



agriculture and
rural development

Department: Agriculture and Rural Development
GAUTENG PROVINCE

IMPLEMENTATION OF GAUTENG CLIMATE CHANGE RESPONSE STRATEGY (GCCRS)

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Sustainable Use of Environment, GDARD

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GCCR SPACE (SA rich in policies)



KEY MESSAGES

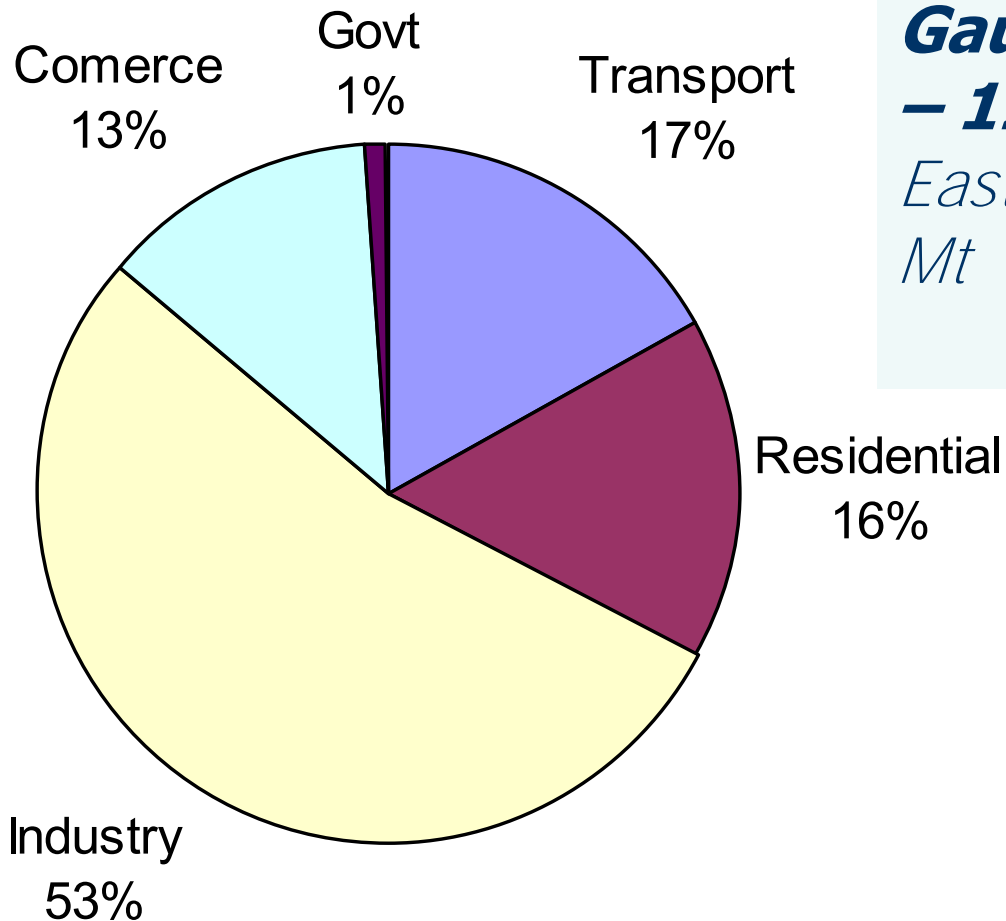
- Some of the proposed interventions already exist in policies, strategies and plans- they require consolidation, implementation and monitoring. GCCRS is adopted and adapted NCCRP
- Need for **radical and strong political commitments and administrative actions** to implement both mitigation and adaptation interventions.

KEY MESSAGES

- Government regards CC as one of the **greatest threats to sustainable development**. If unmitigated, has potential to undo or undermine many of the positive advances made in meeting South Africa's own development goals and the Millennium Development Goals (DEA 2010).
- CC is an **inter-disciplinary and cross-cutting issue**, which will require multi-disciplinary action from all stakeholders – national, provincial, local government, industry, civil society, the education and training sector, research organizations and communities - mainstreaming (GDARD 2011).

GAUTENG GREENHOUSE GAS (GHG) EMISSIONS

CO₂ emissions By Sector
in Gauteng Province



*SA – 450 Mt CO₂ eq
Gauteng energy territorial
-43Mt*

***Gauteng non-territorial
– 122Mt***

*Eastern Cape energy – 24
Mt*

Time
to go
green?



Climate-
friendly
economy

JOBS

DEVELOPMENT

GROWTH

Energy-
intensive
economy

In the long-term, we need to redefine our competitive advantage and **structurally transform the economy** by shifting from an energy-intensive to a climate-friendly path as part of a pro-growth, pro-development and pro-jobs strategy.

GDARD activities for 2012-13

1. Update of the GCCRS to be aligned and linked with Gauteng Green Strategic Programme(GSP)
2. Initiate provincial GHG Inventory
3. Mainstreaming GCCRS into other provincial departments (focus on Department of Roads and Transport)
4. Communication and awareness

Green Strategic Programme sectors

- Air Quality
- **Climate Change**
- Economic Development
- Energy
- Food Security
- Land use
- Transport
- Water and Sanitation
- Waste

According to GCCRS Climate Change is cross cutting and covers all 9 sectors

Deliverables of Green Strategic Programme

| Deliverable (Intervention) | No of Interventions (Across Sectors) |
|--|---|
| Strategy and Regulatory Reforms | 107 |
| Resource Mobilisation | 24 |
| Research and Development | 24 |
| Capacity Building | 23 |
| Public Awareness and Education | 30 |
| Partnership Building and Collaboration | 33 |
| Infrastructure Development, Roll-out and Upgrade | 35 |
| Socio-economic and Market Interventions | 36 |

These are deliverables (305) that needs to be done to get Gauteng to benefit from green economy opportunities.

Source: Gauteng DED presentation

Interventions proposed in GCCRS

| Interventions | Number |
|--|------------|
| 4.1 Industry, Commerce and Mining | 53 |
| 4.2 Transport | 36 |
| 4.3 Energy Supply | 19 |
| 4.4 Residential and Public buildings | 55 |
| 4.5 Waste Management | 16 |
| 4.6 Agriculture, Natural Resources and Other land-uses | 15 |
| 5.1 Water | 8 |
| 5.2 Agriculture and food security | 5 |
| 5.3 Urban Development and Infrastructure Objectives | 7 |
| 5.4 Natural Resources and Biodiversity | 11 |
| 5.5 Health | 3 |
| 5.6 Disaster Risk Management | 11 |
| 6.1 Governance | 8 |
| 6.2 Research | 8 |
| 6.3 Public Awareness, Education and Training | 13 |
| 6.4 Monitoring and Evaluation | 5 |
| Grand Total | 273 |

Prioritisation of GCCRS

1. Aligned with DEA Lets Respond Toolkit
2. The actions to be done at national level separated and will be discussed with DEA
3. The R&D actions will be discussed with DEA/ Research institutions

Actions 2, 3 and reducing duplications will almost half number of actions in GCCRS

Prioritisation of GCCRS framework

| <i>Sector/SUB-SECTOR</i> | <i>ACTION</i> | <i>Sustainability / MDG</i> | <i>Costs/ Benefits</i> | <i>Utilisation scale</i> | <i>Green jobs potential</i> |
|--|---|-----------------------------|------------------------|--------------------------|-----------------------------|
| 4.1 Industry, Commerce and Mining | | | | | |
| 4.1.1 Energy efficiency retrofitting of industrial, commercial and mining operations | | | | | |
| Role of Government: | Conduct periodic province-wide energy audits to verify whether GIES (2010) targets are being met. | | | | |

Weighting factors (1 low, 2 medium, 3 high):

- **MDG Millennium Development Goals**
- **Cost benefits e.g. R/t CO₂ mitigated**

Gaps to address – food security in Gauteng

*for 1 glass of wine = 31.7 gallons

... AND REQUIRES WATER TO BE HARVESTED AND PREPARED



898 gallons of water are used to produce 2.2 pounds of rice.

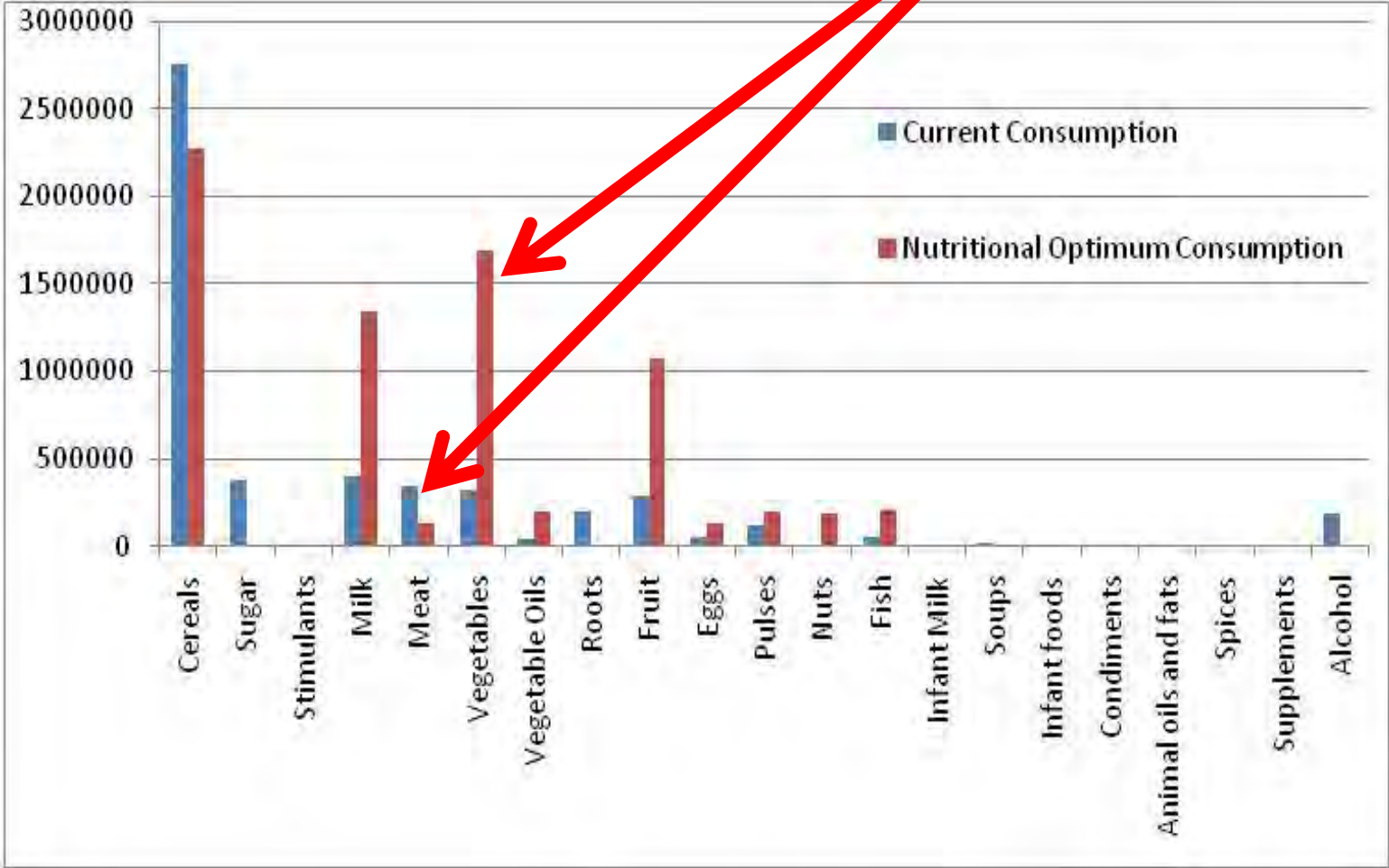


37 gallons of water are needed to produce one cup of coffee.

4,094 gallons of water go into producing 2.2 pounds of beef.



Nutritional dis-balance



Source: A strategy for a developmental green economy for Gauteng, 2010

GHG Inventory - Objectives

1. To define and align data collection of all relevant departments.
2. To have a system for annual data updates which is aligned with South African Air Quality Information System (SAAQIS) module for GHG inventory
3. To collect data necessary for the Provincial and national strategies implementation.
4. To provide information for decision making and report to Provincial Planning Commission and Green Project Office of Gauteng Department of Economic Development, the Climate Change M&E unit of the DEA and to all other relevant organizations.

GHG Inventory – Framework (phase 1)

As required by the IPCC Guidelines, 2006 additional sectors be included in the GHG inventory

1. Industrial processes and product use emissions
2. Agriculture, forestry (*urban forest*) and other land uses (*includes fire*)
3. Waste

GHG Inventory – preliminary findings

1. The energy sector is most significant, but GHG emissions from electricity produced outside of Gauteng are about 150% of the GHG emissions within province.
2. The most significant sector is transport, but difference between using Tier 1 or Tier 2 for calculations is not significant.
3. The waste sector is also important. Although Gauteng is the smallest province it produces about 45% of the total municipal waste in SA, but there is no enough provincial data and no mitigation targets for province.



GHG Inventory – preliminary findings (2)

1. Most of the data available at national level and it is not easy to downscale it to provincial level
2. The provincial departments are not equipped/capable to collect, process and maintain large amount of data required for proper (IPCC, 2006) GHG Inventory
3. GHG inventory does not look like most appropriate provincial tool for monitoring compliance with provincial mitigation targets and agreement on simpler indicators using data that is already collected may be more practical.

How mainstreaming can be done?

1. Re-educate decision makers that there is need to include Climate Change in updated strategies rather than creating new Climate Change strategies
2. Consider Climate Change in all relevant planning activities (IDPs, MTEF, etc.)
3. Create clear roles and responsibilities that *minimise duplication* and maximise synergies (employ project managers to run flagship projects/activities rather than increase government structure)

Way forward

1. Start with pilots/demos that can be upscaled into flagships (focus on “lower hanging fruits” with biggest impact)
2. Build partnership on flagships between departments to create joint ownership, share limited budgets and minimise project management burden
3. Build partnership on flagships with NGOs and private sector
4. Minimise and simplify reporting (same report for multiple purposes) and have innovative use of technical skills



Together we can do more

