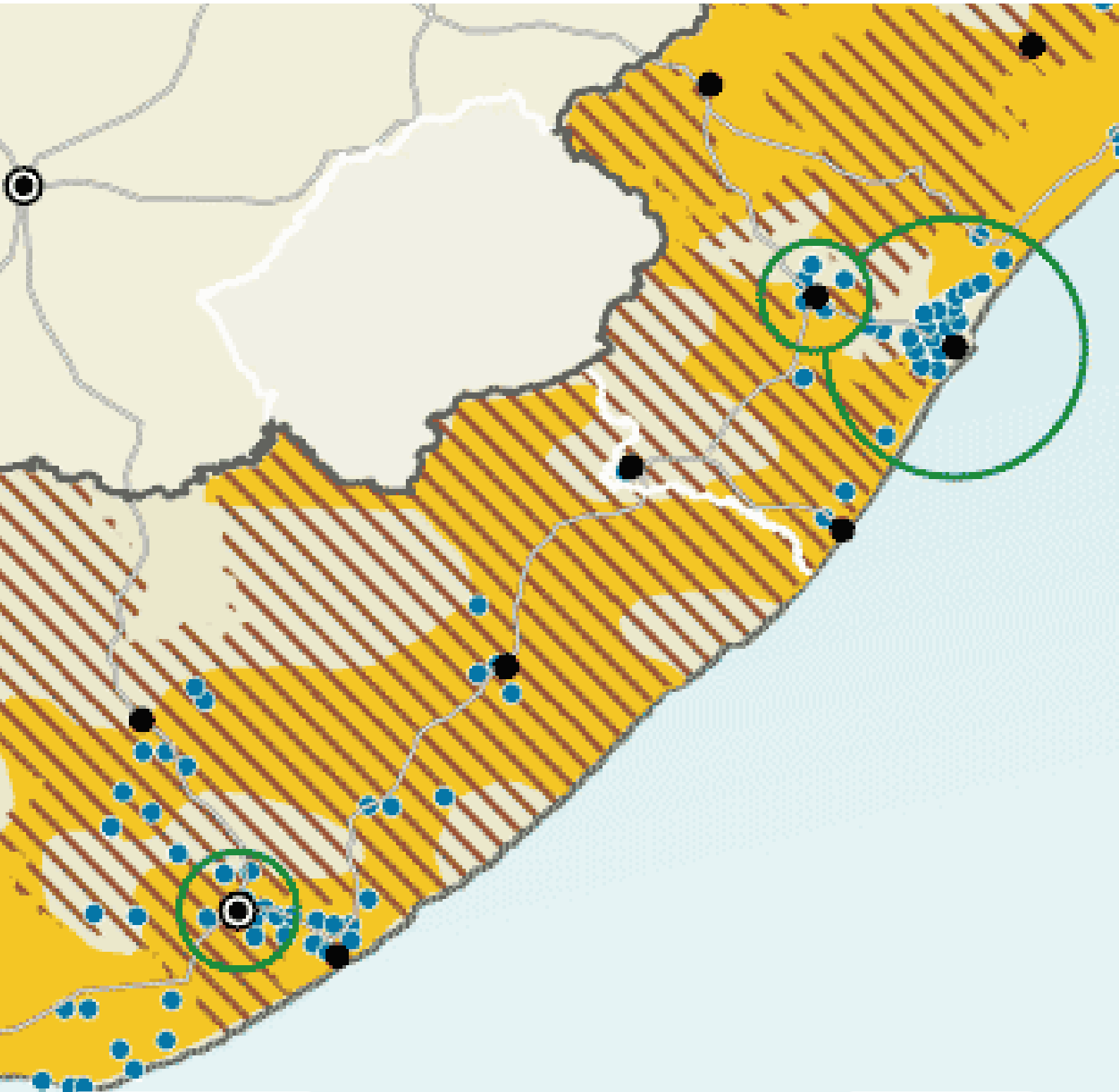


WORKING FOR THE ENVIRONMENT



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



GRIID
ARENDAL

South Africa Working for the Environment
First published in 2011
© Department of Environmental Affairs

For further information, please contact
Department of Environmental Affairs
Private Bag X447
Pretoria 0001
Republic of South Africa
Website: www.deat.soer.gov.za

Disclaimer

This report is based on information gathered by the project team at the Department of Environmental Affairs. The views it contains are not necessarily those of Government. The Department of Environmental Affairs and other agencies do not accept responsibility with respect to any information or advice given in relation to, or as a consequence of anything contained herein.

Every effort has been made to contact and acknowledge copyright holders. However, should any infringement have inadvertently occurred, the Department of Environmental Affairs wishes to be notified thereof and take this opportunity to offer our apologies. This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from the Department of Environmental Affairs.

Acknowledgements

We appreciate the partnership and support of GRID-Arendal (Norway) in compiling this publication. We sincerely thank the organisations and individuals who provided data, images and information that were used in this publication. All sources of data are acknowledged and referenced where they appear in the report.

Special thanks are due to the following individuals:

Dr Rudi Pretorius and Ms Anna Mampye (Department of Environmental Affairs) for coordination and quality review of the report.

Ms Anna Mampye, Ms Leanne Hart, Mr Ngodiseni Madadzhe, Ms Mpho Monyai and Ms Mbali Mkhize for contributing to the text for the publication.

Ms Anne Solgaard, Ms Rannveig Knutsdatter Formo, Ms Marie Loe Halvorsen, and Ms Janet Fernandez Skaalvik (GRID-Arendal) for editing.

Mr Riccardo Pravettoni (GRID-Arendal), for the creation of maps and graphics featured in the publication.

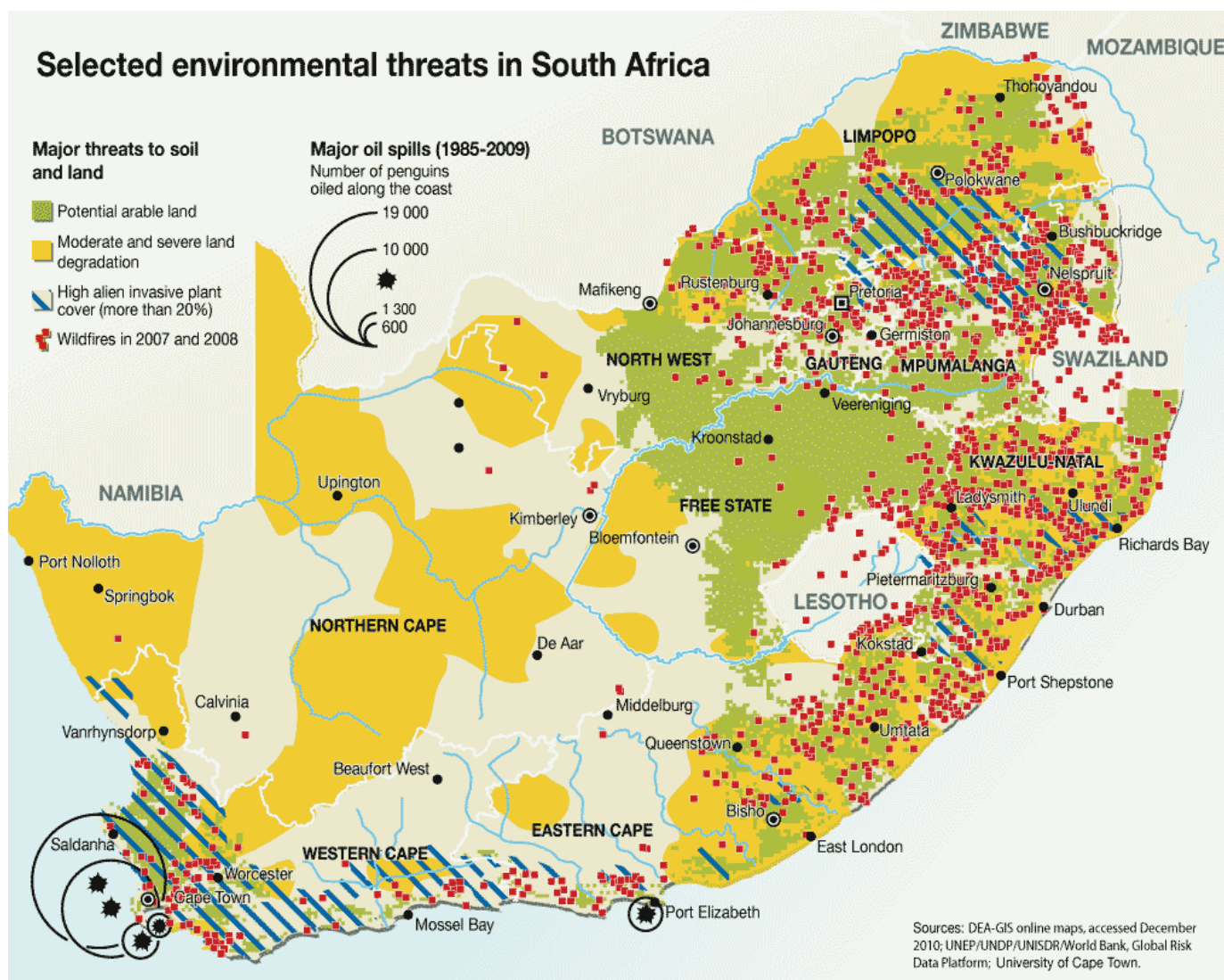
WORKING FOR THE ENVIRONMENT

CHAPTER 1	Working for the Environment	4
CHAPTER 2	The Social Responsibility Programme	8
CASE STUDY	Working for the Coast	9
CHAPTER 3	Working for Water	12
CHAPTER 4	Working for Wetlands	16
CHAPTER 5	Working on Fire	18



Working for the Environment

Working for the Environment is a publication launched by the Department of Environmental Affairs (former Department of Environmental Affairs and Tourism). It aims to inform and educate the general public in South Africa on the vital work currently being done by the government to protect the environment and alleviate poverty. This publication covers five ongoing programmes under the umbrella of the government's Expanded Public Works Programme (EPWP): the Social Responsibility Programme and its Working for the Coast sub-programme, Working for Wetlands, Working for Water, and Working on Fire.



In examining environmental challenges in South Africa, it becomes clear that environmental pressures tend to occur in overlapping geographical areas. This tendency results in amplified environmental threats in already disadvantaged regions

through negative feedback loops. The four thematic papers of this publication will address the highly important work which is spearheaded by the Government of South Africa to counteract environmental degradation and poverty in the country.

Environmental aspects

South Africa is recognized as the third most megadiverse country in the world.¹ The abundance of biodiversity found within its borders covers an estimated 10 per cent of the world's plant species, 7 per cent of all bird, 6 per cent of all mammal, and 5 per cent of all reptile species found on the

planet. Due to various causes ranging from unsustainable land use and farming practices, to invasion by alien species and climate change, South Africa's ecosystems are under considerable pressure, much of which is directly or indirectly linked to poverty.



Threats to South Africa's ecosystems

- Land and wetland degradation.
- Exploitation of habitats and natural resources.
- Encroachment on ecosystems.
- Unsustainable harvesting.
- Invasive species.
- Climate change.
- Reduction in the quantity and quality of fresh-water resources.

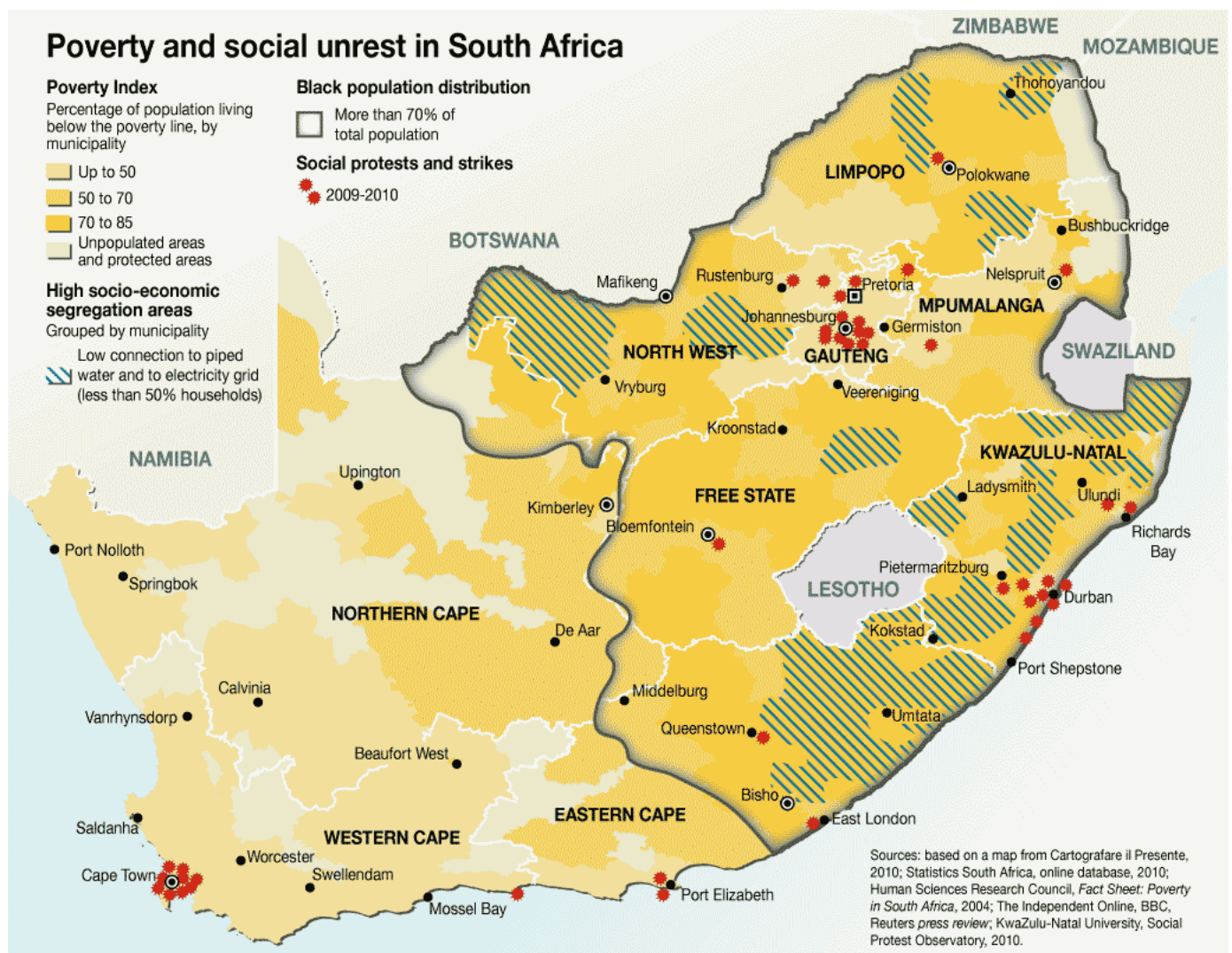
Social pressures which contribute to poverty

- Unpredictable and changing geopolitical climate.
- Diminishing energy and food security.
- Social unrest.
- Poor socio-economic infrastructure.
- Unemployment.
- Faltering education.

Social aspects

Although the United Nations Development Programme's (UNDP) Human Development Index ranks South Africa as a middle-income country,² the way in which income is distributed across the population is highly skewed. Some 39 per cent of the population, estimated at more than 49 million people,

lives on less than R 388 a month.³ One consequence of poverty and high levels of unemployment is social unrest. A large proportion of South Africa's poor population live in the eastern half of the country, which is also the area with the largest share of black population.



The response by the South African government to the interlinked challenge of environment and poverty

In the wake of the second democratic election in 1999, the foremost socio-economic challenges in South Africa included high unemployment, poverty alleviation, and a great need for overall capacity-development as well as improved social services. As a response, the government, under the leadership of former president Thabo Mbeki, launched the Expanded Public Works Programme (EPWP) in 2004. The programme, Mr. Mbeki said, would “ensure that we draw significant numbers of the unemployed into productive work and that these workers gain skills while they work, and thus take an important step to get out of the pool of those who are marginalized...”⁴

The EPWP is only one among a number of government strategies aimed at addressing unemployment rates and poverty in South Africa. Other examples are the Reconstruction Development Programme (RDP), the Growth, Employment and Redistribution (GEAR), the Integrated Sustainable Rural Development Strategy (ISRDS) and the Accelerated and Shared Growth Initiative of South Africa (ASGISA). Furthermore, the anti-poverty frame-

At the very foundation of South Africa’s environmental policies is the South African Constitution (Act 108 of 1996), which is considered the supreme law of South Africa and provides an overall framework for the country’s environmental governance. The constitution establishes the right to an environment that is not harmful to human health and well-being and further addresses the right to a healthy environment for future generations, and the right to socio-economic development for current generations. These three pillars of sustainability: the environment, social well-being and economic growth are given equal protection under the constitution.

work of South Africa recognizes the multi-dimensional nature of poverty and aims to approach the issue from nine specific angles, including creation of economic opportunities, investment in human capital, improving healthcare and good governance.

While these strategies mainly target poverty alleviation and job creation, the Johannesburg Plan of Action and the National

South Africa’s anti-poverty framework – Combating poverty from nine angles

1. Creation of economic opportunities – to ensure that the economy generates opportunities for poor households to earn improved incomes through jobs or self-employment.

2. Investment in human capital – providing health care, education and training needed to engage with the economy and in political processes.

3. Income security – providing safety nets for the most vulnerable, primarily through social grants. This is to ensure that vulnerability associated with disability, age and illness does not plunge poor households into destitution.

4. Basic services and other non-financial transfers – what has been termed a social wage, consisting of services such as subsidized housing, and expanded access to water, electricity, refuse removal and sanitation; as well as a raft of minimum free basic services for vulnerable sectors of the population. Inability to pay for basic services should not prevent the poor from accessing these services altogether.

5. Improving healthcare – ensuring that poor children grow up healthy, providing quality and efficient preventive and curative care, and ensuring that illness or disability do not plunge poor households into destitution.

6. Access to assets – particularly housing, land and capital, including public infrastructure, both to improve economic and social security, and to provide the basis for economic engagement in the longer run.

7. Social inclusion and social capital initiatives – combining programmes to ensure a more inclusive and integrated society based on the development of more integrated structures and engagements across class and race, as well as solidarity in communities and society as a whole. The focus is also on strengthening social capital, especially for the poor to expand their networks and ensure they have access to information.

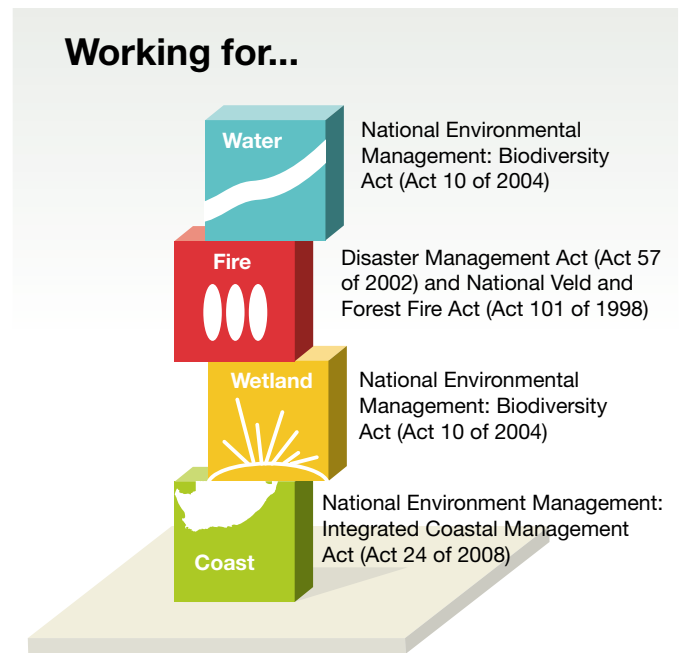
8. Environmental sustainability – requiring strategies and programmes that help link increasing economic opportunities for the poor to protecting and rehabilitating ecosystems, while reversing environmental degradation and promoting ecotourism.

9. Good governance – accountability to citizens, direct intervention in the provision of information, facilitating participatory, pro-poor policies and sound macroeconomic management. This is to ensure proper use of public funds, encouraging shared economic growth, promoting effective and efficient delivery of public services and consolidating the rule of law.

Environmental Management Act (NEMA, Act 107 of 1998) is founded on the understanding that eradicating poverty must be anchored in sustainable strategies, which ensure equitable access to the planet's resources for the poor and vulnerable in future generations. NEMA also broke new ground with its support for the concept of participatory, cooperative and developmental governance.⁵ Since the launch of NEMA, various sector-specific acts, strategies and policies have been developed and adopted, and together they play a crucial role in ensuring inclusive environmental governance.

The link between *Working for* programmes and South African legislation

The Working for the Coast programme addressed in chapter 2, contributes to the overall goals of the EPWP as well as to coastal protection in South Africa as outlined in the National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008). The Working for Water programme presented in chapter 3, is supported by the National Environmental Management: Biodiversity Act (NEMBA, Act 10 of 2004). Under NEMBA, the Minister of Environmental Affairs must coordinate and implement programmes to prevent, control or eradicate invasive species. The Working for Wetlands programme,



addressed in chapter 4, is also supported by and linked to NEMBA. Finally, the Working on Fire programme addressed in chapter 5, is linked to two items of national legislation: the Disaster Management Act (Act 57 of 2002) and the National Veld and Forest Fire Act (Act 101 of 1998).

Introduction to the *Working for* programmes presented in this publication

The Social Responsibility Programme was initiated in 1999 under the then Department of Environmental Affairs and Tourism (DEAT). As many as 380 projects and programmes have been funded under the Social Responsibility Programme, and many of them are related to job creation within the environmental sector. One of the focus areas under the Social Responsibility Programme is the Working for the Coast programme, which provides jobs and training for unemployed people from coastal communities in ensuring and maintaining a clean, safe coastal environment. In addition to job creation, the programme aims to conserve the coastal environment and estuaries by managing coastlines in an integrated manner, ensuring sustainable use of coastal resources.

The Working for Water programme was launched in 1995 and is spearheaded by the Department of Water Affairs (DWA) working in conjunction with other national departments and local communities. The main focus area of this programme is

the removal of alien invasive species whilst creating employment opportunities.

The Working for Wetlands programme was established in 2002 and headed by several government departments such as the then Department of Environmental Affairs and Tourism (DEAT), the then Department of Agriculture (DoA) and the then Department of Water Affairs and Forestry (DWAF). In 2004 responsibility for project management was delegated to the South African National Biodiversity Institute (SANBI). Working for Wetlands aims to advocate the protection, rehabilitation and sustainable use of the country's wetlands by promoting cooperative governance and partnerships.

The Working on Fire programme was established in 2003 and funded mainly by the then Department of Water Affairs and Forestry (DWAF) through the Working for Water programme. The main aim of this programme is to protect life, livelihoods, and ecosystem services through integrated fire management.

The Social Responsibility Programme

The Social Responsibility Programme was initiated in 1999 under the then Department of Environmental Affairs and Tourism (DEAT) and represents an important part of the Environment and Culture sector of the Expanded Public Works Programme (EPWP).¹ The programme contributes to alleviating poverty, reducing unemployment and strengthening the population's general skill base. It aims to address the following core responsibilities of DEAT: to create jobs, reduce unemployment, develop skills and support the development of Small, Medium and Micro Enterprises (SMME), and the overall uplift of households.²

The Social Responsibility Programme has funded 380 projects. The projects fall under the following five focus areas:

1. Working for the coast

- rehabilitating coastal dunes and estuaries
- cleaning up beaches
- projects in fish farming in a marine environment (mari-culture),
- developing and upgrading tourist infrastructure along the coast

Did you know?

In the 2004–2009 period the South African government committed a total of R4 000 million to the environment and culture sector of the Expanded Public Works Programme (EPWP). The environment and culture sector have endeavoured to create 201 703 job opportunities and training (2 218 735 days) to facilitate long-term employment.³

The Social Responsibility Programme – requirements for project selection:

- Project concepts must be aligned with Municipal Integrated Development Plans and Provincial Growth and Development Strategies.
- 30 per cent of project budgets must be utilised for community wages.
- 60 per cent of the temporary and permanent job opportunities should be targeted for women, 2 per cent for people with disabilities and 20 per cent for youth.
- 90 per cent of the temporary job opportunities created must go to local people.⁴

2. Working on tourism

- supporting the development of viable tourism products
- creating opportunities to increase the share of SMME in the tourism industry
- developing and upgrading tourist infrastructure
- creating tourist routes, establishing tourist information centres and sign-posting

3. People and parks

- protected areas to conserve natural resources and cultural heritage
- developing and upgrading infrastructure in and around protected areas
- developing benefit-sharing models for communities living around parks and protected areas
- creating ancillary industries and SMME/BEE development complementary to the protected areas

4. Sustainable land-based livelihoods

- rehabilitating wetlands
- promoting and recreating community conservancies
- freshwater farming (aquaculture)
- creating livelihood opportunities through sustainable use of natural and cultural heritage
- rehabilitating and replanting landscapes to conserve natural resources

5. Working on waste

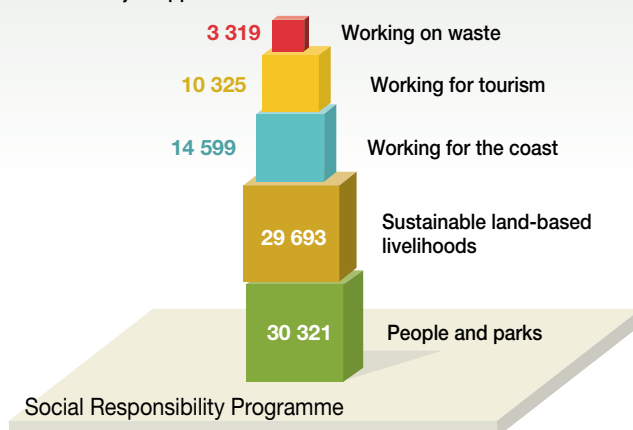
- creating sustainable livelihoods through recycling of waste
- supporting use of environmentally-friendly waste disposal technology
- creating mechanisms to protect environmental quality

Share of projects per focus area



Job opportunity created per focus area

Number of job opportunities



Working for the Coast

Working for the Coast is a programme initiated under the Social Responsibility Programme, which provides jobs and training for unemployed people in coastal communities to create and maintain a cleaner coastal environment. The programme works towards protecting the coastal ecosystems, which are essential in providing food and sustenance for the many people living in urban and rural coastal areas.

The Working for the Coast programme involves activities that contribute to the goals and objectives of the government's coastal policy. Such activities include:

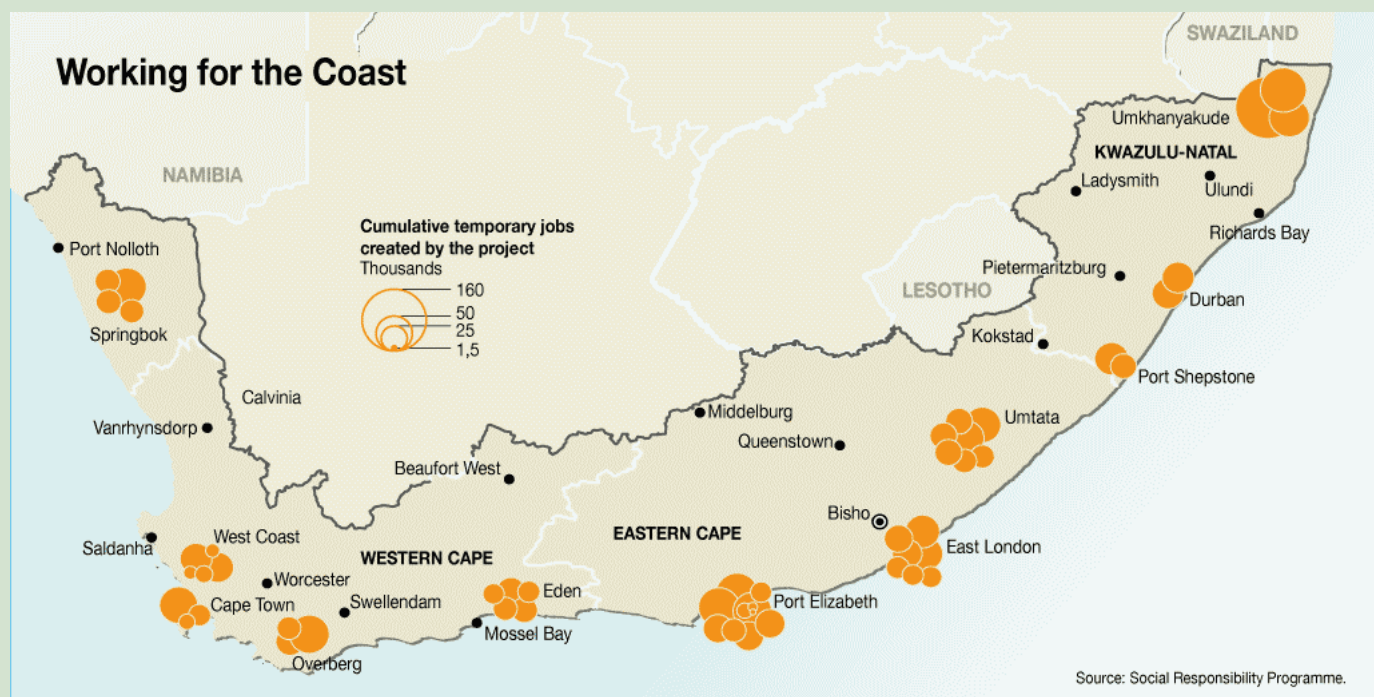
- Business and technical training to improve the viability of the Small Medium and Micro Enterprises (SMMEs) that are part of a co-operative programme;
- Cleaning coastal areas of litter on a regular basis;
- Rehabilitating coastal dunes and estuaries;
- Providing safety and security on beaches through monitoring and reporting;
- Removing invasive alien vegetation;
- Recycling waste, creating and selling crafts;
- Developing and upgrading tourism infrastructure along the coast;
- Training participants in topics such as numeracy, environmental education, and financial planning; and,
- Maintaining coastal facilities and infrastructure.

Recruitment process

Project teams are recruited and trained to carry out Working for the Coast tasks. The criteria for selecting workers require project teams to be made up of local, unemployed people with the ratio of 60 per cent women, 20 per cent youths (between the ages of 18–25) and 2 per cent disabled persons. Preference is given to female-headed households.⁵

Programme evaluation

The 2007 mid-evaluation report on the Social Responsibility Programme (SRP) revealed that Working for the Coast consistently outperformed the four other SRP focus areas with respect to delivery against the key mandate of the SRP and the Expanded Public Works Programme (EPWP).



Project Input and Outcomes (2003–2011)

Working for the Coast was allocated R351 633 64 for the period of 2003–2011. The funds were used to implement pilot projects at selected sites along the coast.

In relation to poverty reduction, the main outcome of the Working for the Coast programme is the many jobs that have been created for unemployed women and youths living in South Africa's coastal areas. Overall, the programme has contributed to reducing unemployment and strengthening the general skill base. Among

the environmental benefits are the beach facilities which have been rehabilitated, road infrastructure upgraded, alien species removed, indigenous vegetation planted and waste collected.

In terms of work job days per coastal province, the Eastern Cape created more work job days than the other coastal provinces. This is partly due to the budget allocated to this particular province, which was substantially higher than for the other three provinces.

State of the South African coast

Both coastal and marine resources provide opportunities for economic and social activities such as fisheries, agriculture, mineral resource exploitation and various development op-

portunities. The coast is also an area of great importance for recreation and tourism, supporting a range of coast-dependent businesses and commercial ventures.



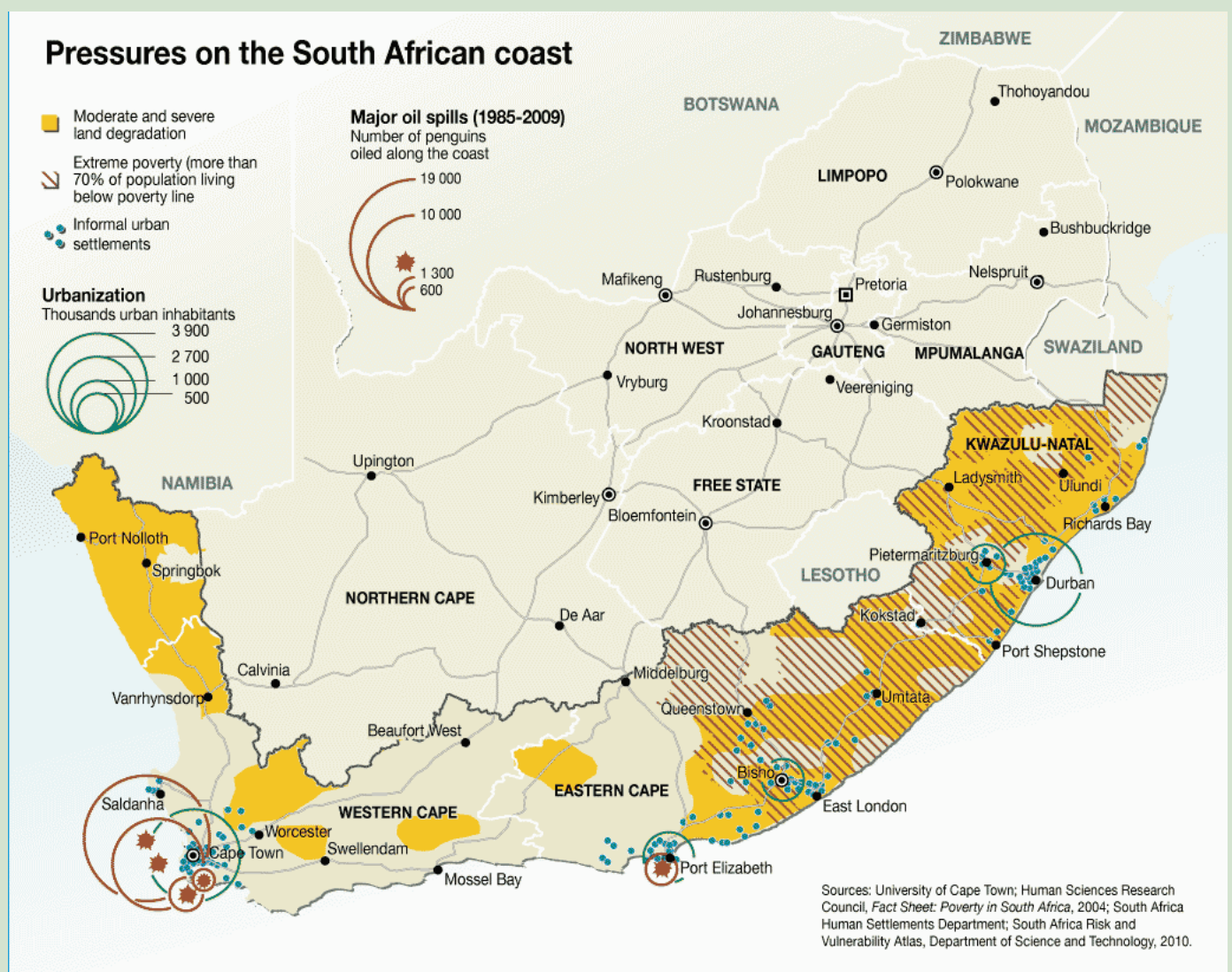
Trek Fishermen Fishhoek (Photo: South African Tourism)



False Bay (Photo: South African Tourism)



Kogel Bay (Photo: South African Tourism)



Population along the coast

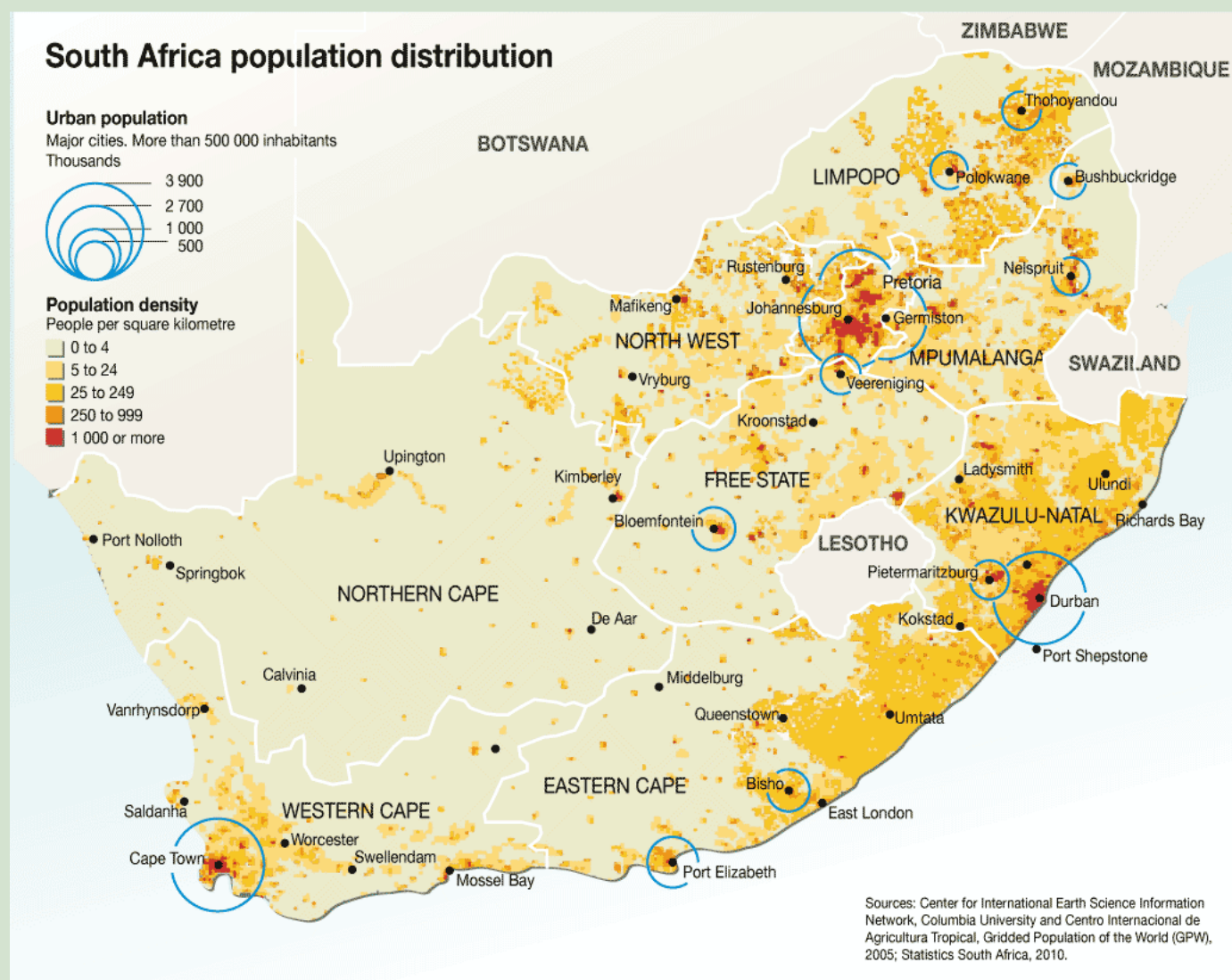
Population growth puts pressure on coastal ecosystems. Increased population means growing demand for land for housing and infrastructure, increased use of living resources for food, and more use of available freshwater resources. Some of these pressures are mainly associated with urban centres along the coast. In particular the high rates of harvesting of fish, mussels, crayfish and abalone occur in urban coastal areas.

The negative environmental impacts of the shipping industry also harm the coastal ecosystem. Impacts from shipping include oil spills and the discharge of ballast water and waste into the sea, which affect the quality of sea water and consequently marine life. This in turn affects human food security and health. The problem is particularly acute around commercial ports.

Did you know?

It is estimated that 30 per cent of South Africa's population lives within 60 kilometres of the coast. Human use of the coast has for a long time been one of exploration and uncontrolled exploitation, and this has resulted in a growing need for responsible and sustainable use. Working for the Coast endeavours to strengthen capacity for managing marine and coastal resources.⁶

Kwazulu-Natal has the largest share of population in the coastal areas. Approximately 9 million people live in the province and they are Zulu-speakers. The Eastern Cape Province has the second largest population with 5.8 million people and they are Xhosa-speakers. Northern Cape remains the province with the smallest population, with approximately 1.1 million people, who are Tswana and Coloured.



Working for Water

The Working for Water programme was launched in 1995 and is administered through the Department of Water Affairs and Forestry. The programme works in partnership with local communities which it provides with jobs, and also with government departments including the then Departments of Environmental Affairs and Tourism, Agriculture, and Trade and Industry, provincial departments of agriculture, conservation and environment, research foundations and private companies. The programme aims to combat the devastating effects of alien species in different water bodies across the country, and at the same time create jobs and training for the unemployed.

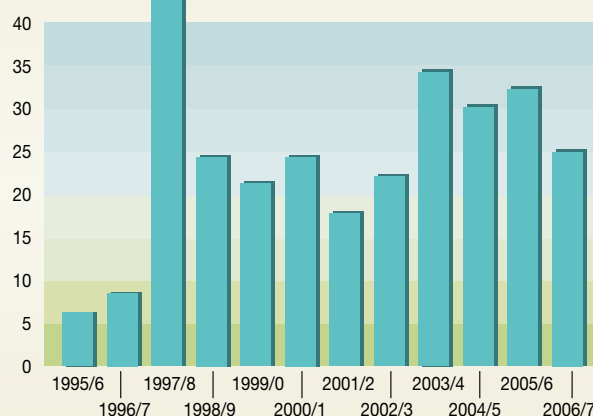
Did you know?

- Since the establishment of the Working for Water programme an area of more than 1 million hectares has been cleared of invasive species.
- In the peak year of 1997–98, more than 40 000 people were employed by the programme.
- Half of the employees are women, and the target is to increase this number to 60 per cent.
- Working for Water runs over 300 projects in all nine of South Africa's provinces.
- The annual budget of the programme amounts to more than R450 million (2007 estimates).

– Department of Water Affairs 2010

Working for water

Number of people involved in the programme
Thousands



Source: Working for Water Programme.



(Photo: iStockphoto/Don Bayley)

Invasive plant species

Alien plant species pose a major threat to South Africa's native biodiversity. It is estimated that more than 9 000 plant species

Invasive alien plants in the Berg River under siege

The Working for Water programme has a project along the Berg River catchment, where a group of specialized workers known as the Arbor Team are removing invasive alien plants. Invasive plants are, apart from their notable impact on water, forestry and human health, recognized as the second largest global threat to biodiversity.

Liesel Bezuidenhout, the Berg-Breede area manager, says that the Arbor Team was set up as a pilot project and that extensive training was required due to the risky nature of the job. "The Western Cape region is the first one in the country to have such a team trained to do this job and more often than not the workers are exposed to danger when working under high voltage power lines," she said. The Arbor Team consists of seven members who are given 20-25 days to clear a field of invasive species.

Liesel further explained that the Berg River was chosen as a pilot project for several reasons: the area's high water yield, its rich biodiversity, the water it provides for irrigation and recreational activities, and its massive infestation by large invasive alien trees.

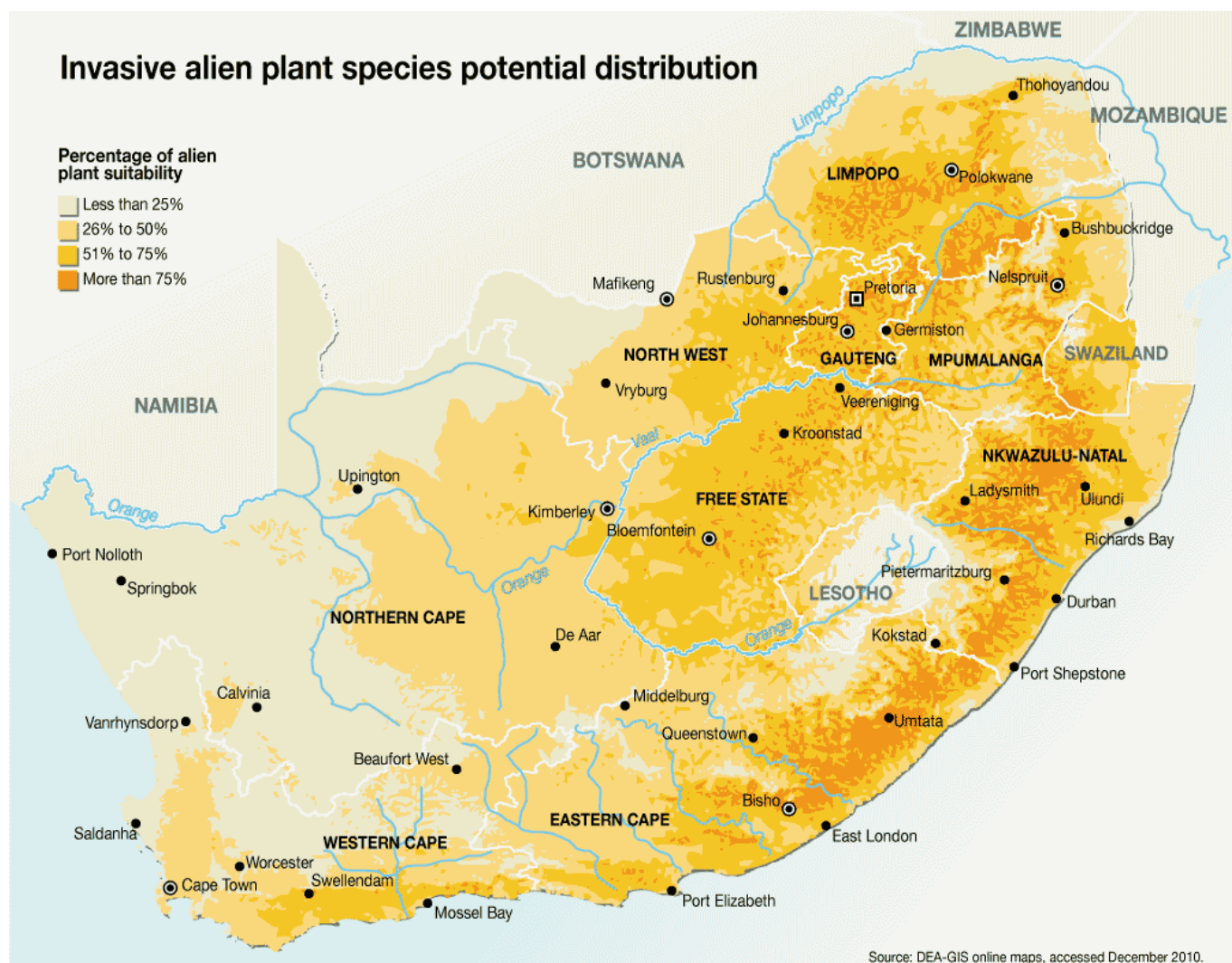
– Working for Water, July/August 2010

have been introduced so far. Of these, about 198 species are deemed invasive, covering 10 per cent of the country. Since the invasive plant species grow by an estimated 5 per cent a year, their presence has dramatic effects on both native species and ecosystems as well as economic activities in the area. In particular, alien plant species generally consume more water than native species, which poses a major problem to many of the country's ecosystems, agriculture and local economies. In fact, it is estimated that alien plant species consume as much as 7 per cent of South Africa's total runoff.¹

Examples of problems attributed to invasive aquatic weeds

- Sunlight is unable to penetrate some of the dense mats formed by invasive species causing destruction of the associated aquatic biodiversity.
- De-oxygenated water.
- Decaying invasive plants affect the smell and the taste of water.
- Canals, pumps and turbines are blocked increasing siltation and aggravating floods.
- Invasive plants provide possible breeding grounds for disease vectors such as mosquitoes and snails.

– National Botanical Institute and Invasive Species Programme 2004



Combating alien invasive plant species

In the fight against invasive alien plant species, the Working for Water programme has used various methods:

Mechanical methods – felling, removing or burning invading alien plants.

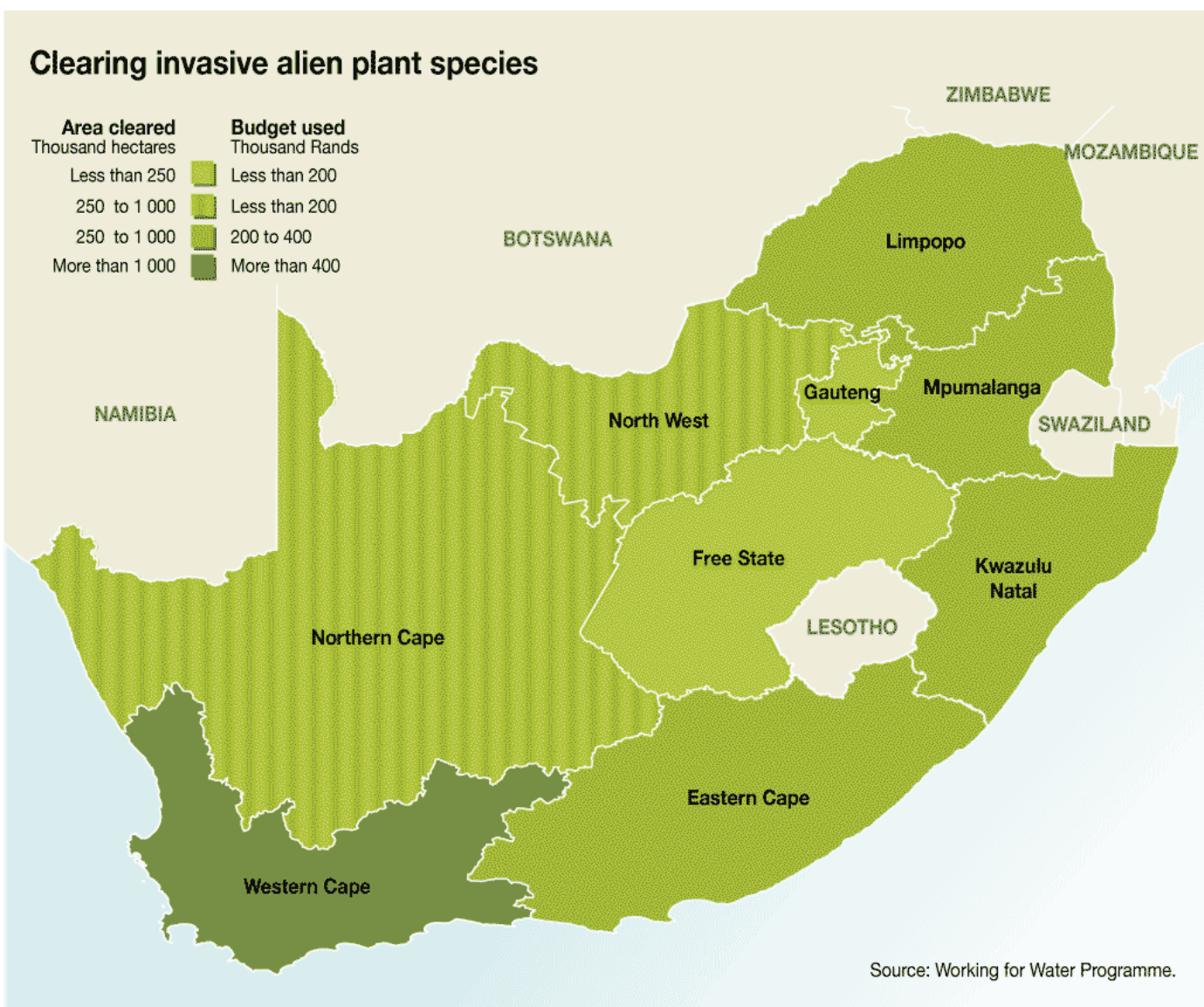
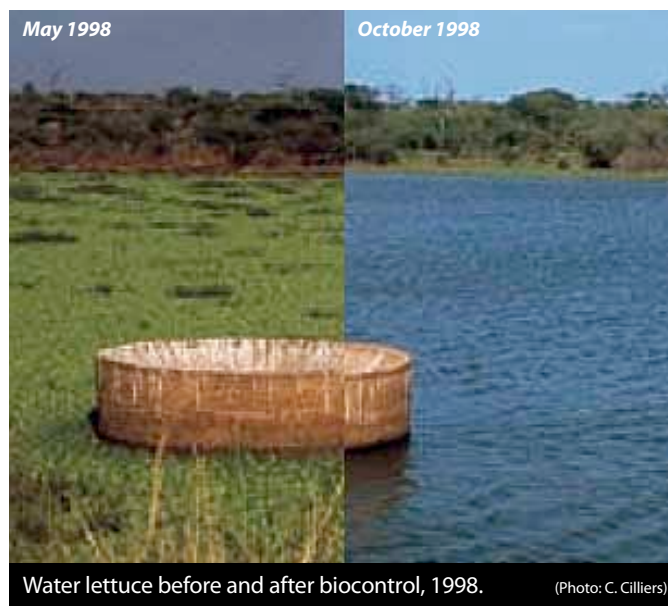
Chemical methods – using environmentally safe herbicides.

Biological control – using species-specific insects and diseases from the alien plant's country of origin. To date 76 biocontrol agents have been released in South Africa against 40 weed species.

Integrated control – combinations of the three approaches above. An integrated approach is often required to prevent high environmental impacts.²

Despite the widespread distribution and extent of alien invasive species in South Africa, actions to control invasive alien plants can have major results. A good example is infestation by water lettuce (*Pistia stratiotes*) originating in South America. The picture shows how water lettuce was combated in 1998 using

biological control, and the major effects this initiative had on the alien plant within a timeframe of only a few months.³





These pictures show the invasion of water hyacinth in the Buffels river in the period 1998 (above) and 2000 (below). The spreading of this aquatic plant, which is indigenous to Latin America, has had a dramatic effect on river ecosystems throughout the country. (Photos: C. Cilliers)



Your legal obligations in relation to alien invasive plants

South African laws on invasive alien plants aim to:

- Prevent introduction of potential invasive species, and
- Manage species, which have become invasive in the country.

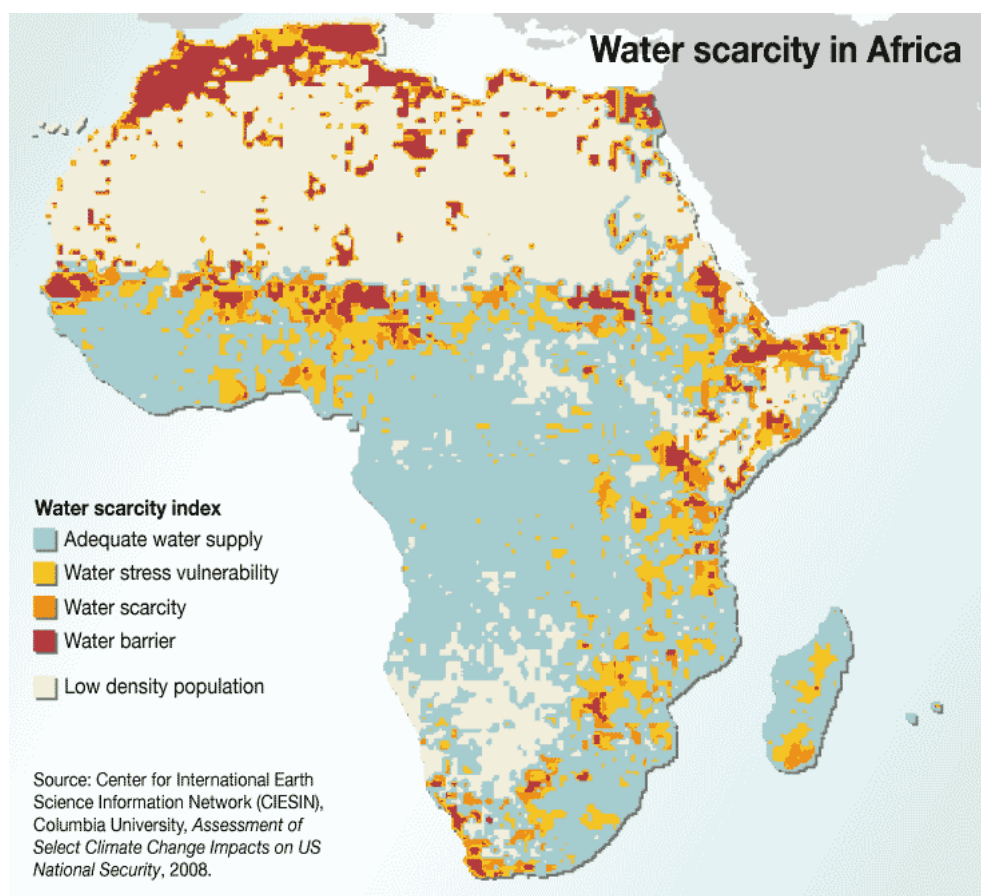
Always remember:

- It is unlawful to bring alien species into South Africa without a permit.
- It is unlawful to sell certain invasive alien plants.
- It is unlawful to have certain invasive alien plants on private property.
- It is unlawful to grow certain invasive alien plants in sensitive areas such as wetlands and riparian areas.⁴

Working for Wetlands

The Working for Wetlands programme was established in 2002 and co-managed by the then Department of Environmental Affairs and Tourism (DEAT), the then Department of Agriculture (DoA) and the then Department of Water Affairs and Forestry (DWAF). In 2004 responsibility for project management was delegated to the South African National Biodiversity Institute (SANBI). The programme advocates the protection, rehabilitation, and sustainable use of the country's wetlands by promoting cooperative governance and partnerships.

Wetlands are essential in providing and storing freshwater, but today more than half of South Africa's wetlands have been destroyed or degraded and it is estimated that by 2025 South Africa will suffer from water scarcity.¹



What is a wetland?

"Land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil"

– South Africa's National Water Act, Act No 36 of 1998

What is threatening South Africa's wetlands?

Because wetlands are so sensitive to water fluctuation, drought and water abstraction can be highly critical to wetland ecosystems. Unsustainable agriculture, with grazing and removal of vegetation, can lead to erosion and land degradation. Urban development, pollution and dam constructions add further stress to wetlands.

Working for Wetlands

The goal of the Working for Wetlands programme is to protect and improve the environment, whilst at the same time providing job opportunities for the poor. This is made possible by training unemployed people to work on improving wetlands. Rural communities are involved through the provision of jobs, education and skills development, and currently the programme is active in all of South Africa's nine provinces.

Making a difference, one wetland at a time

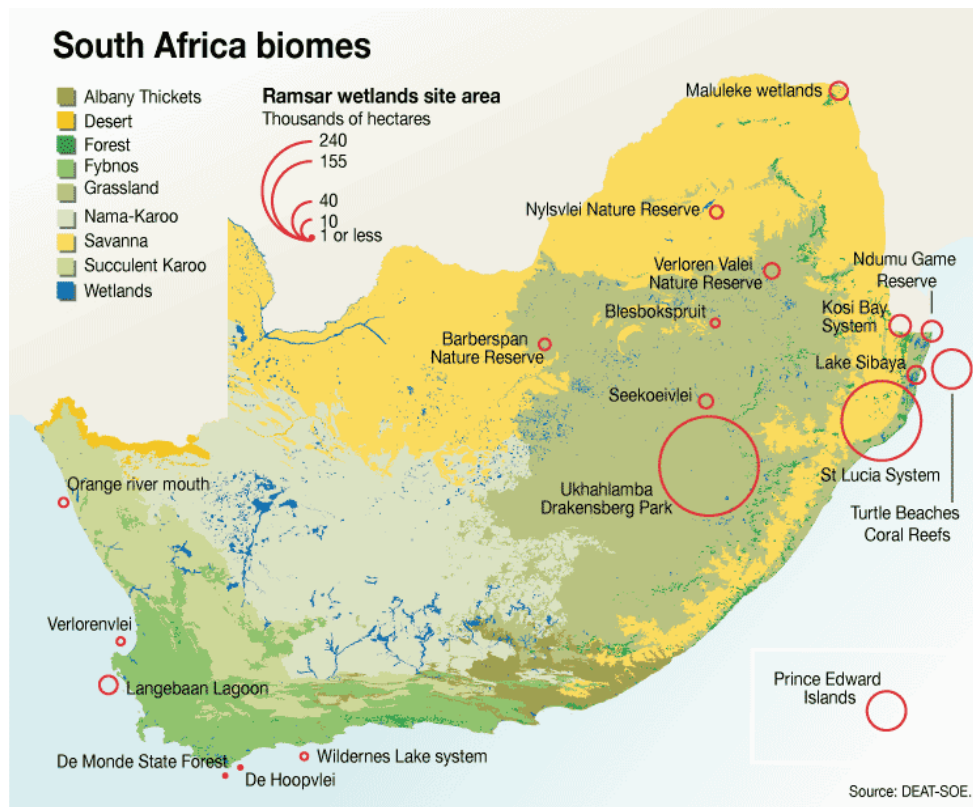
Since 2004, 427 wetlands have been rehabilitated or restored through the Working for Wetlands programme, with a total re-vegetated land area of more than 50 hectares. We believe that a change in the behaviour of people rather than engineering solutions is the key to healthy, sustainable wetlands in the long run.

How do we rehabilitate wetlands?

Workers place rock-filled wire baskets, called gabions, at the bottom of the wetland. This allows water to back up and overflow into the dried out area. The water will spread out across the wetland and push back up towards the head-cut above to ensure that the peat is kept permanently wet. Workers also remove alien invasive plant species that take up large amounts of water from the wetland and suppress other plants. The area is then re-vegetated with indigenous plant species.

Diversity is our strength

South Africa has been described as the third most biodiverse country in the world.² The country is blessed with a rich abundance of biodiversity and a wide range of ecosystems and biomes. Among them are the wetland ecosystems, which occupy approximately 7 per cent of South Africa's total land area. Wetlands are regarded as one of the most productive ecosystems because of all the ecosystem services they provide. But the country's wetlands are under pressure from both natural and human threats and approximately 60 per cent of all wetlands have already been destroyed or degraded, leading to a decrease in services provided.³



Wetlands secure the water supply

South Africa has low annual rainfall and consequently relies on steady access to water resources. The wetland ecosystems act like sponges, soaking up rainwater and releasing it gradually to downstream areas. This minimizes the risk of flooding and soil erosion, and secures a steady supply of freshwater to nearby communities.

Wetlands cleanse water

Wetlands play a critical role in filtering water. Even heavy metals and pesticides are removed, and clean water available for consumption is released to downstream areas.

Wetlands act as carbon sinks

Wetlands remove carbon dioxide and other greenhouse gases from the atmosphere and store it in the vegetation. Restoring and protecting wetlands has a double positive effect on preventing climate change: gases already stored are not released; and the wetlands will continuously remove greenhouse gases from the atmosphere.

Twenty wetlands in South Africa have been classified as Wetlands of International Importance under the Ramsar Convention. Together, these wetlands occupy a total area of 553 178 hectares.

– Ramsar



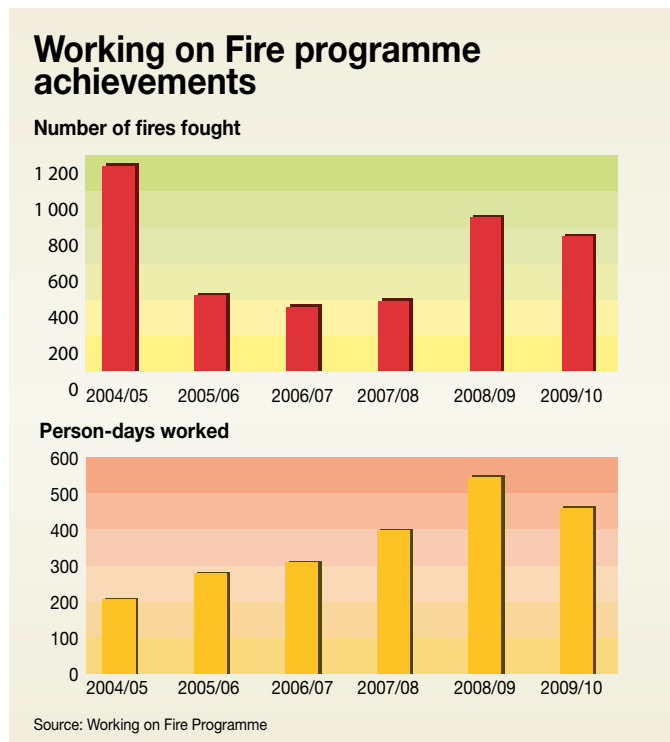
(Photo: Working for Wetlands)

Job creation and training

The Working for Wetlands programme has created almost 10 000 permanent jobs and provided workers with more than 100 000 days of training. Participants have received skills ranging from mixing of cement to identification of invasive species and re-vegetation of compromised areas. The combination of temporary employment, income generation, acquisition of knowledge, and raised self-esteem for the participating individuals, has resulted in an opportunity to escape the vicious circle of poverty and given rise to hopes for the future.

Working on Fire

The Working on Fire programme was established in 2003 and funded mainly by the then Department of Water Affairs and Forestry (DWAF) through the Working for Water programme. The main aim of the programme is to protect life, livelihoods and ecosystem services through integrated fire management.



The goal of the Working on Fire programme is to protect life and livelihoods and ensure a sustainable and well balanced environment. The programme is advocating and assisting with good land management strategies and an integrated fire management regime. At the same time, the programme contributes to black economic empowerment, skills development, social equity and accelerated service delivery that work towards poverty alleviation. The empowerment of communities affected by fire gives them the opportunity to understand the benefits and potential harms related to wildfires.



(Photo: Working on Fire)

Working on fire – key features:

- Wildfires, which occur annually in South Africa, often have serious consequences for the rural poor.
- Since 2004, Working on Fire has fought almost 4 000 wildfires, saving lives, feedstock and homes for people throughout the country.
- At the same time, Working on Fire has created job opportunities and contributed to the development of local economies.

– Wilmerie du Preez, Working on Fire, 2010

Providing jobs while helping society

Working on Fire is regarded as one of the most effective poverty relief and skills development programmes in South Africa. Since 2004 the programme has trained almost 10 000 people, with more than 500 000 days of training. Workers have been trained to provide practical advice on how to protect lives, homes, livestock and crops from wildfires.

Of the programme employees, 93 per cent are between 18 and 36 years old, 29 per cent are women, 98 per cent are black and 2 per cent are people with disabilities. They are employed full-time on a one-year contract basis, and the contract can be renewed annually, based on the worker's performance.

– Wilmerie du Preez, Working on Fire

How can YOU prevent wildfires?

- Practice integrated fire management.
- Look after your own land by removing hazardous invasive alien plants.
- Establish fire breaks and ensure that you have sufficient equipment and trained personnel available during fire-danger weather.
- Co-operate with neighbours in your fire prevention and suppression efforts.
- Prepare a plan of action to address: fire prevention, the location of fire breaks, controlled burning pattern, and suppression of fire.

– Firewisesa.org.za

Wildfires

What is a wildfire?

A wildfire is any uncontrolled fire in combustible vegetation that occurs in the countryside or a wilderness area. There are three categories of wildfire: surface fire, ground fire and crown fire. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor and down to the mineral soil. A crown fire spreads rapidly by wind and moves quickly by spreading across treetops.

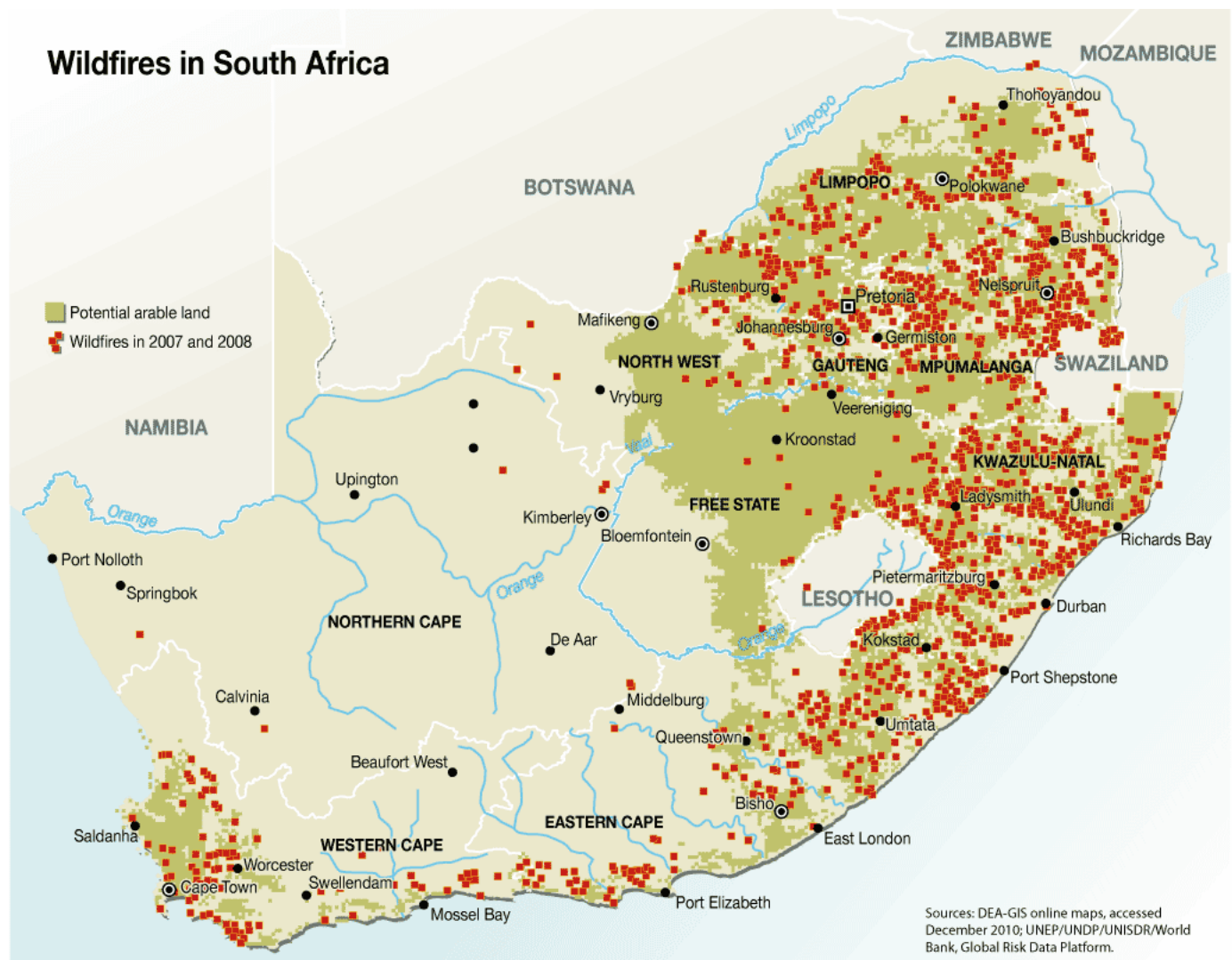
As a natural part of the South African ecosystems, wildfires have many positive effects. They clear the ground through burning of dead leaves and branches. The fires remove parts of the overhead forest canopy, allowing sunlight into the lower parts of the forest. Some plant species are dependent on fire to begin their growth process, and many animals find food in newly burned trees. Despite these positive qualities, to decrease the risk of environmental losses, wildfires have to be managed properly.

What causes a wildfire?

Wildfires occur naturally during periods of increased temperature and droughts. But the fire hazard is strengthened by human impacts such as forestry and agriculture, especially shifting cultivation. National parks and nature reserves are also affected by wildfires through illegal hunting. This is combined with a build-up of fuel loads from both natural and commercial plants, and increasing infestation by invasive plants.

Who is affected by wildfires?

Wildfires mostly affect rural settlements, but to an increasing degree also urban areas, which have developed in fire-prone areas. The impact of wildfires in natural vegetation on the poorest groups of the population cannot be overstated. Many informal settlements are located in the transition zone between densely settled land and land carrying high fuel loads. If not properly managed such areas pose a high risk of wildfires, which may inflict serious losses on local residents.



Notes

CHAPTER 1

1. The Australian Government. (2001). *Australia State of the Environment Report: Biodiversity Theme Report*. Australia: Commonwealth Scientific and Industrial Research Organisation (CSIRO).
2. United Nations Development Programme (UNDP). (2010). *Human Development Report 2010. The Real Wealth of Nations: Pathways to Human Development*. New York: UNDP.
3. The Republic of South Africa: the Presidency. (2009). *Development Indicators 2009*. Pretoria: The Presidency.
4. Mr. Thabo Mbeki. *State of the Nation Address*. (February 2003).
5. Department of Environmental Affairs and Tourism (DEAT). (2005). *South Africa's National Biodiversity Strategy and Action Plan*. Pretoria: DEAT.

CHAPTER 2

1. At the time the programme was referred to as the Poverty Relief programme.
2. Department of Environmental Affairs and Tourism (DEAT). (2005). *South Africa's National Biodiversity Strategy and Action Plan*. Pretoria: DEAT.
3. Department of Public Works. *Expanded Public Works Programme; Five-Year Report; 2004/2005–2008/2009*. Pretoria: Department of Public Works.
4. Department of Environmental Affairs and Tourism (DEAT). *Social Responsibility Programme Information Guide; Funding Application Cycle 2007/2008–2009/2010*. Pretoria: DEAT.
5. *Working for the Coast: How does Working for the Coast Operate?* Accessed at: www.environment.gov.za/ProjProg/Coast-Care/how_does_it_work.htm (date of access 20.12.10).
6. *Working for the Coast: development through biodiversity*. Accessed at: www.wftc.co.za/ (date of access 16.11.10).

CHAPTER 3

1. Garson, P. (2002). *Turning the green alien tide*. Accessed through the Working for Water webpage at: www.southafrica.info/about/sustainable/workwater.htm (date of access 20.12.10).
2. Department of Water Affairs (DWA). (2010). Working for Water online information page at: www.dwaf.gov.za/wfw/default.aspx (date of access 02.12.10).
3. National Botanical Institute and Invasive Species Programme. (2004). *Invasive alien species – A challenge to NEPAD. Africans working together to protect life and livelihoods*.
4. Working for Water (July/August 2010). *Working for Water E-News*, 3:3. Source taken from: Working for Water. (2004). *South African Journal of Science*, 100, January/February 2004.
5. Working for Water. (2010). *Working for Water E-News*, 3:4, September/October 2010.

CHAPTER 4

1. United Nations Economic Commission for Africa (UNECA). (1999). *Addis Abeba; Global Environmental Outlook 2000 (GEO)*. London: UNEP, Earthscan.
2. The Australian Government. (2001). *Australia State of the Environment Report: Biodiversity Theme Report*. Australia: Commonwealth Scientific and Industrial Research Organisation (CSIRO).
3. As cited in: South African Water Research Commission. Accessible via www.wrc.org.za/News/Pages/WorldWetlands-Day-2February2010AnAnswerToClimateChange.aspx (date of access 08.12.10).

Working for the Environment is a publication launched by the Department of Environmental Affairs (former Department of Environmental Affairs and Tourism). It aims to inform and educate the general public in South Africa on the vital work currently being done by the government to protect the environment and alleviate poverty. This publication, developed and prepared in close cooperation with UNEP/GRID-Arendal, covers five ongoing programmes under the umbrella of the government's Expanded Public Works Programme (EPWP): the Social Responsibility Programme and its Working for the Coast sub-programme, Working for Wetlands, Working for Water, and Working on Fire.

