policy engagement and collective action in south africa: the sasol experience

Martin Ginster, water advisor, Sasol
**sasol’s need for water in South Africa**

used primarily to regulate temperatures and generate steam

- required at a high assurance of supply
- water is sourced from the inland vaal river system
vaal system water demand per sector (total demand 2900 million m³/annum)

Source: DWA Vaal System annual operating analyses
Water conservation and water demand management

Lesotho Highlands Water Project Phase 2

Supply Shortages

Eradicate unlawful irrigation

Earliest possible delivery date

System Yield

Further Augmentation required by 2036

Water Requirements/Yield

(million m³/annum)

Year

2005

2010

2015

2020

2025

2030

2035

2040

High Water Requirement Scenario

High Augmentation with Water Conservation and Water Demand Management
reducing municipal water losses presents a typical opportunity for private sector involvement

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Non-revenue water %</th>
<th>Volume mil.m³/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Johannesburg</td>
<td>38</td>
<td>192</td>
</tr>
<tr>
<td>City of Tswane (Pretoria)</td>
<td>27</td>
<td>70</td>
</tr>
<tr>
<td>Ekurhuleni (East Rand)</td>
<td>39</td>
<td>123</td>
</tr>
<tr>
<td>Emfuleni (Vaal Triangle)</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>427</strong></td>
</tr>
<tr>
<td><strong>Total Sasol and Eskom water use</strong></td>
<td></td>
<td><strong>480</strong></td>
</tr>
</tbody>
</table>

*Source: DWA Vaal River Strategy Steering Committee*
typical focus areas
linking water stewardship action with disclosure practice
development partnership model

Emfuleni & GIZ/Sasol partnership agreement (MoU)

- Emfuleni LM (Metsi-a-Lekoa)
  - savings from reduced losses
  - funding from ring fenced savings

- Emfuleni water conservation project
  - seed funding
  - reduced water security risk (off-setting)

- Community
  - local economic activity

- Sasol (private sector partner)
  - seed funding

- GIZ development funding
  - seed funding, governance, auditing role

GIZ/Sasol development partnership

Emfuleni & GIZ/Sasol partnership agreement (MoU)
**set measurable targets and timeframes**

establish baseline water use upfront

agree on auditing processes

set target: 15% saving in project areas by end 2014

support performance based contracting
include sustainability initiatives

do not only focus on physical interventions

skills development

- municipality / ward counsellors
- water warriors / plumbers

influence consumer behaviour through knowledge

- water conservation awareness campaigns
- develop learning toolbox for water education in schools

other influencing strategies

- functional water meters (awareness)
- appropriate rate recovery mechanisms (leverage)
- enforcement of Municipal bylaws (legalities)
summary

- assurance of water supply is critical for Sasol
- private sector’s response to shared water risks can be enhanced
- a national water off-setting policy could support several of the objectives of the National Department of Water Affairs:
  - incentivize private sector water users to invest in addressing shared water risks
  - achieve more cost effective water savings and quality improvements
  - maintain assurance of supply to existing users by making water available for growth, historically disadvantaged, small scale users

*together we can achieve more*