Eastern Cape – PE Presidential Visit

Sustaining Consulting Engineering is Key to Growing the Economy

Abe Thela
13 May 2014
✓ 2013 theme “Sustainability is Everyone’s Business”
✓ **Sustainability Indicators**: education, economic and political certainty, job creation, eradication of corruption, and responsible development
✓ CESA Sustainability Guideline Document and Reporting Process Checklist
✓ CESA Code of Conduct
  • Quality Management System (QMS)
  • Business Integrity Management System (BIMS)
“Sustaining Consulting Engineering is Key to Growing the Economy”

Creation of an environment for implementation of NDP and practice of consulting engineering
2014 Presidential Theme Content:

- SA Socio – Economic Context
- National Development Plan
- Role of Consulting Engineering in the NDP
- What should Government be doing differently?
✓ SA is a Democratic Developmental State
  • Previous Initiatives: RDP, ASGISA, GEAR, NGP, etc.
✓ Achievements:
  • Economic growth (without creating jobs)
  • Growth in infrastructure investment:
    o Access to services
    o Mega infrastructure projects
  • Growth of the CE sector:

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2013</th>
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<tbody>
<tr>
<td>Employment</td>
<td>12,600</td>
<td>24,360</td>
</tr>
<tr>
<td>Turnover</td>
<td>R4.6 billion</td>
<td>24.5 billion</td>
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Overarching triple challenges

- unemployment – over 25%
- poverty 48% below poverty line
- inequality
  - Richest 20% earning 70% of national income
  - Poorest 20% earning 2.3% of national income

Lower economic growth
Socio - Economic Context

Inadequate infrastructure allocations

<table>
<thead>
<tr>
<th>Year</th>
<th>% of GDP</th>
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<tbody>
<tr>
<td>2010/11</td>
<td>6.5%</td>
</tr>
<tr>
<td>2011/12</td>
<td>7.0%</td>
</tr>
<tr>
<td>2012/13</td>
<td>6.8%</td>
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<tr>
<td>2013/14</td>
<td>7.3%</td>
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<tr>
<td>2014/15</td>
<td>7.2%</td>
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<tr>
<td>2015/16</td>
<td>6.9%</td>
</tr>
<tr>
<td>2016/17</td>
<td>6.3%</td>
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Business Confidence – Below 50 level
Capacity Utilisation 91%
National Development Plan

- Policy instrument to Develop SA Economy
  - Decrease unemployment from 25% to 6%
  - Eliminate inequity
  - Triple economy by 2030

- Infrastructure Development – Key to socio–economic development
  - Social Infrastructure
  - Economic Infrastructure

- National Infrastructure Plan (NIP) – 18 Strategic Integrated Projects (SIPs)

- Supported by:
  - Presidential Infrastructure Commission (PICC)
  - Infrastructure Bill
  - Committed government spending
Government Budgeted Infrastructure spending

- R847 billion in next 3 years
- Expected growth of 4% per year < construction cost
- Existing and new projects
- Implementing agents: SOE’s and government departments
- < NDP expenditure target: R1.1 trillion
National Development Plan

Infrastructure Systems

Socio-economic System

Technological System

Natural System
Role of Consulting Engineering

Science

Theories

Technology

Needs

Resources and Needs

Infrastructure and Benefits

Society, Economy and Nature

Needs
✓ Consulting Engineers:
  o Provide independent advice to clients
  o Technical advise in the procurement of contractors
  o Design and supervision of construction work
  o Facilities management services
  o Services for the safe decommissioning of old infrastructure
  o Transfer of skills and knowledge to clients
✓ The role of “Trusted Advisor”
✓ Are we?
Consulting Engineers – Contributing to the NDP objectives:

- Generates employment opportunities for millions of unskilled, semi-skilled and skilled workers
- Improves the quality of life of citizens - impacts positively on inequity
- Contributes to economic growth:
  - Stimulates the development of other economic sectors
  - Attracts foreign investment
Is this role adequately recognised by clients who employ consulting engineering services?

No

Persistent Challenges:

- Regulatory
- Institutional
Regulatory challenges?

- Procurement practices
- Access to work opportunities by small and emerging CE firms
- International competition
- Consolidated / joint BBBEE scorecard requirement
- Scope versus fixed term appointments
Procurement Practices

✓ Current Procurement –
  o  Price and BBBEE
  o  Functionality and Quality – only minimum pre-qualification threshold

“Is price the appropriate basis for competing for consulting engineering services?”

✓ Reduces consulting engineering to a commodity which is demand driven

✓ Compromises the ability of the profession to:
  o  innovate,
  o  train staff and
  o  attract young engineers to the profession.
✓ Relegates relationship from “Trusted Advisor” status to “contracting”

✓ Associated problems common in contracting:
  o Scope creep,
  o Variation orders, etc.

✓ Reduced quality of service

✓ Results in client dissatisfactions
Extract from recent CESA interaction with the City of Tshwane:

“………… Fees on completion of services have also been deviating from original tendered pricing by multiples of up to 2 or 3 which is unacceptably higher than the best practice limit of 20% variance from budget.”
What should be the basis for Procuring Consulting Engineering Services?

✓ Constitutional Imperative – equitable, transparent, fair, competitive and cost effective
✓ Aim: to procure on best possible terms
✓ Optimise the total project life cycle costs
✓ Consulting engineering:
  o dictates how infrastructure is constructed and maintained
  o impacts on construction and maintenance costs.
International Best Practice – Qualifications Based Selection (QBS)

- Quality and Competence
- Project scope developed jointly
- Services required to develop scope mutually agreed
- Negotiate equitable fee

Advantage:
- Reinforces “Trusted Advisor” status of consulting engineer
- Deployment of adequate resources
- Innovate and add value
- Savings for taxpayer and community
Regulatory Challenges

- **Interim**: Reintroduce quality as part of the total procurement points calculation alongside price and BBBEE – cidb Method 4
- Separation of procurement of BEPs from the procurement of general goods and services
- Conduct a comprehensive review of the existing procurement system:
  - Impact on infrastructure provision
  - Sustainability of the consulting engineering sector
  - Develop QBS procurement system incorporating B-BBEE requirements
Government engagements in progress:

- Treasury – Individual role players
- Infrastructure Task Team – Combined business and government
Access to work opportunities by emerging and small firms

- Outcry over lack of access to large projects
- Significant portion of membership of CESA – 80%
- Vehicle for empowerment in the sector
- Lack of resources, expertise and experience
- Proposal: Targeted procurement procedures for participation in large projects

- **Set goals:** fair, equitable and cost effective
- **Process:** streamlined and monitored
International competition

✔ Proposal: **To have built environment professional services designated as local**

✔ Advantages:
  - Preferencing of local companies over international companies without a presence in South Africa
  - Contributes to the growth & development of the sector
  - Contributes to local employment

✔ Process:
  - Application being reworked for submission to Department of Trade and Industry
Requirement for a consolidated/joint BBBEE scorecard for unincorporated Joint Ventures / consortium / trusts:

- Discourage formation of JVs
- JVs crucial for skills transfer
- Add a cost burden to the sector
✓ Proposed formula / calculator for consolidated JV B-BBEE scorecard:

\[ JV_{\text{B-BBEE level}} = M_{\text{points(a)}} \times M_{\text{interest(b)}} + M_{\text{points(b)}} \times M_{\text{interest(b)}} + \text{etc.} \]

Where:

- \( JV_{\text{B-BBEE level}} \) is the joint venture consolidated B-BBEE scorecard
- \( M_{\text{points (a, b, c, etc.)}} \) is the B-BBEE points of each member
- \( M_{\text{interest (a, b, c, etc.)}} \) is the percentage (%) interest of the members in the joint venture

✓ Calculated at bid evaluation stage
Scope versus fixed term appointments for consulting engineering services

✓ Municipal Finance Management Act:
  - Fixed 3 year term appointments
  - Increase costs
  - Delays infrastructure implementation

✓ Proposal:
  - Consulting Engineers be appointed based on scope of work their services are required for; and
  - The Municipal Finance Management Act is revised accordingly.
Institutional Challenges?

- Lack of Capacity
- Corruption
- Erratic Infrastructure Investment
- Education
Lack of Capacity

✓ Inability to:
  o create consistent project pipeline
  o Adequately define project scope
  o appropriately procure
  o Manage & monitor contracts

✓ Persistent infrastructure budget underspending

✓ What is needed is **political will**:
  o Employ appropriately qualified people
  o Improve working environment

✓ Interim:
  o Secondment & PMO
  o Use retired engineers
Corruption

- Still rampant – 2012/13 financial year:
  - R2bn – wasteful expenditure
  - R26,4bn – irregular spending
  - R2,3bn – unauthorised spending

- Hinders development, depletes of public purse, distorts markets and hinders investment

- Welcome - Public Administration Management Bill
- CESA committed to fight corruption through litigation fund and partnerships
Erratic Infrastructure Investment

TOTAL INVESTMENT IN CONSTRUCTION WORKS 1946 - 2012
AT CONSTANT 2009 PRICES

LONG TERM GROWTH 2.5% p.a.

FREE STATE GOLDFIELDS
LARGE DAMS
SISHEN-SAL DANHA RICHARDS BAY MINES ROADS
SASOL II & III ESKOM POWER STATIONS SAFARI
MOSSGAS TELKOM ALUSA F COLUMBUS COEGA
SOCOR G TRAIN ESKOM, DAMS ROADS

SOURCE: SAR B, MFA DATABASE
Cyclical Nature of Infrastructure Investment

✓ Creates uncertainty:
  o Skills development
  o Resources planning & development
  o Business investment

• Consulting Engineering Sector’s Plea:
  “Uninterrupted and growing infrastructure spending for the NDP period”
Education

- Schools infrastructure programme.
- Must be complemented by improved quality of classroom teaching and overall school management.
- Low success rate at universities
- Public education crisis:
  - poor teacher supply and provisioning norms
  - poor quality of teaching and its impact on learning.
Education (Cont.)

✓ Current initiatives:
  o Implemented - compulsory grade R learning (long term)
✓ Competency tests for matric markers.
✓ Assessment teachers’ performance in the classroom.
✓ Performance related pay.
✓ Teaching – ‘career of choice’ – pay salaries to attract top achievers
NDP will never materialise without the expertise of the Consulting Engineering sector – this industry needs to be supported and developed by:

- Implementing NDP by increasing infrastructure spend to 10% of GDP to 2030
- Creating a conducive environment for private sector infrastructure investment
- Improving procurement and regulatory environment
- Creating technical capacity and capability within Government to procure services
- Improving quality of education in particular maths and science
Questions Welcome

Thank you for attending

Abe Thela
13 May 2014