STATE OF BIODIVERSITY REPORT 2009 / 2010

ETHEKWINI MUNICIPALITY

ENVIRONMENTAL PLANNING & CLIMATE PROTECTION DEPARTMENT

BIODIVERSITY | CLIMATE | PEOPLE

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BACKGROUND

In the 2003/2004 municipal year, the Environmental Planning and Climate Protection Department (EPCPD) (then known as the Environmental Management Department) initiated regular State of Environment Reporting for the city of Durban.

This was in line with the municipal 2003 – 2007/2006 – 2011 Integrated Development Plan (IDP) which established sustainable development as a core goal for local government in Durban.

In 2008/2009, the decision was taken to realign the reporting process to reflect the biodiversity focus of the department, and as such State of Environment reporting was replaced with State of Biodiversity reporting.

The intention of State of Biodiversity Reporting is to present qualitative and quantitative data which describe the status of biodiversity in the eThekwini Municipal area and to highlight key threats to this biodiversity. This is the eThekwini Municipality's second State of Biodiversity Indicators report.

BIODIVERSITY

International Year of Biodiversity (IYB)

The United Nations proclaimed 2010 to be the International Year of Biodiversity (IYB); a unique opportunity to increase understanding around the vital role that biodiversity plays in sustaining life on Earth.

The theme was "Biodiversity is life. Biodiversity is our life" and the main goals of IYB were to:

- Enhance public awareness of the importance of biodiversity and the threats to biodiversity
- Raise awareness around worldwide efforts to save biodiversity
- Promote innovative solutions to reduce threats to biodiversity
- Encourage dialogue between stakeholders.

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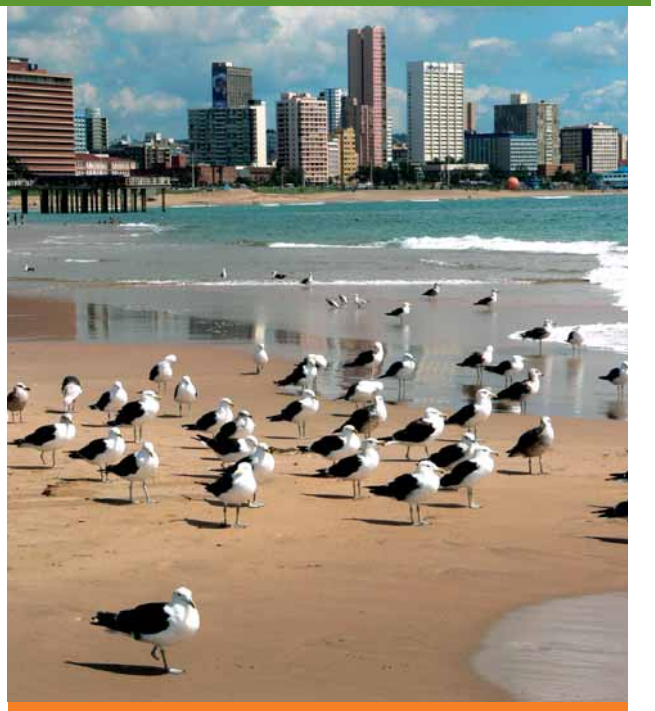
PROFILE OF DURBAN

Durban is an African city located on the east coast of South Africa in the province of KwaZulu-Natal (KZN). Durban's landscape ranges from the rural to the urbanized, and has a diverse society which faces a complex mix of social, economic, environmental and governance challenges. As such it must address the full range of global sustainable development challenges which means meeting the needs of an ever-growing population while maintaining environmental integrity.

The eThekwini Municipality is the local government body responsible for governing and managing Durban. The following key statistics describe Durban in 2009/2010:

- A municipal area of 2 297 km^2 (229 700 ha) in size (1.4% of the province of KZN);
- A population of approximatelyr 3.6 million (over 1/3 of the population of the entire province). Population growth from 1996 – 2009 is 1.4%. Durban is ethnically diverse, with a cultural richness of mixed beliefs and traditions. This mix adds vibrancy and depth to the experience of living, working and visiting the city;
- Durban has the largest and busiest port on Africa's east coast – total exports equated to R37, 6 billion, total imports to R52,3 billion in 2009;
- Manufacturing, tourism, finance and transport are the four largest economic sectors;
- Tourism is concentrated along the coast, with emerging eco- and cultural-tourism opportunities in the western areas; and
- Durban's Gross Value Added (GVA[1]), which amounted to R170.4 billion in 2009.

DURBAN



[1] The Gross Domestic Product (GDP) is the total value of all goods and services produced within the economy in a given period. Gross Value Added (GVA) is a measure of economic value and is used in the estimation of Gross Domestic Product (GDP). It measures the difference between the value of goods and services produced and the cost of raw materials and other inputs which are used in production.

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THE NATURAL ENVIRONMENT

Durban's Sandstone Sourveld Grasslands

The KwaZulu-Natal Sandstone Sourveld vegetation type once occupied 6% of the eThekwini Municipal Area (EMA), of which approximately 73% has been transformed by urban settlements and agriculture. It is classified as 'Endangered' by the South African Biodiversity Institute (SANBI) and only 0.2% is statutorily conserved.

A regionally significant portion of this vegetation type, which is characterised by short, species-rich grasslands and shrubs, can be found in the EMA (mainly in the western suburbs, Hillcrest and Kloof).

A small percentage of this habitat is protected in private, municipal and provincial reserves. The EPCPD are involved in projects to improve the protection of this important vegetation type through land acquisition projects, amendments to town planning schemes and management interventions such as alien invasive plant clearing and fire management.

South Africa is the third most biodiverse country in the world and Durban contains:

- Three of the countries eight terrestrial biomes; namely, savanna, forest and grassland;
- Eight broad vegetation types. These include:
  - Eastern Valley Bushveld
  - KwaZulu-Natal Coastal Belt
  - KwaZulu-Natal Hinterland Thornveld
  - KwaZulu-Natal Sandstone Sourveld
  - Ngongoni Veld
  - Scarp Forest
  - Northern Coastal Forest
  - Mangrove Forest
- Over 2 000 plant species;
- 97 kilometres of coastline with a diversity of beach types and productive rocky shores;
- 17 river catchments and 16 estuaries;
- 4 000 kilometres of rivers; and
- An open space system of approximately 74 711 ha (2009/2010), representing almost 1/3 of Durban's total municipal area.

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THE VALUE OF DURBAN'S NATURAL ENVIRONMENT

To ensure the sustainability of Durban's ecological and socio-economic natural assets, it is necessary to plan and manage these assets. The Durban Metropolitan Open Space System (D'MOSS) incorporates areas of high biodiversity value linked together in a viable network of open spaces in the eThekwini Municipal area. The value of D'MOSS comes from the ecosystem goods and services that are provided by the biodiversity contained in the different habitat types included in the system (see **Figure 1**).

WETLANDS

Why are wetlands so important?

Wetlands are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface. The services provided by wetlands are considerably high compared to the global surface area they occupy. These services include flood attenuation, water filtration, nutrient cycling, waste treatment, habitat for biodiversity and recreational and cultural usage. The Durban Green Corridor is a partnership between eThekwini Municipality and the Duzi Umngeni Conservation Trust (DUCT) and one of the aims of the partnership is wetland rehabilitation along Durban's iconic Umgeni River for biodiversity and water quality improvement. Projects are currently being undertaken along the Aller River and the Piesang Valley flood plain, both significant tributaries to the Umgeni River.

For more information, visit www.durbangreencorridor.co.za/environmental_umhlangane.htm

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IMPORTANCE OF STATE OF BIODIVERSITY REPORTING

An effective State of Biodiversity reporting programme which tracks trends over time is arguably one of the most valuable means of informing policy makers, the public and other stakeholders about the status of natural resources, and the sustainability of resource use patterns.

The current report collates information relevant to the 2009/2010 municipal financial year in line with the 2006 – 2011 Integrated Development Plan which stipulates the need to "ensure the long-term sustainability of the natural resource base" (Plan 1 Programme 3). The indicators were chosen based on how meaningful they are in characterising and monitoring biodiversity in Durban and the reliability of the available data. Most indicators are linked to D'MOSS which is used as a key planning tool, contributing to the attainment of provincial and national biodiversity targets. D'MOSS is mapped by the Biodiversity Planning Branch of the EPCPD in consultation with relevant experts.

The indicators that were chosen are based on their ability to provide information in a meaningful way to:

a) Assist policy makers in benchmarking biodiversity conservation efforts in the urban context; and

b) Evaluate progress in reducing the rate of biodiversity loss in urban ecosystems.

STATE OF BIODIVERSITY

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NUTRIENT CYCLING
e.g. nitrogen fixation and transfer of nutrients through food chains

GENETIC RESOURCES
Unique biological materials and products e.g. plant medicines

DISTURBANCE REGULATION
Control of large environmental fluctuations e.g. flood control

EROSION CONTROL
Prevention of soil loss by vegetation cover

CLIMATE REGULATION
Control of temperatures e.g. wind reduction

SOIL FORMATION
e.g. weathering of rock by water

CULTURAL
Providing opportunities for aesthetic, educational, spiritual and scientific use

REFUGIA
Habitats for resident and migrant species e.g. estuaries as nurseries for fish

Figure 1: Ecosystem goods and service provided by natural ecosystems

The environmental services provided by Durban's open space system are valued at approximately R4 billion per annum (2006), which makes the preservation of this resource a key priority.

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RECREATION
e.g. eco-tourism, fishing, swimming

POLLINATION
Movement by pollen e.g. by bees

RAW MATERIALS
e.g. production of fuel, craft work and house building materials

WATER REGULATION
Control of water flow e.g. capture and release of water by vegetated landscapes for urban use

FOOD PRODUCTION
Primary production of food e.g. fish and crops

BIOLOGICAL CONTROL
Predator control of prey species, rodent control and insect control

GAS REGULATION
Control of the chemical composition of the atmosphere e.g. carbon sequestration

WASTE TREATMENT
Removal and breakdown of excess nutrients e.g. filtering of water by wetlands and beaches

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a) How much land has been transformed?

Transformed areas in the city are those areas that have been altered dramatically from their natural state by human activities. This is one of the single greatest threats to biodiversity as it implies habitat loss, habitat destruction and fragmentation of natural areas areas.

The map shows the areas of the city that have been transformed and the categories of this transformation – extractive (e.g. dams), field crops (e.g. sugar cane), recreational (e.g. sports fields), settlements (excluding sparse rural settlements) and utility.

It is based on 2009 aerial photos of the eThekwini Municipal area. In the 2009/2010 municipal financial year, 49.1% of Durban was classified as transformed.

NB: Data for this indicator is collated once every three years.

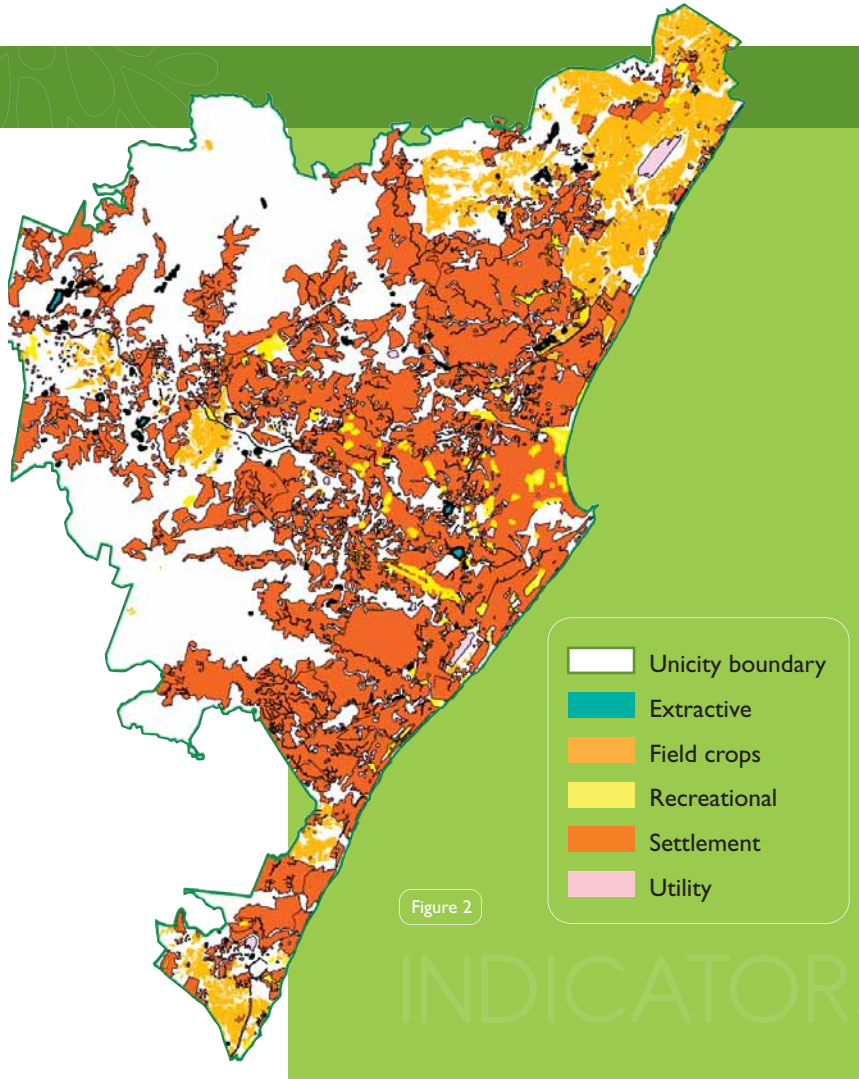

Figure 2

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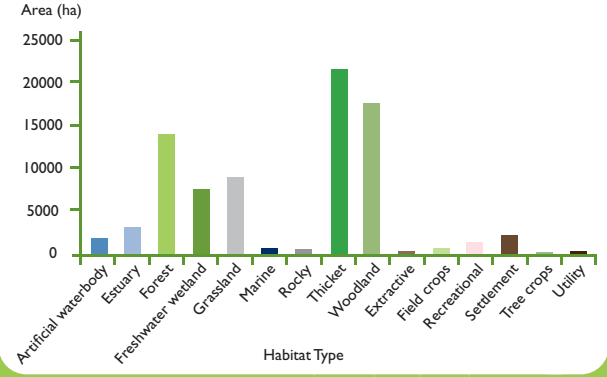
Figure 3: Summary of the different D'MOSS habitat types and their extent



New plant species found in Durban

Toward the end of 2009, a new subspecies of the plant *Pseudoprospero* was described from the Durban area. The type specimen of *Pseudoprospero firmifolia* subsp. *natalensis* is from Botha's Hill, in Durban's western suburbs. This genus was formerly known from one Eastern Cape species only, *Pseudoprospero firmifolia* subsp. *firmifolia*. This plant qualifies for the Red List category of Endangered.

b) Total area of D'MOSS

In 2009/2010 D'MOSS covered an area of 74 711 ha, representing approximately 33% of the total municipal area. The D'MOSS spatial layer is a dynamic one, undergoing modifications and refinements as new information becomes available. D'MOSS contains a number of different habitats (**Figure 3**). This is important from a biodiversity perspective, as the greater the number of habitats, the higher the number of species likely to be found in a given area.

Table 1: Area of D'MOSS per habitat type

Habitat type	ha	Habitat type	ha	Habitat type	ha
Artificial waterbody	1 977.13	Marine	702.29	Recreational	1 319.09
Estuary	2 432.32	Rocky	433.46	Settlement	1 716.93
Forest	12 977.76	Thicket	21 433.64	Tree crops	113.16
Freshwater wetland	6 345.29	Woodland	16 244.29	Utility	331.12
Grassland	7 728.36	Extractive	184.72	Total	74 711.85
		Field crops	772.29		

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c) Percentage of D'MOSS that is protected and managed in Durban

While the D'MOSS spatial layer is an important decision making tool, assisting in the preservation of environmentally sensitive areas within Durban, most of D'MOSS falls on privately-owned land and is thus not formally protected. The EPCPD attempts to restrict development as far as possible in these instances, however, the department uses other tools to proactively secure land that falls within D'MOSS, thus affording another level of protection to these environmentally important areas. These include:

a) **Non User Conservation Servitudes (NUCS):** In some instances, the outcome of the development assessment process requires the registration of a conservation servitude over that portion of the application property that is within D'MOSS. Developers are thus required to register a conservation servitude over the portion of the property which requires protection from development. The area affected by the servitude remains in the ownership of the landowner and can be used for purposes that do not compromise the integrity of the natural environment. In the 2009/2010 municipal financial year, there were 68 registered conservation servitudes in the city (covering an area of 67.7 ha).

Figure 4: Examples of conservation servitudes in the Outer West region of Durban are shown in the figure.

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b) Rezoning: The Environmental Planning and Climate Protection Department is in the final stages of two key town planning scheme amendments. The first of these created a Conservation Zone (applied to privately owned areas requiring permanent protection from development) and Environmental Conservation Reserve (applied to land owned or intended to be owned by either the municipality or Ezemvelo KZN Wildlife for conservation purposes) within town planning schemes. These were then applied to municipal and provincial nature reserves and a few adjacent properties in order to correct and standardise the zoning of municipal nature reserves within the EMA. The first phase of a second initiative, which is located within and flanking the Giba and Stockville valleys and around some of the smaller nature reserves in the Hillcrest area, was substantially completed in December 2009. This initiative aims to protect both environmentally-sensitive land and disturbed land providing ecosystem goods and services to ensure that the ecosystem goods and services so provided by these natural systems, are protected in the future.

c) Land Acquisition: In some restricted instances, threatened or important areas are protected through acquisition. This is achieved by either a) purchasing the property from the owner at an agreed upon value or b) registering an conservation servitude on the property. In 2009/2010, 18.08 ha of land were acquired by the EPCPD for environmental conservation. These included properties in Kingsburgh, Amanzimtoti, Sterkspruit and Wentworth. In total, 119.38 ha of land have been acquired since 2002 when the EPCPD began this undertaking.

d) Nature Reserve proclamation: Work is currently being undertaken on the provincial proclamation of 11 municipal nature reserves. These are: Roosefontein, Burman Bush, Empisini, Marian Woods, New Germany, Paradise Valley, Pigeon Valley, Silverglen, Springside, Virginia Bush, and extensions of the Krantzkloof Nature Reserve. This exercise will give these nature reserves a higher conservation status, thus further protecting Durban's biodiversity assets.

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Table 2: Percentage D'MOSS that is protected and the corresponding level of management

Name	Explanation	Management	%
Proclaimed Nature Reserve	Proclaimed in terms of the Protected Areas Act, owned and managed by Ezemvelo KZN Wildlife	Full time	1.4
Proclaimed Municipal Nature Reserve	Proclaimed in terms of the Protected Areas Act, owned by eThekwini Municipality and managed by EM Natural Resource Branch	Full time	0.1
Municipal Nature Reserve	Not proclaimed in terms of the Protected Areas Act, owned by eThekwini Municipality and managed by EM Natural Resource Branch	Full time	1.8
Municipal Managed	Not proclaimed in terms of the Protected Areas Act, owned by eThekwini Municipality and managed by EM Natural Resource Branch but less formalised in terms of existing infrastructure	Part time	1.3
Private Nature Reserve	Not proclaimed in terms of the Protected Areas Act, privately owned and managed	Full time	0.4
Municipal / Private Managed	Not proclaimed in terms of the Protected Areas Act, ownership and management shared by eThekwini Municipality & private landowners – Special Rating Area	Full time	0.4
State Managed	Not proclaimed in terms of the Protected Areas Act, owned by a state entity other than EKZNW, managed by State, EM's Natural Resource Branch or non-government entity	Part time	2.9
Private Managed	Not proclaimed in terms of the Protected Areas Act, private ownership, and conservation management agreement in place	Part time	0.8
Environmental Conservation Reserve	Not proclaimed in terms of the Protected Areas Act, zoned or proposed to be zoned ECR, transfer and management earmarked	Part time /none	0.1
Conservation Zone	Not proclaimed in terms of the Protected Areas Act, zoned or proposed to be zoned to Conservation Zone, in private ownership, no current management or proposed management	Part time /none	1.7

Roosefontein Nature Reserve

The EPCPD and the eThekwini Municipality's Parks Department, through a collaborative process with the Municipality's Housing Department, ward councillor, Ezemvelo KZN Wildlife and residents of the surrounding areas, plans to have Roosefontein Nature Reserve declared a nature reserve area under the National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003). This process will ensure that the area is formally protected as a national asset by legislation.

This case study provides an excellent example of the synergies that can be found between different interest groups. In this case, parts of the area will be developed for housing, while a significant part will be set aside for environmental protection, but in a way that directly benefits adjacent communities through job creation (management interventions such as Working for Ecosystems), recreational and educational value.

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d) Species abundance

In terms of representing urban biodiversity three taxonomic groups are commonly surveyed i.e., plants, birds and butterflies. In Durban, reliable, quantitative data sets for most groups of organisms are difficult to obtain because of the lack of long term monitoring initiatives. For the purposes of this report only data that are collected consistently and quantitatively are utilised. NB: Due to the fact that this report was produced within six months of the 2008/2009 State of Biodiversity report, no new data was available at the time of publication.

a) Waterbirds of Durban Bay [2]

One of the most comprehensive biodiversity data sets available is for bird species in Durban Bay. Bird species counts started in July 1999 and are ongoing. What started out as birdwatchers enjoying the diversity of avifauna in Durban Bay has become a key dataset for the eThekwini Municipal area, demonstrating trends in water bird species diversity and abundance. The ten-year dataset demonstrates the decline in the overall abundance of waterbirds in Durban Bay over the study period (**Figure 5**). A key driver of the changes observed is the ongoing attrition and infilling of the Bay's natural habitats (only 855 ha of the original 1 970 ha of aquatic habitat remain). Certain key habitats have been transformed to a small percentage of their original extent e.g. only 3% (15 ha of the original 440 ha) of the mangrove habitat is all that remains and is now protected as a Natural Heritage Site by agreement with the Port authorities. The same trends are likely to be evident in many other bird populations in Durban, where habitat transformation is also a major threat to their survival.

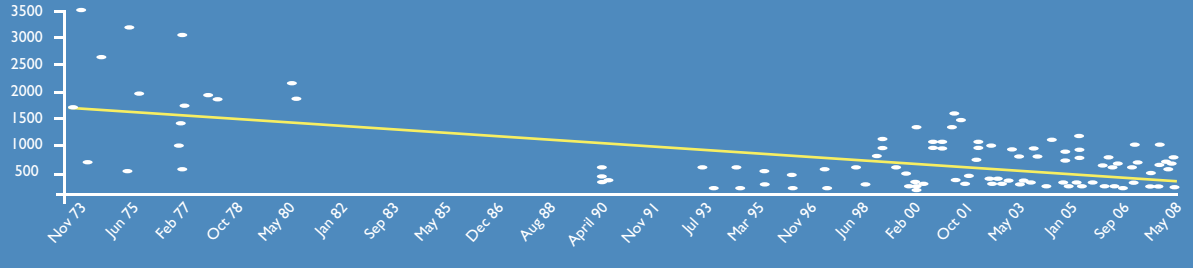

Figure 5: Decline of waterbirds in Durban Bay from 1974

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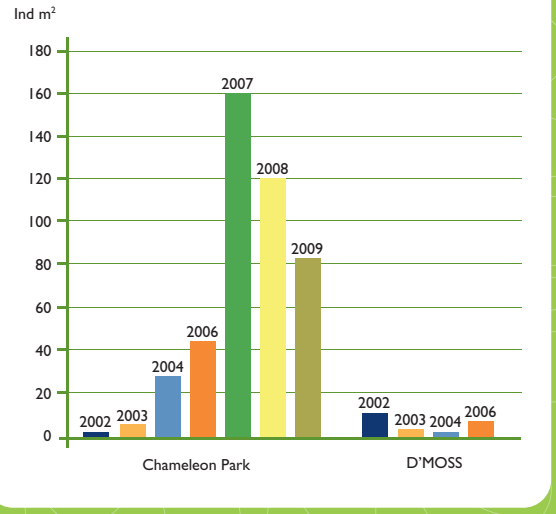
b) Black-headed Dwarf Chameleon [3]

Bradypodion melanocephalum is a regionally endemic chameleon and its range is restricted to the coastal belt of KwaZulu-Natal. In 2002, Ezemvelo KZN Wildlife (EKZNW) initiated the monitoring of this species at two localities within Durban i.e. Chameleon Park and a plot of land within D'MOSS next to the Edwin Swales Business Park. Chameleon Park was formed through a collaborative effort between the Cato Manor Development Association (CMDA), EKZNW and the eThekwini Municipality. At the time, the CMDA was in the process of developing a business park on the corner of Edwin Swales and Bellair Road and it was found that this high priority conservation species was found to occur there. The development was allowed to go ahead with the proviso that a chameleon habitat was maintained and managed. The black-headed dwarf chameleon was then re-introduced into what is now called Chameleon Park as well as to a strip of D'MOSS land next to the Edwin Swales Business Park.

Figure 6: The results from the past eight years of monitoring show that the black-headed dwarf chameleon population increased in size between 2002 and 2007 at Chameleon Park, but then declined by 50% over the following two years. Counts for the D'MOSS habitat (Edwin Swales), labelled "'D'MOSS" on **Figure 5**, was suspended in 2006 because of a lack of invasive alien control at the site.

The results indicate that the sub-population of the black-headed dwarf chameleon in Chameleon Park has not yet stabilised since the re-introduction in 2002. According to experts, the results also show that the re-introduction of black-headed dwarf chameleons to the D'MOSS strip may be a failure and the way forward would be to increase the protection status and management of these important Chameleon habitats.



[2, 3] Information (data and graphs) provided by David Allan (Natural Science Museum) and Adrian Armstrong (Ezemvelo KZN Wildlife.)

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New emerging weed in Durban

In 2009, dense infestations of the alien plant *Saggitaria platyphylla* (Delta Arrowhead) were found to occur in water bodies in central and western Durban.

The plant, originally from North and Central America, has not yet been declared an invader in South Africa but is transforming watercourses, forming extensive infestations that restrict water flow, increase sedimentation and flooding and ultimately threatens indigenous species.

SANBI's Early Detection and Rapid Response unit advises that this is an extremely aggressive alien invader and should be eradicated before it becomes a serious problem.

e) Threats to Biodiversity in Durban

Some of the major threats to biodiversity include:

- Transformation of natural areas (habitat destruction and degradation);
- Introductions of alien invasive species;
- Over-exploitation (harvesting, sandmining);
- Pollution and diseases; and
- Human induced climate change.

Due to the lack of quantitative data relating to many of these threats, this report will only focus on invasive alien species and climate change. As more information becomes available, these will be included.

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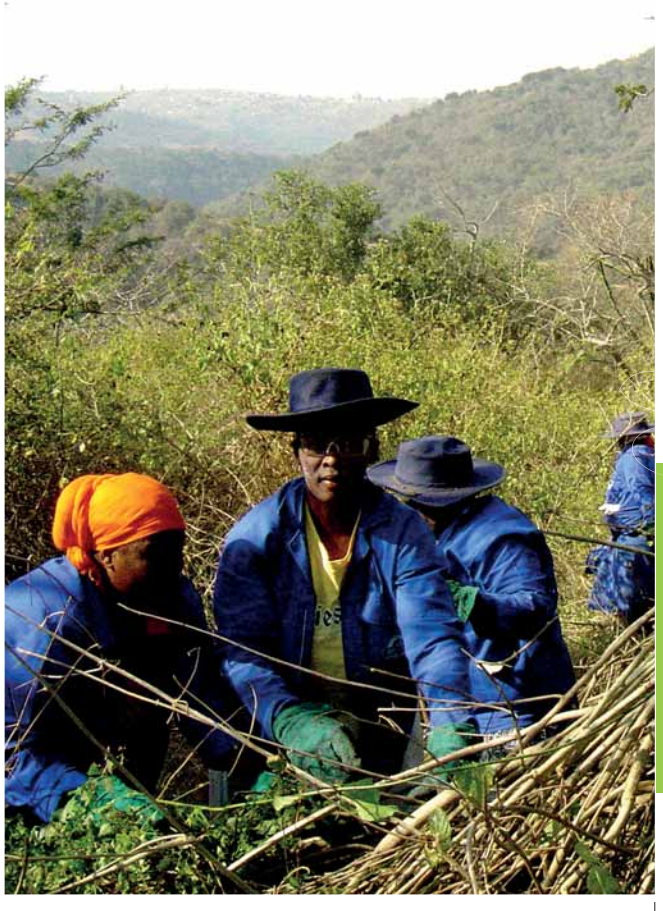
a) Invasive alien species

Invasive alien species are plants, animals, pathogens and other organisms that are not indigenous to an ecosystem, and which may cause economic or environmental harm or adversely affect human health. In particular, they impact adversely upon biodiversity, including causing the decline or elimination of indigenous species through competition, predation, or transmission of pathogens, and the disruption of local ecosystems and ecosystem functions. It is estimated that 6% (amounting to 3 780 ha) of D'MOSS has been seriously affected by invasive alien plant species. It is, however, very difficult to quantify alien plant coverage in the eThekwini Municipal area mainly because of the widespread nature of the problem and the lack of available resources e.g. trained staff that are able to traverse all areas of the eThekwini Municipal area through on-the-ground investigations. Headway is being made into gathering this type of information (at least for nature reserves within the Municipal area).

In the 2009/2010 municipal financial year, the EPCPD had a budget of approximately R4.57 million allocated to invasive species control in Durban. Two teams, Working on Fire (WoF) and Working for Ecosystems (WfE) were appointed to carry out this task. Both WoF and WfE are sustainable development programmes that aim to alleviate poverty and develop skills by employing people to manage aspects of the environment such as the burning of grasslands and invasive alien species control. Both programmes also have a strong education and training component.



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Working for Ecosystems

The Environmental Planning and Climate Protection Department (EPCPD) initiated a programme called 'Working for Ecosystems' in 2004 with funding obtained from the former Department of Environmental Affairs and Tourism (DEAT). The philosophy behind the 'Working for Ecosystems' concept is to build a holistic and positive interaction between local communities and the environment by providing training and employment in the management of environmentally important areas, as well as training for the establishment of food nurseries. Community members are also trained in environmental education so that awareness programmes can be run in local schools.

WESSA, a Non-Government Organisation (NGO), has been appointed as the implementing agent for the 'Working for Ecosystems' programme. The project, now fully funded by eThekwini Municipality, currently employs 40 people in the Ntshongweni area and since May 2010 a further 25 people have been trained and employed at Roosefontein Nature Reserve. People from communities surrounding these environmentally-important areas are trained and employed to undertake environmental management work such as the clearing of alien invasive plants, which are currently one of the biggest threats to biodiversity within the EMA.

WORKING ECOSYSTEMS

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Green Roof Pilot Project

The Green Roof Pilot Project was initiated as part of eThekwini Municipality's Municipal Climate Protection Programme. The Green Roof Pilot Project is located on one of the buildings in the City Engineer's complex. The choice of this location was informed by the following facts:

- the roof is flat and has easy access,
- it is a secure location where scientific analyses can be undertaken,
- the roof was assessed by a structural engineer and found to be suitable in terms of its loading capacity, and
- the roof is visible to municipal staff and the public visiting the City Engineer's building.

Some of the benefits of a Green Roof include:

- Reduction of the 'heat island effect'
- Reduction of noise pollution
- Reduced surface run-off
- Improved air quality
- Increased biodiversity
- Food production
- Aesthetic benefits
- Fire resistance

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b) Climate change

In Durban, the following changes have been projected to occur:

- Increases in temperature of 1.5-2.5°C by 2045-2065 and 3-5°C by 2081-2100. Rainfall in Durban is projected to increase in the future (up to 500 mm by 2081-2100). The distribution and variability of this rainfall will change; with rainfall events becoming more erratic
- The sea level along the Durban coastline is rising at present by 2.7 cm every decade. Projections indicate that this rate is likely to accelerate in the future
- Due to these changes in temperature and rainfall, the bio-climatic envelopes (distributions of plants and animals based on climatic variables) in which the fauna and flora of Durban exist could shift. This places additional pressure on Durban's biodiversity.

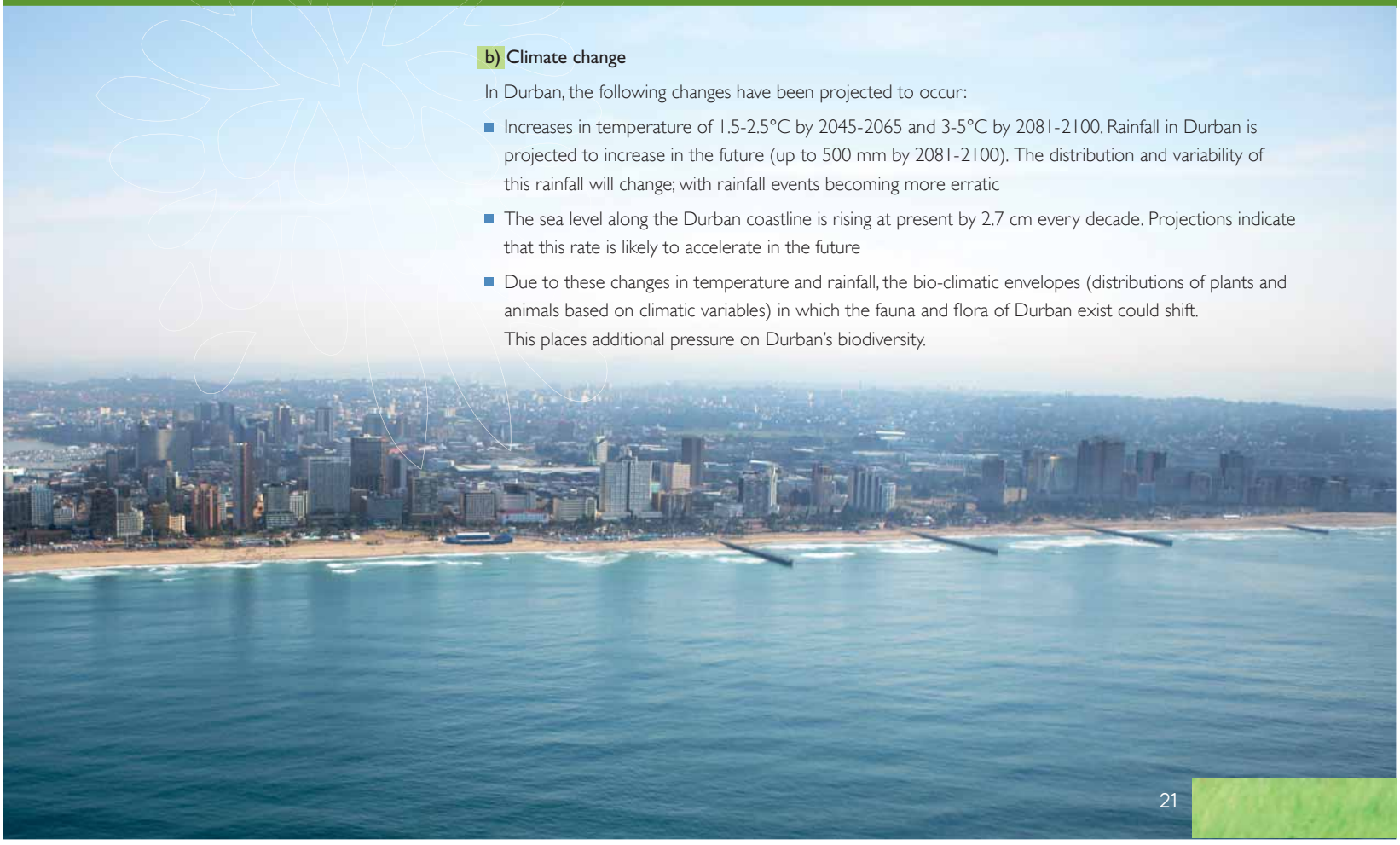

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Table 3: Summary of the State of Biodiversity Indicators

Shortlisted indicators	Detailed description of data	2008/2009	2009/2010	Additional information
1. How much land has been transformed	Changes to the land class layer because of new developments, climate changes impacts (losing beaches etc.)	112 827.65 ha	112 827.65 ha	49.1% of the eThekwini Municipal area. Changes to the land class layer will only be collated in this report every 3 years.
2. Total area of D'MOSS	Data expressed per habitat type	74 703 ha	74 711 ha	33% of the eThekwini Municipal area.
3. D'MOSS with some form of protection	i.e. in proclaimed nature reserves, as part of NUCS's, protected because of changes to town planning schemes or due to land acquisition	NUCS: 55.11 ha	NUCS: 67.7 ha	The NUCS database is currently being revised by the EPCPD. This value represents a running total.
		Land acquisition: 4.33 ha	Land acqusition: 18.08 ha	Erf 1031 Kingsburgh - Erf 2250 Amazimtoti - Ptn 472 (of 326) of the Farm Sterkspruit - Erf 2251 Amanzimtoti - Erf 1826 Wentworth
		Proclaimed nature reserves: nil	Proclaimed nature reserves: nil	The proclamation of the Roosefontein Nature Reserve is currently in the final stages of proclamation.
4. Percentage of D'MOSS that is managed		Data not available.	Managed: 8.4% Zoned (not managed): 2.5% None: 89.1%	
5. Patterns in abundance of certain species of fauna/flora	Trending data that are collected consistently and reliably from year to year e.g. bird counts of Durban Bay.	General decrease in waterbird and chameleon species abundance.	General decrease in waterbird and chameleon species abundance.	Data for the 2008/2009 financial year and for the 2009/2010 were the same.
6. Invasive alien species and climate change	Where possible, data for these threats will be presented e.g. budgets available for invasive alien species clearing or extent of invasive alien area cleared. If not possible, key facts/events will be included in the body of the text.	EPCPD budget of R3.24 million for invasive alien clearing. We must add in number of people employed for each year and the areas where they have been working.	EPCPD budget of R4.57 million for invasive alien clearing. We must add in number of people employed for each year and the areas where they have been working.	Budgets are not necessarily a useful biodiversity indicator. For this reason, the EPCPD are attempting to collate information regarding the extent of invasive alien species cleared every year. These data are not yet available.

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CONCLUSION AND ACKNOWLEDGEMENTS

Conclusion

This is the eThekwini Municipality's second State of Biodiversity Indicators report. To ensure that the data that is reported is the most recent and relevant, the EPCPD has produced two State of Biodiversity reports during the 2010 calendar year. From 2011 onward, the State of Biodiversity Report will be produced annually. The next report will be for the 2010/2011 financial year and will be produced in December 2011.

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