

## CSO CASE STUDY 16

Title: **The Power of Knowledge. CSOs and Environmental Policy Making in South Africa**

Country: **South Africa**

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### Introduction

This case study explores how two South African civil society organisations (CSOs) have used scientific evidence to influence air pollution management in one of the country's pollution hot-spots, the South Durban industrial basin. The basin covers approximately 60 km<sup>2</sup> and includes a mix of industrial and commercial land use juxtaposed with residential communities, comprising approximately 250,000 people. This situation presents considerable challenges for the government's agenda of reconciling economic development with environmental sustainability.

In 2000, the *South Durban Community Environmental Alliance* (SDCEA) in collaboration with a national environmental CSO, *groundWork*, launched an air monitoring project for South Durban. Their findings, which revealed high levels of benzene and 18 other pollutants in the air, triggered the establishment of South Africa's first local air quality management programme, the South Durban Multi-Point Plan (MMP).

### The type and extent of policy change

Until 2005, the legislative framework governing air quality management in South Africa was the Atmospheric Air Pollution and Prevention Act (APPA) of 1965. This legislation was based on a top-down regulatory approach in which emission permits were granted without the requirement of ambient air quality assessments considering local meteorological and topographical conditions. Local authorities did not have any jurisdiction over air quality management. This changed when, in 2005, the South African government passed the Air Quality Act which, in line with the Constitution, places strong emphasis on the subsidiarity principle and encourages public participation in policy making through consultative processes.

The development of the Air Quality Act was strongly influenced by the experience of the South Durban Multi-Point Plan (MMP) which was launched in 2000 by the federal Minister of Environmental Affairs and Tourism. Funded by the government, international organisations (e.g. DANIDA) and the industry sector, the MMP is based on a multi-stakeholder approach, including community organisations, local business, and different departments of government at the local, provincial and national levels.

The objectives of the MMP are to determine the health and environmental risks of the area, strengthen the local government's pollution management team, develop a local legal framework, review the minimum standards for priority pollutants, and establish an air quality monitoring system. The last of these is now in place and addresses one of the greatest problems which has pervaded environmental policy making in Durban for many years. In the absence of the government's ability to independently monitor emissions, data on air pollution was collected and analysed by either industry or CSOs and thus

considered unreliable by the other party. Hence environmental policy making remained in a deadlock of disagreement over knowledge and competences.

### **a) Political context**

As a result of South Africa's apartheid-past, the government places great emphasis on the inclusion of previously politically marginalized groups in the policy making process. However, in a field like environmental policy, which is based on highly specialised knowledge and technology, the goal of broad participation is subject to the concentration of relevant knowledge and technology in one small sector of society and industry. As a consequence of apartheid policies on education, only a few people hold higher qualifications in the relevant fields. Most of them are employed by the private sector drawn by higher salaries. As a result, both government and CSOs are at a considerable disadvantage vis-à-vis industry in terms of scientifically trained human and technological resources.

While capacity building on the part of both the government and CSOs has helped to counter-balance the voice of industry in the political debate, the gap in terms of knowledge and resources remains one of the greatest problems for the government to enforce environmental policies. Additionally, enforcement is constrained by the government's dependence on economic growth and employment. In view of industry growth rates of around 5 percent, Durban's municipality identified the petrochemical industry, one of the major polluters, as strategically important for the economic development of the region.

### **b) The ways CSOs tried to affect policy change (strategy and activities)**

The strategy of SDCEA and *groundWork* to affect policy change consists of several components such as environmental education and capacity building in fence-line communities; the mobilisation of support through public events, the media and a network of national and international partner-CSOs; lobbying the government; engaging directly with industry; and monitoring. Monitoring comprises two main elements, the recording of industrial incidents and the measuring of air quality through the Bucket Brigade air sample technology (see below). Monitoring represents an important aspect of mobilisation since it enables the CSOs to back their arguments with 'hard data'. This strengthens their credibility and legitimacy in a political debate which is framed largely in scientific terminology. Furthermore, the Air Quality Project plays a major role in improving the capacity and confidence of community organisations, such as SDCEA, to negotiate local policy change with government and industry.

### **c) Nature of research based evidence (content, source, reliability)**

The Air Quality project used by SDCEA in collaboration with *groundWork* is based on the Bucket Brigade system which was developed by community organisations in the United States in the late 1990s. A small vacuum pump draws air into a specialised clear plastic bag inside the bucket air sampler. The bag is then sealed and sent to a laboratory in the US. Here, the contents of the bag are run through a GCMS (Gas Chromatograph Mass Spectrometer), which compares the fingerprints of the sample with the fingerprints of toxic gases, such as sulphur dioxide, nitrous oxides and benzene, in the computer library. The Bucket Brigade technology has been approved by the US Environmental Protection Agency (EPA).

As additional evidence for the health impact of pollution SDCEA and *groundWork* monitor clinic records and ask teachers to record the health complaints of students.

#### **d) Mechanisms used to get the evidence into the policy process**

SDCEA and *groundWork* have pursued a range of strategies to get their air quality data into the policy process. Firstly, they have presented their findings to government authorities through both formal and informal channels. One important formal channel has been opened up by the government's emphasis on participatory environmental governance, such as the consultative processes surrounding the development of the national Air Quality Act and the Multi-Point Plan. However, the effectiveness of participatory governance largely depends on the accessibility of the participant groups to the relevant information. SDCEA's and *groundWork*'s ability to effectively use participatory governance arrangements greatly increased through their acquisition of relevant scientific knowledge and technology.

On the informal level, SDCEA and *groundWork* have presented their data to local authorities in order to enable them to challenge data provided by the industry sector. Before the establishment of the monitoring network as part of Durban's Multi-Point Plan, the government's main source of information about emissions was data provided by the industry sector. In this situation, the data provided by SDCEA and *groundWork* presented a valuable additional source of information for the government in negotiations with industry.

SDCEA and *groundWork* have also used their air quality data to mobilise the media, either to publicly shame individual companies or to attract attention to the general problem of pollution in South Durban. Although industry challenged the validity of the data, the air monitoring programme enhanced the credibility of SDCEA's and *groundWork*'s claims in the eyes of the media. After the launch of the air monitoring project in 2000, the national media used the data for a series of articles and television programmes. The increased media attention triggered the launch of Durban's Multi-Point Plan whose multi-stakeholder approach institutionalised yet another channel for SDCEA and *groundWork* to formally introduce their evidence into the policy process.

#### **e) International factors**

Two main external factors have shaped the ability of SDCEA and *groundWork* to influence environmental policy through the use of scientific evidence, the link to an international network of environmental CSOs and an increasing interest on part of donor agencies in the environmental policy.

The link to environmental CSOs in other countries, such as *Friends of the Earth* and the California-based *Communities for a Better Environment*, provided SDCEA and *groundWork* with access to scientific expertise and the Bucket Brigade technology. The necessary funding to maintain these links and implement the technology in Durban was provided partly by international organisations, such as the Danish development agency DANIDA.

A similar pattern can be observed with respect to the Multi-Point Plan. While the initial momentum derived from a local initiative, its institutionalisation has been assisted by

international organisations providing expertise (the Norwegian Institute for Air Research, NILU) and funding (DANIDA).

## Lessons Learned

Four lessons can be learned from this case study:

1. The use of scientific evidence can be an important source of credibility and legitimacy for CSOs and thus enhance their capabilities to influence policy.
2. The validity of data is not only determined by scientific methodology but also by social representation. The policy impact of scientific evidence can be greatly diminished in a situation of political conflict where the only sources of data are the parties involved. The example of Durban's Multi-Point Plan illustrates that building state capacity to generate and verify data can provide a way out of this deadlock.
3. While access to scientific know-how can enhance the influence of CSOs on the design of policy, their overall impact can be greatly reduced if the state is not able to enforce it.
4. International organisations, both civic and intergovernmental, can assist CSOs in building and sustaining scientific capacity by providing expertise, technology and funding.

## Sources of documentation

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## Information about the author

Anne Roemer-Mahler is currently a PhD candidate in Development Studies at the University of Oxford and a Rhodes Scholar. Her doctoral thesis seeks to broaden the concept of the 'business case' for corporate engagement in public governance. On the basis of empirical research on the Extractive Industries Transparency Initiative (EITI) it explores the political, institutional and ideational factors which have shaped the decision for companies to get involved in this initiative – or not. Anne holds a Master's degree in Political Science and History from the University of Hamburg, Germany and a M.Phil degree in Development Studies from the University of Oxford.