

# Why investing in natural assets makes financial sense for the municipality of Cape Town

**A summary for decision makers**



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The municipality of the City of Cape Town provides a number of services to people living in and visiting the City. These services, together with the investment in people and infrastructure that accompany them, provide the backbone of the local economy and enhance human wellbeing in the City. It is not possible to imagine a modern urban economy without a municipality that provides these backbone services.

Users, including residents and visitors, pay the municipality to deliver these services. These payments take the form of tariffs and charges on services, property taxes, and some other smaller income streams such as fines. However, users alone, through these tariffs, charges and property taxes, are not paying the full amount required for the municipality to function. The shortfall is covered by grants,

donor funds and loans. The principle is that these services are valuable to everyone in the City, so the costs of these services are also carried by everyone, although in different proportions.

What are usually overlooked in municipal accounts, both on the expenditure and on the revenue side, are the services provided by the ecological infrastructure, or natural assets, within the City. These 'free services' from nature flow to both residents and visitors, as in the case of other services such as utilities. The 'natural factories' that produce these services also need proper ongoing maintenance and, in the case of damage, repair. Furthermore, well-designed investments can actually enhance the value of the services flowing from these 'natural factories' or natural assets. However, when the required investments are not made,



**A certain level of investment is needed to maintain the flow of nature's services..."**

<sup>1</sup> This is a summary of a Technical Report: De Wit, M., Van Zyl, H., Crookes, D., Blignaut, J., Jayiya, T., Goiset, V. & Mahumani, B. 2009. "Investing in Natural assets. A Business Case for the Environment in the City of Cape Town". Cape Town.

natural assets will cease to deliver these services. Service delivery is reduced and in some instances replacement with more costly physical infrastructure is needed. A certain level of investment is needed to maintain the flow of nature's services, more investment may increase the quantity and quality of these services, but less investment will eventually lead to the non-performance of the asset.

The funds to invest in natural assets will have to be either sourced out of existing revenue or financed out of increased revenue. Although the benefits of nature's services cannot always be measured as easy as say the use of water and electricity, residents and visitors have preferences for these services. The real value from nature's services is often implicit in the decisions people make. These implicit values can be made explicit by either studying behaviour or relying on what people state as their values for nature's services when asked.

This study argues that the real value provided by these 'free services' from nature is substantial. Investment to maintain natural assets and to enhance the value of the flows from these assets is an economically rational decision for municipalities. The leverage achieved by investing in natural assets is expected to be on the higher side rather than the lower side when compared to the leverage resulting from investment in other services by the municipality on the City's economy. Furthermore, it is indicated that a lack of investment in natural assets increases the risks of natural systems failure and associated high knock-on costs to the City.

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To substantiate this claim the following questions were answered:

- What are the 'natural factories'?
- What services flow from these 'natural factories'?
- How does one value these factories and the goods and services flowing from them?
- What are these values for Cape Town?
- What amounts are already spent on natural factories by the municipality?
- Will it make any sense for the municipality to invest more?
- Who pays for increased municipal environmental expenditure?
- How does one design an effective argument for increased investment into the environment in the City?

### **What are the natural factories?**

A consistent way to think about nature is in terms of assets and flows. It is comparable to a bank account (a financial asset) yielding an interest (a flow). Natural assets or nature's factories also deliver a stream of ecosystem goods and services that benefit various groups of people. Natural assets include stocks of water, rivers, wetlands, coastlines, mountains, land, nature reserves, green and open spaces, and the atmosphere.

### **What services flow from these 'natural factories'?**

When well-maintained, (i.e. when the pressure on these assets is less than the ability of

these assets to absorb such pressures), the assets will continue to supply a wide variety of services. These services include supporting the functioning of the natural assets, regulating natural processes, providing materials and other goods, and supplying a variety of information.

### **How does one value these factories and the good and services flowing from them?**

The value of these services are often implicit, but can be made explicit by observing what actual behaviour reveals regarding preferences, or relying on what people state as their value for nature's services when asked. Preferences for nature's services can be measured, for example, through travel



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decisions, where people choose to work and live, what properties or land they invest in, or by asking people about their preferences for goods and services when no market exists. As natural assets are not generally traded in the marketplace, the value of such assets can be measured by the flow value of goods and services from the asset over time.

### **What are these values for Cape Town?**

The annual flow value of goods and services from Cape Town's natural assets are estimated to be R4 billion, falling in a range of between R2 billion and R6 billion. The value of the natural assets combined is estimated at between R43 billion and R81 billion. Not all ecosystem goods and services could be measured in this study and therefore, this is a conservative estimate. These values are an estimation of nature's share in the production and consumption of ecosystem goods and services. For example, in the case of tourism and recreation, only the amount people attribute to ecosystem goods and services as revealed in their behaviour and stated by themselves in preference surveys is measured. These estimates do not include utility derived from activities, such as shopping or dining, which have no direct relation with nature. Likewise, as another example, when

considering nature's ability to buffer against natural hazards, total expected financial costs of damages are not included, but only those damages that can reasonably either be buffered by natural systems or be prevented by adequate management of natural areas.



**These values are an estimation of nature's share in the production and consumption of ecosystem goods and services.**



## What amounts are already spent on natural factories by the municipality?

The municipality spent approximately 2.5% or R370 million of all operational expenditure and approximately 2.1% or R110 million of all capital expenditure on the environment during the year 2008/9. These percentages were relatively constant over the last few years. This includes estimated expenditure on natural assets in the line functions Planning and Development, Communication and Social services, Sport and Recreation, Solid waste management, Waste water management, Road transport, Water utilities, Electricity, and Tourism development. There is no conclusive evidence that the municipalities have substantially increased investment in natural assets when compared to overall spending over the last five years. Capital investment in natural assets as a percentage of total capital expenditure has even declined since 2005/6.



## Will it make sense for the municipality to invest more in natural assets?

A pertinent question is whether existing levels of investment in and operational expenditure on natural assets are at least sufficient to protect the integrity of natural assets and to maintain the flow of goods and services. It is also important to know whether more value can be leveraged through such investments. One way to express the importance of investing in natural assets is to compare the ratio of environmental expenditure to the value generated by ecosystem goods and services with the leverage achieved by the municipality in the broader City economy. For every R1 spent by the municipality in 2008/9 approximately R7.30 of value added was generated in the

City economy. For every R1 of expenditure by the municipality on the environment almost R8.30 of ecosystems goods and services were generated. This is a conservative estimate and the ratio can be as high as R13.50 for every R1 when a higher value scenario of R6 billion per annum is used. This means that the leverage of municipal expenditure on the environmental sector is considerably higher, i.e. between 1.2 and 2 times, than that of municipal expenditure on the City economy. Using overall municipal expenditure as a baseline, this in itself is a justification for higher environmental expenditure.

## **Who pays for increased municipal environmental expenditure?**

It cannot be expected that investment by the municipality in nature's services needs to immediately pay for itself, but revenue streams will have to be identified to achieve a balanced budget. There is a case to be made that the general public and visitors benefit from a sustained flow of ecosystem goods and services. The fact that the City of Cape Town is in the middle of an internationally acclaimed biodiversity hotspot also suggests that benefits are enjoyed far wider. This adds up to an argument to generate revenue from various sources namely the general public, visitors to the City, national and provincial intergovernmental fiscal transfers and international donors. As an entity mandated with service provision the municipality has the responsibility to invest adequately in natural assets to maintain a healthy flow of services to the benefit of people living in and visiting the City of Cape Town. If these services benefit the private sector as well, forming partnerships to share costs is an option.

## **How does one design an effective argument for increased investment into the environment in the City?**

Effective arguments are important, but not sufficient to have an impact. The effectiveness of the argument to invest in natural assets is not only dependent on the argument itself, but also on the receptor, and transmission and communication. Based on evidence worldwide, budgetary processes are not incremental and predictable, and are sensitive to the amount of attention paid to an issue, the amount of political influence on budgetary allocations and the cognitive abilities of decision-makers to absorb and prioritise multiple streams of information. Adding to this is the natural divergence between people advancing analytical arguments and decision-makers. These factors create a complex receiving environment for any argument. The best way to deal with this is to develop an effective communication strategy, focused on the core goal of advancing the case to invest in natural assets.

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