

2 CASE STUDY OVERVIEW

In this chapter we provide an outline of the case studies focused on in this report, as well as some observations on their characteristics.

2.1 Case Studies

Brief descriptions of the six case studies are set out below.

- **Rehabilitation of the Transvaal & Delagoa Bay Colliery, Witbank, South Africa**
Following closure of the Transvaal & Delagoa Bay coal mine in 1953, the area became unsafe due to a combination of subsidence and underground burning of remaining support pillars. The South African Department of Minerals and Energy in conjunction with the Department of Water Affairs and Forestry initiated a programme to identify and assess potential rehabilitation measures for the mine. An innovative public participation programme was undertaken with local communities to generate potential solutions as well as educate and inform local residents of the hazards associated with the mine.
- **Sasol Natural Gas Project – Temane, Mozambique to Secunda, South Africa**
An Environmental Assessment was undertaken of a natural gas project, including the gas field development, production plant and the pipeline between Temane in Mozambique and Secunda in South Africa. Public participation posed a particular challenge due to the linear and trans-boundary nature of the development.
- **Skorpion Zinc Project, Sperrgebiet, Namibia**
The Skorpion Zinc project involved the development of a new zinc mine and refinery in southern Namibia in a 'greenfield' area. The project was characterised by ongoing close liaison and communication with stakeholders throughout the project from the initial environmental assessment and feasibility stage, through to the construction and implementation of the project.
- **Sun International Hotel Development, Livingstone, Zambia**
Sun International redeveloped a site on the Zambezi river upstream of the Victoria Falls. The project was proposed in a World Heritage Site and the environmental assessment involved one of the first applications of Zambia's environmental assessment regulations.
- **Popa Falls Hydro Power Preliminary Environmental Assessment, Namibia**
Namibian power utility company NamPower is currently investigating the feasibility of a hydropower station on the Okavango River at Popa Falls in Northern Namibia. The project has a broad range of stakeholders, from local communities and tour operators, through to government and international conservation groups. It also

includes transboundary issues and potential impacts on a large, unusual and particularly sensitive ecosystem.

- **Container Handling, Port of Durban, South Africa**

An Integrated Environmental Management process was initiated by the national port authority for the development of new container handling facilities in the Port of Durban, South Africa. The process went through scoping, environmental assessment and negotiation phases. The project was initiated when the port authority recognised that existing container handling facilities were inadequate to meet the growing rate of container traffic passing through the Port of Durban.

2.2 Typology of Case Studies

The characteristics of the case studies show both similarities and differences. Below we highlight some of these for illustrative purposes.

Nature of project: The case studies range from greenfields developments such as the Skorpion Zinc Project to the redevelopment of existing sites in the case of the Sun International project to the rehabilitation of a site in the case of the Transvaal and Delagoa Bay Colliery case study.

Regulatory context: The majority of the environmental assessments were undertaken in the context of a legal or policy requirement for the assessment of impacts of the proposed projects, apart from the Durban Port study which was undertaken before the operationalisation of South Africa's environmental impact assessment regulations.

Type of assessment: The case studies largely include conventional environmental assessments. The Popa Falls Hydropower project entailed a preliminary Environmental Assessment. The Transvaal and Delagoa Bay Colliery project involved a rehabilitation planning exercise together with awareness raising that incorporated elements of environmental assessment. The Port of Durban case included aspects of participatory planning and collective problem solving, in addition to its conventional environmental assessment component.

Extent of project impacts: The extent of project impacts range from the localised impacts associated with the Transvaal and Delagoa Bay Colliery to the trans-boundary nature of the impacts associated with the Sasol Natural Gas project and the Popa Falls Hydropower project.

Biophysical context: The affected areas included already disturbed areas such as that associated with the T&DB project to pristine areas such as that associated with the Skorpion Zinc project, where issues associated with impacts on the natural environment were potentially significant.

Geographic context: The geographic context was varied, from sparsely populated areas such as the Skorpion Zinc project to more densely populated areas such as those experienced in the Mozambique and Popa Falls projects. There is also a spread of rural and urban projects. The Skorpion Zinc and Sasol Natural Gas projects are examples of the former, while the Port of Durban process illustrates the latter.

Socio-economic contexts: Stakeholders involved in the project encompassed a broad range of society in the various countries. With the exception of the Port of Durban process, the projects included the involvement of poorer, marginalised communities. In the Port of Durban case, affluent stakeholders were prominent in the exercise.
