Resource Efficiency in Tourism

tourism
Department:
Tourism
REPUBLIC OF SOUTH AFRICA

"Achieving operational efficiency through resource efficiency"

Tourism is one of the most promising drivers of growth for the world economy. The size and reach of the sector makes it critically important from a national resource perspective. Even small changes toward greening can have important impacts (United Nations Environment Programme/ UNEP, 2011).

Like all sectors, the tourism sector can have adverse environmental, economic and social effects. These impacts are mostly linked with the construction and management of infrastructures such as roads and airports, and of tourism facilities, including resorts, hotels, restaurants, shops, golf courses, and marinas. Poorly managed tourism can put enormous pressure on an area and lead to soil erosion, increased air, soil and marine pollution, natural habitat loss, depletion of natural resources, increased pressure on endangered, and high greenhouse gas emission (GHG).

On the other hand, tourism has the potential to contribute to environmental protection and resource conservation by creating public appreciation of the environment and to spread awareness of environmental problems. If efficiently planned and managed, tourism could become an ally and a supportive economic and political force for conservation.

In light of the importance of tourism in sustainable development, the National Department of Tourism (NDT) has developed a Tourism Resource Efficiency Programme (TREP). This brochure is design to provide information to tourism businesses on how they can achieve resource efficiency. The NDT has partnered with the National Cleaner Production Centre – South Africa (NCPC – SA) to promote resource efficiency in the tourism sector. The NDT plans to facilitate resource efficiency assessments in approximately 270 tourism businesses by 2019 as part of the Tourism Resource Efficiency Programme. The 270 tourism business will be selected from all nine provinces at 30 establishments per province. Tourism businesses interested in participating in the programme should contact the NDT at the contact details provided at the end of this booklet.

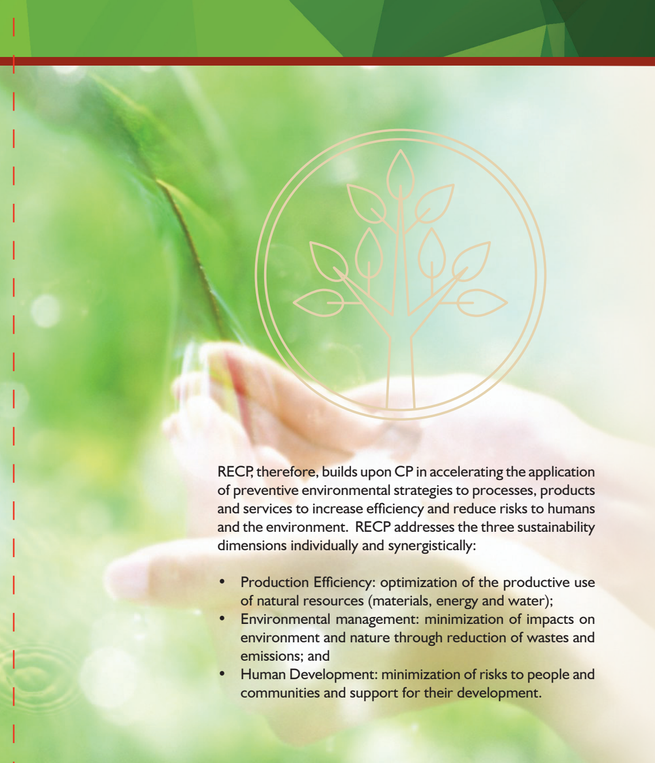
The NCPC-SA promotes the implementation of resource efficiency and cleaner production (RECP) methodologies to assist industry to lower costs through reduced energy, water and materials usage, and waste management.

What is Resource Efficiency and Cleaner Production?

In 1994 United Nation Industrial Development Programme (UNIDO) and United Nation Environmental Programme (UNEP) launched a joint programme to establish National Cleaner Production Centres/Programmes (NCPCs/NCPPs). An independent evaluation conducted in 2007/8 identified various ways to improve effectiveness, efficiency and sustainability of the Programme, in particular through strengthening of the programme strategy, utilisation of programmatic funding and improvement of programme management. These issues have been addressed in the revised Programme Strategy for the Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP).

Important changes occurred during the last two decades, which the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg duly acknowledged. As a result, a shift towards Sustainable Consumption and Production (SCP) was noted, whereby greater emphasis is placed on the inter-linkages between consumption and production. Moreover, there is greater recognition that the inefficient and at times wasteful use of natural resources, including energy, water and materials, lies at the heart of the key environmental challenges, including climate change.
Recognising that resource efficiency requires cleaner production and vice-versa, UNIDO and UNEP have moved towards Resource Efficient and Cleaner Production (RECP). RECP recognizes that CP methods and practices generate multiple benefits that are relevant to many of today's most pressing global challenges, including:

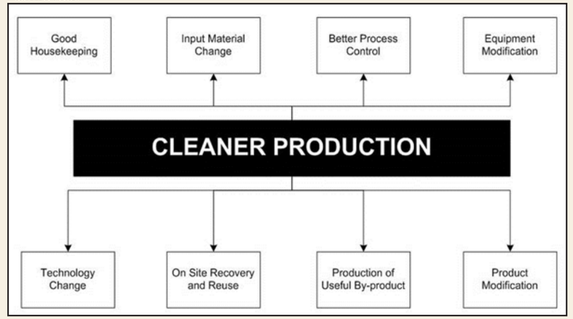
- Mitigation of GHG emissions and adapting to climate change;
- Responding to increasing scarcity of water, fuels and other materials;
- Providing decent jobs; and
- Halting environmental degradation.



RECP, therefore, builds upon CP in accelerating the application of preventive environmental strategies to processes, products and services to increase efficiency and reduce risks to humans and the environment. RECP addresses the three sustainability dimensions individually and synergistically:

- Production Efficiency: optimization of the productive use of natural resources (materials, energy and water);
- Environmental management: minimization of impacts on environment and nature through reduction of wastes and emissions; and
- Human Development: minimization of risks to people and communities and support for their development.

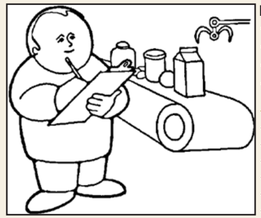
The diagram below show how cleaner production and resource efficiency can be achieved:



Source: NCPC – SA

Resource efficiency can be achieved through the implementation of key five (05) phases:

Phase 1: Planning and organization
- The Management of the tourism businesses should commit to and prioritize resource efficiency;
- A resource efficiency Project Team should be set up;
- An Environmental Policy should be developed by the business; and
- Planning for the RECP Assessment should be conducted.



Phase 2: Pre – assessment / Quick scan
- Provide a company description;
- Develop a Process Flow Chart;
- Conduct Walkthrough / Site Inspection; and
- Determine focus areas for assessment.

❖ *Hint:*
- Type of lighting fixtures, etc.
- Lights ON during the day.
- Use of air conditioning system.
- Geyser settings, insulation etc.
- Waste separation.
- Water leaks.

Phase 3: Detailed assessment
- Collect data on resource use and waste
- Identify RECP Options
- List RECP Options

❖ *Identify RECP options*
- Efficient lighting systems, LEDs

60W Incandescent bulb

11W CFL

7W LED

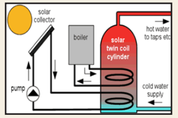
- Water efficient technologies, efficient flush toilets

New Designs
Stealth 0.8 GPF Toilet
3 Litres per flush
3.3 m3/y at 3 flushes per day

Old designs

13 litres per flush
14.2 m3/y at 3 flushes per day

- Alternative sources of energy



Hybrid solar water heater
✓ 480 kWh/month
✓ R264.00/month @ R0.55/kWh (Estimates)

Standard electric geyser
✓ 1200 kWh/month
✓ R660.00/month @ R0.55/kWh (Estimates)

- Efficient technologies
  Use energy efficient air conditioning systems; and
  Use energy efficient cooking stoves.

Gas stove

Electric stove

- Waste recycling and disposal

Phase 4: Feasibility analysis

❖ *Technical Analysis*
- Determine technical soundness – get technical advice;
- Determine back up/maintenance; and
- Assess durability.

❖ *Financial Analysis*
- Determine the cost of implementation;
- Determine payback time; and
- Determine return on investment.

❖ *Environmental Analysis*
- Determine environmental benefits - less pollution, less waste, energy savings etc;
- Potential green certification; and
- Compliance with environmental legislation.

Phase 5: Implementation and continuous improvement

- Prepare an Action Plan;
- Implement RECP Options;
- Monitor & Evaluate Performance; and
- Sustain RECP Activities.

To find out more about the Tourism Resource Efficiency in Tourism, visits the following websites:
- www.tourism.gov.za
- www.ncpc.co.za
- www.unep.org

For more information or to provide feedback on the brochure, please contact the Tourism Greening and Climate Change sub-unit on (012) 444 6510 or e-mail nmakamu@tourism.gov.za.

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