

Increased profitability through greener production



the dti
Department:
Trade and Industry
REPUBLIC OF SOUTH AFRICA

CSIR
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NCPC
NATIONAL CLEANER PRODUCTION CENTRE
SOUTH AFRICA

South African industry faces significant environmental and cost challenges, with mounting international competitive pressures and market demand, along with increasing environmental technical barriers to trade. The energy crisis of 2007/8 and the impending water challenge, especially in the face of an expanding economy, growing population and climate change pressures, also highlight the need for sustainable development, with particular emphasis on energy efficiency and cleaner production. Recognising these challenges, **the dti** commissioned the National Cleaner Production Centre of SA (NCPC-SA) as its key environmental implementation programme.

The NCPC-SA currently focuses on seven priority industry sectors identified in government's Industrial Policy Action Plan for 2010 – 2013 (IPAP2). These are agro-processing; automotives; chemicals and pharmaceuticals; fibres, textiles and clothing; pulp and paper; hospitality and tourism; and metals fabrication, and capital and transport equipment. In addition, it addresses the needs of the commercial buildings sector. The objective is to promote industrial competitiveness through appropriate interventions that contribute to economic growth, and balancing this with efficient management of environmental resources and social impact. The Centre also hosts the industrial energy efficiency (IEE) improvement project in South Africa, and has a strong focus on capacity building through workshops presented by international experts.

The NCPC-SA is governed by an executive committee with representation by **the dti**, the Department of Environmental Affairs, the Department of Energy, Business Unity SA and the CSIR. It is a member of UNIDO and UNEP's worldwide resource efficient and cleaner production (RECP) programme and is hosted by the CSIR.

How the NCPC-SA works

The activities of the NCPC-SA are aimed at increasing industrial competitiveness, improving resource efficiency, and contributing to economic growth. Towards this end, the Centre offers services that mitigate against threatening carbon emissions and environmental degradation. Companies are assisted in improving their environmental



performance and, following specific intervention measures, proposes recommendations on cost-saving options and resource efficiency improvements. Cleaner production assessments were carried out at 73 sites in the 2008/9 and 2009/10 financial years, yielding potential cost savings of R36.6 million. In addition to the financial, environmental and technical benefits, a more consistent product output quality was achieved, while the working environment in the companies concerned also improved substantially. The recently announced government incentive programmes to promote green industries are aimed at assisting companies in implementing proposed options.

CP is a means to improve and manage a company's reputation. It also positively contributes to industry development, promotes efficiency and makes the capital stock less environmentally damaging.

Selected sector highlights

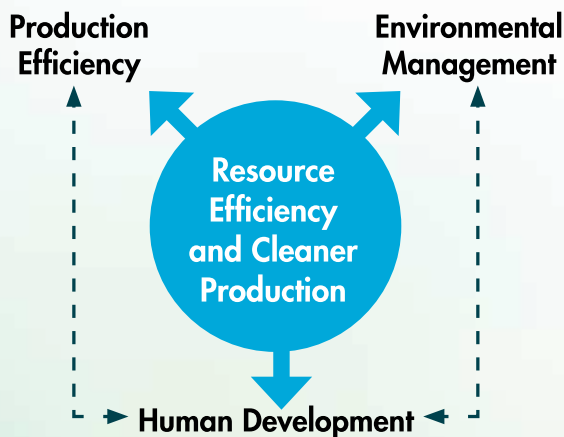


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Quick scans and in-plant assessments are undertaken at participating companies to identify areas where energy, water and raw material usage can be improved, with the focus on low-cost energy and resource efficiency solutions. The objective is to support industrial competitiveness through appropriate interventions that contribute to economic growth, and balancing this with efficient management of environmental resources and social impact.

The NCPC-SA initially focused on three sectors, viz agro-processing, chemicals and pharmaceuticals; and fibres, clothing and textiles. Some highlights and potential savings identified in these sectors during 2008/9 and 2009/10 are reflected below. Promising results have also been obtained in the five additional sectors that were added to the portfolio of the NCPC-SA at the beginning of 2010, viz automotives; metals fabrication, and capital and transport equipment; hospitality and tourism, and automotives, with projects in the pulp and paper and commercial building sectors currently getting under way. These results will be reported on in the NCPC-SA's 2010/11 Annual Review.



Fibres, clothing and textiles sector

This sector has seen a significant increase in the acceptance of resource efficiency and cleaner production as contributors to higher productivity and profitability over the past few years. During 2008/9 and 2009, RECP assessments were conducted at eight sites, yielding potential savings opportunities to the value of R5.4 million.

Chemicals and pharmaceuticals sector

Seventeen RECP assessments were undertaken during 2008/9 and 2009/10, resulting in potential savings opportunities to the value of R19.8 million. An additional highlight was the role of the NCPC-SA in the piloting of a forum in the Isithebe Industrial Estate in KwaZulu-Natal, aimed at supporting resource efficiency in the estate.

Agro-processing sector

RECP assessments were conducted at 14 companies during the period April 2008 to March 2010, yielding potential savings of R11.4 million. Participating companies included abattoirs, tanneries, oil refineries, frozen fish processing plants, and fish-meal and cheese producers.

Sustainable intrapreneurship

The NCPC-SA recently launched a sustainable intrapreneurship programme in the clothing and textiles sector in the Western Cape and KwaZulu-Natal. Post-graduate students are placed in companies to assist in increasing resource efficiency, reducing and eliminating pollution and waste, and introducing internal and external preventative environmental solutions. Participating companies benefit from the availability of trained and dedicated resources to address specific competitive gaps and/or environmental constraints, and students gain valuable cleaner production experience. All the students involved in the programme thus far have subsequently been employed in the sector. This programme is now being expanded to other sectors and provinces.

Enquiries

Projects undertaken by the NCPC-SA are subsidised by the dti at this stage. Companies interested in making use of this opportunity to prepare themselves for pending environmental legislation and the legal enforcement possibilities are invited to get in touch with the NCPC-SA.

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