

Regionalization and the challenges faced by smaller municipalities

Presented by M S Haider
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Definition

- ❑ The process of dividing an area into smaller segments called regions
- ❑ One of the more obvious examples of regionalization is the division of a nation into states or provinces.
- ❑ Businesses also use regionalization as a management tool and a way to make certain that **needs unique to particular areas are met.**



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Definition that makes most sense

“Regionalisation refers to bundling the waste disposal needs of several towns and cities and tackling the problem they share by creating one regional facility”

Source: Improving Solid Waste Management in India – P Asnani; C Zurbrugg (2007)



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How can one apply regionalization in a waste management perspective?

Regional landfill sites

Waste to Energy plants

Interlinking of transfer stations

Tariff setting

Value-added centres



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What are the benefits of regionalization ?

Less infrastructure to maintain

Lower lead times for authorities to license and process applications for facilities

Cost savings

Risk is shared and therefore reduced

Adds value to volume-based activities eg recycling



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Why should it take priority in moving forward?

Most municipalities have similar problems eg

- lack of landfill airspace
- need alternatives for disposal of waste
- limited resources whether human, capital, finance, etc
- stricter and more onerous legislation
- ever-growing waste volumes
- pressure from other sectors to compete for limited land resources



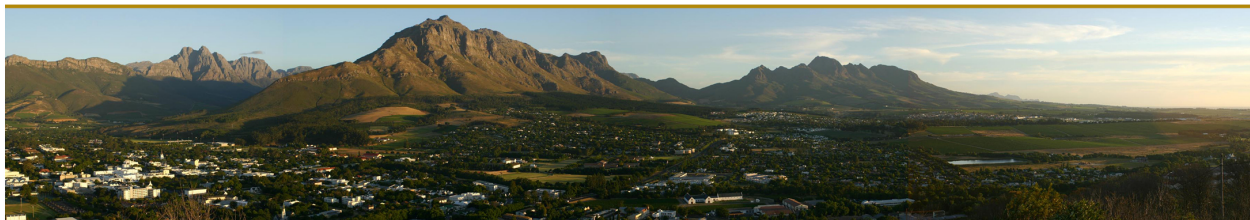
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Why should it take priority in moving forward?

- minimises the scope of public objections
- facilitates the construction of large landfills that can be managed professionally in a cost-effective manner
- most small municipalities do not have technical personnel and adequate financial resources to set up engineered landfills



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Benefits

➤ economy of scale

- Generally sanitary landfills are complex and expensive
- For feasibility need at least 500 tons per day
- **Production of waste by urban settlement type**

Suburban 0.8 - 3kg per capita per day

Township 0.2 - 0.8kg per capita per day

Informal settlement < 0.2kg per capita per day

Sources: Mbande, 1996; Lombard in Palmer Development Group, 1996; Benting, 2000.

- Taking a mean of 0.8kg/person/day, implies that the population count should be a minimum of 600 000 to 700 000



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Benefits

- technical experts underused for small facility
- capital costs of equipment now more affordable and better utilised

Financial benefits:

- reduction in fixed costs ↔ lower unit of waste cost
- cost savings because of sharing of overheads & maintenance costs
- sharing of professional management
- improved bargaining power to buy better equipment and systems at lower cost



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Technical Benefits

- municipality has greater access to technical resources and expertise
- use of large and sophisticated equipment
- large landfills allow waste to be stacked to greater heights, which also compares to greater depth of landfilling ↔ substantial increase in available airspace
- can be located at considerable distances from municipality, which helps constraints on land availability
- proper planning and development of site, with provision of adequate buffer zone



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Challenges

- Two or more municipalities come together with different resources and different goals
- leveraging of fees to municipality outside the region
- transport
 - Long distances
 - increase in traffic
 - congestion, pollution, road wear and tear



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- Central government
- Provincial government
- Participating municipalities
- Private investor or contractor participation



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MOU among participating municipalities

- executive unit formed and authorised to deal with waste disposal
 - powers to decide on outsourcing operations
-
- agreement on tipping fees based on quantity delivered or any other parameter

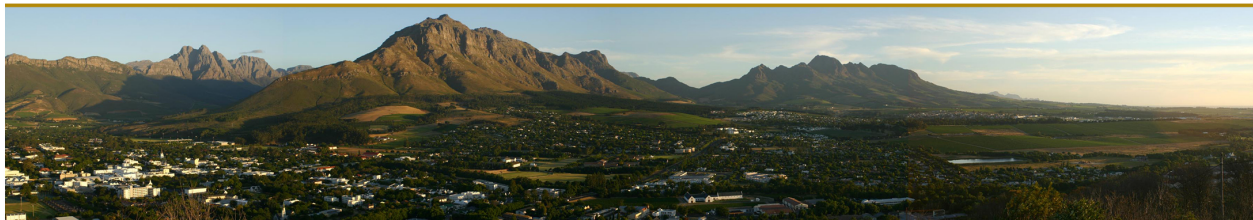


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Public Participation and Stakeholder Engagement

- inform citizens about purpose and expected benefits
 - inform how planned changes could affect them
-
- get buy-in!!



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Different types of Regional Organisations

➤ Objectives:

➤ serves as a formal management structure for regional projects

➤ Implements planned project, and provide the necessary authority for financing, operating and monitoring SWM activities



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1. Intermunicipal Agreements

- widely used
- contracts to perform specific tasks together
- informal arrangements or complicated legal contracts
- advantages: flexibility & expediency
- disadvantage: difficulty in obtaining capital financing as it has to be done by municipalities individually
- suitable for limited regional projects



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2. Authorities, Trusts and Special Districts

- power to issue bonds, levy taxes, raise funds
- contract with private companies
- administered by Board of Directors (non-officials)
- considerable political and financial independence
- sustain coop partnerships among communities in absence of local politics



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3. Non-profit Public Corporations

- owned and managed by participating municipalities
- run as independent businesses, and member municipalities pay dues
- fundraising for additional funds
- tax-exempt bonds (in some countries)
- Board of Directors consists of appointed or elected officials from municipality – policies, budgets, operation
- less independent than Authorities, Trusts and Special Districts, but often makes decisions municipalities cannot
- borrowing of money over long-term debt
- disadvantage: time consuming to establish



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4. Regional Councils

- councils of municipalities
 - or
 - regional planning commissions
 - or
 - regional development centres
-
- organise and manage all types of cooperative projects



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5. Private sector participation

- Outsourcing
- loss of flexibility for participating municipalities
- lengthy and complex competitive bidding process



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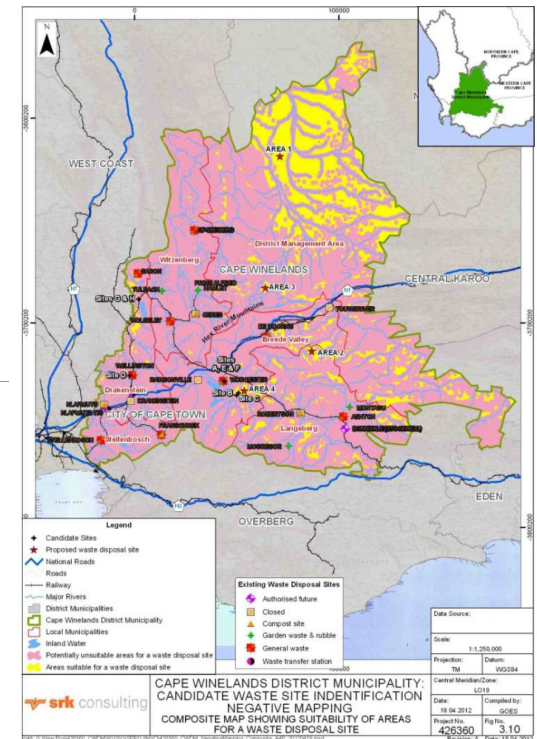
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Case Study 1

➤ Regional landfill site

➤ City of Cape Town

➤ Cape Winelands District Municipality



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Case Study 2

➤ Waste-to-Energy plant

➤ Drakenstein Municipality

➤ vs

➤ Stellenbosch Municipality



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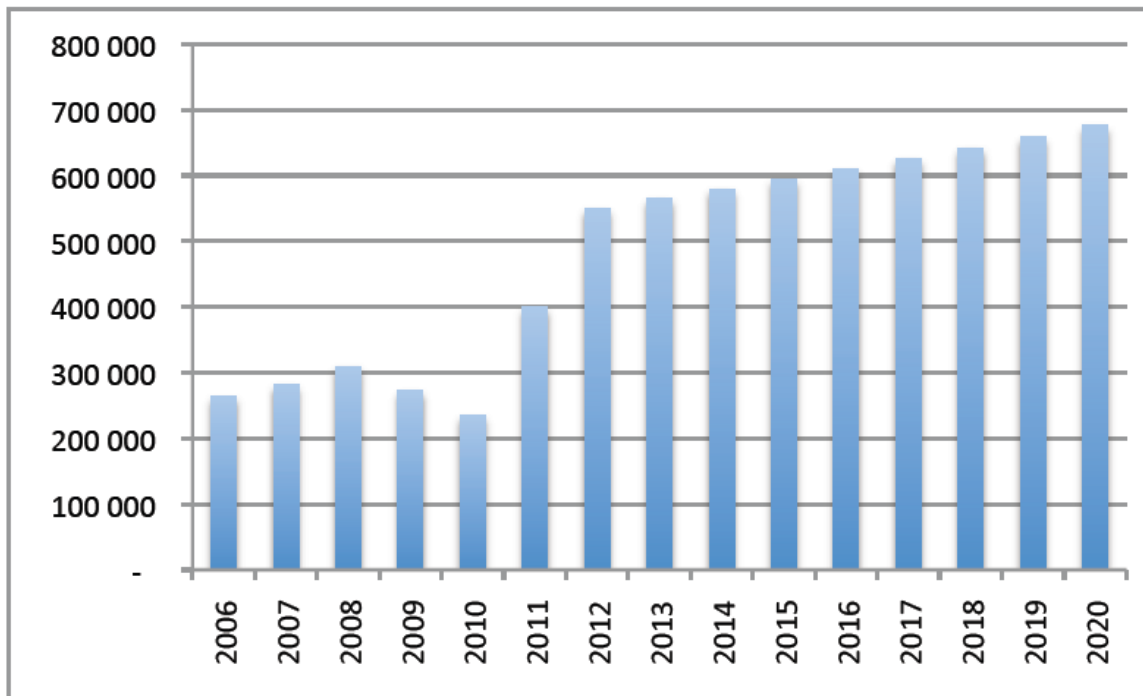
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Case Study 3

➤ Impact of tariffs

When CoCT sneezes, Stellenbosch municipality catches a cold.

Figure 1: Total MSW Landfilled, 2006-2020 (t/yr)



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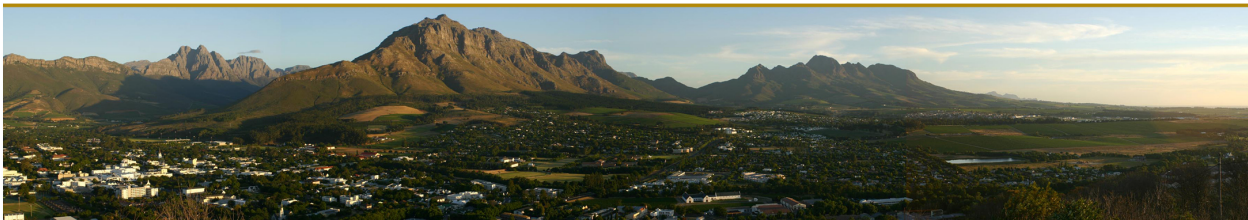
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Case Study 4

KIWMF and Klapmuts Waste Transfer Station

- barely 10km apart
- services two separate municipalities
- integration missing



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Conclusion

Regionalisation is important for....

- good and timeous planning
 - budgeting
 - sharing
-



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A last question

How much influence on decision-making does the Solid Waste Manager have when making proposals??



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Thank you
Dankie
Enkosi

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