

# Focus on CSIR Research in Pollution and Waste

## Environmental health

### Main Focus

A healthy population is seen as an important precondition for economic growth and competitiveness. Research into environmental health is therefore concerned with understanding the exposure and magnitude of impact on humans from environmental hazards.

This research seeks to determine the health risks associated with a number of environmental hazards and explores how people are vulnerable to them.

### Research Focus for 2006

Research conducted during 2006 focused on understanding how to assess whether humans are at risk from environmental hazards, particularly those more vulnerable. Research included:

- Vulnerability Assessment methods
- Industry-related air pollution Health Risk Assessment
- Air toxics risk assessment for South Durban

### Research Focus for 2007

Research focus for 2007 is on:

- Vulnerability Assessment
- Nanotoxicity
- Vulnerability interventions and technology solutions
- Health impacts within the South African Mercury Assessment (SAMA) Programme
- Assessing health impacts under a changing climate

### Research Outputs for 2006

#### Air Pollution Vulnerability

This research project aims at assessing the status of vulnerability of South African sub-populations to air pollution.

The tool will allow health practitioners to compliment and enhance traditional human health risk assessment models by ensuring that socio-economic determinants of health are adequately included into health risk assessments, allowing for a more accurate assessment of risks.

#### Air pollution in the South Durban Basin

This research focuses on determining the risk to humans from inhalation of air toxics in the South Durban Basin. This in-depth study includes a number of harmful pollutants. The outputs will serve to enhance air quality management practices in South Durban and also to other areas of the country.

#### South Africa's double burden of disease - a thirteen year interval follow-up study in South Africa.

South Africans have a "double burden" of disease. They are exposed to infectious diseases but are also experiencing chronic diseases (such as diabetes and high blood pressure).

This paper explores the transition in health status from infectious diseases to chronic diseases. This follow-up study looks at the lifestyle factors that influence this transition and calls for health systems to recognise and address them.



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