

The State of Water: Challenges and Achievements

Report to the Portfolio Committee: Progress by the Business
Process Re-engineering (BPR) committee

Minister Edna Molewa: MP

17 April 2012

REPORT BY MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS MRS EDNA MOLEWA ON PROGRESS MADE IN RE-ENGINEERING THE BUSINESS PROCESSES OF THE DEPARTMENT OF WATER AFFAIRS

PORTFOLIO COMMITTEE ON WATER AND ENVIRONMENT

17 APRIL 2012

CAPE TOWN

1. Historical and Policy Context

Before turning to a brief review of performance challenges the Department of Water Affairs has faced in the last eighteen years, it is necessary to sketch out, in broad terms, the political, economic and ideological context of the current state of water.

- The current National Water Resources Strategy is to a large extent configured within the political geography of apartheid South Africa, and has been framed away from universal access and towards market-based models. Furthermore, Catchment Management Agencies, as currently constituted, tend to exclude water users from historically marginalized and poor communities.
- Fortunately, the idea of a democratic, developmental, and capable state has opened the way for a new mode of state regulation and social control that affects the daily lives of the poor.
- The developmental state brings the poor into a direct relationship with the state, a relationship that historically has been essential to the expression of the collective agency of poor communities.

2. Appointment of the Business Process Re-engineering Committee

- This year is of great significance for South Africa. The African National Congress, the ruling party, is celebrating its centenary and reviewing progress on a remarkable commitment it made a hundred years ago. The Millenium Development Goals set out to halve world poverty by 2015. But we are now three years to that date and the South African government has still to fulfill its pledges to the poor. Nowhere is this clearer than in water, where the government has to fulfill those solemn pledges.
- In July last year, we brought together thirteen people to form the Business Process Re-engineering Committee. They were invited in their individual and personal capacities rather than as representatives of government or institutions. The majority came from social sciences and have varied experience as political leaders, policy analysts, planners, project managers, chartered accountants, organizational design and human resources development experts, engineers, IT specialists, legal experts, public servants and also the private sector. The task they were set was: to define the challenges facing the water sector, and to provide clear recommendations on how to support the changes needed to promote growth, infrastructure development, job creation, and equity.

3. Preconditions for a Turnaround Strategy

Here, in brief, are the preconditions for an effective water sector that is driven by the need to address national development objectives, as well as the hypothesis we see emerging from the analysis above:

- At the regulatory level, identifying and dealing honestly with the major constraining systemic features and contextual factors that have dominated the past and continue to dominate the present scenario, and which have either not been addressed or have been tinkered with for reasons of political expediency, will be fundamental to meaningful and sustainable change in the management of water resources and services;
- A mindscape shift from a regulatory to an institutional level search for solutions with wider stakeholder participation and greater tolerance of difference and diverse needs and interests to proposed solutions may facilitate the change process more effectively than dogged reliance on paths that have been habitually followed, which are considered standard;
- In the spheres of organizational design and capacity building, there needs to be a more deliberate focus on the national goal of social cohesion, equity, deliberation and participation, the extension of political democracy to the domains of technology and work, national integrity, and accountability, in addition to the technical competencies that will enable officials to achieve these goals;
- These are glaring inadequacies in the education and training system that fail to address the role of water in the national developmental programme, in both the short and the long term;
- The need to build water education and awareness in youth; so far, policy makers and water officials have neglected youth with the result that they are unable to organize themselves for effective deliberation

and participation; the dearth of water experts, across the entire water value chain, from historically marginalized and poor communities, and the urgent need to work with educational institutions in reforming curricula; and setting clear direction over a period of 20 to 30 years for the water sector, for both water resources management and water services delivery, across the entire spectrum of clearly delineated water user segments.

- Strategic leadership by water executives and managers.
- Effective long-term financial planning over at least 20 to 30 years period to enable water needs to be adequately managed across all water user segments.

4. Profile of Key Challenges and Interventions

a) Financial Mismanagement: Shortage of Requisite Level and Kind of Skills

i) Challenges

The first and most important task has been to address the Auditor-General's Report and Management Letter 2011 with respect to both the Water Trading Account and Main Account, with the view to formulating detailed turnaround plans, indicating recommended corrective action addressing queries and findings raised in the Auditor-General's Report and Management Letter of 2011. The task has also involved addressing the objectives of Operation Clean Audit 2014 through the elimination of the Audit Disclaimer and qualifications raised in favour of an Unqualified Audit Opinion.

ii) Interventions

- A major project is underway for the reorganization of the Finance Branch, focusing also on the capacity and capabilities required to provide ideal support to the Department's mandate.
- A Chief Financial Officer has been appointed.
- A list of current projects of the Construction Branch is being compiled for the selection of the appropriate sample, and processes are being mapped.

b) Infrastructure and Asset Management Improvement

i) Challenges

South Africa is facing a number of challenges with regards to water provisioning, some waste water treatment works are dysfunctional (green drop report), and ageing and deteriorating infrastructure is a major contributor. It is estimated that the national water resources infrastructure (dams and major conveyance systems) maintenance backlog is in the order of R15bn. There have also been problems and audit findings with the valuation, inventory and depreciation of DWA's infrastructure assets, particularly those under the Water Trading Entity. The only way to sustainably deal with these issues is through improved asset management that is robust from both a financial and engineering perspective.

Sustainable infrastructure asset management should:

- Maximise the service potential of existing assets by ensuring that they are appropriately used; maintained, safeguarded and that risks are mitigated;
- Optimise the life cycle costs of owning and using these assets by seeking cost-effective options throughout an asset's life cycle;

- Reduce the demand for new assets through optimal use of existing assets and management of demand through the use of non-asset service delivery options; and
- Establish clear lines of accountability and responsibility for performance.

ii) Interventions

- 90% of water assets have already been captured on the SAP system.
- Different models are being considered for more efficient management of infrastructure assets, focusing on streamlining the operations management of water infrastructure assets.
- A mechanism for continuous asset evaluation is being developed.
- The existing Operational Strategy has been evaluated, and the valuation regime needs to be formally agreed and adopted.
- Desk study of other potential Infrastructure Asset Management Systems is in process, as well as applications based on clear definition of user requirements.
- All current leases are being investigated

**c) Organizational Design and Human Resources Development
Challenges**

Chairperson and Honourable members, another area that has proved challenging is that of human resources and the recruitment of appropriately skilled individuals from the very limited skills pool in our

country. A new operating model has been developed and is currently under consideration it will include the establishment of multi-disciplinary teams in Human Resources. The re-engineering of the entire recruitment process is also underway with a view to reducing the time it takes to recruit staff as well as to ensure the appointment of good quality candidates. We are delighted to tell you that, although not fully implemented the initiative has already resulted in much smoother and more thorough recruitment and selection.

Interventions

- A comprehensive and integrated process has been initiated to develop a more people-driven, democratic and human resources partner model.
- The Department's recruitment process is being re-engineered and refined.
- Senior management performance contracts are being refined and aligned.
- A programme has being developed towards more effective talent management and the transformation of institutional culture.
- ***The recruitment process is being re-engineered both qualitatively and quantitatively and we have appointed people to the following Senior Management Service positions since the last briefing: Director General, Acting Chief Financial Officer for Water Trading Entity, Chief Financial Officer for the Main Account, Chief Director: Policy and Regulation, and Chief Director: Legal Services.***

d) Information and Communication Technology

i) Challenges

The current IT operating model for the Department is already in the process of being re-evaluated to improve IT governance and better use IT as an enabler of all processes at the DWA. The use of the Enterprise Resource Planning system will be assessed to ensure that maximum return on investment is achieved. A major step was taken in October 2011, after an extensive consultation process, to invoke the provisions of the current outsourcing contract to “transition” to a new service provider by April 2013. The procurement process is well advanced in this regard and a tender was advertised on 8 April 2012. Just yesterday a tender briefing session took place for the outsourcing of IT services.

ii) Interventions

- Project Plan for the ICT Award Project has been reviewed with all stakeholders and risks and gaps have been identified; and outsourcing re-appointment project process has been established and is being implemented.
- Steps are in progress for the appointment of a higher level process management team.
- A risk register and mitigation plan has been established.
- Job profiling and evaluation is in progress, and IT department organizational structure has been agreed.

- The outgoing service provider will review the schedule and align it to revised timesheets.
- A more suitable ICT governance structure is being developed.
- To address the most recent findings of the Auditor General, controls are being implemented.
- The suspension of the Communications and Information Director has been lifted.
- Roles for contractors/mentors (architecture and Business Analysts) and hire for agreed period are being reviewed.
- An on-going skilling programme for ICT is being developed.

e) Regulatory Framework: Policy, Legislation, and Administration

i) Challenges

- To understand the regulatory framework within which the Department of Water Affairs operates, and to determine how best to promote a rational, coherent, and just water system across the national, provincial and local spheres of government, it is necessary to consider the statutory relationship between them; and benchmark it against international “best practices.” In reviewing water policies and laws, it is necessary to assess the extent to which they support and enable water development, equitable water allocation, efficient and prudent water use, and sustainable water services provision.
- Recognizing that the legal and policy empowerment of the poor experiencing difficulties in accessing quality water and sanitation is key

to redressing historical imbalances and enhancing integrated economic development, careful consideration needs to be given to the development of a national redress and equity water strategy.

- There is a gap in the current Water Act regarding enforcement of Equity. There is no explicit mandate to address this.

ii) Interventions

- We have reviewed the White Paper on Water in light of lessons learned from policy implementation in the last eighteen years and have adopted a new Framework of Policy Principles which informs the legislative review process, the development of a new National Water Resources Strategy and a National Water Services Plan.
- The Department is also reviewing the National Water Act, the Water Services Act as well as the Water Research Act, with the view to improve water management and equity going forward. Acts will be amended through the General Laws Amendment Bill.
- It is recommended that the potential to expand the scope of the Tribunal to impose civil penalties for non-compliance should be investigated. This will significantly enhance our ability and to be seen to be serious about the matter. It might even be able to be developed in a way that it addresses both water and environmental non-compliance.

f) Institutional Arrangements

i) Challenges

The water sector is characterized by: lack of leadership and management skills; administrative complexities due to multi-level governance; elitist and

undemocratic decision-making processes, and inadequate water literacy and water education programs leading to relatively poor institutional performance.

ii) Interventions

- Consideration of the various options led to the preferred institutional arrangement for the financing, development, and management of national water resources infrastructure through an agency ring fenced within the Department of Water and Environmental Affairs.
- Nine Catchment Management Agencies be established with strong stakeholder involvement and be within tightly managed timeframes.
- A differentiated establishment of regional water utilities is under consideration. The intention is to reduce the number of water boards through merging some of them, and to extend their foot-prints, and through this to build fewer, stronger, more financially viable institutions with a strong focus on supporting local government as well as their primary function as bulk services providers.

g) Equity

i) Challenges

The lack of equity in the allocation and use of water resources, seventeen years after independence, is the symptom of the ills of post-apartheid South Africa. The state of the country's poor, deprived of equitable access to water in 2011, shows that there are enormous challenges that need to be met before the country can earn a clean bill of health.

Interventions

- To change this condition, my department has embarked on a massive project to review and re-engineer all business processes in the water sector. The framework for meeting the water needs of the poor is

being stretched to cover the increasing demands of expanding urban settlements, industrial sectors, and commercial agriculture. There is also the fear that existing policies and institutions are not able to cope with the disregard for water rights, eroding commitments to redress and equity, outdated practices and attitudes in the management of water resources, and the tendency to neglect the poor in policy and planning processes. We are changing that and are moving at a very fast pace.

5. Conclusion: Putting in Place an Effective Monitoring Mechanism

To add extra momentum to the delivery of the Business Process Re-engineering Committee's recommendations, a mechanism, which will reflect the consultative approach of the Department of Water Affairs, will be established to monitor and report on progress.

Thank you

Mrs B EE Molewa, MP

Minister for water and Environmental Affairs

17 April 2012

NOTES FOR MINISTER EDNA MOLEWA'S BRIEFING OF THE PORTFOLIO COMMITTEE ON WATER AND ENVIRONMENTAL AFFAIRS

17 April 2012

Background/Introduction

Following my appointment as Minister for Water and Environmental Affairs on 1 November 2010. The first 6 weeks of my term was used to familiarise myself with the Department leading up to a Strategic Planning Session convened in Pretoria. I then embarked on a on a major intervention to turn the department of Water Affairs from its current state to a more efficient and agile organization, capable of carrying out its mandate to deliver water to South Africa. Water management and provision is a never ending non- stop business (24hr a day/7days a week/365 days per year) which requires an extremely efficient and effective business approach to the way we not only manage the resource but also in the way that we provide services to all South Africans. This requires a process to supplement the capacity of the Department's existing pool of professionals (engineers, scientists and technologists) to raise the bar as we respond to the development challenges of our country.

The Department has had a difficult time with regard to the negative findings by the Auditor General on its annual report over the past few years. The Standing Committee on Public

Accounts also raised several concerns regarding efficiencies in financial and operational management of the Department. Minister also observed/identified deficiencies in the configuration of the DWA and the sector which hampers the agility of the Department to deliver quality services.

In July 2011 I appointed a Committee of Experts (BPR Team) for an initial one year period to advise on how to effect and implement a radical improvement within the Department. These experts (13 in number) possess and have a variety of skills in organizational renewal, financial and operational management, information technology, programme management and turn around processes in general

The Committee embarked upon a business process reengineering intervention to determine and address a number of debilitating issues within water affairs preventing the DWA from becoming an efficient and functional entity in order to fulfil its rightful role as a key player in economic development and job creation in our country.

The Committee has completed it's Inception report and is now in the process of implementing some of the key recommendations and findings. This is a dynamic process in that the interventions are being implemented while the Department is at work (while the car is in motion so to speak!!).

Key Challenges identified which have to and are currently being addressed

- One of the greatest challenges facing water provision in South Africa is the aging water resource infrastructure. **Initiatives to address the backlog on rehabilitation / refurbishment of infrastructure initiatives are being developed** through effective long term financial planning which will be conducted to determine the funding requirements to refurbish and maintain the infrastructure. A rigorous infrastructure asset management system, enabled by information technology will also be implemented to ensure that in the future asset monitoring and conditioning is properly conducted.
- A further challenge of linking the bulk infrastructure, provided by the Department of Water Affairs, to reticulated water infrastructure provided by local government Water Services Authorities. This requires a **new approach to water provision, though integrated and aligned service delivery arrangements** with a concomitant and **functional infrastructure** from "Source to Tap and waste to source". This requires joint planning and execution between the levels of government and strong cooperative governance frameworks to impact the redress of the underserved areas of our population, who without water and sanitation have no chance of a sustainable livelihood and even

less to develop economically. This is further exacerbated by the dual management of sanitation particularly in the rural areas where my Department is responsible for regulation while the Department of Human Settlements is responsible for implementation.

- **The management and treatment of wastewater and the appurtenant infrastructure (waste water treatment works) is also being addressed.** The DWA will work with municipalities to address challenges such as effluent discharges into rivers and streams, aging water infrastructure, the state of the waste water treatment works and skills development. This is currently being conducted through the Regional Bulk Infrastructure Programme (RBIG) and the Accelerated Community Infrastructure Programme (ACIP) which looks at the rehabilitation and refurbishment of waste water treatment facilities. New Regulations for Process Controlling will be introduced which incorporates mandatory training for all water and wastewater process controllers with the objective of enhancing and professionalizing water and waste water treatment skills.
- A long term **Infrastructure Investment Plan** is being developed with the assistance of the DBSA to **establishing adequate financial plans** to secure funding for providing and managing the provision of water into the future and part of this

will require the effective management of costs across all water institutions. The existing **water pricing strategy is under review will be assessed** to ascertain its suitability to the various groups of consumers and in providing sufficient funding to maintain the infrastructure and mechanisms of supply.

- The demand for water is growing and bulk supply is dwindling due to pollution, wastage and climate change. Groundwater remains an essential source of water which has not been fully exploited in the country. The **supply and demand balance is being assessed in terms of overseeing that effective long term strategic plans are in place and that can be effectively executed on by our competent and skilled employees** working effectively within water affairs.
- A refocus of the current “water mix” will include a **focus on monitoring and utilisation of groundwater resources and especially addressing the Acid Mine Drainage issue** which threatens the programmes to manage water quality in the Vaal River system.
- The **water user licence backlog, which could hamper economic development, is being addressed through process reengineering** to ensure the capacity to conduct the applications, applicant education, responsibility for applications, the alignment to information management systems and

automation of the process. The improvement of this process is essential as it is a source of revenue for future infrastructure funding.

- The three principle Acts which govern the work of the Department are being subjected to a **Legislative review process** to assess whether changes to the entire water management value chain can be affected to the maximum benefit of water service delivery.
- The Department is aiming for effective water management that will ensure water security, water quality, and water access to all; focusing on redressing areas that have experienced ineffective service delivery. There is a need to urgently **intervene to resolve the skewed water allocation ratios and the configuration of source to tap and waste to source**. In this regard the aim is to address the negative consequences emanating from historically skewed water allocation. The Department is currently developing tangible and realistic plans to meet the challenge of meeting basic human needs while at the same time protecting environmental needs.
- In the area of communications there has to be a focus on **ways of enhancing how the Department raises public awareness of the value of water**, including all policy and decision makers in the country, who need to be made aware of the role of water as a

strategic resource. The Department plays a pivotal role in our country in changing our behaviour and attitudes towards water and use resources efficiently to ensure its sustainable availability for the benefit of all.

- **Turning around the Water Trading Entity is being treated as an urgent strategic project by the Committee.** Business processes are being instituted, and the internal controls and non-compliance accounting systems are being resolved. The efficiency drive and funding model is under review to address operating losses. This may involve changes in the structure.
- **The current IT operating model for the Department is already in the process of being re-evaluated** to improve IT governance and better use IT as an enabler of all process at the DWA. The use of the Enterprise Resource Planning system will be assessed to ensure that maximum return on investment is achieved. A major step was taken in October 2011, after an extensive consultation process, to invoke the provisions of the current outsourcing contract to “transition” to a new service provider by April 2013. The procurement process is well advanced in this regard and a tender was advertised on 8 April 2012.
- **A process is also in place to determine the desirability of establishing an Economic regulator for the Water Sector.**

- **The issue of internal controls at the Department and other institutions is being resolved** through developing processes and process re-engineering to enable effective revenue collection, fund management and procurement practices among other key functions. Policies are being reviewed to ensure that all the correct tools are in place to resolve audit qualifications to **ensure a clean audit by 2014.**
- **Human resource systems are being reviewed to ensure that the Department has plans for staffing, human resource development and individual performance management** that are currently assisting it to improve its performance and build a capable workforce.
- **The issue of the Culture of the Department is being addressed through an organisational culture review programme,** recommendations will be implemented from the end of April starting with the Top Management group.

Programme of work currently under way.

The Committee (BPR) is actively engaging with Minister, Director General and the Management of the Department and through 7 very focussed Work Streams have identified and prioritised some 40 projects/deliverables which have to be achieved by July 2012. At a recent Workshop with Minister and Top Management of the

Department workplans were developed and are being implemented in the following key focus areas:

- Mandate, Strategy and Policy formulation;
- Legislative review of the National Water Act, the Water Services Act and The Water Research Act. The early deliverables being the proposed amendments for the appointment of the Water Tribunal and the amendment Bill for the Water Research Act.
- National Water Resources Infrastructure Model which includes the organisational arrangements for the Departments Infrastructure Branch and the Trans Caledon Tunnel Authority (TCTA).
- Proposed ICT structure and the procurement process for the outsourced services. The structure has been approved and the procurement is underway to ensure that a service provider is procured by end September 2012 and the transition is completed by 1 April 2013.
- Institutional Reform and re-alignment which considered the reconfiguration of the CMA's, proposals for Regional water Utilities and the transformation of Irrigation Boards and Water User Associations. Approval has been granted for the

establishment of 9 Catchment Management Agencies over a two year period of implementation.

- Human Resources Organisational Structure and recruitment. A new operating model has been presented and is under consideration which will include the establishment of Multi-disciplinary teams in Human Resources to give more focussed support to the line function Branches.
- Organisational Structure for the Policy and Regulation Branch. Proposals have been presented and are under consideration to reconfigure the Branch into two branches: one for Policy and Planning and the other for the Regulatory and Compliance activities.
- Considerable progress has been made in the areas of improving financial management in order to achieve a clean audit by 2014. The areas of focus include: clearing audit queries; preparation for the 2011/12 audit; Risk Management, Internal Audit and the Audit Committee; Capacitating the Finance Branch structure; Analysis and verification of sundry expenditure and taking corrective action.
- A second CFO (acting) has been appointed to take responsibility for the Water Trading Account (WTE) to improve financial controls and management of the trading account.

- The High Impact Leadership and Team intervention is due to commence in April 2012 and followed shortly thereafter by the EDGE leadership for Chief Directors and Directors to improve leadership qualities and create cohesion in the Department.
- The Committee is currently undertaking a Stakeholder engagement investigation of social equity and public participation with reference to water resources management and management processes. This process started in March and involved engagement with the Department's stakeholders to improve their skills in public engagement.
- Significant progress has been made on the identification of Infrastructure and facilities with 90% of the assets already captured.
- A programme is being developed to provide communities with an "intermediate level of service" which may include the use of package water treatment plants located close to communities which do not as yet have access to clean drinking water.



Meeting with Portfolio Committee

17 April 2012



water affairs
Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Water Message !!

- Water management in South Africa is at the crossroads
- Critical need to support and respond to growth and development initiatives
- Challenge: fresh water resources in most areas at its limit !:
 - limited new resource development options
 - urgent need to extend existing resources and to exploit alternative (“new”) options
 - unacceptable water loss and inefficiency (>33%): water conservation and demand management non negotiable
 - Alternative (“new”) options include: local resource optimization e.g. groundwater development, re-use, sea water (desalination), improved control, resource protection and systems management
- Risk: Need timeous mobilization; increased costs (use sector viability implications)

Implications!!

- Water is fundamental to growth and development
- Water and its management need to be central to integrated development planning and decision making
- Potential water security risks if required actions not mobilized in time
- Water risks = economic, implementation and functionality risks/challenges
- Need to improve water governance: implications for DWA and inter-sector management
- Need to apply new “smart” water management solutions and approaches (research, technology, sector involvement and accountability)
- Need to strengthen social role of water
- Development of a comprehensive water investment framework and strategy
- Need to double up on financial water investment

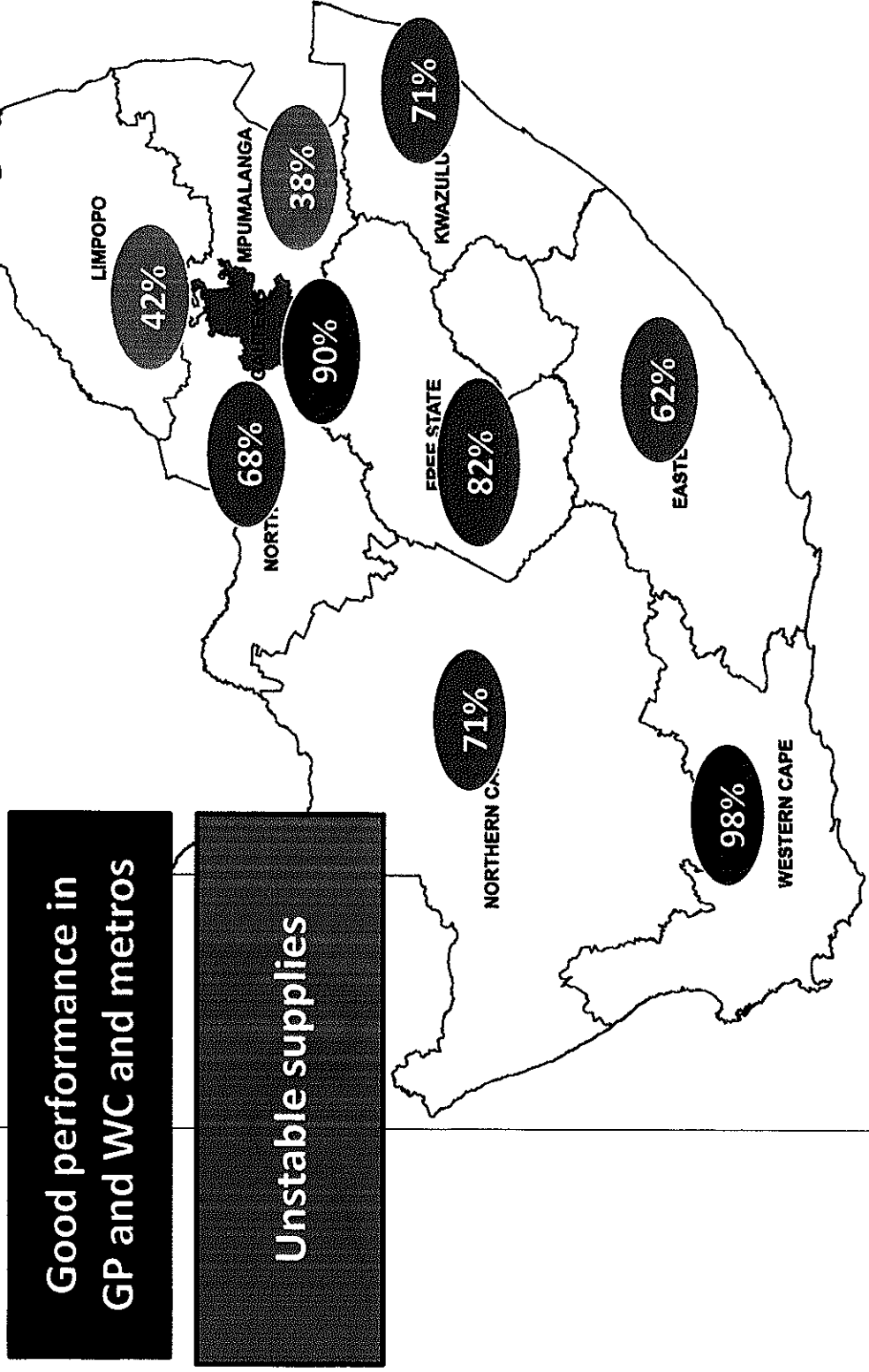
Water Services is a Comprehensive Business!!

[need to grasp the extent & implications]

- Water service is an essential service (economical & social)
- 50 million domestic customers (+ tourism, etc)
- Water related businesses (several thousand)
- 24 / 7 / 365 Business: Non-stop, never-ending
- Service = Business (manufacture & deliver potable water)
- Water turnover by volume = 4,23 billion m³/a
- Non-revenue water = 37%
- Infrastructure replacement value = R433 billion
- Water sales value >R33b/a (vs revenue R25b/a)
- Required O&M of >R26b/a

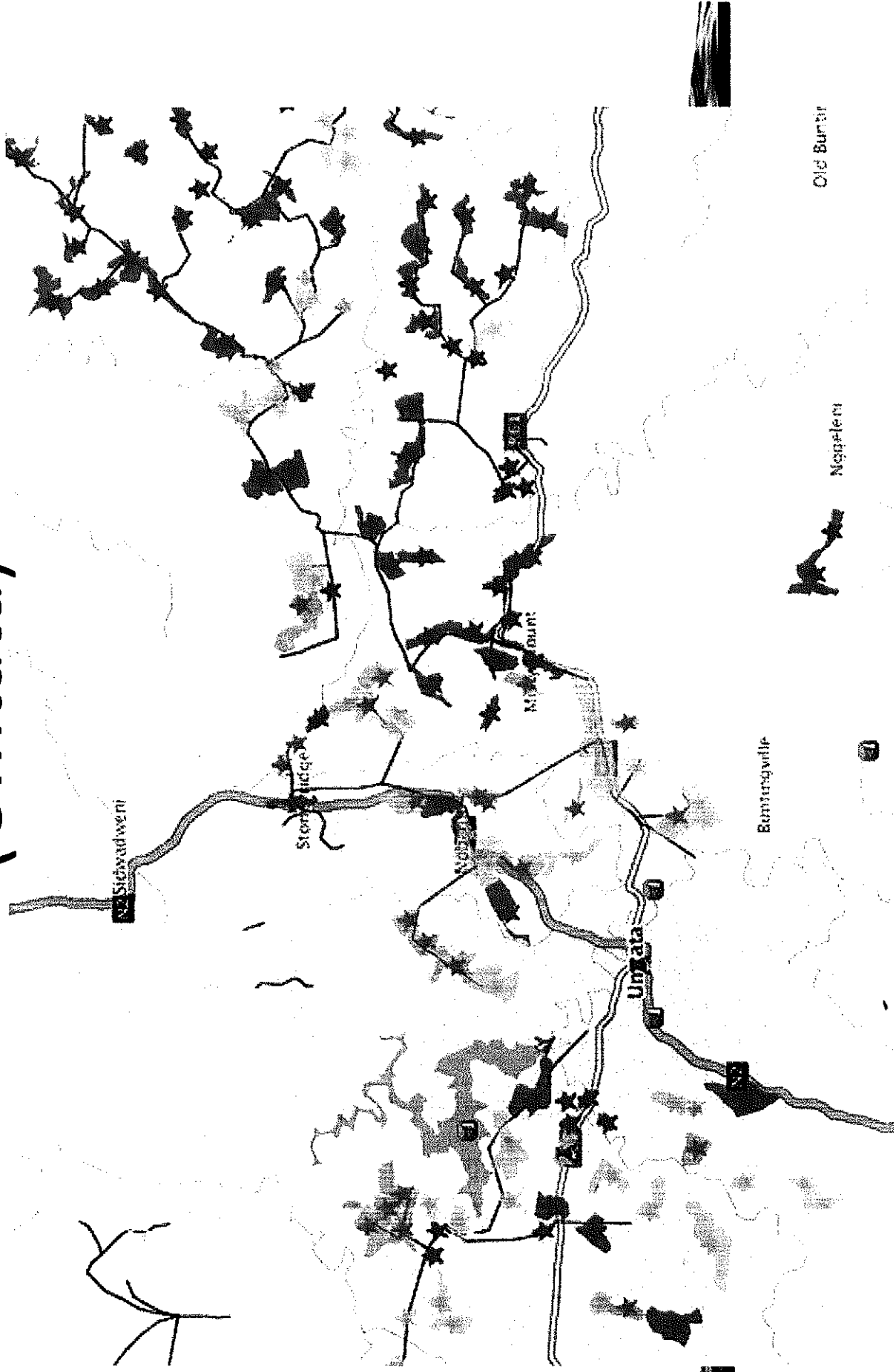
Functionality of services:

Stable and unstable water supplies 2009/2010 (StatsSA)



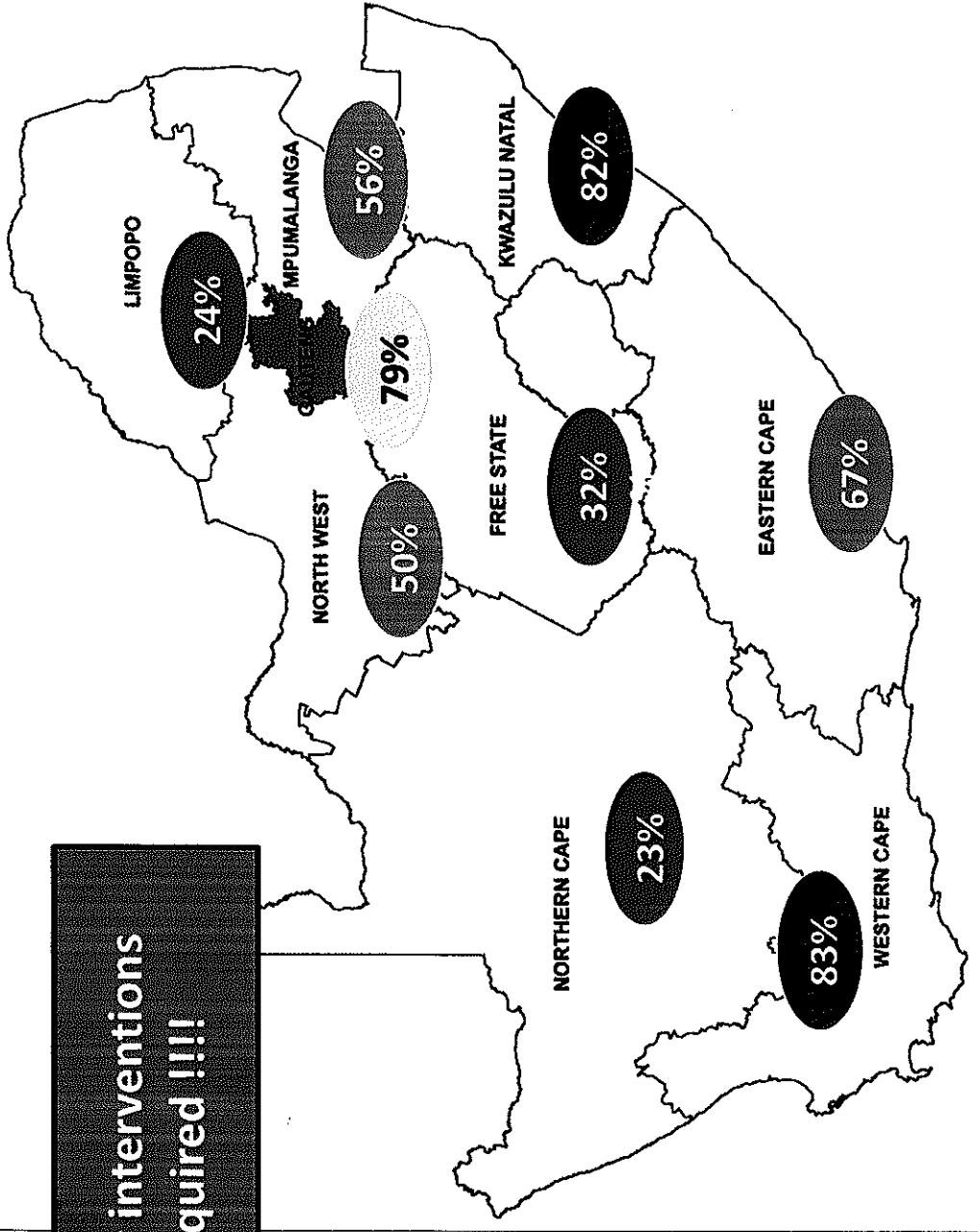
	2009	2010
National	24%	26%
unstable	76%	74%
stable		

WS: non-functional infrastructure (Umtata)



Waste Water Systems: Green Drop Results – 2011

Major interventions required !!!











	2009/10	2010/11	Average score (2010)
systems	33	40	51%
Green drops awarded	821	444	821
systems assessed	821	444	821

“Hotspots”:

– Green Drop score (score out of 100)

Legend

-  Greater/Equal To : 75
-  Less/Equal To : 100
-  Greater/Equal To : 50
-  Less/Equal To : 75
-  Greater/Equal To : 25
-  Less/Equal To : 50
-  Greater/Equal To : 0
-  Less/Equal To : 25



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"Hotspots": Wastewater Treatment Works :

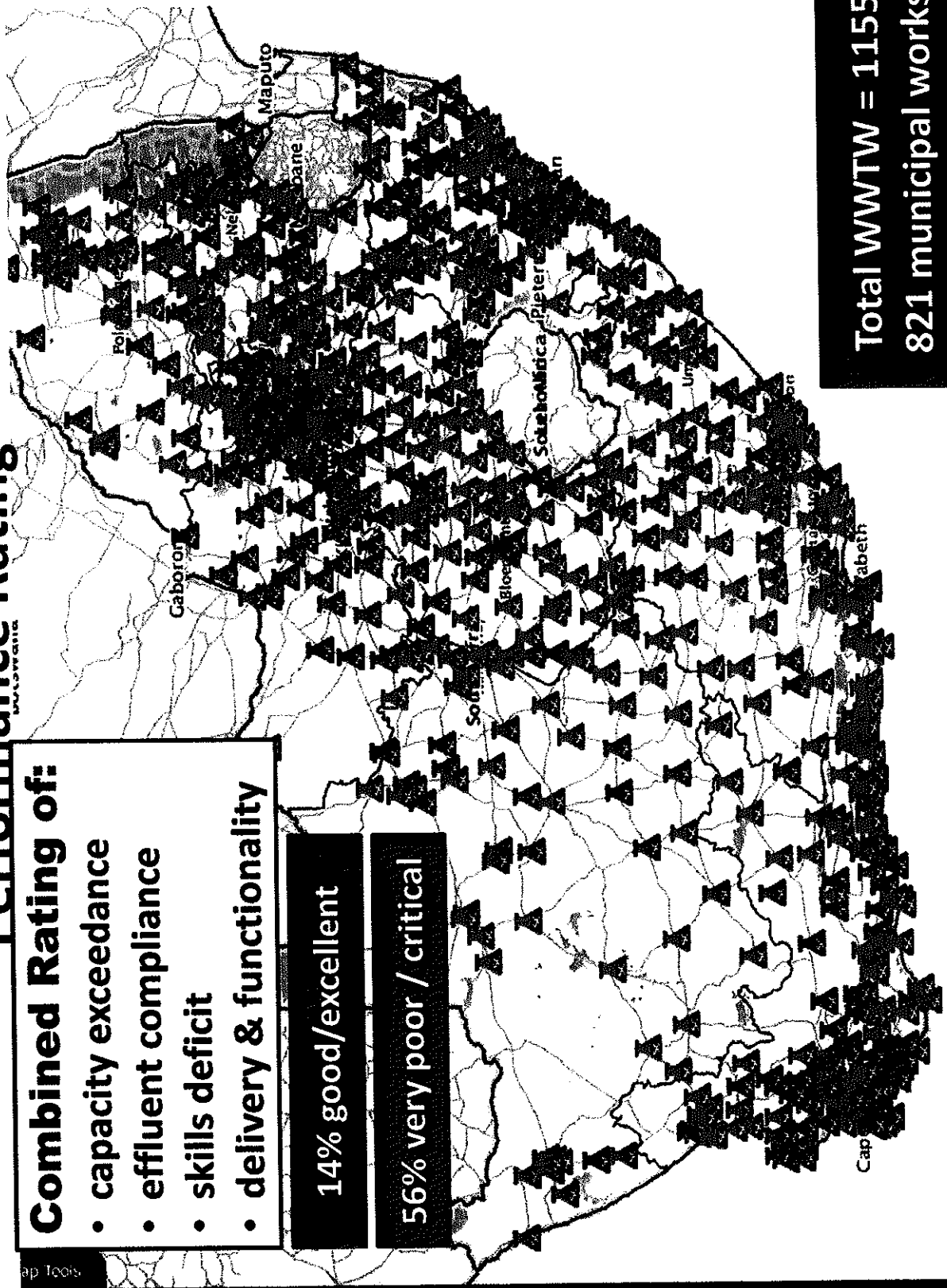
Performance Rating

Combined Rating of:

- capacity exceedance
- effluent compliance
- skills deficit
- delivery & functionality

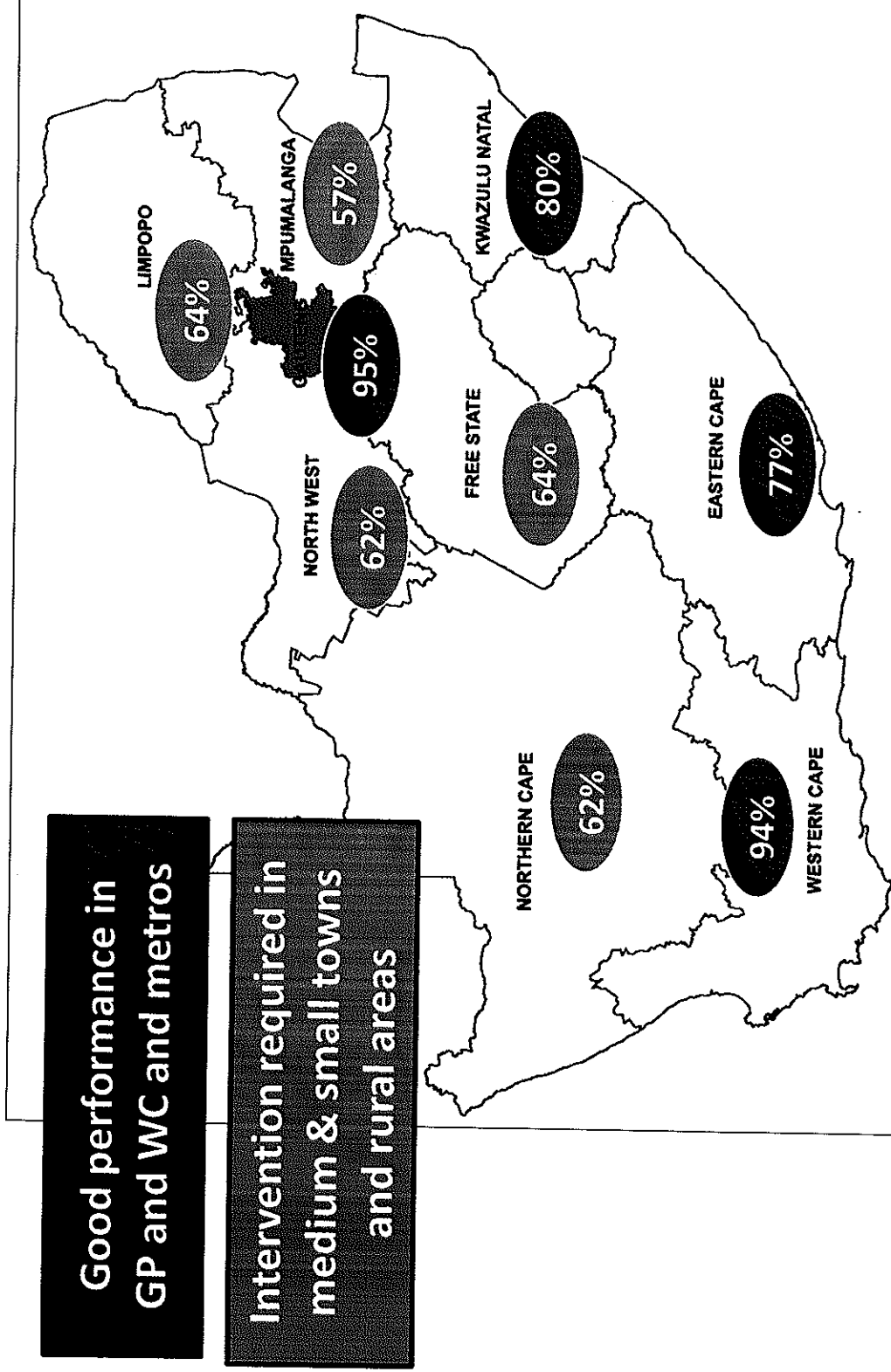
14% good/excellent

56% very poor / critical



Total WWTW = 1155
821 municipal works

Drinking Water Quality: Blue Drop Results – 2011



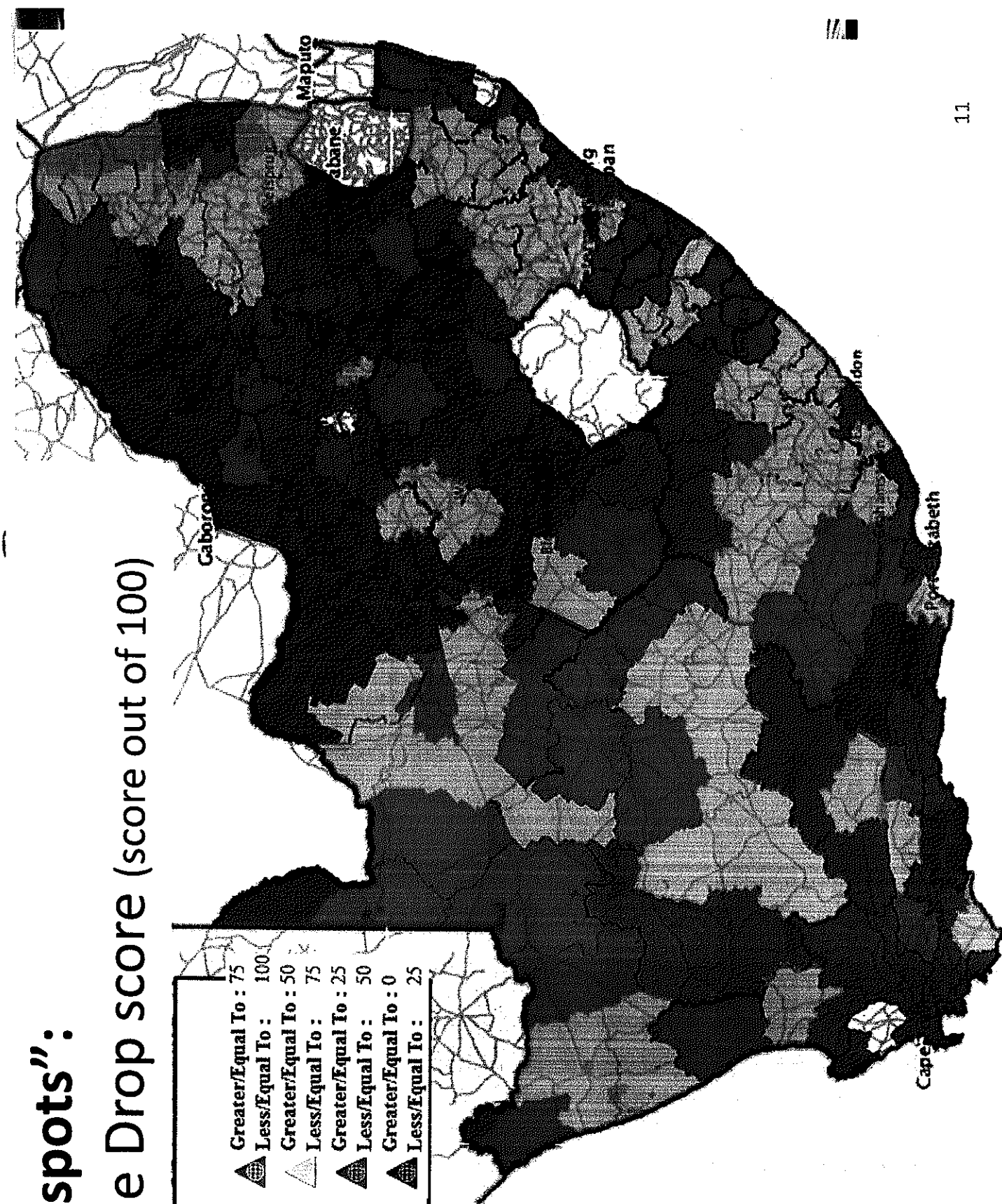
	2008/9	2009/10	2010/11	Average score (2010)
Blue drops awarded	25	38	66	73%
systems assessed	402	787	914	10

“Hotspots”:

– Blue Drop score (score out of 100)

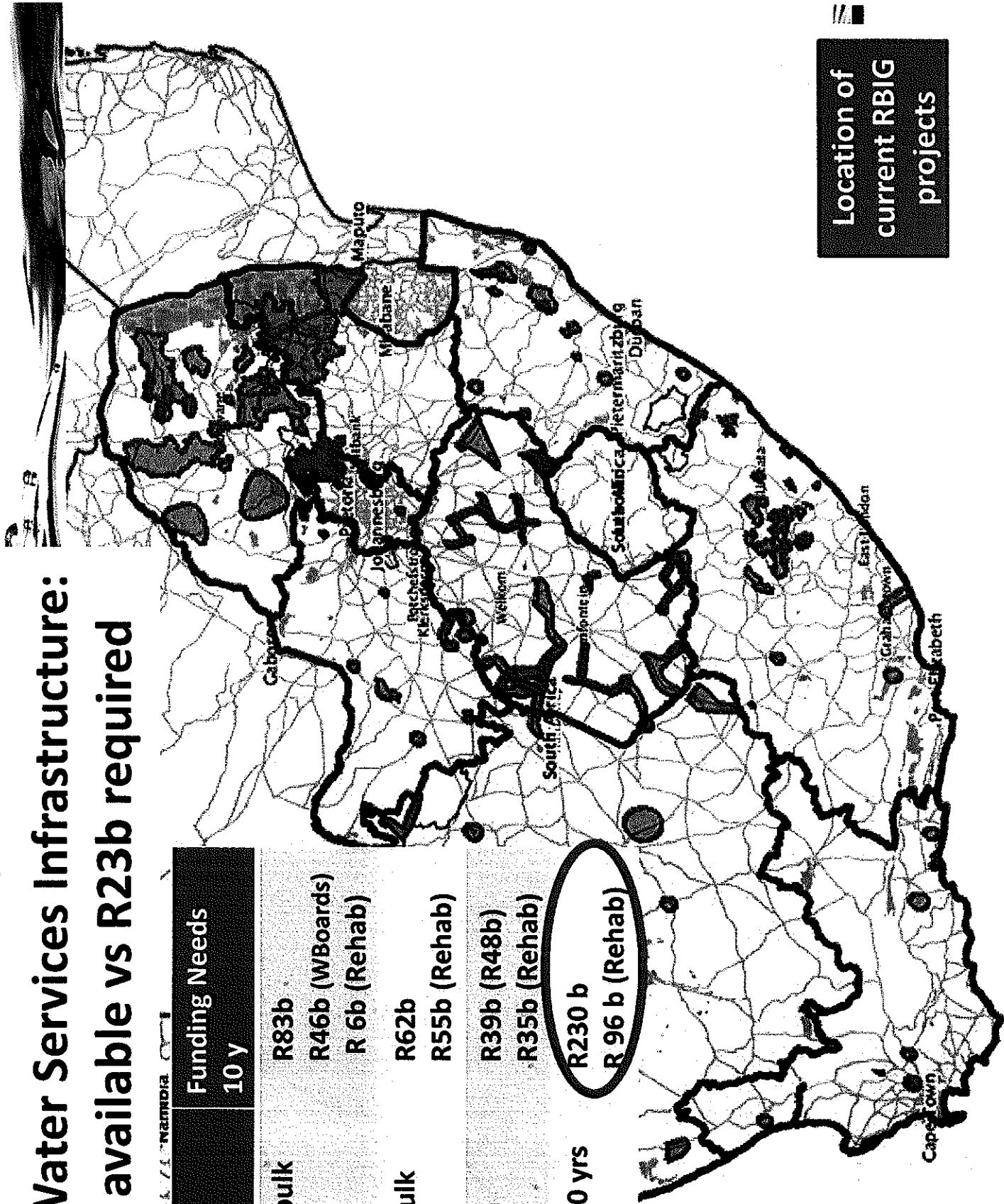
Legend

- ▲ Greater/Equal To : 75
- ▲ Less/Equal To : 100
- ▲ Greater/Equal To : 50
- ▲ Less/Equal To : 75
- ▲ Greater/Equal To : 25
- ▲ Less/Equal To : 50
- ▲ Greater/Equal To : 0
- ▲ Less/Equal To : 25



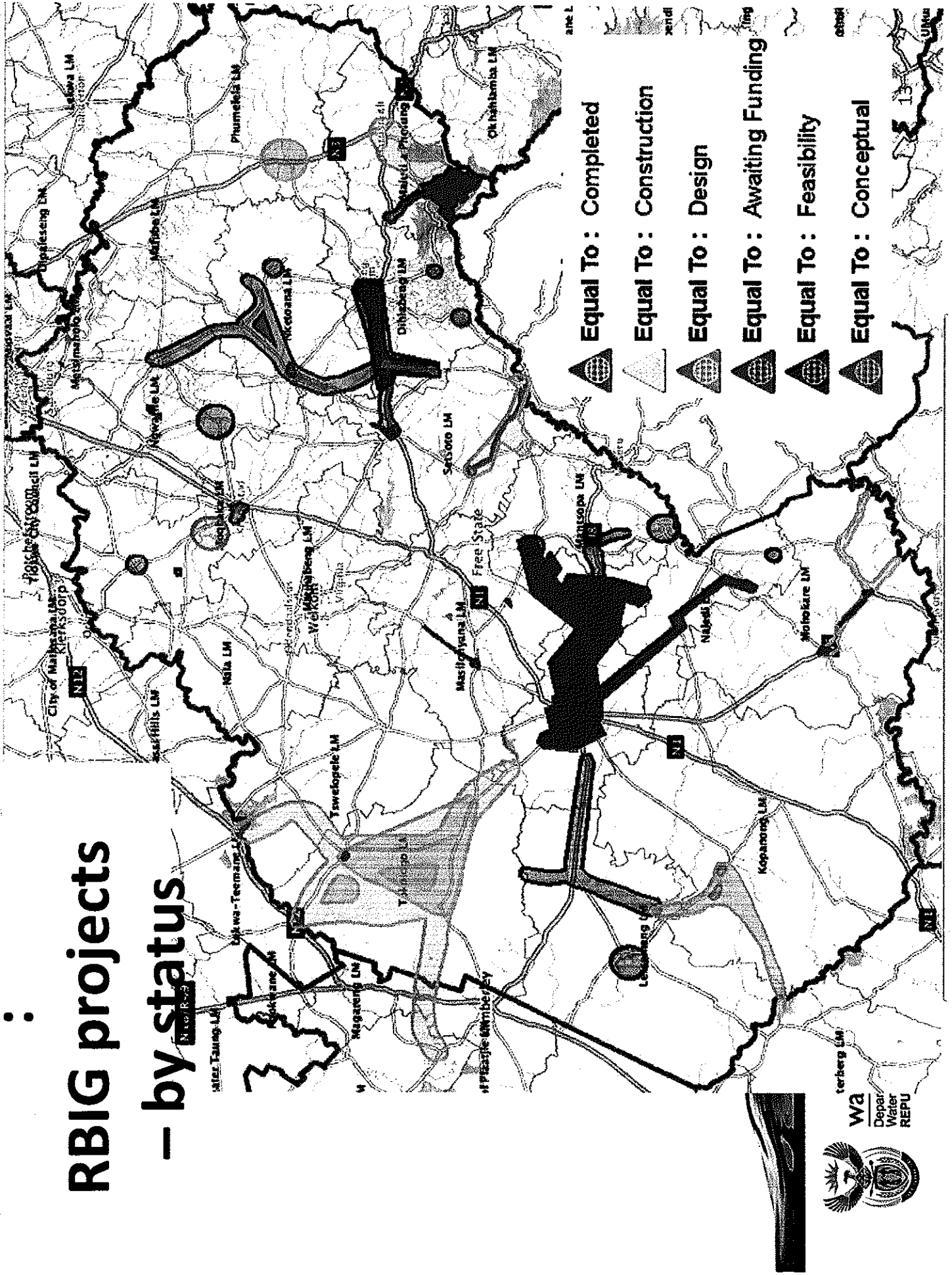
Bulk Water Services Infrastructure: R6b available vs R23b required

Type	Funding Needs 10 y
Regional bulk	R83b R46b (WBoards) R 6b (Rehab)
Internal bulk	R62b R55b (Rehab)
Sanitation	R39b (R48b) R35b (Rehab)
Total for 10 yrs	R230 b R 96 b (Rehab)



Location of current RBIG projects

RBIG projects — by status



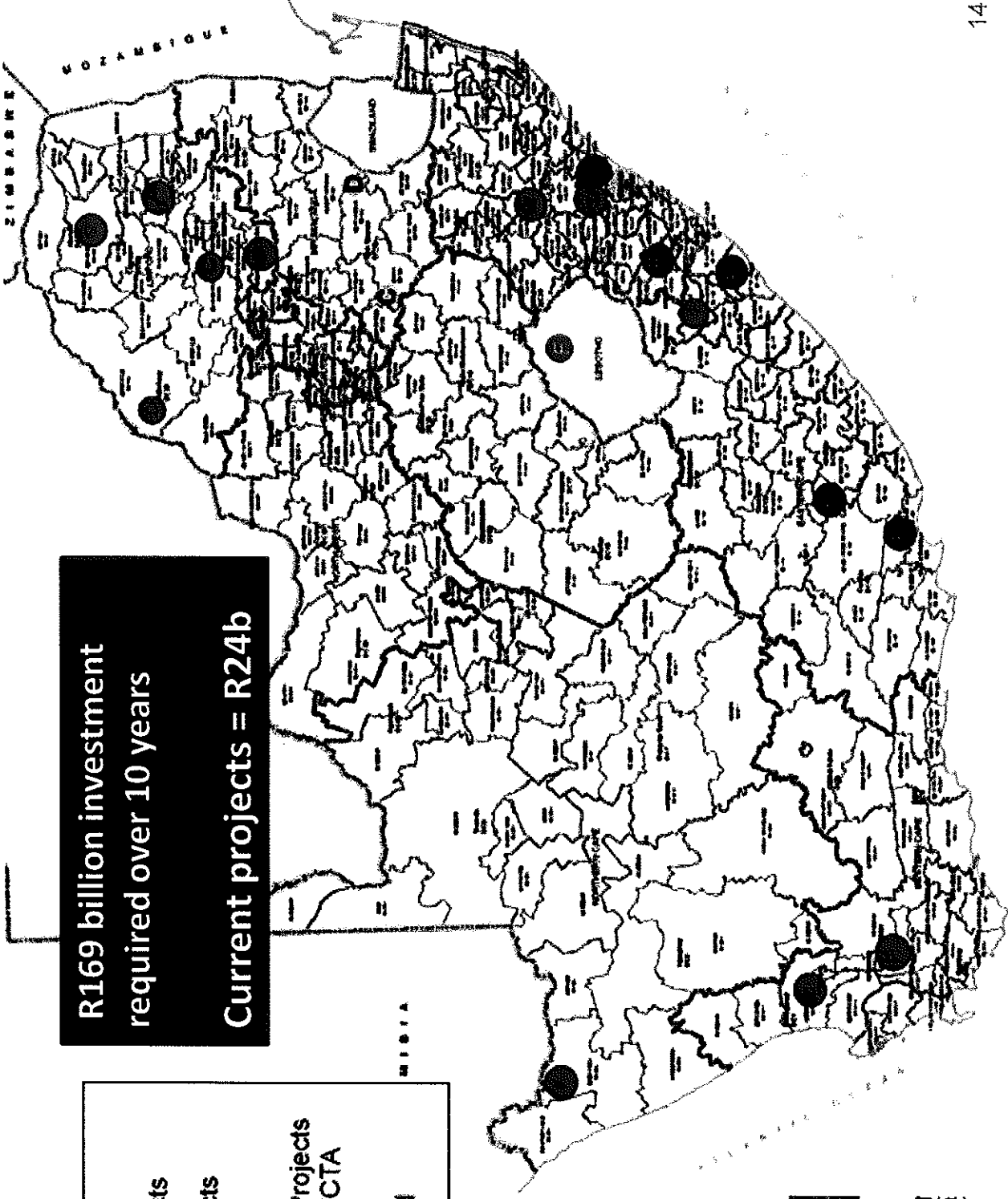
WA
Department of
Water
REPU

3.4 water Reservoir Infrastructure Projects

- PROJECTS**
- Mega Projects
 - Large Projects
 - Small
 - Off Budget Projects
Funded by TCTA
 - International

R169 billion investment
required over 10 years

Current projects = R24b





Water Investment Framework And Strategy

- Key Outcomes:
 - Total requirement (R573 b over 10 yrs)
 - Water resources (R162 b; national = R69 b)
 - Water services (R394 b)
 - WCDM (R16 b)
 - Available funding = 44% of need
 - Need to double up funding



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA



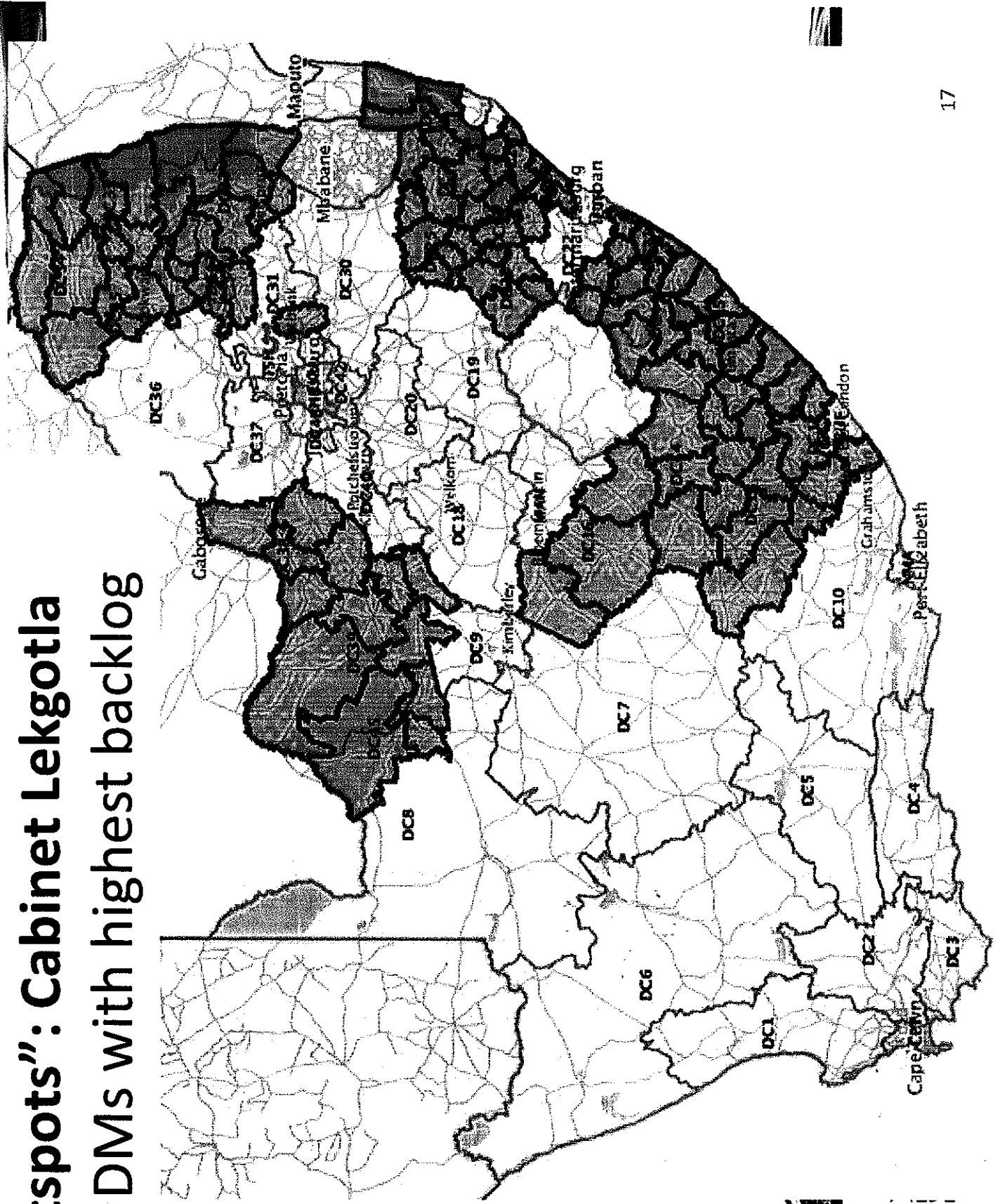


Response to Cabinet Lekgotla's



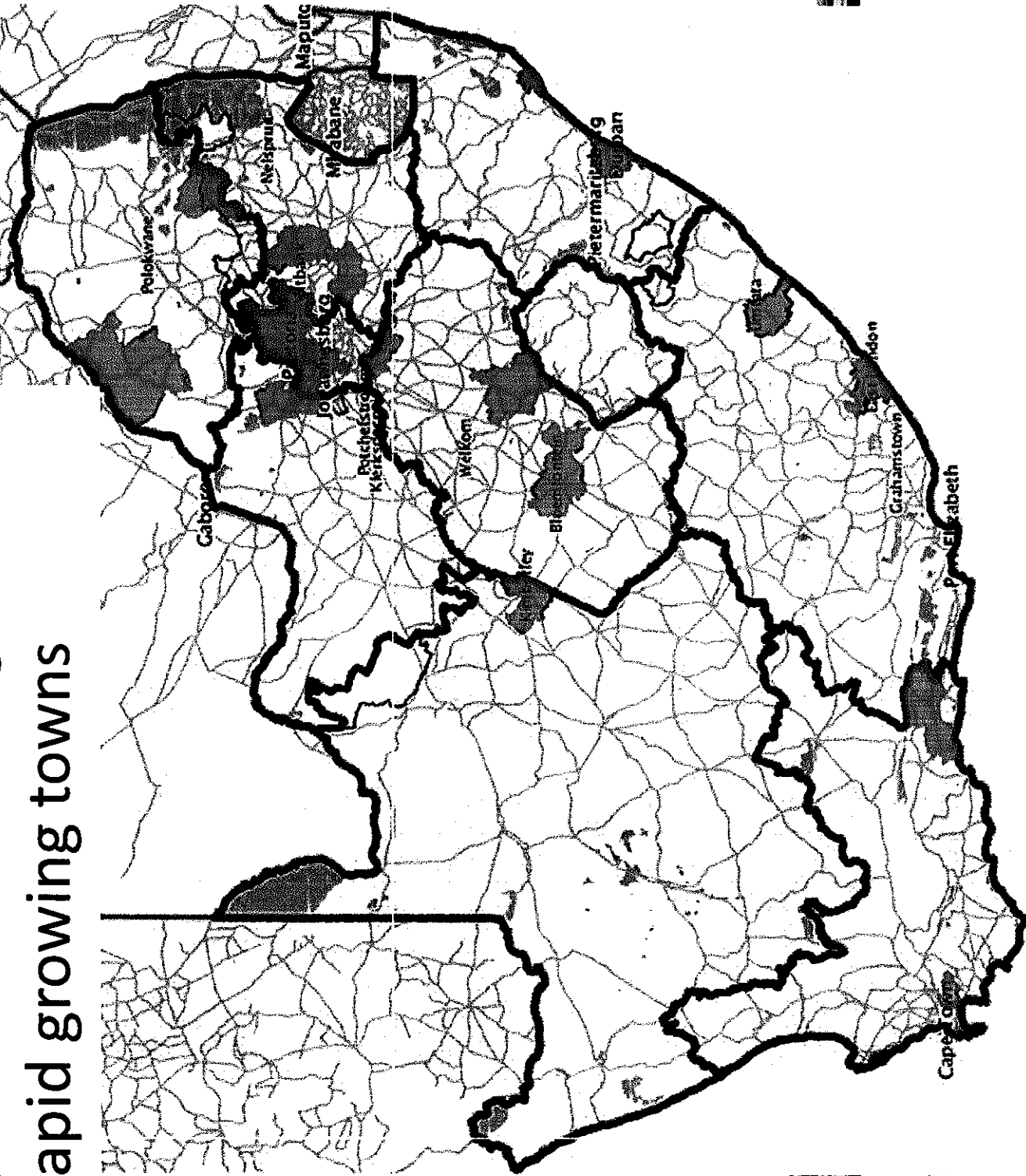
“Hotspots”: Cabinet Lekgotla

– 23 DMs with highest backlog



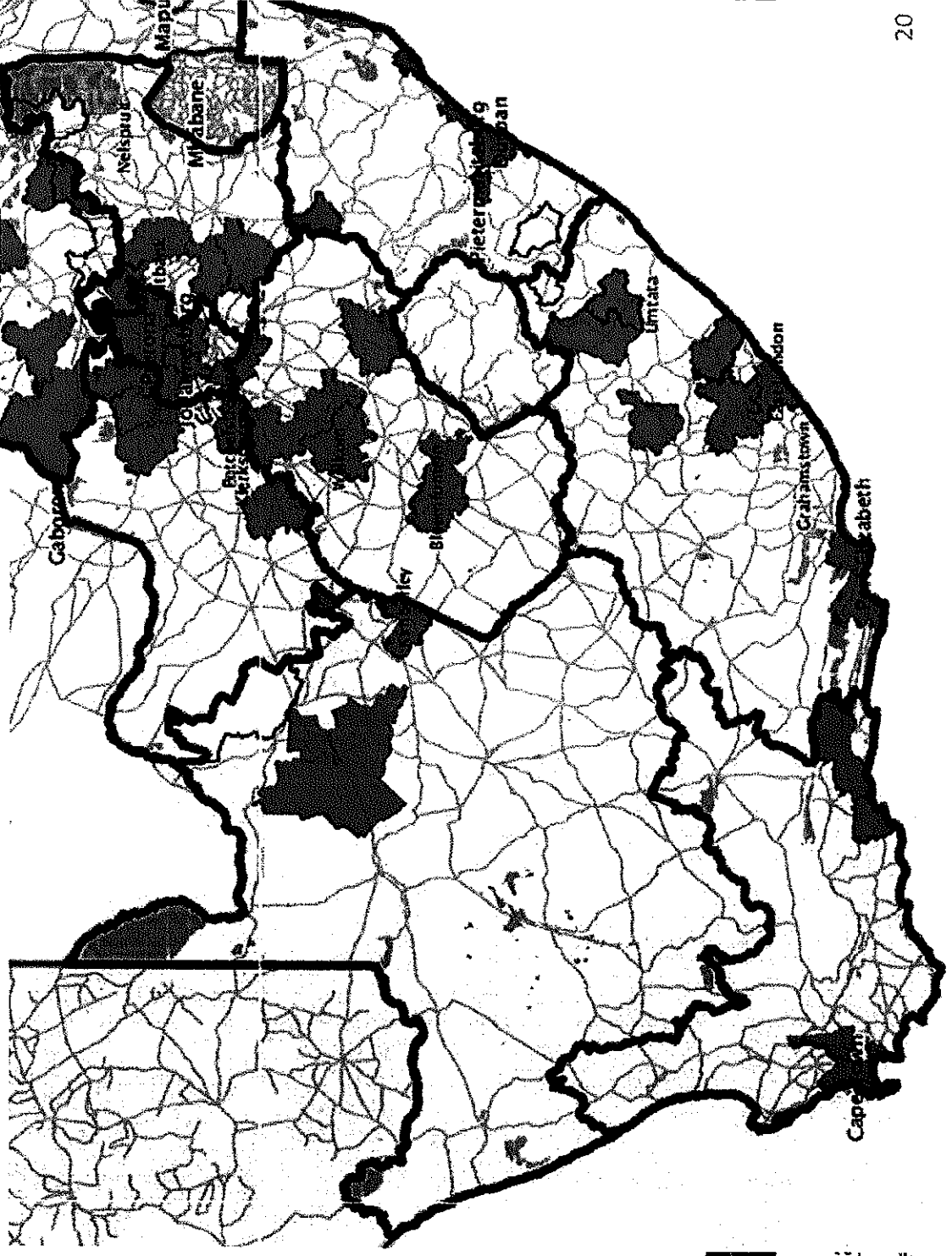
“Hotspots”: Cabinet Lekgotla

– 16 Rapid growing towns



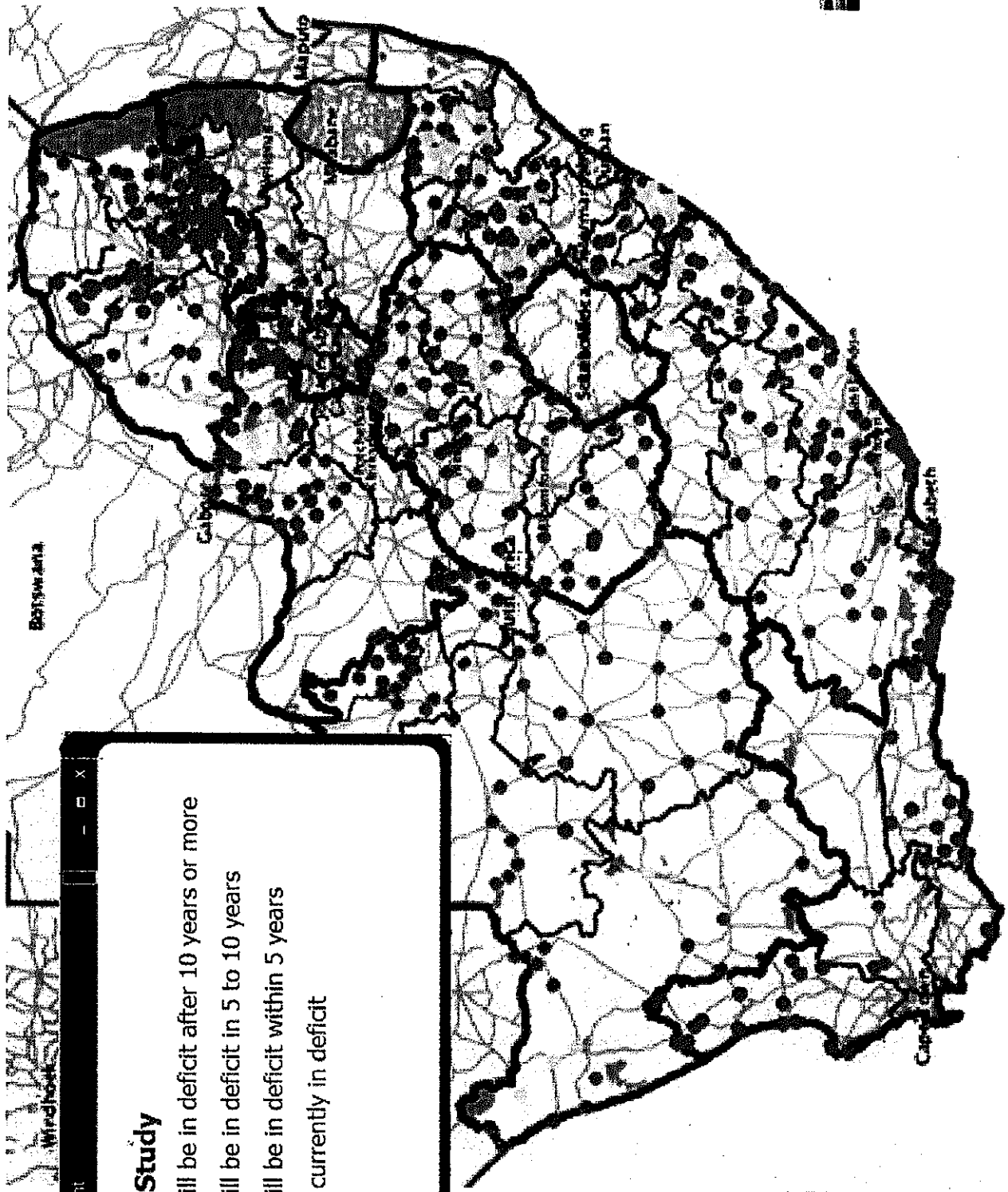
“Hotspots”: : Cabinet Lekgotla

- 45 Municipalities with majority Informal Settlements (70%)



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Water Resources Stressed Towns



Legend Management

All Town Study

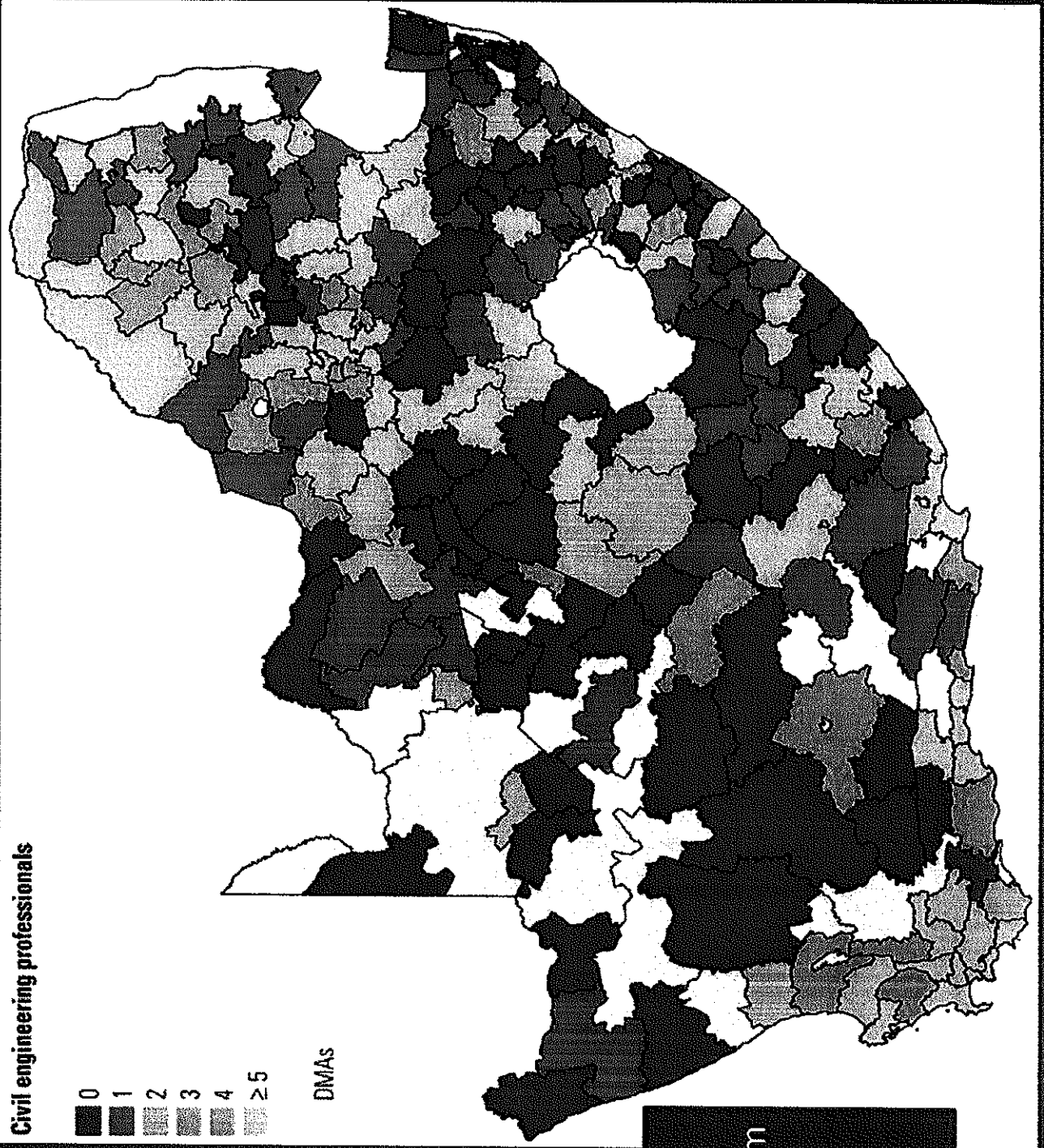
- Town will be in deficit after 10 years or more
- Town will be in deficit in 5 to 10 years
- Town will be in deficit within 5 years
- Town is currently in deficit
- No Data



“Hotspots”

SAICE Engineering Numbers 2005

Avg number of LG
Engineers declined from
20:100,000 people
to 3:100,000 people
from 1994 to 2005



“Hotspots”:

– Municipal IQ (public protest)
count of incidents (past 5 years)

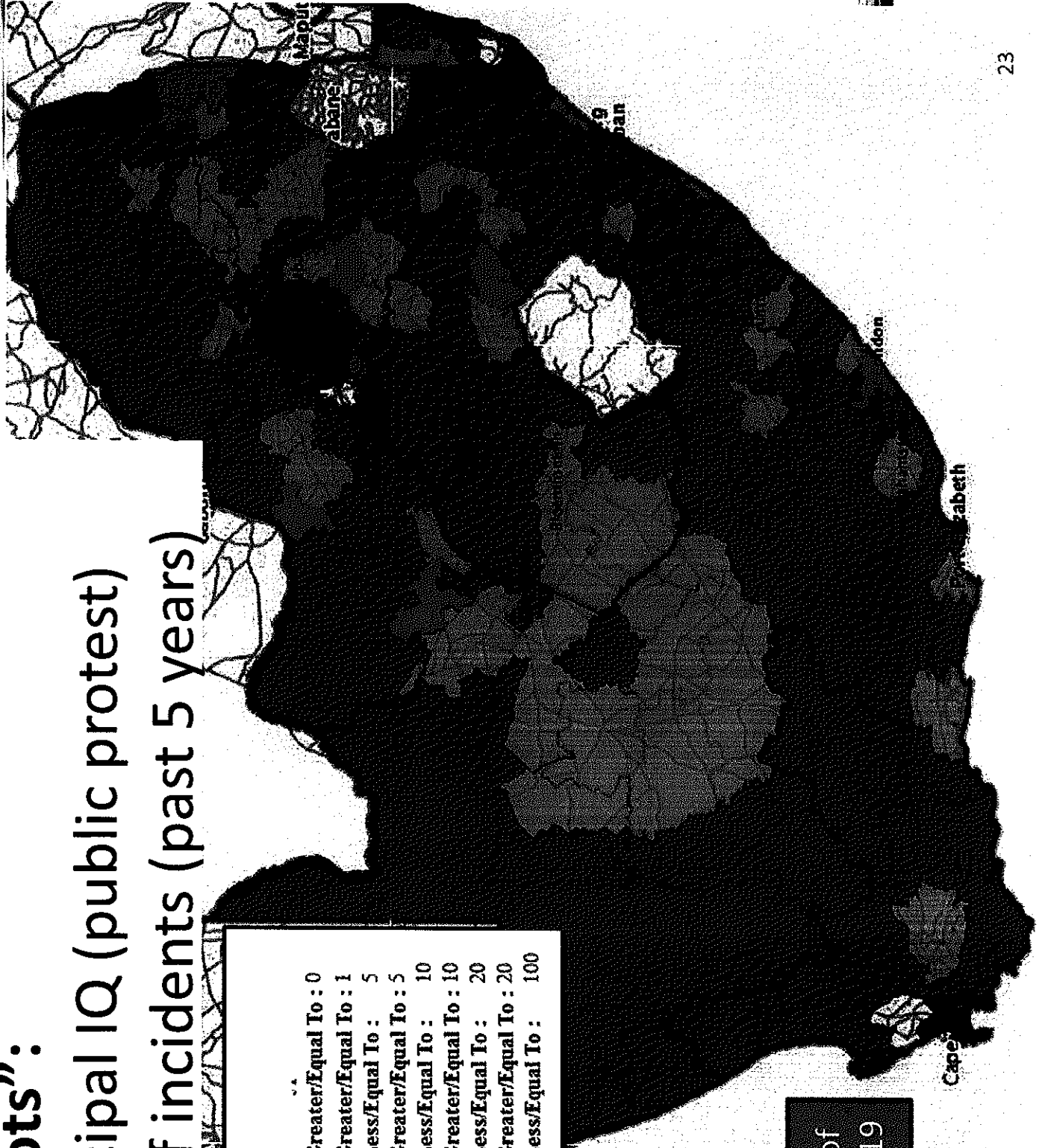
Legend

- ▲ Greater/Equal To : 0
- ▲ Greater/Equal To : 1
- ▲ Less/Equal To : 5
- ▲ Greater/Equal To : 5
- ▲ Less/Equal To : 10
- ▲ Greater/Equal To : 10
- ▲ Less/Equal To : 20
- ▲ Greater/Equal To : 20
- ▲ Less/Equal To : 100

Total Count of
Incidents = 419

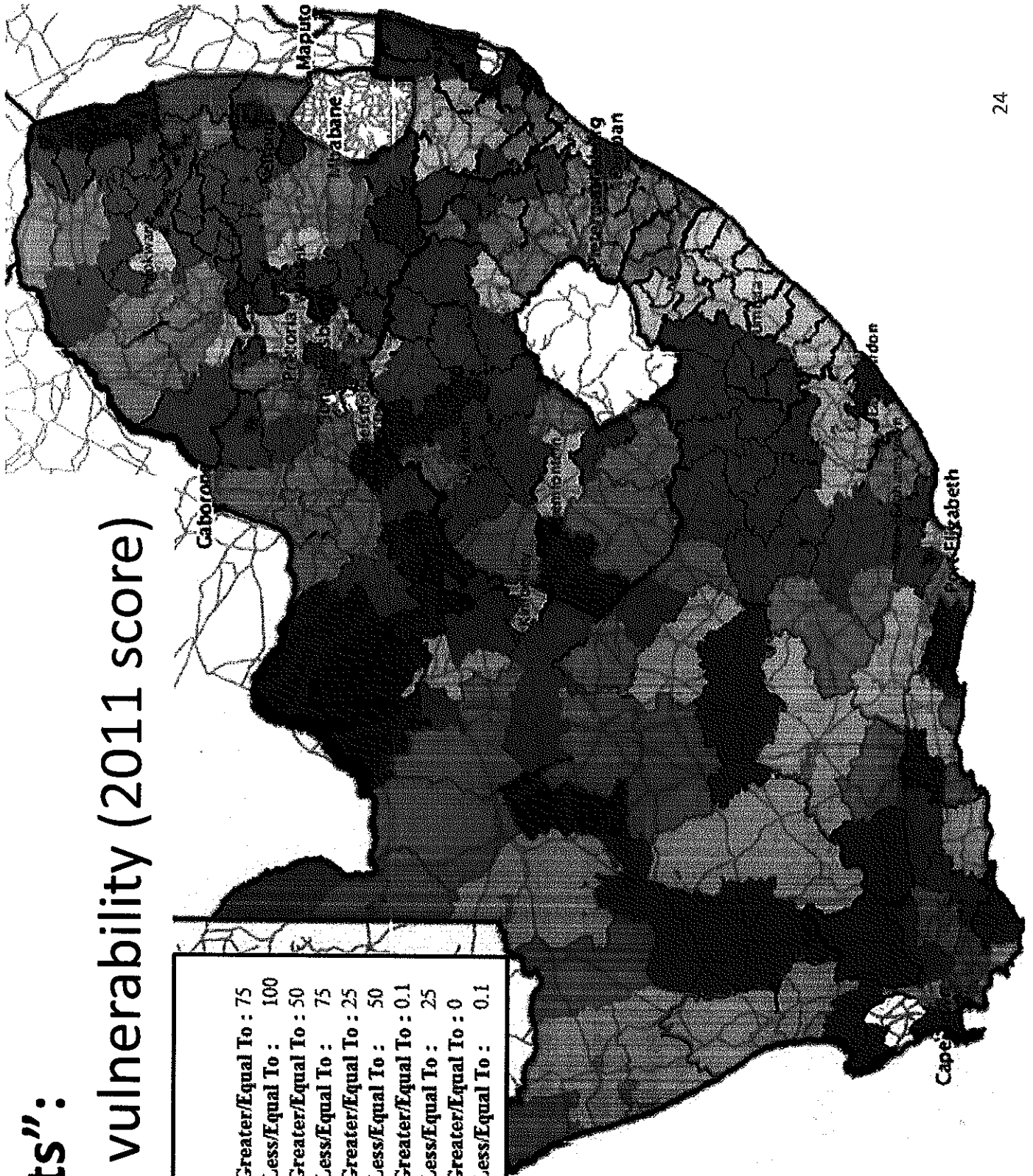
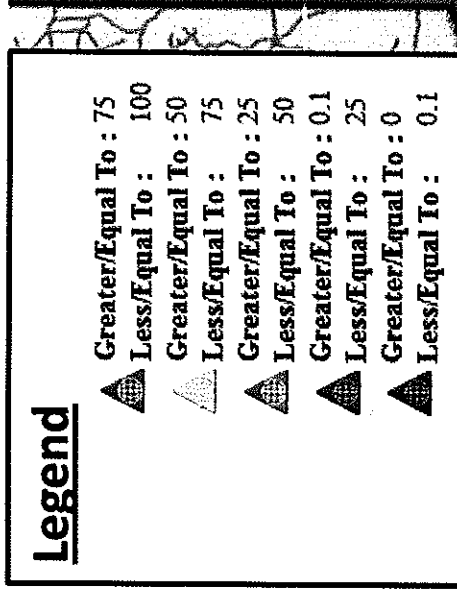


WA
Depart
Water
REPU



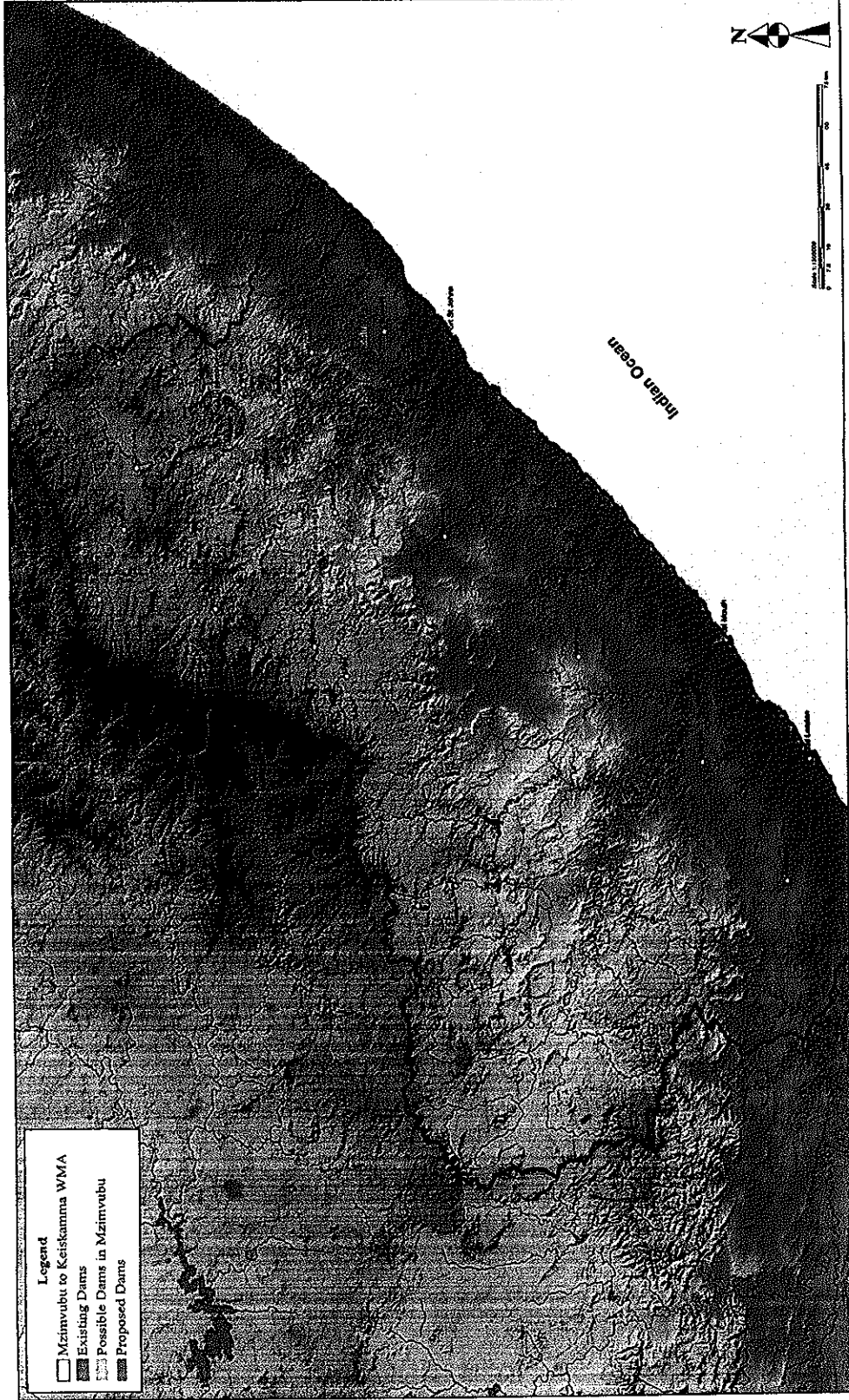
“Hotspots”:

– MuSSA vulnerability (2011 score)



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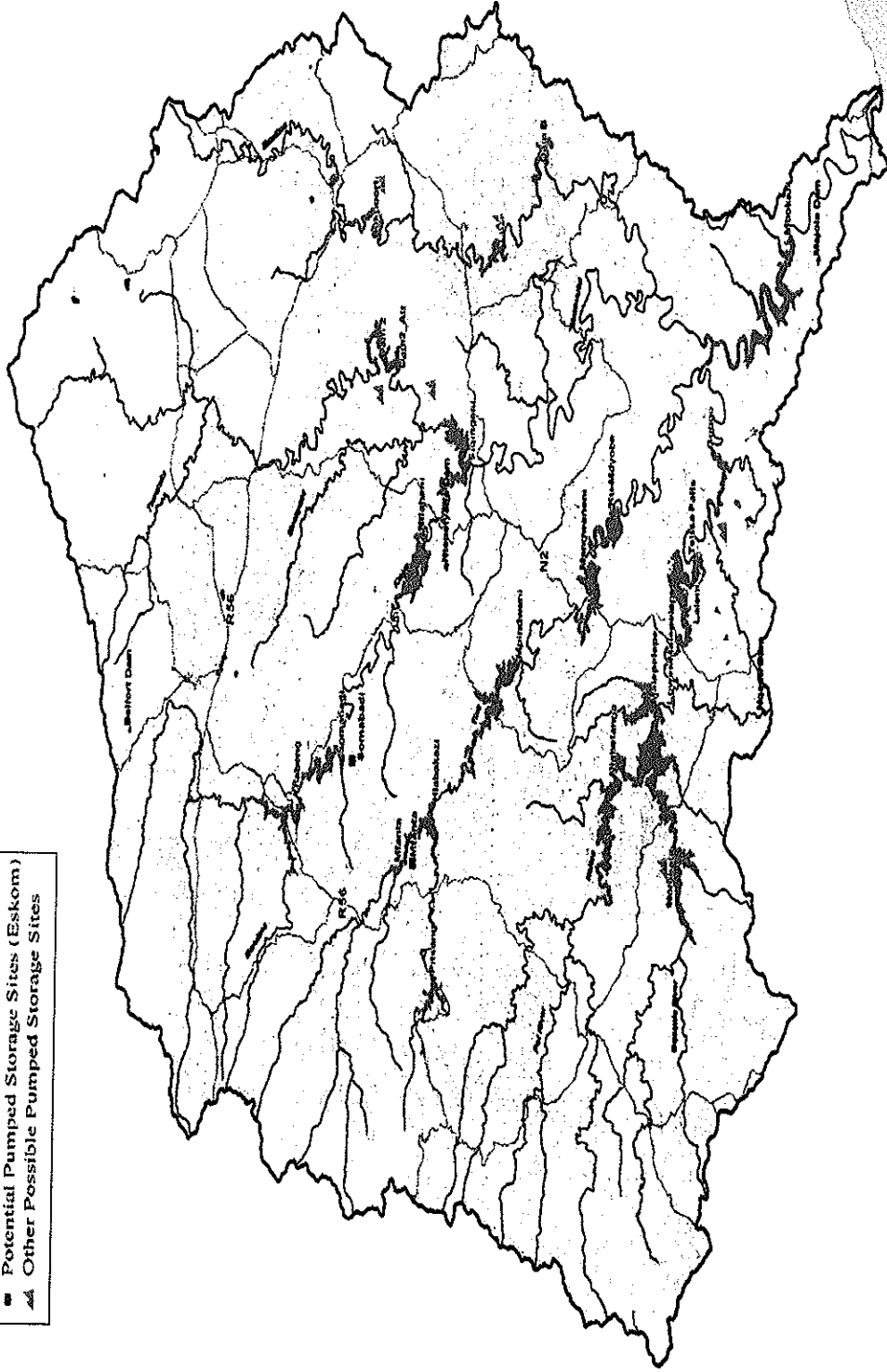
Mzimvubu to Keiakamma WMA



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Legend

- Existing Dams
- Proposed Dam Sites
- Main Roads
- Potential Pumped Storage Sites (Eskom)
- ▲ Other Possible Pumped Storage Sites



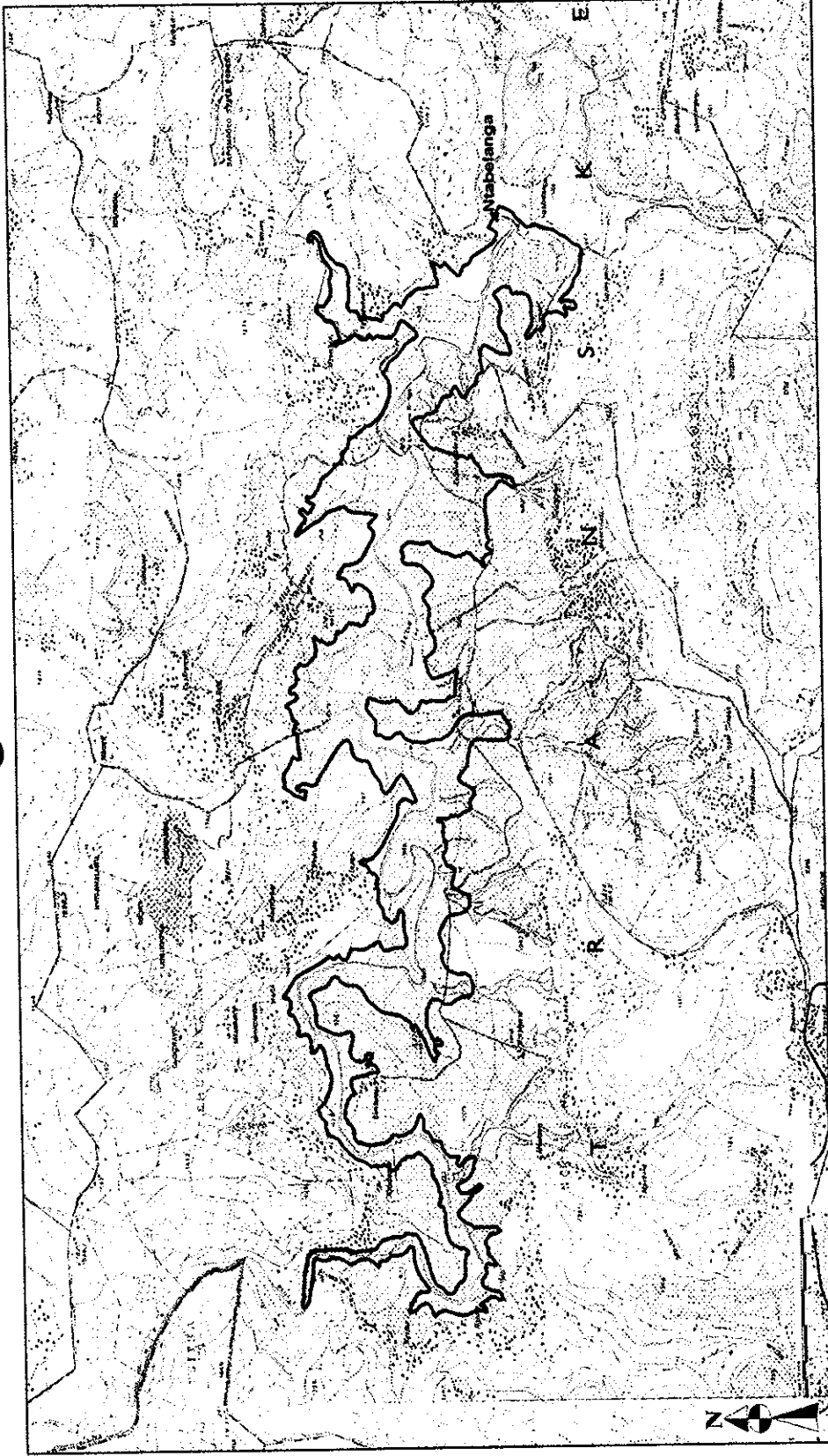
Potential dam sites



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Ntaberanga Dam site



Project description :

The Mzimvubu Water Project envisages the development of a multi-purpose dam to supply potential irrigation development, domestic and industrial water requirements in the Mzimvubu River catchment as well as to offer the opportunity to develop hydropower. From preliminary investigations, the one dam site that was found most promising was the Ntabelanga Dam on the Tsitsa River, tributary of the Mzimvubu River.

Status: Feasibility stage

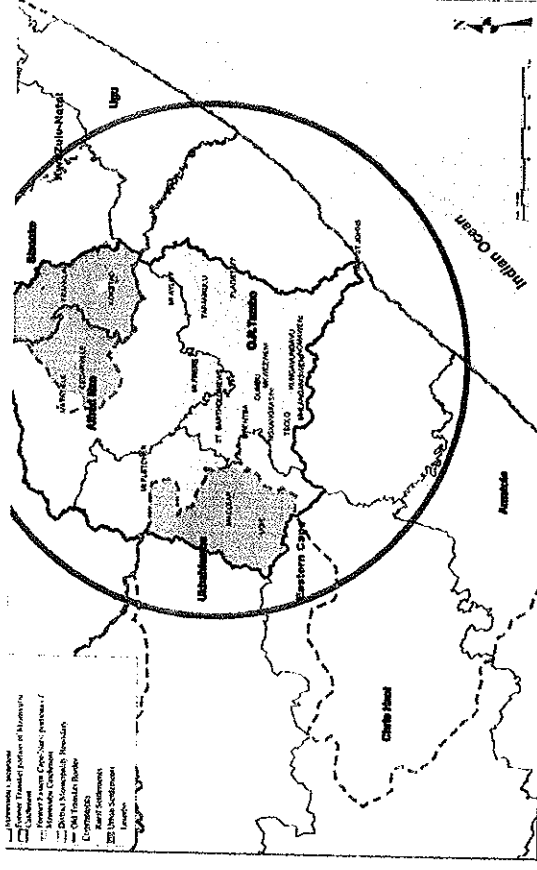
Province: Eastern Cape in the Mzimvubu to Keiskamma Water Management Area.

Jobs Impact: Irrigation development over an area ranging from 8 900 to 11 200 hectares has the potential to create about 2 100 jobs.

Projected cost to completion: Estimated to cost R20 billion. A more accurate cost estimate will be provided by the ongoing feasibility study.

Project scope:

- Construction of a dam,
- Irrigation and afforestation development and possible hydropower development,
- Bulk distribution infrastructure to supply identified demand centres including municipal water requirements, agro-businesses and possible tourism development.



Project schedule: Construction, over a period of 48 months, is expected to commence in 2015/16 with first water delivery expected in 2018/19

Expenditure progress : No expenditure has been incurred yet since construction will only start around 2015/16.

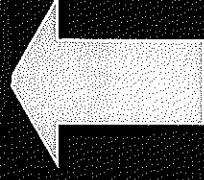
Progress/Issues: A professional service provider has been appointed effective 9 January 2012 to undertake the detailed feasibility study. The study will run for 27 months before detailed design can commence.

Connected issues: No connected issues have arisen at this stage.


Decisions required : Critical decisions that must be taken before construction relate to environmental authorisation and project funding.

Basic Water Supply Achievement (Meeting standards)

	1994	2001	2012
Access to	59%	71%	94%
Backlog	41%	29%	6%



**Backlog 85% eradication
(infrastructure)**



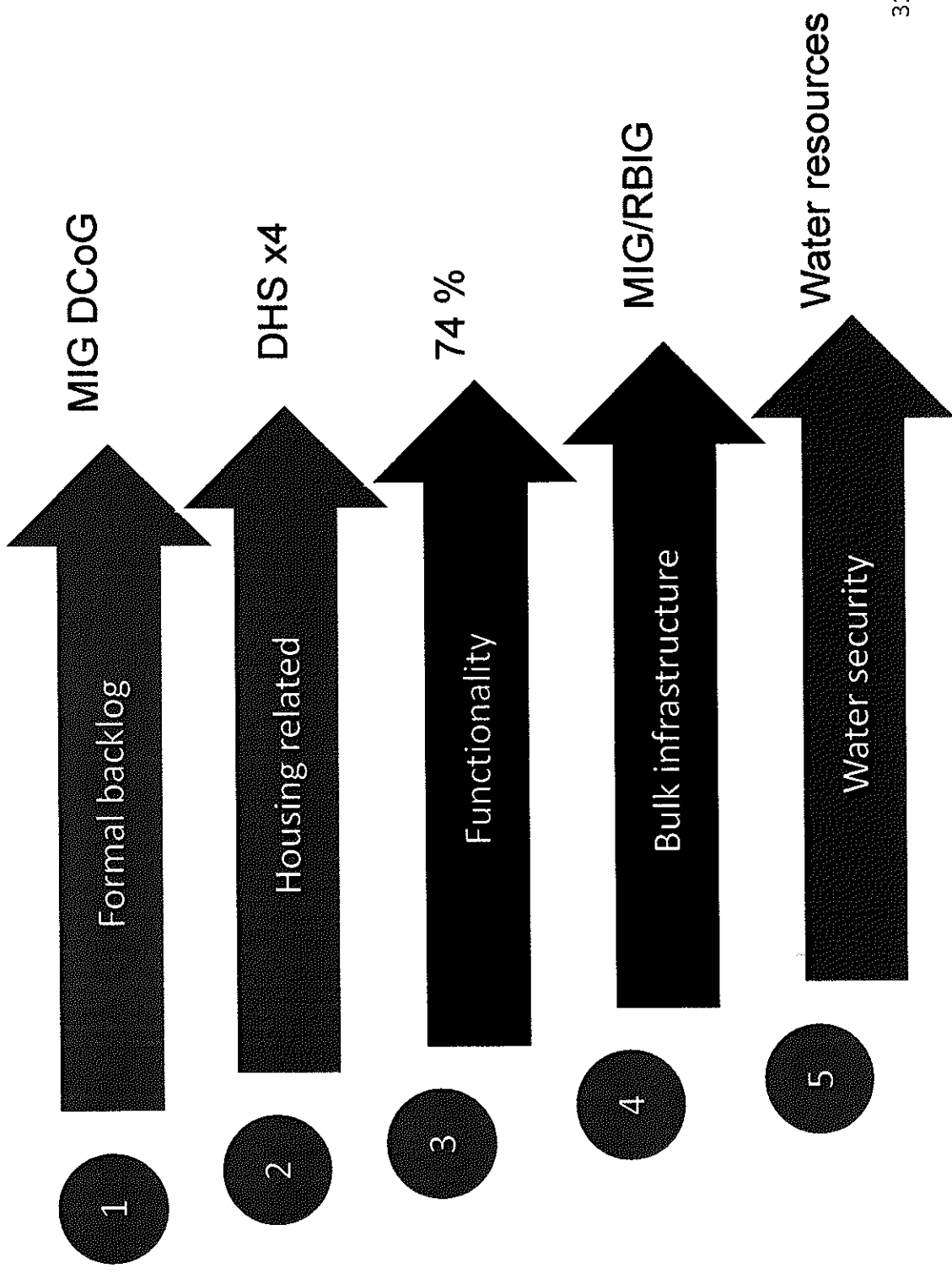
Basic Sanitation Progress (Meeting RDP standards)

	1994	2001	2012
Access to	48%	57%	79% estimate
Backlog (Below RDP)	52%	43%	21% estimate



60% Eradication

Basic Water Services intervention areas:



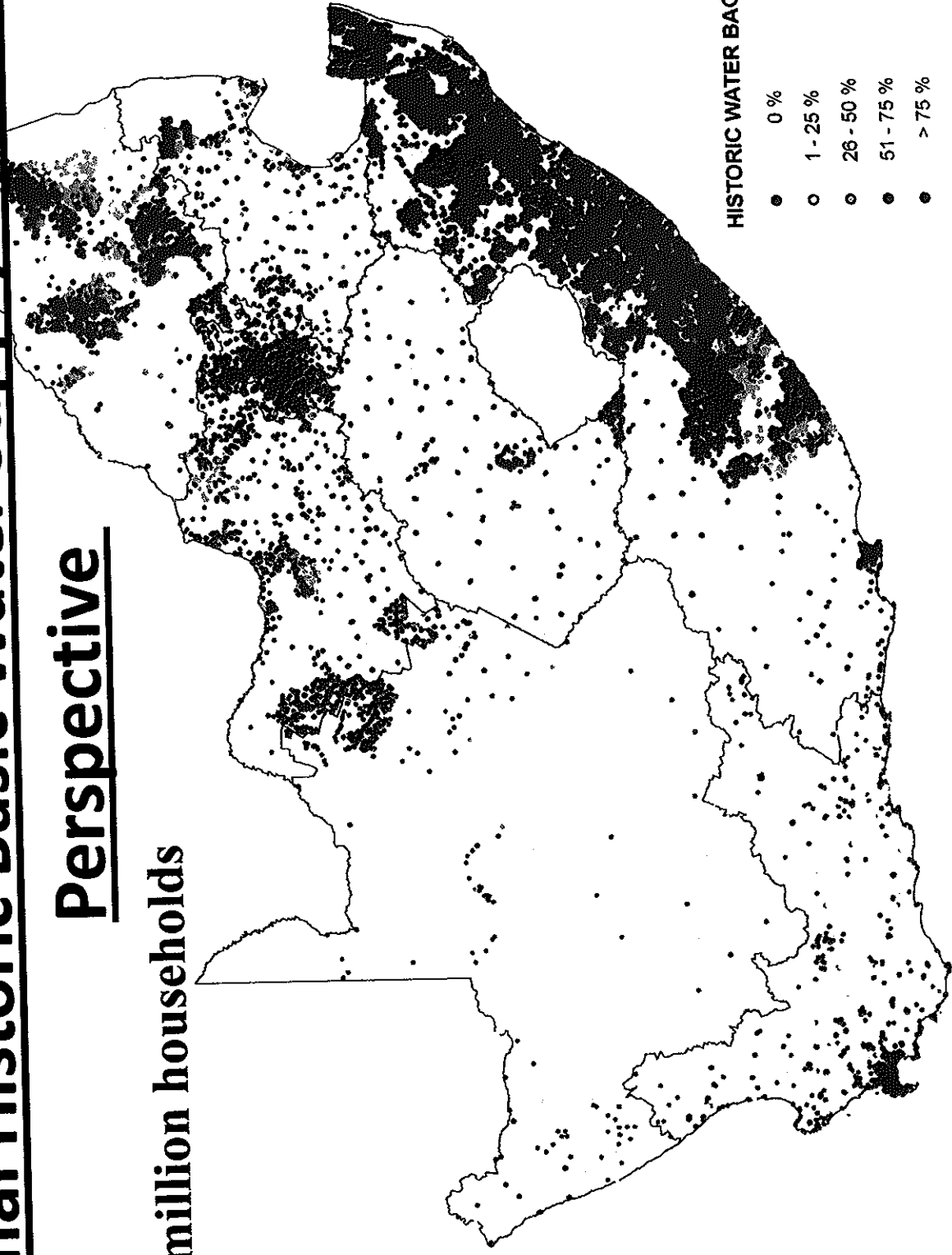
8. Understanding the challenge

- Formal backlog:
 - (6% hh)(94% access to RDP infrastructure
 - urban 98%; rural 86%
 - Provincial = 72% to 99% (MIG)
- Housing related = 300% x formal backlog: 2,2 m hh, 70% in cities (interim services)(DHS)
- Functionality = 74 % (< 40% in 2 Provinces) (WSA)
- Water security challenges
- Bulk infrastructure dependency
- Poor sector performance

Formal Historic Basic Water Supply Backlog

Perspective

0.7 million households



HISTORIC WATER BACKLOG

- 0 %
- 1 - 25 %
- ◐ 26 - 50 %
- ◑ 51 - 75 %
- > 75 %

