

When we invest in water, water pays us back



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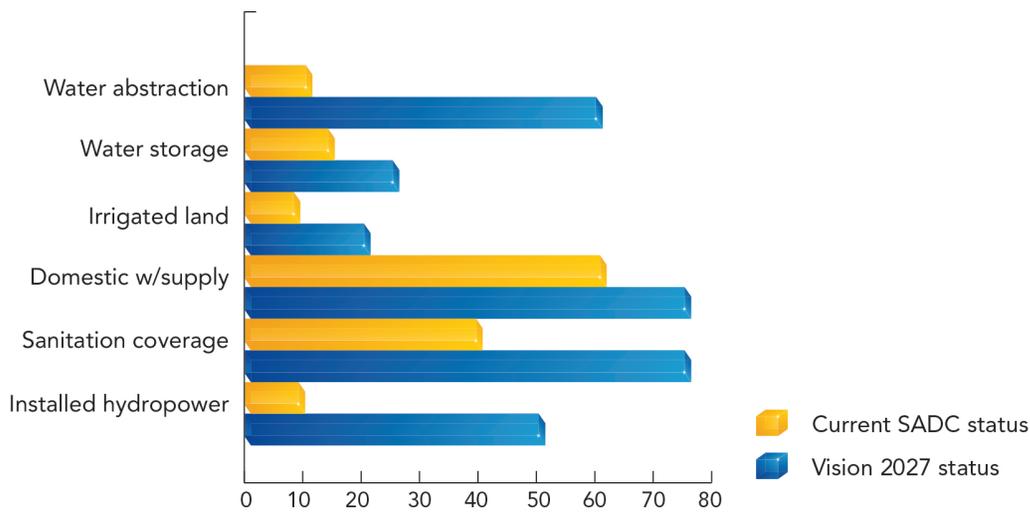
Watering life, together, forever



Water is SADC's most limited natural resource, but if used and managed wisely, our water resources can continue to support future generations of southern Africans.

Knowing how best to ensure and pay for a reliable supply of clean water is the first step to having water pay us back. Water pays us back by making it possible for us to keep healthy, keep our homes clean, grow food, run businesses and enjoy the benefits of a modern world.

We, in turn, have to safeguard the rivers and wetlands that provide our water, and the infrastructure that delivers it, or these could fail us in the future to the detriment of us all. With water scarce in our dry region, how can we ensure a reliable supply that is affordable? The commitment to do this is costly and we have to look for ways to pay for it.



Gap between current situation and Vision 2027 targets

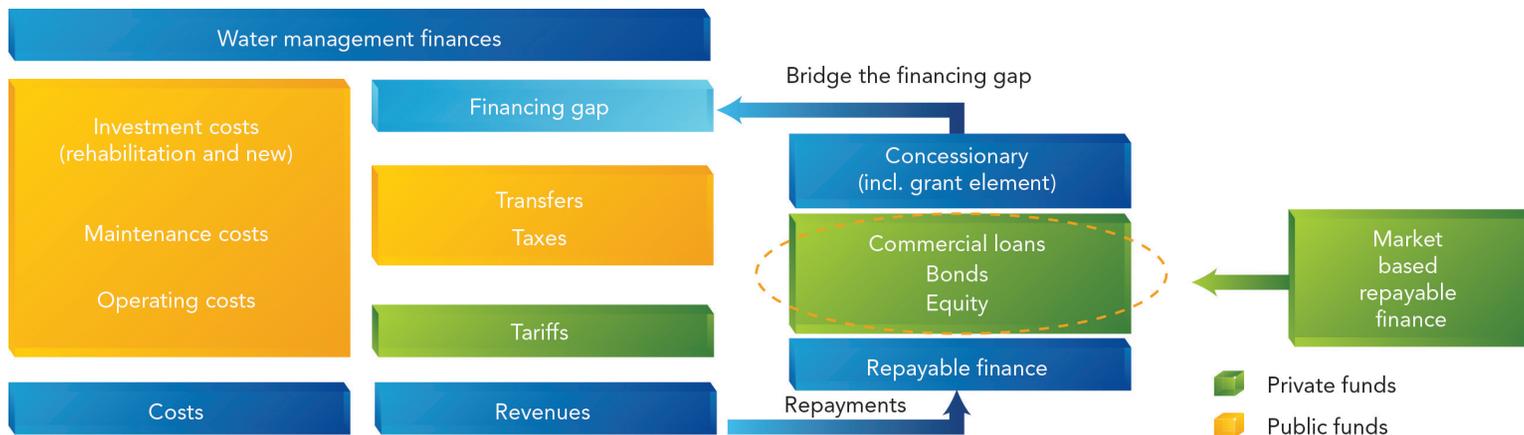
What needs paying for?

We have to be able to finance the building of infrastructure and to fund the management of all aspects of the chain of water use.

Infrastructure includes the dams, pipelines, facilities, buildings, machinery and equipment that harness, store and transfer water, as well as the systems that deliver the clean water and remove waste water. Because our populations are growing, it is probable that new infrastructure will be needed to store and deliver more water. SADC's Regional Infrastructure Development Master Plan (RIDMP) of 2012 for the water sector portrays a vision for 2027 that will increase water storage from 14% to 25%,

the area under irrigation from 2.4 million to 10 million hectares, hydropower generation from 8% to 50% of its potential and water supply from 61% to 75% of the population. Capital has to be raised to finance this investment.

Infrastructure funding relates to repayment of that capital as well as the costs of managing the existing infrastructure. Machinery has to be serviced, old pipes mended to reduce leaks, licences issued and the water law enforced. The health of our rivers and wetlands has to be managed so that they continue to provide high-quality, reliable water. All of this has to be done by highly-skilled professionals.



Where does the money come from?

New infrastructure can be financed as loans from within a country or from external sources such as development agencies, banks and investors. SADC's RIDMP is coordinating the infrastructure development goals in the member countries. It is estimated that USD 13.48 billion will be required by 2017 to implement all of these plans.

Three main sources are used to fund both these debts and the ongoing water management within a country – tariffs, taxes and transfers. Tariffs are paid by water users in the form of water bills.

Ideally, they would cover all the costs related to the delivery of water to users and the removal of wastes, but subsidies, nominal levies and an inability to pay exist and so there is a shortfall. Taxes paid through various national and local fiscal flows cover most of this shortfall, including for less obvious (but essential) aspects of water management that are related to public interest such as catchment management and management of the health of rivers and wetlands. Some taxes, such as water-use efficiency levies or waste discharge charges, may be designed to change

behaviour. Transfers from external donors and investors, including private voluntary contributions, comprise the third source of funds. The trend across developing countries appears to be that less finance than predicted is accessed from outside sources such as private investors or aid (transfers) and more than anticipated from national public finance (taxes). While this may reduce the unpredictability of international finance, uncertainty remains because national water budgets tend to be allocated yearly and enjoy differing priorities from time to time, both of which are disincentives to long-term planning.

Managing water demand

We will not be able to meet all of our water needs by building new infrastructure because population numbers are growing, people hope for better lifestyles and the sources of water are limited. Part of the strategy has to be managing the demand for water. This can be done through metering the supply, charging prices that reflect the true cost of water, employing tariffs that increase with the volume of water used, re-cycling used water, encouraging public participation through local governance, and building public awareness of how to conserve our water resources. Again, these tasks have to be done by skilled professionals, and more costs may be incurred by the need to set up appropriate institutions to do the work.

Funds for infrastructure development tend to be allocated first, so water management receives what is left of the water budget. In the future, this sequence of priorities will need to change as options for new sources of water lessen and better management of the water systems we have becomes the priority.

How does SADC manage its water resources?

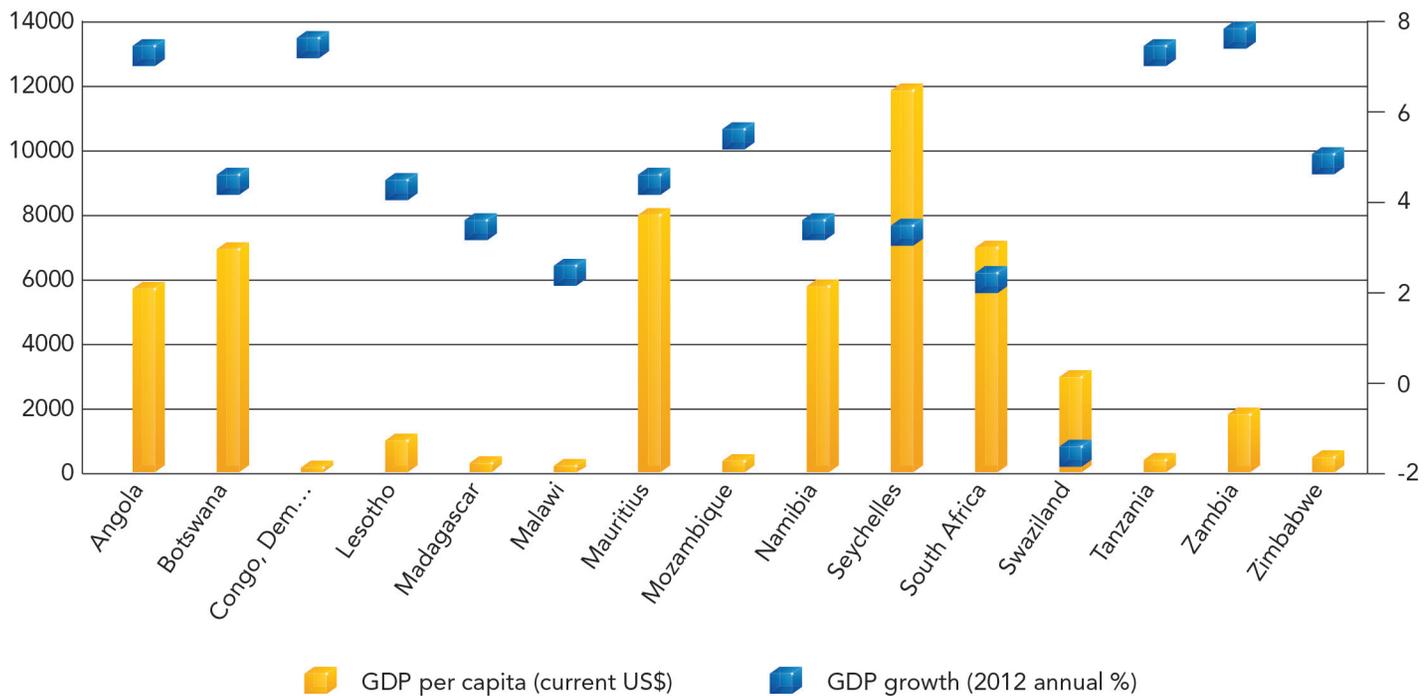
SADC is not a uniform region. Countries are at various stages of economic and social development and have a range of climates and natural resources, which affect the way their economies can evolve. They have different amounts of water, different systems for managing it, and different requirements for water-resource infrastructure. Countries such as South Africa and Namibia, which have already invested in infrastructure, are water stressed and have few water sources that remain unexploited, are now placing more emphasis on water demand management. Countries that are less developed, such as Angola and the Democratic Republic of Congo, are growing fast, may have difficulty financing new infrastructure capital through water user charges alone, and may need to seek external financing.

Institutional arrangements related to water also vary across SADC. Water resources infrastructure may be managed at the national level by a

government department (e.g. South Africa), by a national agency (e.g. Namibia), or a development agency (e.g. Mozambique), with some additional management at regional, catchment, system or local level. Water resource management may have a similar cascade of institutions and organisations from national to local.

Where infrastructure and management relate to shared watercourses, international bodies may be set up to support and manage financing, as with the Lesotho Highlands Development Authority; development, as with the Komati Basin Water Authority; or operation and maintenance, as with the Zambezi River Authority. These shared watercourses may have a commission responsible for coordinating and ensuring water resources management. Such institutions include the Orange – Senqu River Basin Commission (ORASECOM), the Permanent Okavango River Basin Water Commission (OKACOM), the Limpopo Watercourse Commission (LIMCOM) and the Zambezi Watercourse Commission (ZAMCOM).

SADC countries GDP per capita and GDP growth (2012)



Municipal water meter South Africa ©SA Water Research Commission

How can SADC go forward?

As countries develop, there has tended to be a natural shift in focus from infrastructure development to water resource management and water demand management. Expenditure on water tends to increase during the earlier development stages and potentially decline as the emphasis shifts to managing demand and maintaining infrastructure in good condition.

Looking to the future, the global key to the best use of water resources is sound governance. Overall changes should be focused on how the money is budgeted, targeted and work executed, rather than how much is spent.

In SADC this could manifest in several ways. Where appropriate, transparent budgeting and development decisions, hiring appropriately skilled professionals, and long-term, large-scale investment

planning that allows different funding sources to be integrated will be key.

A common challenge in water finance throughout the region is the difficulty of tracking expenditures on water across many institutional bodies and budget lines. As the demand for water continues to increase, the public sector will need to strengthen, through better monitoring and enforcement activities, the separation of power among institutions, balanced allocation of water resources and an uncompromising protection of the water resources themselves.

Service providers should strive for financial stability through realistic financial plans and improvements in efficiency such as a reduction in unaccounted water, the recovery of costs through realistic tariffs and a better recovery rate.

Water and other ecosystem services should be realistically costed, with national water budgets reflecting this. Industries and citizens will probably increasingly be expected to cover the costs of water services as their and their countries' economies improve.

The aquatic ecosystems and existing infrastructure at the base of our water supply system should be proactively managed to deal with deterioration at an early stage, as rehabilitation costs far more later on.

The region has a wealth of experience in water resources development and management to draw on. In a spirit of collaboration and with some training and cooperation within the region, and with its development partners, SADC is poised to reap the benefits of having water pay us back.



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Berg River Dam, South Africa 2007
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