

## **Chapter 13: Responses to environmental change**

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There are a wide number of responses to environmental change, including:

- Policy and legislation;
- Regulations;
- Environmental research;
- Management;
- Environmental education; and
- Public preferences.

Responses are directed from various levels, starting from the international or regional level all the way down to the individual members of the public. Responses are societal actions taken collectively or individually to enhance positive environmental change and mitigate negative environmental change.

This chapter provides an overview of the responses to environmental change in the Eastern Cape Province. Overarching international / regional and national responses as well as provincial responses are addressed. The responses are provided in Table 13.1 overleaf.

**Table 13.1: Responses to environmental change in the Eastern Cape Province**

<b>INTERNATIONAL / REGIONAL RESPONSES</b>	
United Nations Framework Convention on Climate Change (UNFCCC, 2004)	<a href="http://unfccc.int/index.html">http://unfccc.int/index.html</a>
Montreal Protocol on Substances that Deplete the Ozone Layer (UNEP, 2004)	<a href="http://www.unep.org/ozone/Treaties_and_Ratification/2B_montreal%20protocol.asp">http://www.unep.org/ozone/Treaties_and_Ratification/2B_montreal%20protocol.asp</a>
United Nations Convention to Combat Desertification (UNCCD, 1994)	<a href="http://www.unccd.int">http://www.unccd.int</a>
United Nations Convention on Biological Diversity (UNCBD, 1992)	<a href="http://www.biodiv.org">http://www.biodiv.org</a>
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973)	<a href="http://www.cites.org">http://www.cites.org</a>
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention, 1971)	<a href="http://www.ramsar.org">http://www.ramsar.org</a>
Convention of the Conservation of Migratory Species of Wild Animals (Bonn Convention) (UNEP, 1979)	<a href="http://www.unep-wcmc.org">http://www.unep-wcmc.org</a>
United Nations Convention Concerning the Protection of World Cultural and Natural Heritage (UNESCO, 1972)	<a href="http://whc.unesco.org">http://whc.unesco.org</a>
Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (UNEP, 1989)	<a href="http://www.basel.int">http://www.basel.int</a>
The Rotterdam Convention (Prior Informed Consent) (UNEP & FAO, 2004)	<a href="http://www.pic.int">http://www.pic.int</a>
Rio Declaration on the Environment and Development (UNEP, 1992a)	<a href="http://www.unep.org/Documents/Default.asp?DocumentID=78&amp;ArticleID=1163">http://www.unep.org/Documents/Default.asp?DocumentID=78&amp;ArticleID=1163</a>
Agenda 21 (UNEP, 1992b)	<a href="http://www.un.org/esa/sustdev/documents/agenda21/index.htm">http://www.un.org/esa/sustdev/documents/agenda21/index.htm</a>
United Nations Office of the High Commissioner for Human Rights (UNHCHR, 2004)	<a href="http://www.unhchr.ch">http://www.unhchr.ch</a>
Southern African Development Community (SADC, 2004)	<a href="http://www.sadc.int">http://www.sadc.int</a>

New Partnership for Africa's Development (NePAD, 2004)	<a href="http://www.nepad.org">http://www.nepad.org</a>
United Nations Millennium Declaration and Millennium Development Goals (UNDP, 2004)	<a href="http://www.undp.org/mdg/">http://www.undp.org/mdg/</a>
<b>NATIONAL RESPONSES</b>	
Constitution of the Republic of South Africa, Act 108 of 1996 (RSA, 1996)	<a href="http://www.polity.org.za/html/govdocs/legislation/1996/index.html">http://www.polity.org.za/html/govdocs/legislation/1996/index.html</a>
National Environmental Management Act 107 of 1998 (RSA, 1998a)	<a href="http://www.polity.org.za/html/govdocs/legislation/1998/index.html">http://www.polity.org.za/html/govdocs/legislation/1998/index.html</a>
National Water Act 36 of 1998 (RSA, 1998b)	<a href="http://www.polity.org.za/html/govdocs/legislation/1998/index.html">http://www.polity.org.za/html/govdocs/legislation/1998/index.html</a>
Environment Conservation Act 73 of 1989 (RSA, 1989)	<a href="http://www.acts.co.za/enviro/enviro.htm#enviro_environment_conservation_act_no_73_of_1989.htm">http://www.acts.co.za/enviro/enviro.htm#enviro_environment_conservation_act_no_73_of_1989.htm</a>
National Forests Act 84 of 1998 (RSA, 1998c)	<a href="http://www.polity.org.za/html/govdocs/legislation/1998/index.html">http://www.polity.org.za/html/govdocs/legislation/1998/index.html</a>
Conservation of Agricultural Resources Act 43 of 1983 (RSA, 1983)	<a href="http://www.dwaf.pwv.gov.za/wfw/Legal/Docs/doc/Prom%20080301%20Eng.doc">http://www.dwaf.pwv.gov.za/wfw/Legal/Docs/doc/Prom%20080301%20Eng.doc</a>
Soil Conservation Act 76 of 1969 (RSA, 1969)	No website
Marine Living Resources Act 18 of 1998 (RSA, 1998d)	<a href="http://www.polity.org.za/html/govdocs/legislation/1998/index.html">http://www.polity.org.za/html/govdocs/legislation/1998/index.html</a>
Water Services Act 108 of 1997 (RSA, 1997a)	<a href="http://www.polity.org.za/html/govdocs/legislation/1997/index.html">http://www.polity.org.za/html/govdocs/legislation/1997/index.html</a>
Restitution of Land Rights Act 22 of 1994 (RSA, 1994)	<a href="http://www.polity.org.za/html/govdocs/legislation/1994/index.html">http://www.polity.org.za/html/govdocs/legislation/1994/index.html</a>
World Heritage Convention Act 49 of 1999 (RSA, 1999a)	<a href="http://www.polity.org.za/html/govdocs/legislation/1999/index.html">http://www.polity.org.za/html/govdocs/legislation/1999/index.html</a>
National Heritage Resources Act 25 of 1999 (RSA, 1999b)	<a href="http://www.polity.org.za/html/govdocs/legislation/1999/index.html">http://www.polity.org.za/html/govdocs/legislation/1999/index.html</a>
Disaster Management Act 57 of 2002 (RSA, 2002)	<a href="http://www.polity.org.za/pol/acts/2002/">http://www.polity.org.za/pol/acts/2002/</a>
Local Government Municipal Systems Act 32 of 2000 (RSA, 2000)	<a href="http://www.polity.org.za/html/govdocs/legislation/2000/index.html">http://www.polity.org.za/html/govdocs/legislation/2000/index.html</a>
Local Government Municipal Structures Act 117 of 1998 (RSA, 1998e)	<a href="http://www.polity.org.za/html/govdocs/legislation/1998/index.html">http://www.polity.org.za/html/govdocs/legislation/1998/index.html</a>
Housing Act 107 of 1997 (RSA, 1997b)	<a href="http://www.gov.za/acts/1997/a107-97.pdf">http://www.gov.za/acts/1997/a107-97.pdf</a>

Various Bills and White Papers (e.g. Air Quality Management Bill, Biodiversity Bill, Protected Areas Bill, Coastal Management Bill, White Paper for Sustainable Coastal Development and the White Paper on Population Policy)	
<b>PROVINCIAL RESPONSES</b>	
Cleaner production mechanisms	Cleaner technologies are production processes and/or methods that strive to prevent pollution while at the same time having economic and environmental benefits such as reduction and/or finding of alternatives for raw materials, energy consumption and waste disposal (Hietkamp, <i>pers comm.</i> 2003).
Eastern Cape Biodiversity Strategy	The Chief Directorate: Environmental Affairs of the Eastern Cape Department of Economic Affairs, Environment and Tourism recently developed a biodiversity strategy for the Province (DEAET, 2003a).
Working for Water Programme, Working for Wetlands, and the River Health Programme	The Working for Water Programme, an initiative by the Department of Water Affairs and Forestry (DWAFF), promotes the eradication of alien vegetation in South Africa, and supports the development of biological weed control (Olickers and Hill, 1999). WFW is active in the Eastern Cape Province, with activities in the Albany / Cadadu, Balfour, Katberg, Kokstad, Madiba Bay, Qolora, Port St. Johns, Mbashe, and Baviaanskloof areas. The Working for Wetlands project is an initiative that identifies and rehabilitates badly degraded wetlands. The National Aquatic Biomonitoring Programme (River Health Programme) is active in the Eastern Cape Province and provides valuable monitoring data for the effective management of riverine ecosystems in the Province. DWAFF leads the River Health Programme, which aims to collect data on the state of South Africa's rivers and to thereafter establish along term monitoring system (IWR, 2003).
Working for the Coast	The Working for the Coast project focuses on environmental rehabilitation and improvement as well as social issues, such as capacity building, job creation and awareness raising of South Africa's coastal communities (Coastal Management Office, 2003).
Eastern Cape Private Nature Reserve Association	Private land owners have responded to biodiversity loss by forming conservancies and initiatives such as the Eastern Cape Private Nature Reserve Association, otherwise known as INDALO. The Eastern Cape Game Managers Association (ECGMA) currently has 750 members, which include professional hunters, hunting contractors, game ranchers, eco-tourism safari operators, taxidermists and conservationists (WildNet Africa, 2001).
Subtropical Thicket Ecosystem Planning (STEP), the Succulent Karoo Ecosystem Planning (SKEP) and the Cape Action Plan for the Environment (CAPE) projects	The STEP, SKEP and CAPE projects are examples of bioregional conservation planning initiatives at a regional scale (NBI, 2003). Their emphasis is on the expansion of protected areas and on promoting conservation-friendly practices on unconserved land. Mega parks, being greater than 500 000 hectares, provide an important management solution, as they are large enough to conserve not only species, but also the pattern and evolutionary processes that create the biodiversity of the Eastern Cape Province. The proposed consolidation and expansion of the Baviaanskloof Conservation Area into the Baviaanskloof Mega-Reserve Project will be the first mega park in Eastern Cape (The WILD Foundation, 2003). Although the proposed Greater Addo National Park Initiative will not attain mega park status, being 398 000 hectares once completed, it will also make a significant contribution to environmental and social sustainability (Kerley and Boshoff, 2003). Other plans for park expansions include the Amatole Biosphere Reserve linked to a proposed Great Fish River conservancy, the Greater Pondoland National Park linked to a Wild Coast Conservation area, and the Maluti-Drakensberg Transfrontier National Park (DEAET, 2003a).

<p>Eastern Cape Protected Areas Bill, and the Eastern Cape Environmental Conservation Bill</p>	<p>At a provincial level, the Province of the Eastern Cape has developed its own policies for environmental management. New policies that have recently been approved by the Legislature of the Eastern Cape are Protected Areas Bill (Province of the Eastern Cape, 2002a) and the Eastern Cape Environmental Conservation Bill (subsequently passed as the Eastern Cape Environmental Conservation Act No. 13 of 2003) (Province of the Eastern Cape, 2002b). Associated with the new policy mandates, the DEAET is also restructuring and recruiting so as to be most effective in meeting its policy (Sokupa, <i>pers comm.</i>, 2004).</p>
<p>Environmental Implementation Plan (EIP)</p>	<p>In 2003, the DEAET produced the Eastern Cape Province's first Environmental Implementation Plan (EIP) (DEAET, 2003b). As per the National Environmental Management Act No. 107 of 1998 (RSA, 1998a), the EIP has been developed to co-ordinate and harmonise the environmental policies, plans, programmes and decisions by various provincial and national governments that operate in the Eastern Cape Province. The EIP is meant to facilitate intra-governmental co-ordination on environmental matters in the Eastern Cape Province. DEAET has not been very successful in achieving this and will be looking at establishing an intra-governmental forum for the implementation of the EIP in the future (Sokupa, <i>pers comm.</i>, 2004).</p>
<p>Integrated Waste Management Plan</p>	<p>The Province is in the process of developing an Integrated Waste Management Plan. At present district municipalities are developing their Integrated Waste Management Plans. Once all the municipalities have completed this exercise, the provincial department will collate the plans and develop an Eastern Cape Integrated Waste Management Plan. It is expected that this will happen through the course of 2004 (Sokupa, <i>pers comm.</i>, 2004).</p>
<p>Catchment Management</p>	<p>Catchment management in South Africa takes place through statutory bodies called Catchment Management Agencies (CMA) within a defined water management area. These agencies are established once the Minister has published a notice in the government gazette and aim to manage and coordinate water related activities of water users within the water management area (DWAF, 2002). While there are no CMAs established yet in the Eastern Cape, the regional office of DWAF is responsible for managing the Mzimvubu to Keiskamma and the Fish to Tsitsikamma Water Management Areas (WMAs).</p>
<p>Routine monitoring and data collection</p>	<p>A network of monitoring stations and data collection points exist within the Eastern Cape Province. These stations record data relevant for the evaluation of surface and groundwater quality and provide valuable hydrological information. The Health Act (Act 63 of 1977) also makes provision for local authorities to monitor water quality (RSA, 1977).</p>
<p>Integrated Spatial Development Strategy</p>	<p>The Integrated Spatial Development Strategy (Eastern Cape Office of the Premier, 2001) consists of the following components: (1) Focus investment and upgrade existing rural settlements, villages and towns in a phased manner according to available resources and development priorities; (2) Reinforce development nodes and development areas through building on strengths and bulk infrastructure; and (3) Focus on economic upliftment and employment creation through Local Economic Development (LED), agriculture, Small Medium and Micro Enterprises (SMME's) and industrial programmes.</p>
<p>Strategy Framework for Growth and Development 2004-2014</p>	<p>The Eastern Cape Provincial Government is in the process of preparing a Provincial Growth and Development Plan (PGDP) for the period 2004-2014 (Eastern Cape Office of the Premier, 2003a). This PGDP is being developed as a consensus between the Provincial Government and its social partners, including</p>

	<p>municipalities in the Eastern Cape Province. The Executive Committee, Province of the Eastern Cape has already adopted a <i>Strategy Framework for Growth and Development 2004-2014</i> (Eastern Cape Office of the Premier, 2003a), which is the pre-eminent framework for all provincial government planning over the its implementation period.</p>
<p>LandCare Programme</p>	<p>Agriculture plays a key role in the development of the Eastern Cape Province. Therefore the aim of the LandCare Programme is to increase the long-term productivity and ecological sustainability of the land resource, thereby ensuring a future within the agricultural sector (LandCare South Africa, 2002).</p>
<p>Land Reform</p>	<p>The Land Reform process was introduced by the Government in 1994 and includes (DLA, 2003): (1) Returning land lost due to racially discriminatory laws (which could also be achieved through monetary compensation); (2) Land redistribution, by enabling disadvantaged people to buy land; and (3) Land tenure reform, which aims to bring all people occupying land under one system of landholding. The Land Reform process has the potential to cause major conflicts over land-use. This process could present an obstacle to development and co-ordinated management of land use if not properly managed and executed.</p>
<p>Fish River and Wild Coast Spatial Development Initiatives (SDIs), West Bank and Coega Industrial Development Zones (IDZs)</p>	<p>To facilitate integrated planning sensitive to the environment, the Province is in the process of implementing two Spatial Development Initiatives (SDIs), namely the Fish River SDI and the Wild Coast SDI, and two Industrial Development Zones (IDZs), namely the West Bank (East London) IDZ and the Coega IDZ. The latter, 20 km east of the Nelson Mandela Metropole, was the first IDZ to be earmarked and is one of the biggest initiatives ever undertaken in South Africa. Plans for the development of the area as an ex port-orientated zone include the building of a deepwater port (Eastern Cape Province, 2003).</p>
<p>Eastern Cape Coastal Management Programme</p>	<p>Each province is required to produce a Provincial Coastal Management Programme in order for provincial lead agents to conduct integrated coastal zone management. This has led to the formulation of the Eastern Cape Coastal Management Programme (ECCMP) which is currently nearing completion and outlines a plan of action to achieve the goals and objectives set out in the White Paper within the Province. Central to the ECCMP is the establishment of a Coastal Management Unit (CMU) consisting of a dedicated team of staff who will facilitate coordination between government departments involved in coastal management, and be responsible for the timeous implementation, monitoring and review of the coastal management plan. This is a positive step towards ensuring sustainable management of the marine and coastal resources within the Eastern Cape Province (Coastal and Environmental Services, 2004).</p>
<p>Local Economic Development</p>	<p>The flagship poverty alleviation programme in the Province is 'Local Economic Development' of LED (DPLG, 2001a; DPLG, 2001b). Since June 2001, the Department of Provincial and Local Government has refined the LED policy to concentrate on the poor, specifically: Low-income people; People living in rural areas of newly demarcated municipalities; Women and children; The elderly; People with disabilities; People who are HIV-positive or who are living with AIDS; and The environment (DPLG, 2001b). LED has not yet delivered a successful programme to attack the root cause of poverty in the Eastern Cape. Until the root causes are addressed, the Province will be obliged to continue with special palliative programmes on humanitarian grounds. (Eastern Cape Office of the Premier, 2003b).</p>