack of appropriate policies and routines are detrimental to the application of WDM. It is also probably valid to argue that policies and routines will not change until local politicians and decision makers at large know the positive effects of WDM. In the case of Botswana, what can cause the schools to stop wasting water? Probably both long-term policy development and a concrete case that focus on a particular school, showing the benefits of changing the billing system, and thus driving policy change ahead forward.

WDM in the future: The future should involve a matching of individuals and organisations that represent knowledge of the principles and applications of WDM (whether through the WDM Project or other work) with those in need of such competence. Future activities should promote supportive policy change and make use of the cost-effective investment opportunities that exist. There should be as few strings and limitations applied as possible, the process should be demand driven, engage all kind of actors (government agencies, civil society, and private interests) in an open and flexible approach, and make use of the expertise and knowledge found in the region. Future activities should probably be characterised by being many small rather than a few large.

The above may sound like a “wish list” for development to happen. Can it be arranged within the WDM-sector? The Review Team’s opinion is that a future WDM project must be structured optimally in order for real development to happen. It should be as close to “ordinary” conditions as possible (e.g. limit the use of free donor money, promote commercial conditions, and depend on local initiatives) and open up for collaboration with all partners that want to promote and apply WDM. As good examples of applying WDM today exist, the “islands of devel-

opment” phase is behind us. The future entails support to good people and organisations taking their own initiatives and trying to solve their own problems. This means two *main* (details in a later section) categories of donor support (at least in the short- and medium term perspective): to support the preparations of investments and to assist in arranging credit.

Sida and WDM. Where is Sida located in this scenario? We believe there is a distinct role for Sida to play – as a committed development partner, involved in both supply and demand side water activities, and by being a relatively small donor that can both cooperate with many and support focused activities.

As far as we know, there is no other project or process within WDM in southern Africa that specifically attempts the above – to promote demand driven activities, make use of all available sources of expertise and knowledge, remove the boundaries that exist between different initiatives, and provide (only) catalytic support. A future Sida-supported WDM project should build on the “islands of success” that exist (e.g. Khayelitsha, Rehoboth, beer-making in Namibia) and actively link up these with the opportunities that exist for cost-effective WDM in the region (e.g. City of Mutare and schools in Botswana). Sida’s support should focus on making the opportunities known, connect the two sides, provide expertise for feasibility studies and project proposals, and make funds available on a semi-commercial loan-driven basis. There should be as few limitations as possible on engaged development partners; whether these are from government, private sector or civil society. Support should be provided to training when necessary and to pilot schemes (“centres of excellence” as described below).

Poverty and gender are priority issues for Sida’s water programs. Specifically, how are these issues addressed within the field of WDM?

Short-term directly:	By making more water available for household use within reasonable distances.
Long-term indirectly:	By promoting economic growth through increased supply and improved allocation and use efficiency.

Both issues could be addressed in a future WDM project based on the discussion above. Access to household water in poor areas of Mutare in Zimbabwe is clearly inadequate. Despite the inexpensive water found in the city, even very modest (but highly profitable) investments in the distribution system could improve poor people’s situation substantially.

Southern Africa is fortunate in having considerable expertise in WDM, opportunities for good investments, and a dynamic water sector. These should be building blocks in a possible future Sida supported WDM Project.

4.1 To Sustain the Results of Phase I and II

The primary results of the project’s two phases are process-related; i.e. results that are embedded in *people*; individuals that have participated in meetings, training sessions, email communications, lunch-break discus-

sions etc, and through these activities grown in their understanding and capacity to undertake WDM. It is a rather large group of people in ten countries, quite disparate (university researchers, government staff, NGO-engaged, and private sector consultants) and with very different competences within WDM. This group represents most of the “capital” gained from seven years of Sida support to WDM. To sustain the results of Phase I and II implies to ensure that this group of people will continue working with WDM.

Of course, this will happen. More or less. Sida doesn’t necessarily have to participate in this endeavour. Other processes will be equally or more important; commercial opportunities, governments initiatives, and other donors demanding expertise in the WDM. Still, one could argue that the group’s particular character – being multi-disciplinary, representing a somewhat unique expertise, and knowing each other across sector and country boundaries – provides a particular opportunity to launch a project as discussed above: flexible, demand-driven and based on cost-effective investments. This is where Sida has a particular role to play in terms of sustaining the results of the current WDM Project.

Besides the process-related results, there are also more “tangible” project outcomes; a number of reports, guidelines, and research results. Their sustainability is more complex. If these reports are in *real* demand, they will have a positive impact in the region whether or not Sida decides to continue supporting WDM. However, if such a demand does not exist, the only option to make them useful is for Sida to continue supporting WDM and include them in future activities.

Obviously, the above discussion could imply a situation where Sida is “forced” to continue supporting WDM simply because a previous project requires that in order to sustain the outputs. This is no good, of course. The problem is not the output – it is of good quality in this case – the problem is the lack of an implementing mechanism to make use of these results. The present WDM Project did not focus on that, it was a training, research and methodology development project mainly, and as it ends, implementation is left to other people, organisations and initiatives. If these do not pick up where the WDM Projects ends, there will be no or few sustained results.

4.2 The Arguments

This section summarises the arguments *against* and *for* further Sida support to WDM in the region.

Arguments against further Sida support to WDM in the region:

- As previously concluded, the objectives of the WDM Project – primarily focusing on building knowledge, capacity and awareness – have been satisfactorily achieved and it is time to hand over the initiative to others.
- There is much competence on WDM found in the region. And as elsewhere stated in this report, many cases exist to show that well-implemented WDM practices are profitable investments, with no need for outside funding. It is thus time for the region to shoulder its own responsibility to apply WDM. The donor could go home.

- There are many other initiatives, including those funded by the Government of South Africa and international donor agencies such as the World Bank, DfID, and DANIDA engaged in the region’s water sector. Sida is presently a minor player compared to these and the region would benefit from fewer but larger programmes.
- To re-focus the present WDM Project from building knowledge, capacity and awareness to active implementation is a major change and may be too large (cost, time, efforts) considering the above arguments against a new project.

Arguments *for* further Sida support to WDM in the region:

- The global community has adopted the MDG challenge. The message is clear and undisputable. In a region where water is scarce and a potential exists to facilitate change through sound WDM practices, all good actors are needed.
- The WDM Project has primarily focused on country studies, training, advocacy, and writing guidelines and research/analytical papers. It is only in the last few months that a minor implementation scheme will be attempted. This is fine, but the MDG requires action *now*, to produce real benefits to real people. To not continue supporting the WDM sector would be to lose, and to be frank, most if not all of the achievements gained so far in the project. Produced material, competence and awareness would vanish in a sea of similar results and initiatives covering the region. In order to be motivated, investments made in Phase I and II necessitate a new project.
- A strategically designed WDM project is needed – irrespective of origin or funding. Such an initiative should not only depend on results and achievements from Sida’s past and current engagement in WDM, but equally (or actually much more) on other projects and results that have been concluded, exists today or are being planned in the region. A new WDM project should function as a network and facilitator of all WDM approaches found in the region and provide a mechanism for their implementation. A new project should also open up from the limited approach of focusing on small “project areas”. A future project must regard the whole region as its “project area” and be designed in order to handle and serve that area.
- The current project structure could be used in a future new project. There is a Steering Committee, country teams, and communication lines established. To terminate now would be to lose investments made in competence, advocacy and championship.
- As noted elsewhere, the project has generated no effects on poverty alleviation and gender. This is acceptable as long as we discuss a research and methodology development project. However, in order to satisfy its own, overall development goals, Sida should consider a new project that will address field applications of WDM and thus deal with issues of poverty and gender.

Considering the above arguments, the Review Team is of the *firm belief* that there is a need for further Sida support to WDM in Southern Africa.

4.3 Design Criteria for a new WDM project

The utilization of donor funding and the design of a new project needs to be carefully considered in order to optimise the impact not only in participating countries, but also in the region at large. Many initiatives and a range of funding sources characterize WDM in the region, and ample evidence exists to indicate that synergies have not been adequately identified or established.

The Review Team has identified a set of criteria that a future project should adhere to. The criteria are derived from the status of WDM in Southern Africa, results made and lessons learned from the Project's two phases, and general views made by Sida staff and other on a future new project.

- *The MDG challenge*: The MDG challenge is clear; change has to happen and improvements must start *now*. As a consequence, a new project should facilitate field implementation. When necessary develop its practices *as a response* to difficulties experienced in the field – not *vice versa*.
- *Demand driven*: A new project should be demand driven, i.e. the principal activities should be delivered on demand from appropriate entities, thus ensuring the project is of real and practical value to the recipients;
- *Flexible*: As in any regional context, the conditions and situations vary from place to place. It is therefore critical that adequate attention is given to design a rigorous, still flexible project where outcomes can be applicable in a wide range of situations, as well as be adaptable to local circumstances.
- *Efficient water use*: The region's water – as noted above, increasingly found along the transboundary rivers – must be used in a sustainable, efficient and equitable way.
- *Exit/Sustainability strategy*: An exit/sustainability strategy is needed, i.e. a planned approach for the region to take full responsibility (financial, capacity, and administrative) of the project and associated outputs and resources once external support comes to an end.
- *Regional co-operation*: The evaluation of the Swedish initiative for support of sustainable management of water resources in Southern Africa (Sida, 2000), concluded that transboundary rivers are the only new water resource available to the region and that regional cooperation is required for their development and use. A future new project should not only have a regional mandate, it should also base its activities on regional collaboration (i.e. proposed projects activities should be partnerships across national boundaries).
- *Co-ordination and co-operation with other projects*: As noted previously, there are several similar and related projects currently active in the region and beyond. Extensive opportunities exist for collaboration, co-operation and co-ordination in order to optimise the projects by identifying and developing appropriate synergistic and positive relationships to the point where resources and outputs are utilized jointly. The reader is referred to Chapter 3 and Chapter 5 to consider the interactions between projects in order to prevent duplication and a potential waste of valuable resources.

- *Utilise local/regional expertise:* It is key in order to develop local and regional capacity and skills that local/regional expertise and consultants are engaged to conduct most of the work in development projects. This is a crucial element in a sustainability strategy. Using local resources provide an ideal opportunity for skills transfer and capacity development, especially while international expertise is being utilized.
- *Manageability of the project:* Given the complexity of regional co-ordination and joint initiatives, Sida’s participation and role must be clear. By collaborating with well-established regional organisations, Sida can maintain a low (but focused on coordination and stated outcome) profile in project management. The approach applied must also allow the project management to focus on principle issues, facilitate the process at large, and build the network.
- *Leverage of funds:* This is the ability of Sida funds to leverage other funds from government and other donor sources, thus creating a multiplier effect. Relatively small amounts of Sida funding could if a leveraging effect exists, have a large impact on water saved, policy refined and number of people gaining access to safe water.
- *Cost per result:* The long-term cost accrued per achieved result from both a Sida and total project perspective.
- *Viability and risk:* The impact of external and internal factors on the viability and success of the project.
- *Cost:* What the total, average per year, and minimum and maximum cost is.

4.4 Regional Collaboration

Regional collaboration is discussed under several criteria above. However, more specifically, and focused on the various donor-funded projects that exist (such as Sida’s under the Water Initiative umbrella); the following issues should be considered.

In the evaluation of the Water Initiative’s focus and management approach (Sida, 2000), it was stated that while the number of projects should be fewer, the collaboration *in-between* different projects should increase, and thus cause synergies and cost effective results. The Review Team regards the future of the WDM project as an excellent case of establishing such synergies.

During the Review Team’s mission in Southern Africa, we visited and met personal from several past or on-going Sida-funded projects. These were the Pungwe Project (in Beira), the Water Research Fund, Global Water Partnership Southern Africa, the Desert Research Foundation of Namibia, and WaterNet. The Review Team also met or communicated with representatives of several other projects, such as UN-Habitat Water for African Cities, Water Conservation and Water Demand Management in Botswana, and Integrated Water Resources Management Project in South Africa. We also interviewed several senior water department officials. It is evident that opportunities exist to collaborate, a positive spirit actually exists to do that, but the structure of a new project must make such collaboration simple, generate win-win situations, and not cause costs on behalf of collaborating partners (at least initially before the benefits of collaboration appears).

4.5 Building on the WDM Project

What can the WDM Project provide that can support a possible new project?

- A large number of organisations and professionals with capacity in WDM and loosely organised through the project. They know each other, they have worked together, and they are most likely willing to continue to do so.
- A project structure; i.e. a Steering Committee, Technical Core Group, country committees, and open communication lines.
- The project is known as a serious actor in the field of WDM in Southern Africa and can thus establish agreements to collaborate, support, and facilitate future activities.
- The project undertook a lot of training and awareness raising activities – it is time to reap the benefits of that now.
- The output, e.g. guidelines, research studies, and the synthesis report, is available for implementation.

5 Proposed New WDM Project

This chapter discusses some alternative options for Sida on a possible new WDM project. It starts by reviewing key considerations. It then presents and discuss⁷ three alternative options, and ends by recommending one of these that is also outlined in some detail in an annex.

5.1 Key Considerations

5.1.1 Summary: The Status of WDM in Southern Africa

Countries in Southern Africa are at different stages of implementing WDM. Large-scale, region-wide WDM implementation has, however, not yet begun although a number of unaccounted for water (UAW) projects have been undertaken by local authorities in South Africa and Namibia. Botswana is in the process of formulating and consolidating policies and strategies, whereas Zimbabwe has approved a new Water Act and a new Integrated Water Management Strategy, which creates a good platform for WDM implementation. Most other countries have not yet formulated specific WDM policies and strategies, but are exploring opportunities to do so.

Considerable knowledge exists on putting WDM based principles and practices into action. In South Africa and Namibia there are successful and concrete examples of how a relatively small technical or organisational change can save large amounts of water and related financial resources. And as water is scarce in the region, unproductive losses and inefficient use must be addressed – with the purpose of making more water available to priority needs. Priority will often be given to water use by the urban sector.

WDM is a very potent option, but as any strategy, it depends on the existence of a conducive framework and support from practitioners within the water profession and the countries' governments.

5.1.2 Summary: Achieved Results of Phase I and II

As stated earlier in this assessment, work carried out and project outputs are of a high standard. However, the impact within the region is very modest, particularly so at the local level. This may indicate that outputs were seen as an end in themselves, rather than as a means to make a real water change in the region – from the highest political level to officials in government departments and to water users in general. Changing

opinions and practices of key decision-makers is of course a very difficult and complex process, which requires a long-term strategy, considerable resources and strong support from key actors. Notwithstanding, this may be an opportune time to take on such an endeavour as the building blocks and suitable conditions now are there.

5.1.3 Summary: Sida and WDM in southern Africa

In order to sustain the results of the WDM Project – primarily embedded within the group of people that has participated in project activities – Sida should continue to support WDM in southern Africa. Sida has a role to play; a committed development partner, involved in both supply and demand side activities, and by being a relatively small donor that can cooperate with many but also support focused activities. This role is appropriate for a new project.

5.2 Project Owner/Implementing Partner

If Sida decides to support a new WDM project, it will also be necessary to identify a project owner. IUCN has performed that role in the past. A future project owner should be:

- A strong institution
- Experienced in water/environmental issues
- Be part of a regional network
- Experienced in development work

It could be argued that since a future project should be considerably different from the previous project, as discussed throughout this report, the ownership should also change from IUCN to some other hosting institution. Not necessarily because of finding a “better” owner, IUCN has done quite well, but simply because of the change in its own right.

One option (further elaborated below) is to attach a new project with the Development Bank of Southern Africa (DBSA). It is a large and strong institution with region-wide activities (albeit possibly South Africa biased) is thematically experienced and very much involved in development work, and it would provide a new approach to WDM. It would also provide the financial management that option 3 includes. Another option could be to put the management unit with DBSA and contain some specific technical support functions with IUCN or some other organisation.

It should be noted that no contact has been taken with DBSA in writing this section. DBSA’s engagement is therefore only hypothetical.

5.3 Project Options

In considering a future new project, the Review Team has considered three options. The three options are presented below, and then discussed and evaluated in a matrix (see below) against the criteria in section 4.4.

Option 1: A River Basin Focus:

This option is based on the concept note “Water Demand Management in Southern Africa Phase III Project” submitted by IUCN South Africa to Sida. The option proposes to focus future activities

within a specific river basin (possibly the Limpopo). Activities include further promotion of awareness of WDM strategies; testing of the developed tools and guidelines; and further assessment of the usefulness and success of WDM in the context of IWRM at the river basin level. A host of activities are proposed within the spheres of water conservation, policy development, capacity building, technical measurers, revised tariff structures, etc. The total cost is estimated to US\$ 5 million over 5 years.

Option 2: City-to-City Collaboration:

This option was presented by Sida staff in Stockholm and Harare. The discussions suggested that a possible new project could entail a regional network of WDM collaborating cities. In the form *interpreted and presented* here, this implies a set of activities that encourage cities to collaborate through a pro-actively managed network. The project would have a limited time frame, be (relatively) low-risk, and have medium impact on the region's water resources. The project would probably end with the termination of overseas funding. The total cost would be well-defined (and modest), but the cost per positive change could potentially be very high.

Option 3: Long-Term, Demand Driven Implementation:

This option is the boldest alternative presented here. It is based on the discussion held in Chapter 4 and implies the establishment of a demand-driven mechanism for the promotion of WDM within the whole SADC-region. It intends to facilitate extensive collaboration between cities, industries and other organisations around WDM, and it has a long-term focus. It provides both bank-managed loans for profitable investments as well as donor supported grants. The risks are high, but the potential of actually aiming at the MDG-goals are equally high. It also includes an exit-strategy for the donor(s).

These three options provide very different approaches. The first one has a catchment focus, but no particular development mechanism attached. The difference between Option 2 and Option 3 may not seem large, but besides a scale difference (further elaborated below), there is principle difference in approach applied.

Both options aim at generating co-ordinated activities enabling different actors to collaborate around the implementation of WDM. However, whereas Option 2 provides a project and a content that hopefully will co-operate with other initiatives, Option 3 provides a structure that can enable different types of actors and initiatives to co-operate around WDM (plus initially a certain amount of activity support). Option 3 allows the region itself to define what it needs in terms of WDM. This in turn should reduce the risk for competition between donors, as these will be invited to utilise the structure. Option 3 also provides a potential mechanism for European Union Water Initiative (EUWI) funds to engage in WDM activities in Southern Africa in a transparent and demand-driven approach.

Figure 3 below is an option matrix. It is based on the criteria discussed in Section 4.2 and contains an evaluation of the three options vis-à-vis each criteria.

Criteria	A River Basin Focus	City to City Collaboration	Long-Term Demand Driven Implementation
	<ul style="list-style-type: none"> - Focus on a river basin (possibly the Limpopo) - Further development of WDM concepts and approaches. - Apply guidelines and further training 	<ul style="list-style-type: none"> - Establish regional WDM city network - Pro-active project management - Mainly grant-based support 	<ul style="list-style-type: none"> - Region-wide focus on cities, industries, services - Demand-driven process - Grant-based facilitation, loan-based implementation
The MDG challenge	Medium: the level of Sida funding is small and few opportunities exist to leverage other funding	Medium: the level of Sida funding is small and few opportunities exist to leverage other funding	High: an attempt is made to actually challenge these
Demand driven	No	No	Yes
Flexibility	Low-Medium: pre-defined project area	Medium: pre-defined to engage cities	High: open to many forms of collaboration; institutions, donors and authorities
Efficient water use	High: within project area	High: within collaborating cities	High: within project areas
Exit/Sustainability strategy	Activities will end when outside funding terminated. May induce durable institutional change	Activities may end when outside funding terminated. Contacts and shared experience likely to persist	Implementation based on bank loans may continue after donor withdrawal
Regional cooperation	Little: focus is on one river basin only	Medium: focus on cities in the region	High: focus on pro-actively collaborating partners in whole region
Cooperation with other projects	Medium: no apparent design strategy for that	Medium: no apparent opening in outlined strategy	High: any benevolent collaboration is invited
Utilise local/regional expertise	High: will most likely happen to a high extent	High: will most likely happen to a high extent	High: a design criteria for activities. Database established
Manageability	High: geographically and institutionally focused. If IUCN implementation – proven record	Medium: Network structure difficult to manage. Will depend on implementing organisation	Difficult: a large, demand-driven and flexible project.
Leverage of funds	No: no apparent design strategy for that	No: no apparent design strategy for that	Yes: good opportunities
Cost per result	High	High	Low: when moving. Otherwise Medium.
Viability and risk	Low: well-managed, controlled activities & results, top-down.	Medium: depends on cities unaware of new opportunities and with low ability to collaborate	High: depends on articulated demand from invited institutions
Cost	Medium: 5 MUUSD over 5 years	Low-Medium	Low-High: low if demand doesn't occur, high if it does=much action

These three alternatives have been carefully considered and the conclusions about each option's viability are as follows:

Option 1.

The WDM Project Phases I and II have been very successful in producing country reports, guidelines, research studies, and creating awareness among both professionals and policy makers. Parallel with this development have many (other) national, regional and international projects and initiatives produced similar results. There is quite a flora of WDM “cookbooks” and guidelines today available in the region, collaboration is starting up between WDM professionals, and a fair knowledge exists on WDM. In South Africa in particular there is considerable capacity and expertise in the application of WDM principles in practice. Hence, it is time to focus on implementation *per se*. In our view, Option 1 does not indicate that adequately. Further knowledge on appropriate WDM practices are certainly needed, as well as consolidating awareness efforts and WDM education, but this and other similar activities should not be the prime focus of future activities – they should be the outcome of lessons learned during field implementation activities.

Furthermore, it is our view that the geographic scope of Option 1 is too limited in light of the many related development activities that are now on-going in the region. A pilot study in one river basin – albeit large – is not enough, a future phase should invite for collaboration in WDM within the whole region (or at least a considerable part of it). It should also be mentioned here that one of the main recommendations from the assessment of Sida’s Water Initiative in 2000 was a stronger focus on river basin development. However, this is only partly applicable here. The river basin focus has supply-side inclination (“from where will water for future development come from?”) whereas WDM is mainly about the *use* of water, the demand side, and this occurs anywhere where people live, irrespective of being part of a certain catchment or not.

The river basin focus of Option 1 is also somewhat at odds with the single sector or single activity water use efficiency work associated with Phase I and II. These phases did not include allocation issues *between* sectors or use of water within agriculture, as a river basin approach requires.

Option 2.

Option 2 has linkages to Option 3, although principle differences exist. As the Review Team interprets Option 2 – partly in order to highlight alternative approaches to the benefit of Sida’s internal decision making – Option 2 is supply driven (as the present WDM Project has been – activities are implemented according to pre-defined specifications found in the project document) and is therefore quite “orderly”, activities are administrated by the project management unit and this ensures reasonable output. But this in turn also cause the volume of activities to be modest, as the project itself drives the development and the management unit can only handle a certain number of activities.

It should be noted that Option 3 includes much of the Option 2 specific activities, but in a within a different project structure.

As indicated above, Option 2 focuses on the establishment of a regional network of WDM collaborating cities. The Review Team foresee that such cities are pro-actively identified by the project management, and once identified and agreed to collaborate, various forms of sharing experience, competence and approaches should be initiated. Likewise, we foresee that the financial support for most/all activities is grant-based. Collaborating activities could include:

- Sharing of staff – “job-exchanges”;
- Study and learning visits;
- Sharing successful WDM approaches;
- Participating in regional WDM-competitions (more on this below);
- Jointly participating in training sessions
- Undertake grant-based implementation activities

A small project management unit would be located somewhere in the region (possibly with IUCN). The unit would be responsible for the identification and linking of collaborating city water authorities, assist in organising agreed activities, provide financial support, and back-report to

the funding agency. The activities could engage more than one donor agency (so far in the project Sida has provided most support and IRDC the balance).

The project would rely on continuous donor-funding, and thus have a limited life-span (probably in the scale of 3–6 years). With the termination of overseas funding, the project induced activities would come to an end.

Financially, Option 2 would be relatively well-defined and many costs could be known at an early stage. The number of activities could possibly also be determined initially as well as their main character and cost, thus providing a rough figure on the total cost per year or period. The management unit would also have rather well-defined tasks to undertake, also adding to a rather well known annual cost for the project. The risks involved in Option 1 would be medium. Activities would be well-defined, limited in number and scope, and thus manageable, together implying limited risks.

On the other hand, Option 1 would also probably have limited impact on the region's water resources and it would only have a limited effect on the realization of the MDG goals. And although the total cost would be relatively well-known from the beginning and probably modest to the donor, the cost per activity could potentially be high. This is due to the combination of limited number of activities, most (or all) grant-based, and limited potential for active collaboration and co-funding with other organisations.

Option 3.

This option is further outlined in Annex 4. It differs primarily from Option 2 (as interpreted here) by applying a different mechanism for supporting WDM in the region (demand-driven – i.e. what project will support is not stated specifically in the project document; it evolves through the project life depending on the demand) and by welcoming most types of collaboration between partners having or being in need of WDM competence. It also provides an easy structure for other funding agencies to support WDM (resembling WARFA). This has a number of consequences. Being demand-driven by application, it requires both less and different type of work per activity by the management unit. The management unit should over time be able to support more activities and engage and collaborate with new types of development partners. As outlined in this report, Option 3 also includes the establishment of “centres of excellence”. Option 3 includes the city-to-city network as presented in option 2, but in a different project set-up.

Option 3 will support four types of activities: (i) general WDM advocacy and dissemination; (ii) project promotion; (iii) collaboration and sharing of information; and (iv) facilitated support to cities, industries and organisations in their implementation of WDM. Grant based activities are the first three (i-iii) whereas the last is mainly loan-based. The part which is not loan-based (i.e. supported by grant) is the preparation of new projects (studying their feasibility and write project documents). The grant-based activities, including the component within activity iv, together produce a WDM project proposal that is submitted to

the management unit. The unit reviews the proposal and if found eligible for support, facilitates a loan for its implementation. As previously discussed, the management unit could be located with DBSA in order to simplify communication lines and shared responsibilities.

Summarising:

As it is the Review Team's opinion that a future project should focus on extensive collaboration, contain a demand-driven process, enable more than one source of financial support, provide facilitated support for loan-based development (rather than grant-based development which inevitably limits the long-term perspective), and mobilise the region's best competence (whether public, private or academia based) in a flexible approach, we recommend Option 3. The structure must be *inclusive* rather than *exclusive*. As mentioned above, it is further outlined in Annex 4.

5.4 Junior Professional Officer

Through Sida, there are possibilities to finance Junior Professional Officer (JPO) posts, where younger professionals of Swedish origins are attached as personnel working for development agencies or developing country institutions. The Review Team suggests that a JPO is located with the management unit of a future option. We believe that Option 3 in particular would provide an interesting post as it would provide insights into relevant water issues, but also project management, micro-credit schemes, and regional development.

6 Main Conclusions and Recommendations

This chapter highlights the Review Team's main conclusions and recommendations. With regard to the assessment of the WDM Project, it should be noted that the project has been extended for six months, and that the assessment hence does not cover that period.

6.1 Conclusions

Assessment of WDM Project Phase I and II.

- In general, this has been a very well executed project. It has been managed professionally, produced results according to stated objectives and proposed outputs, and has made a distinct positive contribution in advancing the theme and practice of water demand management in the SADC region.
- Project focus has been to improve the understanding and knowledge of water demand management among decision makers and practitioners; influence national and regional water policy and strategy in WDM; improve technical capacity; and produce guidelines and to a limited extent also testing these in a field application.
- v Regarding Phase II: little or moderate progress has been made on testing guidelines and methodologies in the field (a study in Zambia June/July 2004 will however undertake specifically that); good progress on increased awareness and capacity building; and strong progress on collect and disseminate information on WDM.
- The project's single greatest achievement is probably *the process of engaging people and institutions in WDM*, whether through meetings, training, consultancy studies, networking or something else. This is not a small feat. It is a prerequisite for a future new project. However, this should be contrasted by the initially over-ambitious statement: *“the envisaged end of project situation is for WDM to be widely accepted and being practiced systematically across the SADC region.* It is obvious that this end of project situation was never possible to achieve.
- We are critical to the following aspects of planning and implementation:
 - How stated outputs (primarily guideline implementation field sites) were revised downwards from 4 to 1 without a proper process and without making Sida aware of this in writing and gaining a formal approval.

- That a senior, full-time project management has not been in place since February 2003 and that this has probably contributed to the now incurred 6 month delay in implementation.
- That in both of the two above areas of shortcomings, it is likely that financial resources have been saved. Hence, there is a need to clarify the size of these and how they are or can be used to best benefit the project
- The Project has not, despite its definition on WDM, included issues related to the allocation of water between different sectors or the use of water within irrigated agriculture.
- Project activities have been relevant to and also had a positive effect on policy makers, professionals in water, and the water resources of the region. However, the activities have neither been relevant nor had an effect on ordinary people in the region.

The need for further work in the region

- Should there be a new WDM project? The arguments *against* are: (a) stated objective and outputs of the present project have been achieved – time to end; (b) many other WDM projects are ongoing – Sida is not needed anymore; and (c) a refocus is needed – but that is too expensive considering above arguments. Arguments *for* a new WDM project: (a) the MDG goals require action now – all well-intending actors are needed; (b) the present project focused on preparations – without an implementation phase now, these efforts will be lost; (c) a strategically designed WDM project is needed in the region – demand-driven, loan-based, and flexible; and (d) a project structure already exists – let’s make use of it.

Considering the above arguments, and the particular character of Sida and Sida’s support to water resources in the region, the Review Team is of the *firm belief that there is a need for further Sida support to WDM in Southern Africa.*

- Three options for a new project are presented. These are “A River Basin Focus”, “City-to-City Collaboration” and “Long-Term Demand-Driven Implementation”. Based on a set of criteria presented, we recommend Option 3. It is the only one that will make a difference in MDG-terms. In addition, the Review Team subscribes to the words of David Brooks’ 2002 mid-term review: “Phase III should probably be designed to be more different from Phase II than Phase II was from Phase I” (although it should be noted that the option of continuing with a Phase III does not exist. It is either a new project or no project).
- Option 3 support four types of activities: (i) *WDM advocacy and dissemination* to gain regional acceptance; (ii) *general project promotion*; (iii) *collaboration and sharing information*; and (iv) *facilitated support to cities, industries and organisations in the implementation of WDM*. The project has a Management unit possibly located within the Development Bank of Southern Africa (DBSA). This unit facilitates the implementation through grants and loans (professionally handled by DBSA).

- A Junior Professional Officer could be attached to a future new project and its Project Management Unit. Option 3 would in particular provide a stimulating position as it relates to both “water” and financial management.

6.2 Recommendations

- Sida should request IUCN to provide clarification on how four originally intended guideline implementation sites became one (how was that decision made and why).
- Sida should request IUCN to provide clarification on the amount of funds that have been and are being saved by not having a full Project Management unit in place as detailed by the Project Proposal, both when Phase II was initiated (a few months) and from 1 February 2003 to the finalisation of Phase II. Information should also be provided on how the savings can be made of best use to the project.
- A discussion should be initiated within Sida together with its consultants and project staff on how different projects within the Water Initiative should collaborate. In the assessment of the Water Initiative in 2000 it was recommended that such collaboration should develop and be allowed to shape the initiative itself. This has hardly happened, although the opportunities exist and this would (probably) greatly benefit the various member projects.
- There is a need for further Sida supported WDM activities in the region. A new WDM project is needed, the MDG requires it, and achievements made in Phase I and II would be foregone without a strong implementation project. As gender and poverty was not addressed at all in the present project, a future new project should have that as a priority development objective.
- Such a project should be based on a region-wide approach, be demand-driven and include both grant- and loan-based support. The project base its work on the knowledge, experience and resources found throughout the region – not only derived from the first WDM project. As described in this report, this implies Option 3.
- We recommend the attachment of a Swedish funded JPO to a new WDM project. If Option 3 is chosen, the DBSA Management Unit could be a very attractive position for the right person.

Annex 1:

Term of Reference

Embassy of Sweden Harare
Kumbulani Murenga
Reg no: U11 Ya 5.3/19

18 November, 2003
DRAFT

Terms of Reference for the assessment of the Water Demand Management Project Phases I & II

Background

The Swedish Initiative for Sustainable Management of Water Resources in Southern Africa has got two main objectives; i) to support integrated management of international river basins and ii) to raise awareness and build capacity in sustainable use and management of water resources.

One of the projects supported within the Initiative is the Water Demand Management Project, managed by the International Union for the Conservation of Nature (IUCN), regional office for Southern Africa. (The Initiative was evaluated in 2000 and a brief assessment of the WDM project is provided in the Evaluation Report (Annex 1).)

Phase I of the WDM project (1997–1999, managed by IUCN-ROSA), consisted primarily of multi-country studies on WDM practices and applications in Botswana, Mozambique, Namibia, South Africa and Zimbabwe. The studies evaluated water demand policies and practices in these countries.

Phase II of the WDM project (August 2000–February 2004) aims to promote the adoption of water demand management as a means to support sustainable water resources management in countries and institutions of southern Africa, and also includes a country study component (for Malawi, Mauritius, Mozambique, Swaziland and Zambia) as well as a number of other components to address the range of project objectives.

The key objectives of Phase II are:

- To *increase awareness* on WDM by politicians, professionals and role players in the water supply chain.
- To *collect and disseminate sound information* on WDM and assess the benefits accruing.

- To *improve the capacity* of technical, educational and policy professionals to promote and implement WDM.
- To *document the application and testing* of WDM measures in pilot case study areas and supporting the implementation of guidelines in different sectors in selected countries of the region.

A mid-term review was undertaken in 2002 (Mid-term Review Report, Annex 2), which culminated in a revised project strategy (Annex 3), which was approved by Sida September 2002. It is the revised project strategy which then guided the project implementation from the time of the mid-term review.

Since the current Sida support to WDM is ending in February 2004, there is a need to assess the performance and design of the WDM project.

Objectives of the assessment

The results of the assessment will provide an input for the design of a possible continuation of the project or for the design of a new project within the field of WDM. Input from the assessment will also be used to inform the use of the outputs obtained from both phase I and phase II, as well to assess the need for future work in a forward looking way.

The objectives of the Consultancy are:

- f) to assess the achievement of the objectives of WDM project Phase I and Phase II;
- g) to assess the need and options for continued work on WDM under Sida's regional Water Initiative project portfolio;
- h) to analyse the options for WDM activity and project delivery mechanisms, in view of the need for collaboration, integration and co-ordination in the SADC region, and in view of Sida's focus and approach to water resources management in Southern Africa;
- i) to give recommendations on how to sustain the products of the WDM Phase I and Phase II projects, and how to handle demand for further work on WDM following the first two phases;
- j) to analyse the feasibility of a regional WDM project with the aim to improve water provision and reduce unaccounted-for-water in a few selected cities.

Scope of Work

A. General performance of WDM project

The Consultant should assess the WDM project (both Phase I and II) performance in terms of:

- a) relevance
- b) achievement of project objectives
- c) effects on target group
- d) cost-effectiveness
- e) utilisation and dissemination of outputs and outcomes
- f) the project in the light of Sida's revised focus for the Regional Water

Initiative for Southern Africa (i.e the shift from a scattered to a more consolidated project portfolio)

g) the WDM project in the light of critical water issues in the region

B. Special issues

The Consultant should also address the following special issues, with a forward looking perspective in order to guide the design of the future of WDM activities:

- a) The need for further work in the region and how the work should be set-up considering issues of collaboration, co-ordination and integration in the water sector.
- b) Linkages to Sida supported river basin initiatives in the region such as Zambezi, Pungwe, and Okavango and other projects such as Global Water partnership Southern Africa, the Water Research Fund for Southern Africa, Waternet and any other relevant institution/initiative (current status, opportunities, possibilities and benefits).
- c) Co-ordination and collaboration between the Sida funded WDM project and other WDM initiatives within the Southern Africa region (current status, opportunities, and possibilities).
- d) Analyse the feasibility to set up a project with the aim to improve water distribution and reduce unaccounted-for-water in a number of cities in the region. Our tentative idea is to support establishment a network of cities where the local city governments could draw support and share experiences from each other in their aim to improve their water distribution and reduce demand. The project should draw on experiences from the Sida-funded WDM project in the town of Rehobith in Namibia. This town may therefore be part of the network. It may also be wise to include Mutare in Zimbabwe as Sida has previously been involved in water supply to Mutare without involving WDM practices. It will also be useful to look into the feasibility of attaching a Swedish Junior Professional Officer (JPO) to such a project.
- e) As a result of point d) it may come into question to undertake a small assessment of the Rehoboth project in Namibia and their experiences. For the city network idea it may also be beneficial to look into similar projects funded by Sida.

C. Recommendations

Based on the assessment made, of the issues under A and B, the Consultant should present conclusions and recommendations in terms of how any demand for further work should be handled. The recommendations should also address how the outputs and outcomes of Phase I and II could be best utilised. The options for possible further work, and their relevance, as well as the set-up, capacity and resources that would be needed should be included in the recommendations.

Methods

Information needs to be acquired through existing documentation at Sida, the Embassy of Sweden in Harare and IUCN (Annexes 1–6).

Information should also be acquired through interviews with key staff at IUCN, key stakeholders, a selection of Project Steering Committee members, consultants, Sida and IDRC (see Annex 8 for a list of contacts).

The Consultant needs to work closely with IUCN throughout the Consultancy.

The Consultant shall, in consultation with Sida and IUCN, choose countries, other than Zimbabwe, to visit for interviews with stakeholders etc.

The Consultancy Personnel

A (small) team of consultants is recommended and the team should consist of a lead consultant with documented experience in operation of regional development projects, and other related issues. Knowledge of water resources management, as well as Sida's Regional Water Initiative and Sida's development policies is an added advantage.

The team should consist of one local consultant well acquainted with the water sector and relevant initiatives and institutions in the Southern Africa region.

Organisation

The team shall report to the Second Secretary, Regional Water Resources at the Embassy of Sweden in Harare, who is responsible for the assessment. Other members of the consultants' team should be subcontracted by the lead consultant.

The consultants should begin the evaluation by studying central documents followed by consultation with Sida regarding the approach to be used for the assessment. Following this preparatory phase, the team should travel to Zimbabwe and a selection of other countries in the region. A briefing should be given to the Embassy of Sweden in Harare before the team leaves Zimbabwe.

Time Schedule

The team shall begin their work in January 2003. A maximum of eight calendar weeks will be scheduled for the assignment, out of which the lead consultant should spend approximately two to three weeks in Southern Africa.

Reporting

The following reports should be submitted to Sida:

- a) a draft final report by 20th February 2004
- b) a final report by 15th March 2004

The assessment report shall be written in the English language. Format and outline of the report shall follow the guidelines in "Sida Evaluation Report – a Standardised Format" (see Annex 8).

The draft final report shall be submitted in two copies to the Embassy of Sweden in Harare and two copies to IUCN. The final report should be submitted in six copies, and on a diskette to the Embassy of Sweden in Harare.

Subject to decision by Sida, the report will be published and distributed as a publication within the Sida Evaluations series. The report shall be written in Word 7.0 for Windows (or in a compatible format) and should be presented in a way that enables publication without further editing.

The assignment includes the production of a Newsletter Summary following the guidelines in “Sida Evaluations Newsletter – Guidelines for Evaluation Managers and Consultants” (Annex 9) and also the completion of “Sida Evaluations Data Work Sheet” (Annex 10). The separate summary and a completed Data Work Sheet shall be submitted to Sida along with the draft report.

Annexes

1. Evaluation Report of the Swedish Initiative for Sustainable Management of Water Resources in Southern Africa
2. Swedish focus and Approach to Water resources Management in Southern Africa
3. WDM Phase I and Phase II project proposals
4. WDM Phase I and Phase II Assessment Memos, Progress Reports 1999–2001
5. Report on Workshop to discuss further Swedish Support to Water Resources Management in Southern Africa
6. A summary of Sida’s Regional Water initiative for Southern Africa
7. List of Key People to Contact
8. Sida Evaluation Report – A Standardised Format
9. Sida Evaluations Newsletter – Guidelines
10. Sida Evaluations Data Worksheet

Annex 7

List of key people to contact

Sida – Stockholm and Harare

Mr Bengt Johansson, Head Water Division, Department for Natural Resources and the Environment

Dr Mats Eriksson, Programme Officer, Water Division, Department for Natural Resources and the Environment

Embassy of Sweden, Harare

Mr Tomas Andersson, Second Secretary, Harare

Mr Kumbulani Murenga, Programme Officer, Harare

IUCN

Mr Saliem Fakir, IUCN South Africa Country Office

Ms Tabeth M Chiuta, IUCN Water and Nature Initiative

Global Water Partnership Southern Africa

Ms Ruth Beukman, Executive Secretary

SADC Water Division – Gaborone

Mr Phera Ramoeli, Coordinator

Dr Thomas Chiramba, Programme Manager, Regional Strategic Action
Plan

WaterNet – Harare

Lewis Jonker, Manager

IDRC

Luis Navarro

Consultant in Namibia

Mr Ben van der Merwe

This list is not exhaustive and the consultant may, in consultaion with
Sida and IUCN, propose any other possible contacts

Annex 2:

Persons interviewed

Name	Position/Rank	Institution
ZIMBABWE		
Thomas Andersson	Second secretary: Regional Water Resource	Swedish Embassy/SIDA
Ruth Beukman	Executive Secretary GWP-SA	Global Water Partnership/IUCN
T.W. Murinye	Catchment Manager Sawe Catchment, Mutare	Zimbabwe National Water Authority
Piet van der Zaag	Former Project Manager	Water Net
Dr Jerry Ndamba	Research and Information Manager	IWSD, Harare
Eng. Ngoni Mudege	Executive Director	IWSD, Harare
ZAMBIA		
Dr Jefter Sakupwanya	Project Manager	ZACPRO 6.2 project Zambezi River Authority. Lusaka
SOUTH AFRICA		
Michael Raimondo	Project Assistant/Act. Project Manager	IUCN-SA
John Frame	Convenor: Strategy and Planning	Water and Sanitation, City of Cape Town
Larry Cronje	Technician Khayelitsha	WDM Project City of Cape Town
Benny Haasbroek	Consultant	Department of Water Affairs and Forestry
Nigel Adams	Acting Director, IWRM Project	Department of Water Affairs and Forestry
Hannes Buckle	Manager Water Demand Management	Rand Water
Tertia Uitenweerde	Consultant (formerly with IUCN)	"Env. Engineering, Consultancy"
NAMIBIA		
Piet Heyns	Director	Department of Water Affairs
Stefan de Wet	Deputy Director	Department of Water Affairs
Shirley Bethune	Consultant	Department of Water Affairs
Ndinomwaameni Nashipili	Ecological Research Section	Department of Water Affairs
Mary Seely et al	Director	Desert Research Foundation of Namibia
Susanne Matsson	Second Secretary/Programme Officer	Swedish Embassy/SIDA
Goran Hedebrö	Charge d' Affaires a.i Head of Mission	Swedish Embassy/SIDA

Ben van der Merwe	Consultant	Africon Consulting
Terence O'Flaherty	Director: Africon Namibia	Africon Consulting

MOZAMBIQUE

Maria Vink	Swedish Embassy Official	Swedish Embassy
Mario Macringue	Special Consultant Engineer – Infrastructure Project	Maputo City Council
Jose Ronda	City Engineer	Maputo City Council
Helios Banze	Head: Water Resources Dept	Mozambique – Water Affairs
Custodio Vicente	Head: Hydrology Section	Head: Water Resources Dept
Antonio Alvarez	Project Director	Pungwe IWRM Project

BOTSWANA

Madiko Ramothawa	Senior staff	Water Utility Corporation
Seele Dokeditso	Senior staff	Water Utility Corporation
Oarabile Serumola	HOD Water Quality & Conservation	Department of Water Affairs
Bogadi Mathangwane	Head of Water Quality & Conservation Unit and Project Director	Department of Water Affairs
Tofo Kgabo	Senior staff	Department of Water Affairs
Chris Schaan	Technical Advisor	Department of Water Affairs
Roack Mmutle	Senior staff	Department of Water Affairs
Charles Chapman	Chief Technical Advisor	Department of Water Affairs

SWEDEN

Bengt Johannson	Head of Ssection	DNRE/Sida, Stockholm
Mats Eriksson	Desk Officer	DNRE/Sida, Stockholm

CANADA

David Brooks	Director	IRDC
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Annex 3:

Work schedule

SANDSTROM		
Location	Institution	Focus
Dep Stockholm/Durban		
Arrival Harare		Internal work
Harare	Swedish Embassy GWP-SA WARFA et al	Briefing Project Management Country case studies
Harare	Swedish Embassy GWP-SA Waternet	Briefing/planning Project Management WDM Mutare
Mutare	Mutare City Council Sawe Catchment Council	WDM Mutare Catchment – Pungwe
Pretoria	IUCN-SA	Project Management
Cape Town	Cape Town City Council	Khayelitsha WDM
Windhoek		
Windhoek	Swedish Embassy/Sida Windhoek Department of Water Affairs	Briefing WDM Namibia
Windhoek	Africon Desert Research Foundation of Namibia	Rehoboth WDM WDM Namibia/Region
Gaborone	Department of Water Affairs	Ramotswa WDM Scheme
Gaborone	Department of Water Affairs Dutch development assistance	General discussions Mozambique
Gaborone/Johannesburg		Internal work
Departure to Stockholm/Durban		

SINGH

Arrival Harare		Internal work
Harare	Swedish Embassy GWP-SA WARFA et al	Briefing Project Management Country case studies
Harare	Swedish embassy GWP-SA	Briefing/planning Project Management
Maputo	Swedish Embassy Maputo Municipality	Contact and briefing Discuss future WDM project.
Beira	Pungwe IWRM	Briefing and discussion on a WDM component in the project
	Regional Water Director	As above, and also look at City of Beira implementing WDM
Johannesburg/Pretoria	Benny Haasbroek	SA Country Study team member in Phase I – future WDM priorities
	Nigel Adams	SA Water Dept. involved in IWRM /WDM case studies cooperation and coordination
Johannesburg/Pretoria	Hannes Buckle	Involved in several elements in both phases of the project – assess & future
	Saliem Fakir, Michael Raimondo Tertia Uitenweerde	Briefing & discussions
Gaborone	Same as Sandstrom above	
Gaborone	Same as Sandstrom above	
Gaborone/ Johannesburg Departure to Stockholm/Durban		Internal work

Annex 4:

A Proposed New WDM Project

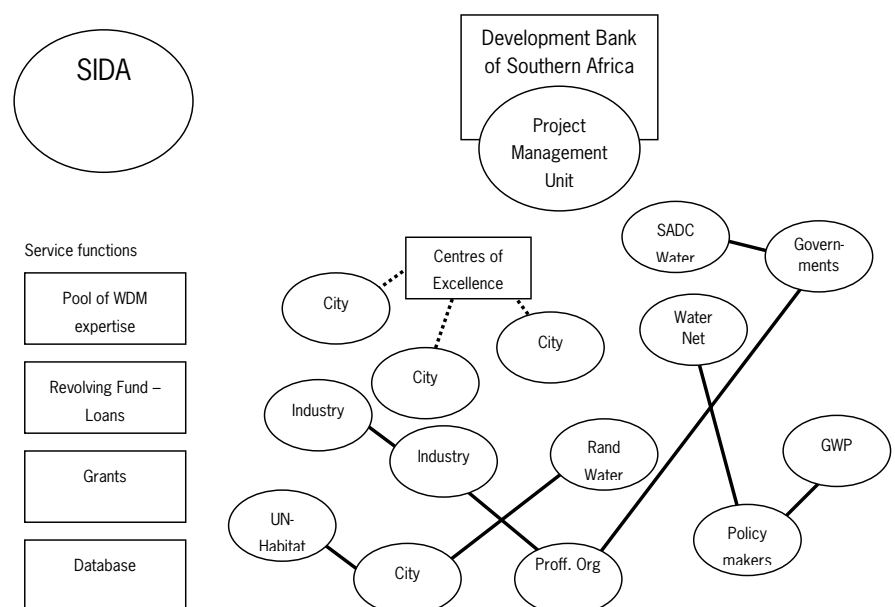
1. Structure

The figure below indicates the different elements of the proposed Option 3 and how they link with each other. A short description of each element follows further below.

1. At the centre of Option 3 we find both institutions in need of tested WDM practices – knowingly or unknowingly – and those with an experience to share. The institutions consist of:

- City Water Authorities.
- Industries
- Professional organisations.
- Training institutes.
- Projects working within the field of WDM
- Universities

We also find Government Departments and central policy makers, as well as international organisations such as GWP and UN agencies involved in water policy and project work.



2. The main objective of Option 3 is to support the listed types of institutions to collaborate and implement successful WDM. In order to do that, the project management group can utilise the following types of services. They are:

- A pool of WDM experts
- A revolving fund
- Direct grants
- An Information Centre/database

3. The project's management group consists of the Project Manager, an Assistant Project Manager, a Promotion Officer, and a Junior Professional Expert (through Sida's special program).

2. Activities

Option 3 has four main components of facilitated activities. These are listed below, together with their implementation details. Specific sub-activities are presented within each category.

WDM Advocacy and Dissemination: Activities would be planned that promotes (i) WDM advocacy among senior political and public service decision makers and (ii) general WDM dissemination among water professionals.

It is the Promotion Officer that is responsible for this component. The Review Team believes that regional progress on WDM would benefit from coordination with SADC Water Division. A suitable avenue for coordination could be worked out.

This activity is done *pro-actively* (i.e. without a specific demand expressed), *grant-based* (i.e. with support from e.g. a donor) and undertaken from the Management Unit.

Specific activities include the following:

- *Arrange a regional WDM Indaba.* A senior policy maker's meeting where the status of WDM in the region, progress made in recent years, and planned activities are discussed.
- *Senior level WDM advocacy.* This is a continuation of WDM advocacy from the present WDM Project.
- *General WDM dissemination.* Many forms exist, for example to work through professional organisations (e.g. the City Engineers Association of Zimbabwe), to give an annual "Southern Africa WDM Prize", and to work through NGOs and academic institutions.

General promotion of the WDM Project. While the above mentioned activities provide general support to WDM in region (whether funded and implemented by a national government, NGO, single city, private sector, or bi- or multi-lateral donors), the activities under the this heading are project specific. The purpose is to make the project known among relevant people and organisations and what it offers in terms loans, grants, information, training or resource people.

Existing WDM Project Phase I and II Country Teams would play a critical role in such an endeavour. They know most people and organisations in WDM in their respective countries and could easily spread information about a new phase.

This work is done *pro-actively* (i.e. without a specific demand is expressed), *grant-based* (i.e. with donor support), and undertaken from the Management Unit.

Specific activities include the following:

- *Produce and share information material.* Such material should give an overview of what the project provides and facilitates, the process involved and contact, and application information.
- *Presentations at major events.* The information – see above.
- *Support the project homepage.* The information – see above.
- *Support particular persons or organisations.* To promote the project.

Manage and share information on WDM. In the field of WDM in southern Africa, a challenge exists in the form of making already existing information available to all in need of it – irrespective of source. Overlaps are evident – there is more than one WDM guideline or “cook-book” already available and additional one’s should be avoided.

This work is done *pro-actively* (i.e. without a specific demand being expressed), *grant-based* (i.e. with support from e.g. a donor) and undertaken from the Management Unit.

Specific activities include the following:

- *Support existing WDM databases on successful practices.* Data bases on WDM exists today in South Africa. Support should be arranged to keep them updated and coordinated. Linkages should be arranged and information shared.
- *Establish a WDM Information Centre.* The centre should purchase adequate quantities of key books, reports and other material on WDM (irrespective of source), share complete sets to key stakeholders throughout the region (at no cost), and maintain a stock for future demand.
- *Establish a database on WDM resource people in the region.* A database should be established (or maintained if already existing) of experts in WDM available on contract by the management unit to support new projects.

Support to cities, industries and organisations in WDM. This activity is the key component of the new project – implementation. This is where institutions throughout the region, following targeted support, start collaborating and improve their water management practices according to WDM principles.

Support is provided *re-active* (i.e. demand-driven, although exemptions may exist), *grant-based* to facilitate new activities and *loan-based* to implement these activities, and undertaken from the Management Unit.

Grant-based activities are the following:

- *Administrating support.* As outlined further below; demand is expressed through the submission of an application. The whole procedure of administrating an application is grant-based support.
- *Support networking between institutions in WDM.* Cities, industries, organisations and other eligible to participate in Option 3 can apply for grant support to develop a collaborative project in WDM. A collaborative project is a prerequisite for a feasibility study and/or to write a project document (see below). A collaborative project requires a minimum of two members from different countries¹. A collaborative project may include activities such as:
 - Staff-exchange
 - Study-tours
 - Initial contacts to formulate a WDM implementation activity and write an application.
 - Jointly participate in a conference, research meeting etc.
- *Support to feasibility studies and/or project document.* Many good ideas exist on the implementation of WDM practices in the region (the Review Team came across many). However, their technical, socio-cultural, and financial qualities have to be reviewed by adequate competence and if approved for further development, a project document could be elaborated.
- *Support the establishment of Centres of Excellence in WDM.* The Review Team came across cases where grant-based support could establish “Centres of Excellence in WDM”, i.e. show-cases where WDM practices are developed and implemented and where the region at large is invited to watch and learn. Such centres could form the basis for study-tours, training sessions, and advocacy and dissemination campaigns. New technology, management models, billing and tariff systems, computer/GIS approaches etc, could be tested and developed – specifically adopted for Southern Africa.
- *Support capacity building in WDM.* This is a general support to capacity building in WDM. However, it is demand driven and based on the submission of an appropriate application. Support can either be given to individuals or to groups.

Loan-based activities are the following:

- *Invest in profitable WDM practices.* The basic idea is as follows: throughout the assessment we met with water managers that repeatedly provided examples of how a small investment in WDM could be repaid within weeks or months (a WDM Project research study also gave evidence of this). In the case of local water authorities, it is only a small amount of money that is needed, e.g. to buy new seals or repairing leaking pipes, in order to make a substantial saving and turn the investment profitable and possible to repay within a short time. One could ask: Why is this not already occurring if so profitable?

¹ We state here that international, minimum two-partner collaboration must form the basis for a project supported activity. Maybe that is a too limiting? Maybe it would be better to also accept single cities as applicants in these project?

Because local water authorities are unable to keep the revenues made from water services. The money is withdrawn and fused into the local city council budget, where it may represent 25% or more of total revenues. The result is no money for investments and maintenance, and only a minimum for operations.

The intention with this loan-based assistance is to make modest (at least initially) amounts of money available for profitable, small-scale investments, and having local council or industries agreeing to give repayment priority.

Activities that can benefit from this support must be financially profitable, have adequate institutional ownership, and technically and socially viable to succeed. Examples may include:

- *Local water councils.* A distribution system is leaking and money is lost due to over-supply and loss of paid revenues. An examples exists in Zimbabwe (Mutare); the investment is profitable within a few months.
- *Industries.* A Centre of Excellence could be built around the beer industry in Namibia – probably the world’s most water efficient beer production – and collaboration extended into the region.
- *National water departments.* Through policy review, development of legislature and regulating frameworks, and changing tariffs, revenues can increase dramatically – without hurting poor people. Examples exist in e.g. Namibia.
- *The service sector.* By improving the end use-efficiency in e.g. tourist resorts, large shopping malls, restaurants, horticulture gardens, hospitals etc, water can be saved while still providing the same end-service. And if the tariff and billing system is in order, profitable projects can be designed and implemented. Schemes focusing on tourist resorts exist in Namibia.

It is relevant to ask why there is a need for external involvement in the above cases. The answer is: these types of changes do not happen on their own without a facilitated process. There are too many risks involved, the incentives are too small vs. costs and risks, institutional arrangements are not favourable, potentially collaborating partners do not know each other, information is difficult – and thus costly – to acquire, and, ultimately, the very opportunity to save water and money is probably not even known.

3. The process

This section outlines the process of linked activities we envisage for Option 3 (although the table is overly extended in order to include many types of activities). A few examples are given further below. In the table, “PO” is the Promotion Officer, “MU” is the Management Unit at large, and “R” is a respondent to project activities.

Function	Who
WDM advocacy is facilitated and WDM is gaining ground in the region.	PO
The project is promoted (made known) in the region.	MU
Printed material is shared to all water-concerned individuals and organisations.	PO
As a response, information is requested on how to participate in the project. This includes detailed information on the application process, forms to make use of, requirements on the potential activity. Information is also gained over the Internet.	R
An application is submitted to MU to participate in a study visit of Khayelitsha WDM project and arranged by the City of Cape Town.	R
Based on gained information, a first contact is taken between two or more potentially collaborating institutions, and a joint application is submitted to MU to conduct a meeting and further discuss a WDM Investment Application.	R
The application is revised and found appropriate for further action, and two WDM experts – facilitated by the data base on WDM – are contracted to make a feasibility review of the proposed activity, and if found sound, support writing a project document.	MU
The collaborating partners submit a full WDM Investment Application.	R
It is reconsidered by the MU and a loan is approved. Following this, all aspects of arranging the loan is handled by DBSA as well as follow up repayment.	MU-DBSA
The loan is provided, investments made, money saved/earnings increased, and the loan is repaid.	R
The case is closed.	MU – R

An additional example would be the establishment of a Centre of Excellence. That would, as we envisage at this stage, require a more substantial application (still mainly demand-driven, although some pro-activity could also be envisaged), not only on the WDM-activity on its own right, but also on how to make use of such place in a regional dissemination process. If grant-based support is arranged, the lessons learned and new practices developed should be available to all concerned in the region. Examples of this are provided below.

4. Examples

Five examples of the above process is provided below. It should be noted that these examples are all hypothetical – no contacts have been made with any of the institutions or places mentioned.

1. Water-efficient beer production. The Windhoek Lager, produced in Namibia, requires approximately 3 litres of water to produce 1 litre of beer. It is probably the most water-efficient beer production found anywhere in the world (in South Africa one litre of beer requires 5 litres of water) and a potential exists to support the sharing of that expertise.

The project would connect the beer industry in Namibia with its equivalent in e.g. Botswana and Zambia through a process of dialogues, study visits, staff-exchange and finally, following an application, and if found feasible, a loan would be issued by DBSA to upgrade the water use-efficiency in Botswana's and Zambia's beer industry. Most of the initial work (preparing an application) would be grant-based, whereas the profitable, final investment would be loan-based.

2. Repairing leaking pipes and reforming water tariffs. Both Cape Town and Rehoboth in Namibia have very successfully reduced unaccounted for water and made the tariff structure more benevolent to both saving

water and supporting poor communities. Mutare in Zimbabwe and Beira in Mozambique are on the other hand in great need of such knowledge and other practical approaches.

The cities do not cooperate at present or have any knowledge of each other's water-situations. Following an initiative by the management unit, a study tour is arranged where representatives from each city travel to other three where they are given extensive overviews of problems encountered and solutions possible. Subsequently an application is submitted to have an expert from Namibia participating in a feasibility study and project document production. A loan is later approved by the management unit, arranged by DBSA and implementation activities are initiated.

3. Improving water use in the tourist sector. Tourism is significant and growing in Southern Africa. It is also very profitable per volume of water. However, tourist resorts are often located in dry areas suffering from water scarcity (e.g. in Namibia) The Desert Research Foundation of Namibia (DFRN) has worked on this and produced a guideline on water-use efficiency in the tourist sector.

Similar to above, following widespread information from the project and contacts made by a resource person in Maputo, the Ministry of Tourism in Mozambique contacts DFRN and establish a linkage between the organisations and the rapidly growing tourist sector along Mozambique's coastline. This results in an application for training, as no apparent profitable investment is found. The training is undertaken through a staff-exchange program between Mozambique and Namibia, by sending technicians on a course in South Africa, and by arranging a seminar on water tariffs and potential gains for senior staff at the Ministry. This is grant-based, demand-driven and based on a formal application procedure.

4. Centre of Excellence – Monitoring Urban Water Distribution. A pre-requisite for large-scale urban WDM work is the monitoring of water distribution. It is at present difficult to follow water that enters an urban system, where it is flowing, and how it is being used. This is a central theme of general interest to the whole region. It requires technical development, management development and a search for cost-effective methods. Some experience exists in the region, although it is difficult to find. The work includes developing real-time water meters, computer software, and monitoring systems linked to the use of GIS.

Based on initial discussions between the City Council of Gaborone and its water department, it is concluded that it is feasible to locate a Centre of Excellence on this topic to Gaborone, although with strong inputs from the UN-Habitat Water for African Cities programme and its local node in Johannesburg. Gaborone and UN-Habitat jointly develop a proposal, including a dissemination component, and submits it to the management unit. A grant-based support is subsequently provided, plus a small loan-based component for certain activities that are financially profitable and possible to repay through DBSA.

5. *Training in WDM*: Training will continue to be a central theme in the project. It is one of the components that make implementation possible, and must be given attention. Many forms of training should be allowed to exist – for individuals and groups and on many subjects.

The Review Team foresees a seminar-style training session arranged by WaterNet and focusing on National City Engineers Associations. These exist in e.g. Zimbabwe and meet regularly (quarterly). A combination of WaterNet training and also project promotion by the PO could have strong impact and in time initiate much implementation.

6. Risks and Possibilities

There are numerous risks and so-called killing factors associated with this type of development. The project attempts to take a relatively new approach in water – WDM – and put it into large-scale implementation in a large and dispersed region and this in an unusually difficult way – demand driven.

- Option 3 is based on a demand-driven process. If a demand never materialises – what then? This is the basis of the proposed project.
- The assumption that enough material, knowledge and approaches on WDM is known in order to start region-wide implementation is a risk in itself. We should like to argue that this is the case, but other views probably exist on this issue.
- The local institutional and policy framework is not favourable to WDM. Yes!

On the other hand, certain potentials also exist. These may include the following:

- If an implementation momentum is reached, implying that people and organisations are aware of the opportunities that exist and also apply for these, the project could facilitate an ever increasing number of activities. In a mature, developed stage, available funds would be revolving between DBSA and profitable investments and generate positive effects.
- The structure allows for other funding agencies to engage and support the activities (by supporting the revolving fund) and thus to increase the momentum. In this case it resembles the Sida supported WARFSA fund.
- The structure easily invites for collaboration with other projects supported by bi- or multilateral organisations, national governments, or private sector companies.
- Option 3 specifically intends to collect and disseminate information and lessons learned from any past, present or future initiative in the region (or internationally if relevant). For example, the outlined information-centre providing literature on WDM to the region would naturally provide material produced by any appropriate and renowned organisation or activity.

Halving poverty by 2015 is one of the greatest challenges of our time, requiring cooperation and sustainability. The partner countries are responsible for their own development. Sida provides resources and develops knowledge and expertise, making the world a richer place.



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