



Hessequa and Climate Change

IT IS WHAT WE DO, THAT COUNTS



Presentation Overview

- ▶ Governance and Institutional Alignment
- ▶ Pro-Active Initiatives
- ▶ Reactive Readiness
- ▶ Conclusion



Governance and Institutional Alignment

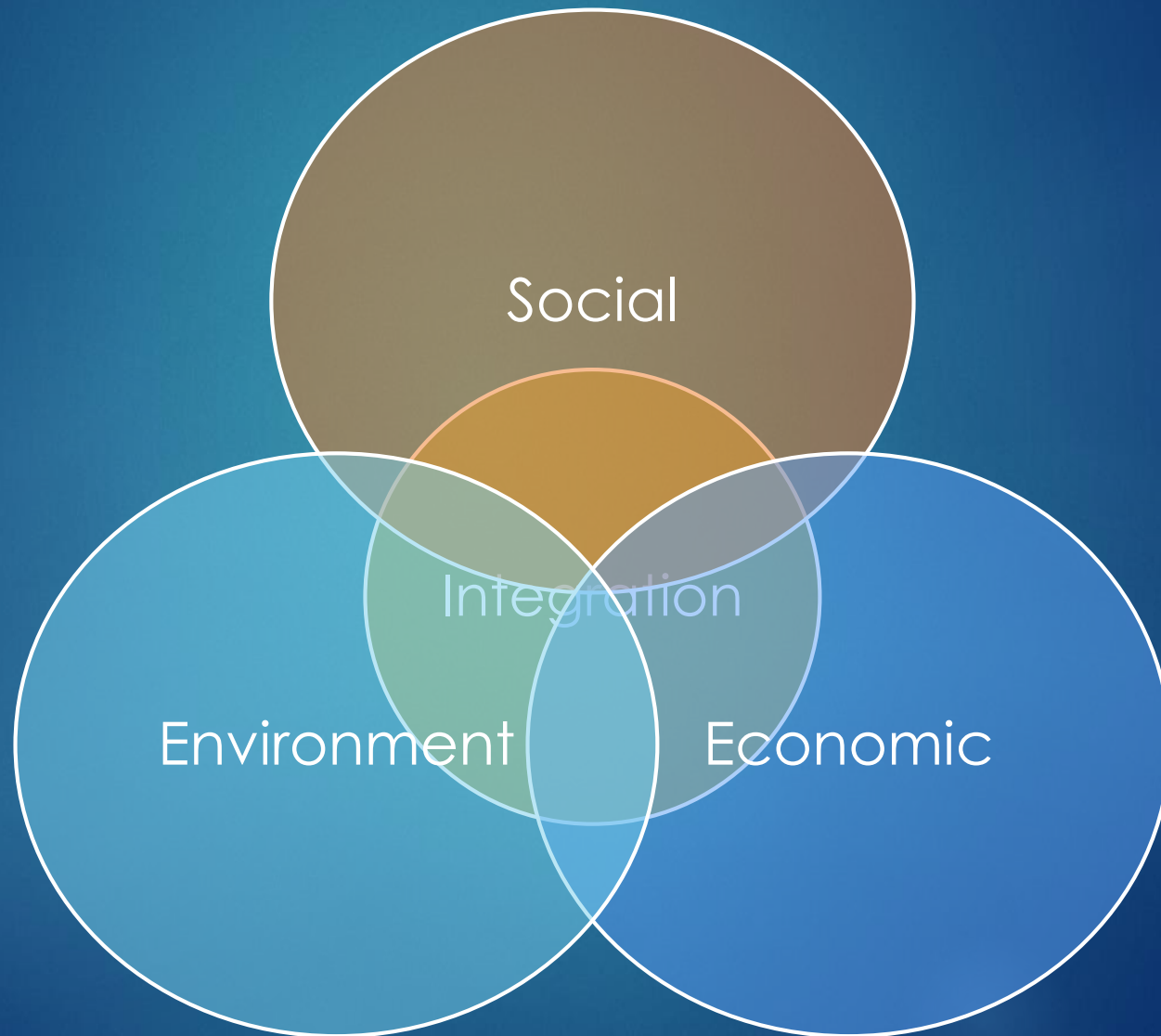


“ Are we doing things
right, or are we doing
the right things? ”

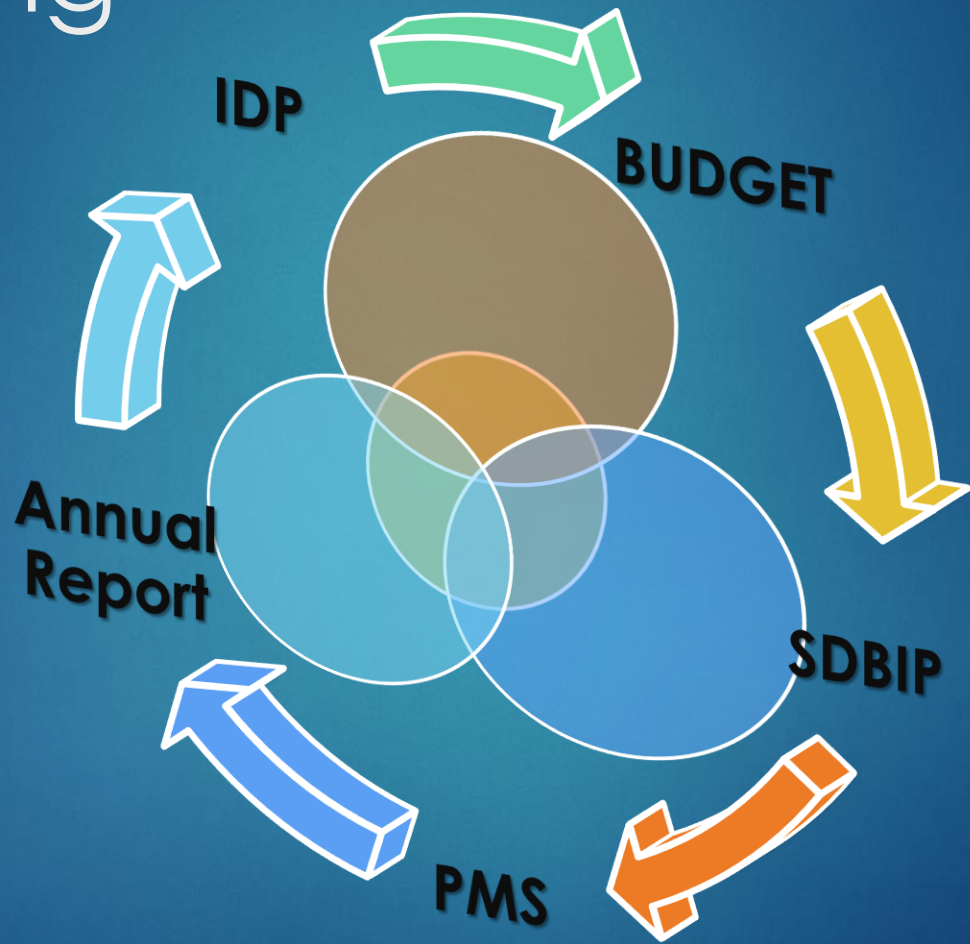
Municipal Cycle



Integrated Planning



Integrated Municipal Planning





Climate Change in IDP

- ▶ Climate change strategy and planning should be in place
- ▶ Critical component that should address all other strategies
- ▶ It is not a “line function” – It is a strategic approach to:
 - ▶ Waste Management
 - ▶ Water Resource Management
 - ▶ Infrastructure Planning & Maintenance
 - ▶ Storm water Management
 - ▶ Coastal Management
 - ▶ Spatial Planning
 - ▶ Long Term Financial Planning
- ▶ Climate Change is a strategic risk to long term sustainability



Pro-Active Initiatives

DOING OUR PART FOR THE LONG TERM



Hesseguia and Climate Change – 1/3

- ▶ Solid Waste Management
 - (a) Black bag system for household refuse and a red bag system for garden refuse.
 - (b) Clear bag system for recyclables (paper, glass, tin, cardboard, plastic).
 - (c) Household refuse removed once a week. Three times a week from businesses
- ▶ Actively working towards Zero Waste Vision
 - (a) Phased implementation of our zero-waste initiative
 - (b) Private Sector – Dry Recyclable Waste – Phase 1
 - (c) Phase 2 – Wet and Dry Waste recycling implemented
 - (d) Phase 3 – Actively engaging technological solutions to implement zero-waste reality
- ▶ Compliance Monitoring & By-Laws
- ▶ Waste Record Keeping – Enabler for alternative investments
- ▶ Waste Minimization
- ▶ Integrated Waste Management Planning is Critical



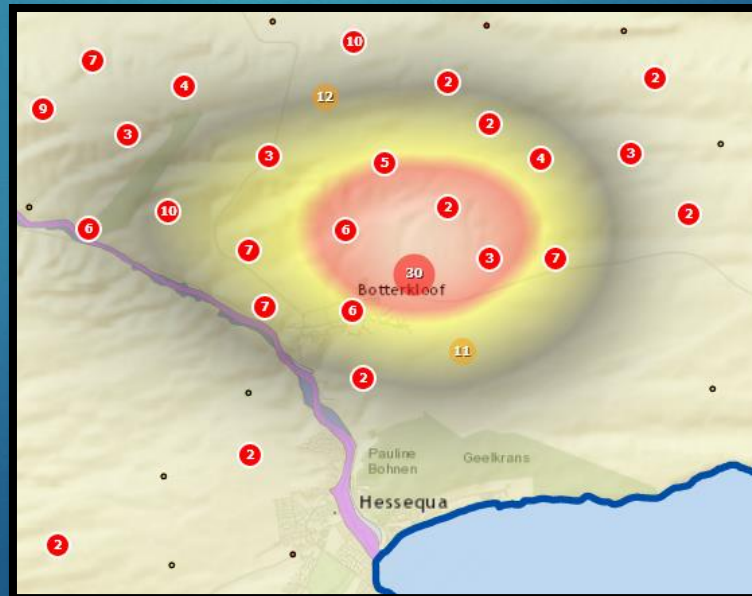
Hessequa and Climate Change – 2/3

- ▶ Energy Usage –
- ▶ Alternative Energy Projects:
 - ▶ General Electric – a 14 MW Wind farm near Melkhoutfontein
 - ▶ Jefferson – a 10MW solar farm near Melkhoutfontein
 - ▶ Kalabash E4SA – 1 MW solar PV project near Riversdale
 - ▶ CAE – 5 MW Biogas digester project – first pilot to be at the Riversdale sewerage works
 - ▶ African Power – High Temperature Conversion of Waste to Energy plant near Riversdale
- ▶ In addition, on municipal land
 - ▶ Innowind wind turbine project in Albertinia: x6 turbines@3MW each
 - ▶ Innowind wind turbine project in Heidelberg: x10 turbines@3MW each
 - ▶ BlueBear wind turbine project in Jongensfontein: x2@5MW each



Hessequa and Climate Change – 3/3

- ▶ Tree Planting Initiatives: 100 000 tree Initiative
www.100000trees.co.za
- ▶ Water & Air Quality Management
- ▶ Awareness Campaigns – School Programs
- ▶ Public Participation – Engaging Stakeholders
- ▶ Disaster Mitigation:
 - ▶ Fires
 - ▶ Flooding
 - ▶ Key Risks



10 Year
Recorded fires
“Heat Map” –
Melkhoutfontein
as Extreme Risk
Area



Reactive Management

HOW DO WE RESPOND



Weather Patterns

- ▶ Rainfall patterns – Less frequent, more at once
 - ▶ Storm water Challenges
 - ▶ Flood lines and Building Regulations
 - ▶ Tidal Changes as a result of international storms
 - ▶ Flooding of river banks more extreme when coinciding with spring tides
 - ▶ New infrastructure designs for larger storm water volumes
- ▶ Water Resource Management
 - ▶ Changing patterns of usage
 - ▶ Ensuring losses are minimised
- ▶ Disaster Management Readiness



Critical Needs to consider

- ▶ Assessing Water Security of Traditional Sources
 - ▶ Dam levels are not an indicator of security, but of short term availability
 - ▶ Augmentation of sources should be considered before disaster happens
- ▶ Preparing for worst case scenarios
 - ▶ Asking the questions of “what if . . .?”
 - ▶ Groundwater Sources are to be considered as a finite source
 - ▶ Salt water encroachment in aquifers poses threats to coastal areas
- ▶ Identifying Vulnerable Areas
 - ▶ Natural areas vulnerable to disaster – threat to biodiversity
 - ▶ Populated areas vulnerable to disaster – threat to human life and economic sustainability



In conclusion . . .

- ▶ A local government cannot be a spectator
- ▶ Integration of governance processes are critical to prepare / respond to climate change challenges
- ▶ Do what you CAN:
 - ▶ Waste, Water, Air, Changing Usage Patterns, Regulations, Tariffs, etc.
 - ▶ Secure vulnerable infrastructure before it is damaged
 - ▶ Annalise statistics and pro-actively address root causes
 - ▶ Prepare Incidental Plans
- ▶ DO what you SHOULD:
 - ▶ Develop clear vision and strategy
 - ▶ Implement Vision and Strategy through all affected functions
 - ▶ **Measure / Monitor / Evaluate / Act / Repeat**



Thank You!