

ENVIRONMENTAL HEALTH: ENFORCEABLE AND IMPLEMENTABLE BYLAWS

*‘Strengthening Local Government legislative
authority in SA – Implementation of Bylaws’*

North-West University, Potchefstroom

21 July 2016

Mike Agenbag

Cape Peninsula University of Technology,
Cape Town



Contents

- Terms of reference
- Introduction
- Dendrogram
 - What should be regulated (Determinants of health) and by whom?
 - Bylaw content?
 - Environmental health and services challenges.
 - EH risk management approach in multisectoral environment.
- Proposed new approach in environmental health (EH).
- Recommendations
- Conclusion

Terms of reference

Content of enforceable and implementable
Environmental health bylaws?

Introduction

Enforceable?

- Expect adherence of or obedience to!
- **Enforceable** legal right, recognised by law, and
- **Capable of being enforced!** (Case law)
- Can be carried out by law **if necessary**.

Implementable?

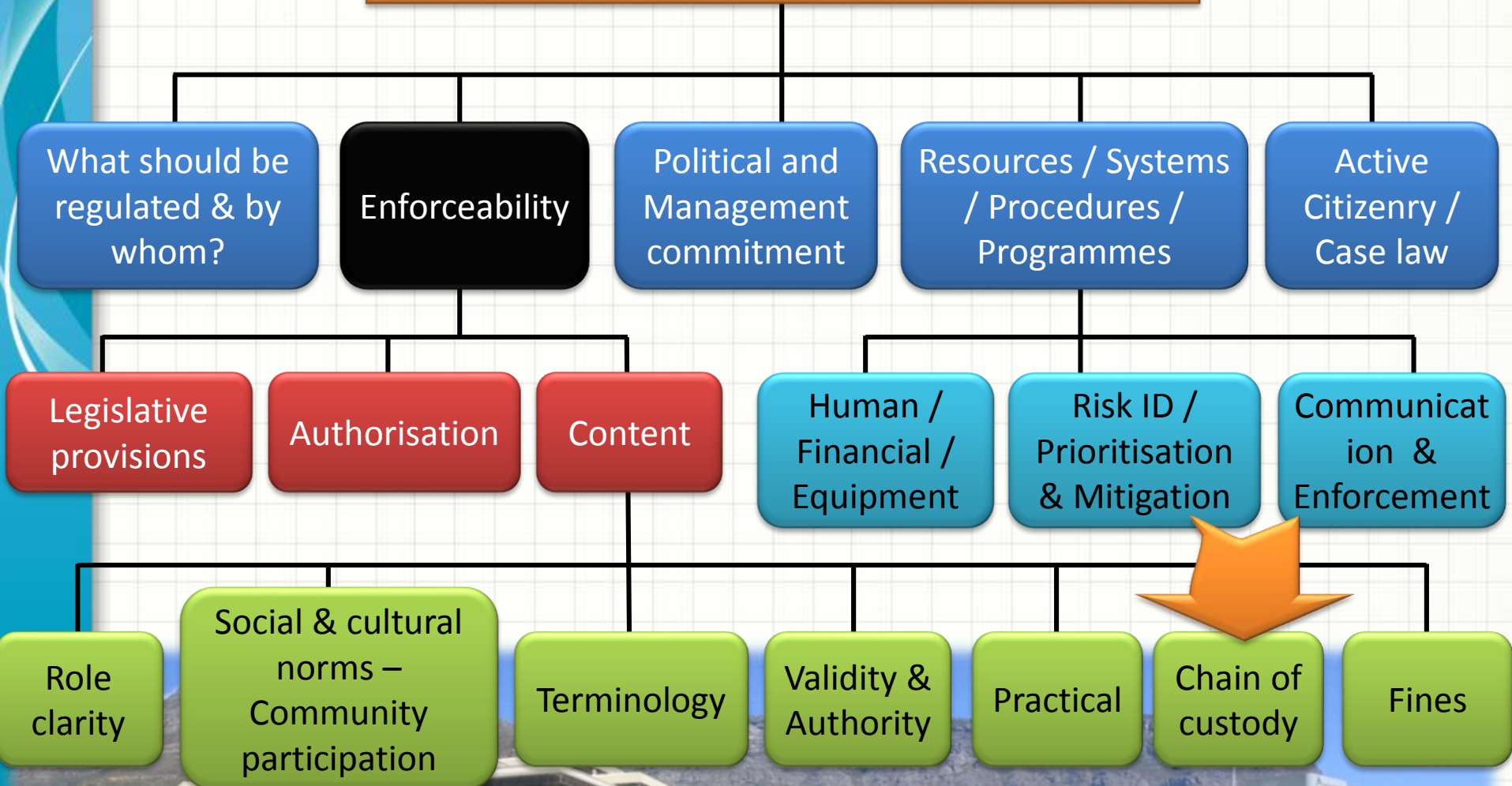
- To fulfil, perform, carry out
- To put into effect according to or by means of a definite plan or procedure (objective driven)
- A means of achieving an end.

Capacity & ability of municipality!

Approach

Enforceable and implementable bylaws are not only determined by its content, but also the **capacity** and **ability** of municipalities to implement it, to address national and international **objectives** e.g. SDGs.

Enforceable & Implementable Env. Health Bylaws are reflected in ...



Enforceable & Implementable Env. Health Bylaws are reflected in ...

What should be
regulated & by
whom?

Enforceability

Political and
Management
commitment

Resources / Systems
/ Procedures /
Programmes

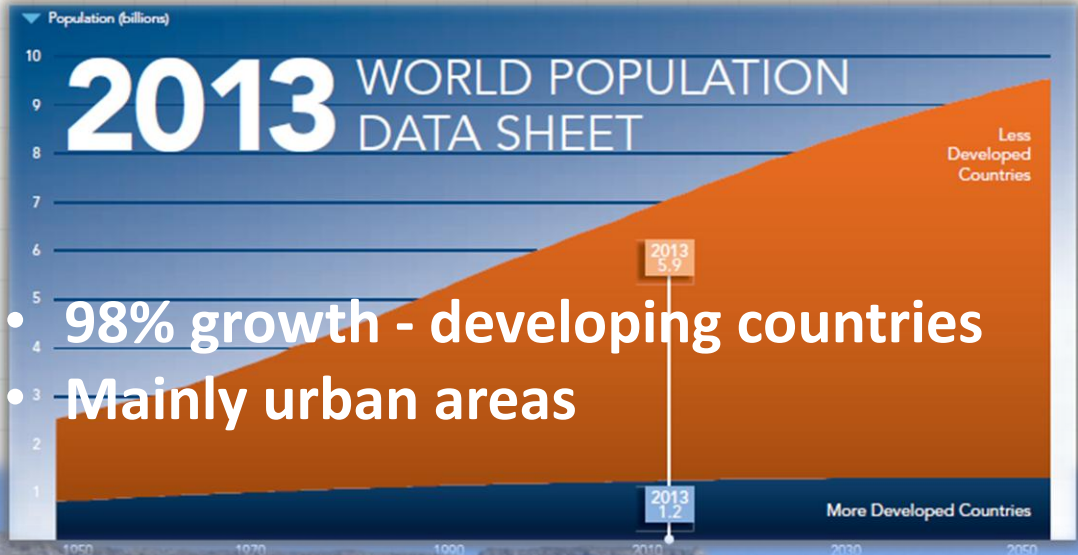
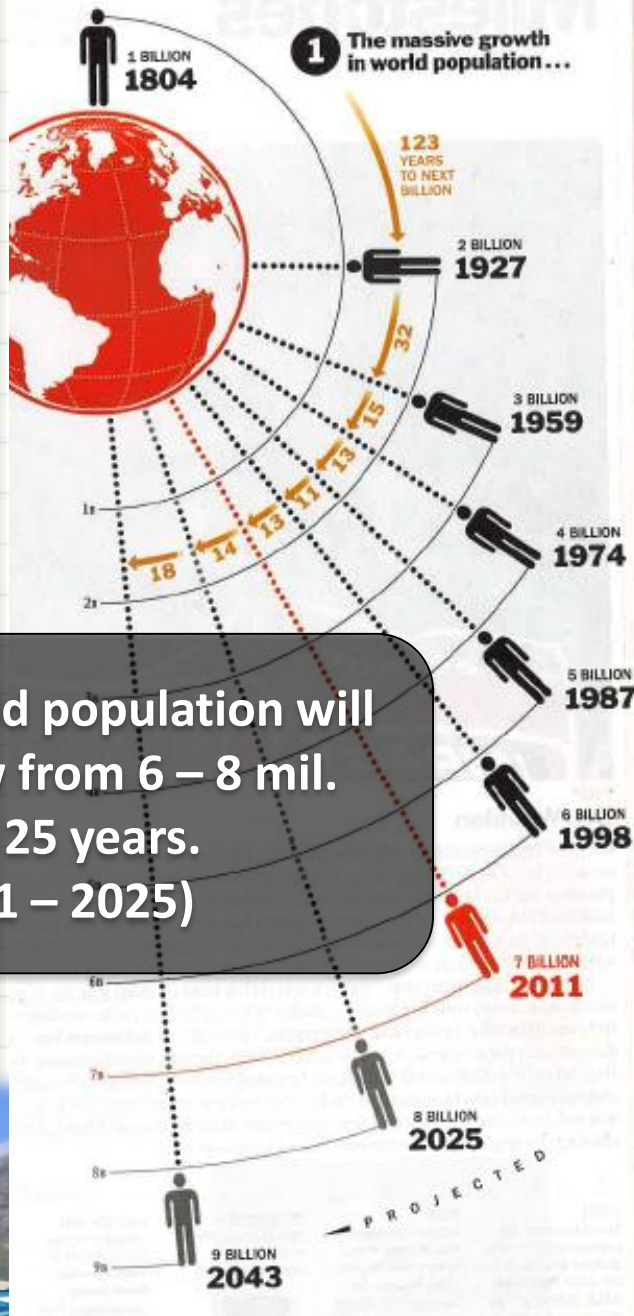
Active
Citizenry /
Case law



What should be regulated? Determinants of health

2015 World population 7.3 billion
SA population was 54 million

World population will
grow from 6 – 8 bil.
next 25 years.
(2011 – 2025)

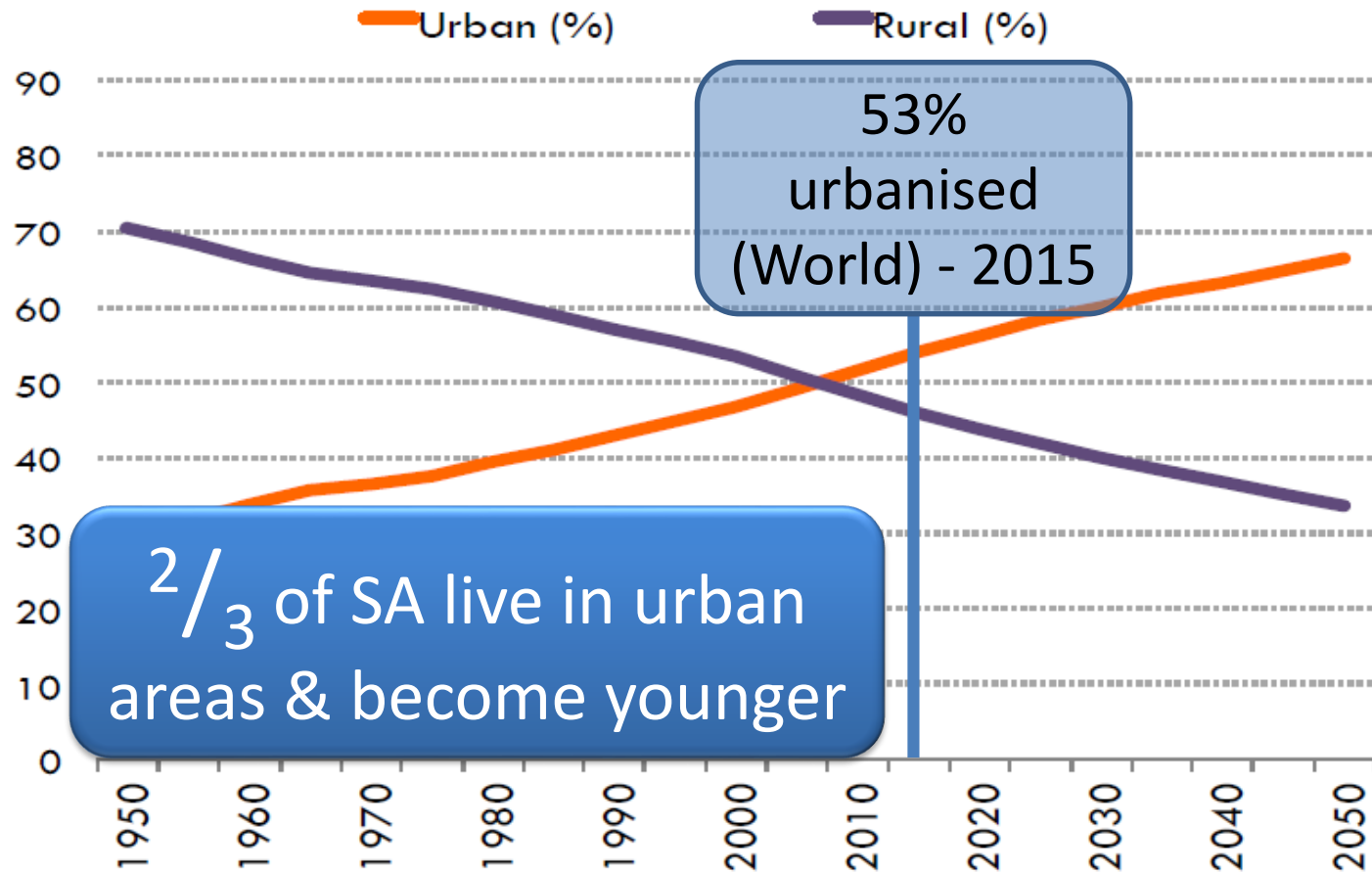


- 98% growth - developing countries
- Mainly urban areas

Source: Ford, 2011 and World Bank, 2013 & 2015

World becomes more urbanised!

(Source: World Urbanisation Prospects 2014 – United Nations)



Source: World Urbanization Prospects 2014, United Nations

People work, live & recreate: Need space, resources and generate by-products require services

Water supply

WWTWs

Residential

Residential

Industrial zone

Residential

Commercial

Residential

Waste site

Burgersdorp - 11/03/2010

Basic Municipal Services –

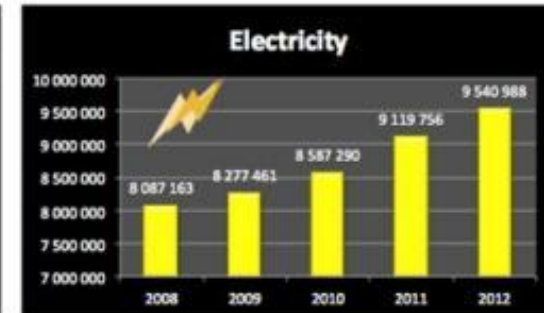
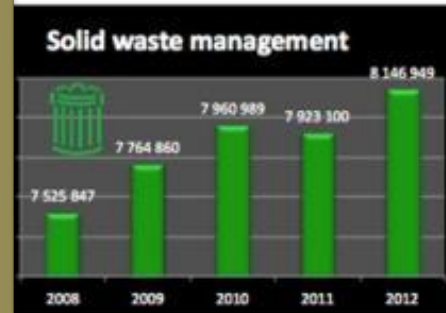
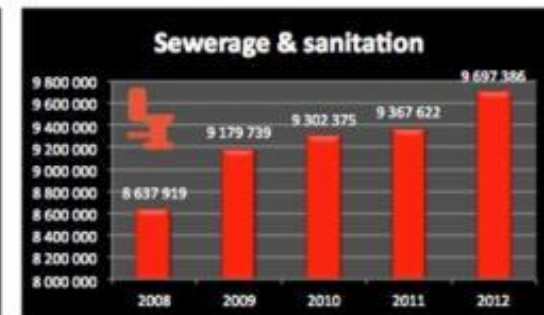
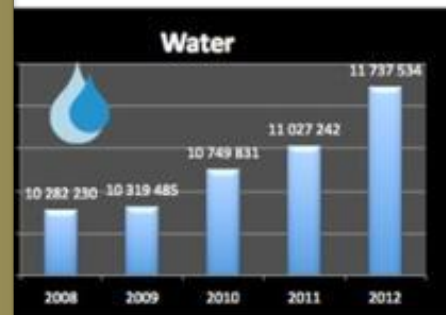
Determinants of Health

‘Better live for all’

Improved health status and basic services

- Political & Management perspective:
 - Mainly infrastructure provision
 - Availability & accessibility
- **Functionality & effectiveness to serve its purpose?**
- **What affects sustainable & effective service delivery and impact on preventative health care?**

Number of consumer units receiving basic services from municipalities: 2008-2012



AFRICA | KNOW, THE HOME | UNDERSTAND



Improved service delivery: Development Pre & Post Construction Phase – EHS

IGR?



IGR - Local municipal workers offloading waste in non demarcated area on landfill site!



MHS monitors and compliance enforce as part of pollution control and waste management

Consumer units receiving basic services from municipalities: 2008-2012



THE SOUTH AFRICA I KNOW, THE HOME I UNDERSTAND



Why Service Delivery Protests?
Basic municipal services (Availability & Functionality)
Does the EHPs and community look through the same spectacles?

SA quadruple burden of disease!

- Comparative Risk Factor study by MRC (2008) depicts 2 types of risk factors:
 - **Affluent lifestyles** – e.g. tobacco smoke, diabetes, High BMI & Cholesterol.
 - **Poverty and underdevelopment** - e.g. unsafe water, sanitation, hygiene and indoor air pollution from solid fuels

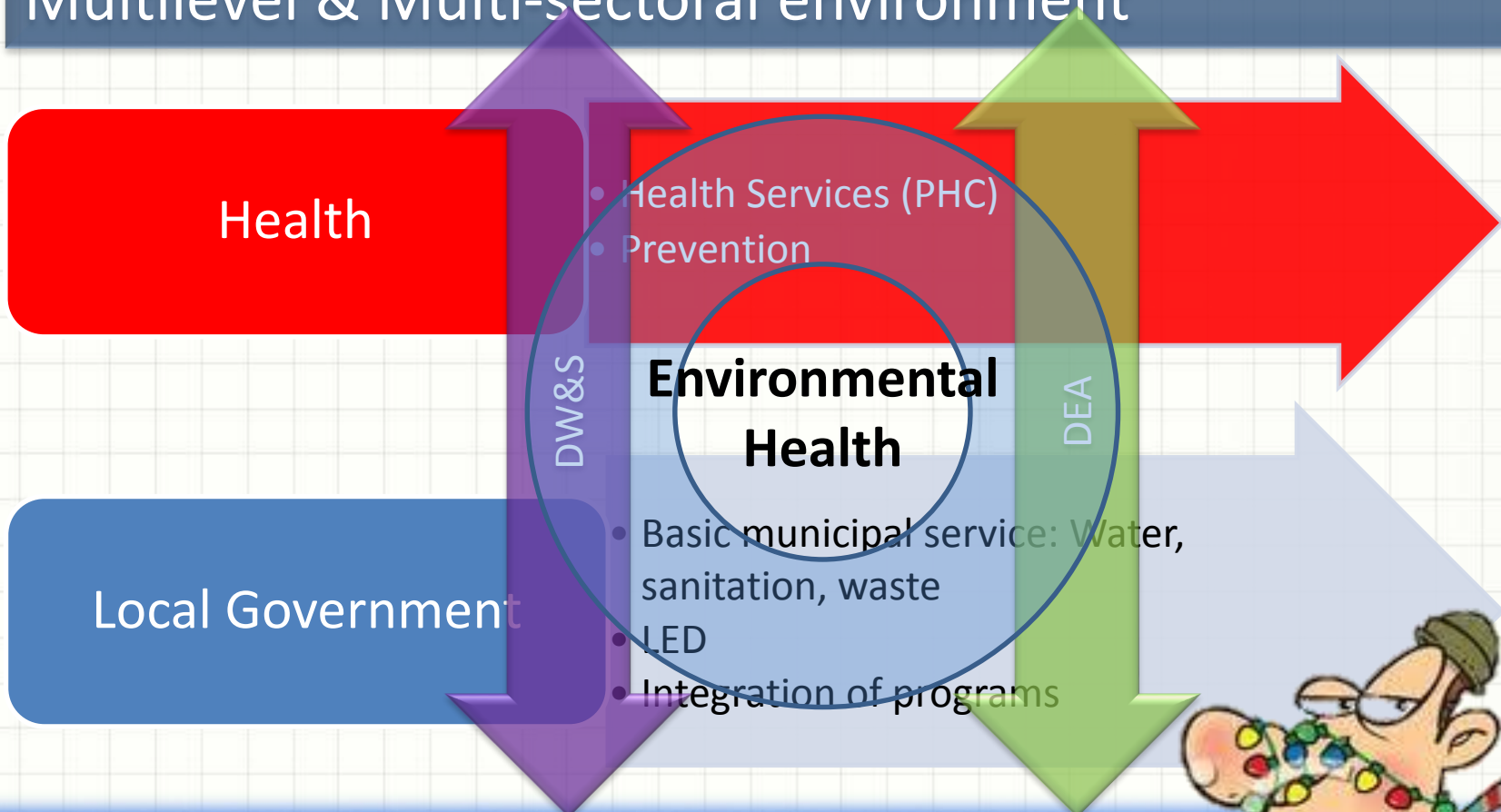
(Source: RSA, 2013 & 2016)

What should be regulated? (Cont.)

- Norman et al (2010) - Almost 24 000 deaths in 2000 were attributed to four environmental factors e.g.:
 - Unsafe water, inadequate sanitation and hygiene;
 - Indoor air pollution
 - Urban outdoor air pollution and
 - Lead exposure
- Unsafe water, sanitation, and hygiene are the main contributors to the joint burden.
- Mainly affecting <5 years of age and other vulnerable groups – e.g. immune compromised individuals.
- It is mainly the poor that bears the brunt.

By Whom?

Multilevel & Multi-sectoral environment



Enforceable & Implementable Env. Health Bylaws are reflected in ...

What should be regulated & by whom?

Enforceability

Political and Management commitment

Resources / Systems / Procedures / Programmes

Active Citizenry / Case law

Legislative provisions

Authorisation

Content

Municipal Health Services (MHS) Mandate

SA
Constitution,
108 of 1998

- Bill of rights (Env & Health)
- Local Government Functions of LG – Schedules 4B & 5B - MHS

Implementing MHS (MANDATE)

- Defines MHS
- Allocate MHS function to Metros and DMS
- Unpack activities that EHPs should be involved in to fulfil service deliver mandate

PLANNING

Mun. Systems Act, 32 of 2000

- Planning requirements (IDP / SDBIP)
- Monitoring & Evaluation (Performance Management)

FUNDING

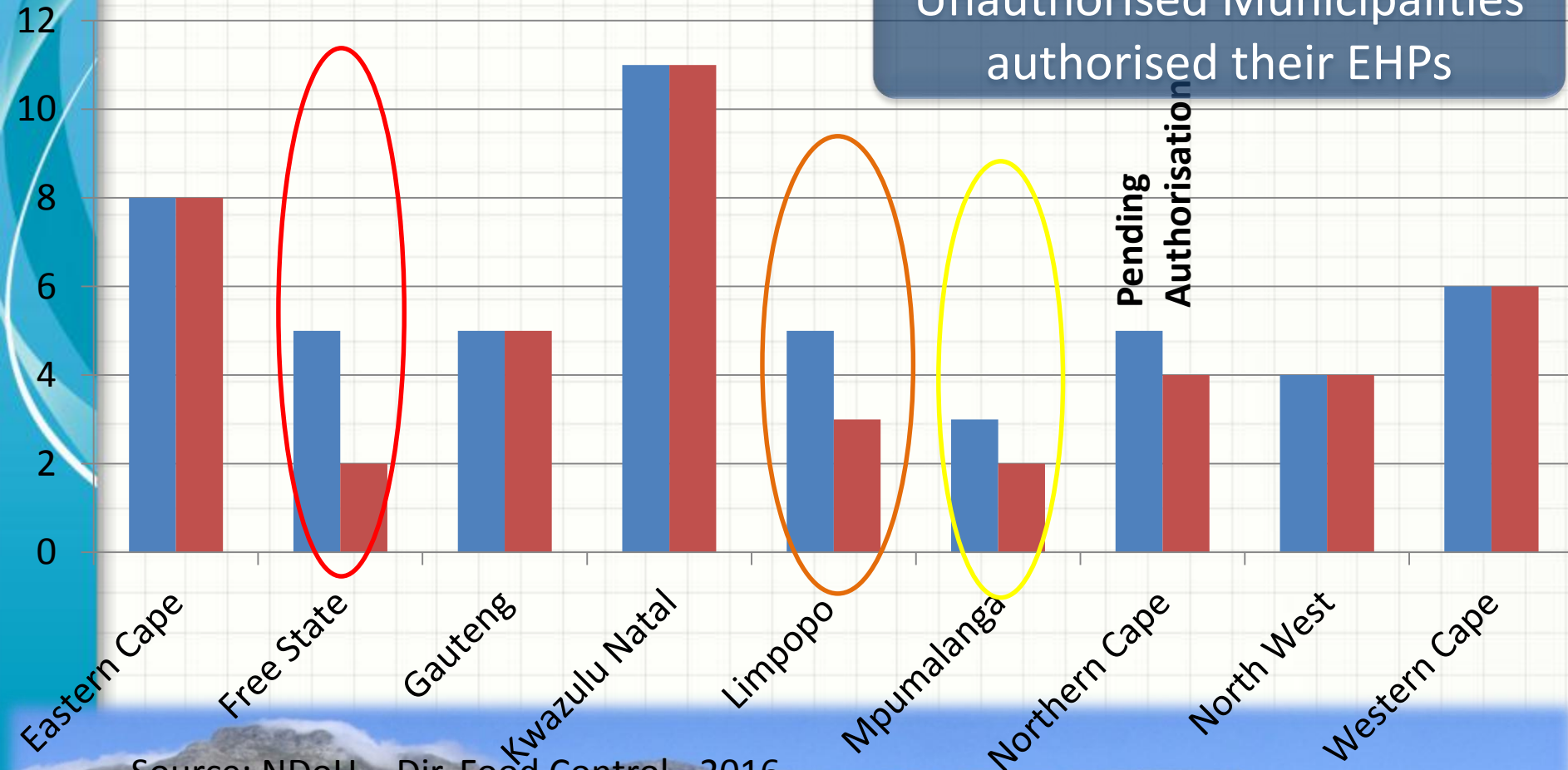
MFMA, 56 of 2003

- Budgeting,
- Funding sources
- Procurement

- National Health Act, 2003
- Mun. Structures Act, 1998
- Scope of EH Profession, 2009
- NEH Policy , 2013
- Norms and Standards, 2015

Authorisation of Metros and DMs - FCDA, 1972

Unauthorised Municipalities authorised their EHPs



Source: NDoH – Dir. Food Control - 2016

■ Total Metro/DM ■ Authorised

Enforceable & Implementable Env. Health Bylaws are reflected in ...

What should be regulated & by whom?

Enforceability

Political and Management commitment

Resources / Systems / Procedures / Programmes

Active Citizenry / Case law

Legislative provisions

Authorisation

Content

Role clarity

Social & cultural norms – Community participation

Terminology

Validity & Authority

Practical

Chain of custody

Fines

Contents of Env. Health bylaws

IGR

- Broaden scope beyond private sector and individual control!
 - **Government non-compliance** – contributing to ill health!
- MOUs
 - Interdepartmental & Sector departments e.g. Education, Supply chain for food preparation.
- Align to National EH norms and standards

Contents of Enforceable, Implementable bylaws?

	Enforceability	Implementability
<ul style="list-style-type: none">Content	<ul style="list-style-type: none"><u>Detailed for judgement</u>Socially and culturally acceptable.Community participationManage complaints and non compliance - (objective driven).Authorisations – EMI typeDefinitionsAppropriate fines	<ul style="list-style-type: none">Role clarity (B & C Mun & Sector departments)CommunicationResourcesRoutine programmes – priority areas.ProceduresPracticalMonitoring (Int. & Ext)Chain of custodyAuthority (Old NHA, Sector Departments)

Enforceable, Implementable bylaws?

	Enforceability	Implementability
<ul style="list-style-type: none">• Risk identification & mitigation (Objective driven)	<ul style="list-style-type: none">• Support service planning and implementation• Manage Political and management commitment – shorten ‘Psychological distance’• Chain of custody• Appropriate authorisation – EMI example.	<ul style="list-style-type: none">• Guide:<ul style="list-style-type: none">✓ Strategic planning✓ Routine programmes• Monitoring tools and intervals• M&E• Sufficient authority to compliance notices

Enforceable & Implementable Env. Health Bylaws are reflected in ...

What should be regulated & by whom?

Enforceability

Political and Management commitment

Resources / Systems / Procedures / Programmes

Active Citizenry / Case law

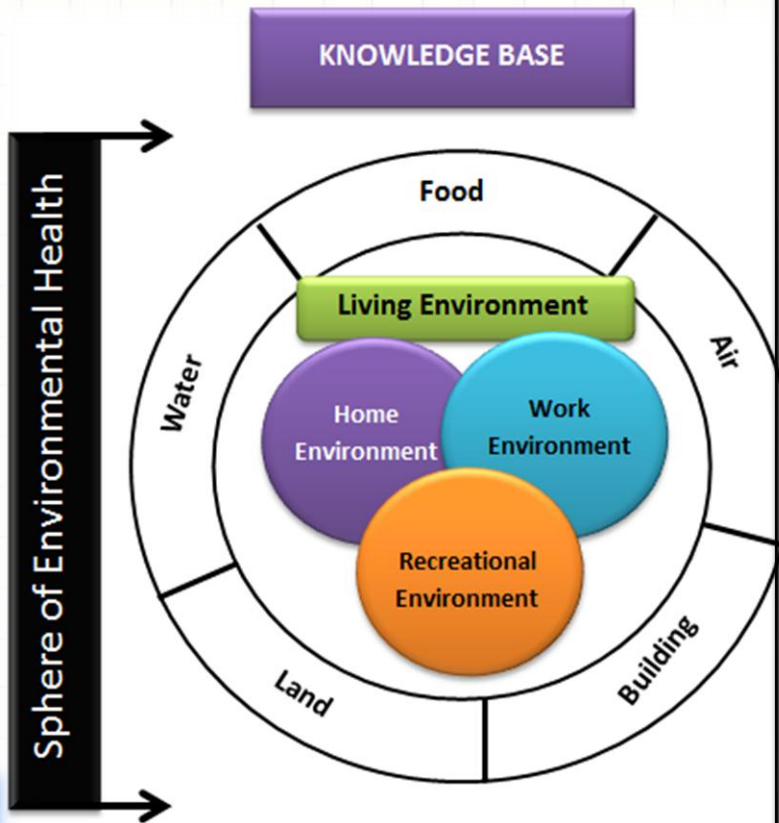
Human / Financial / Equipment

Risk ID / Prioritisation & Mitigation

Communication & Enforcement

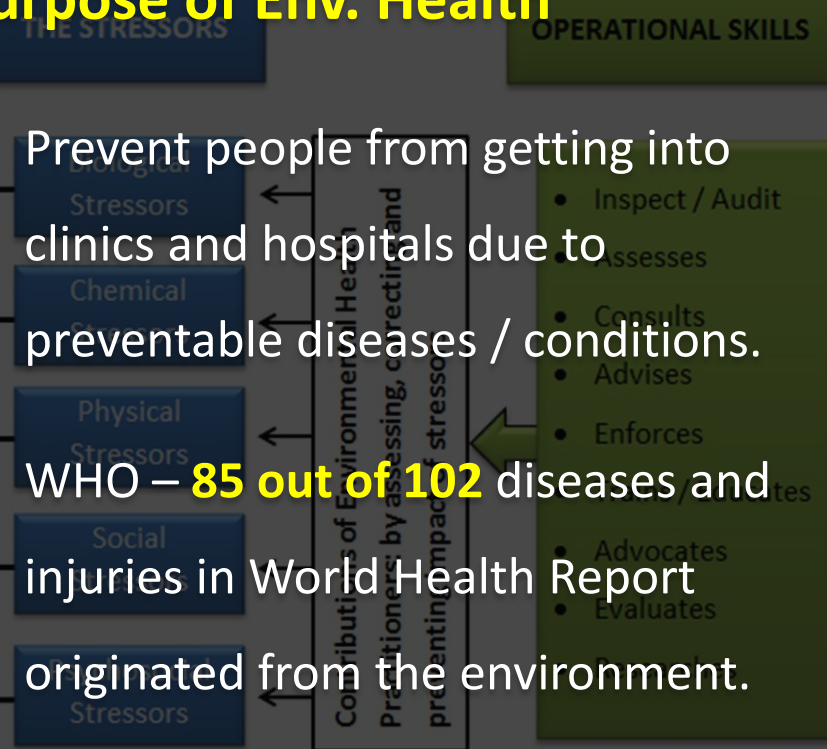
Sphere of Environmental Health

(Source: Chartered Institute of Environmental Health, 2012)

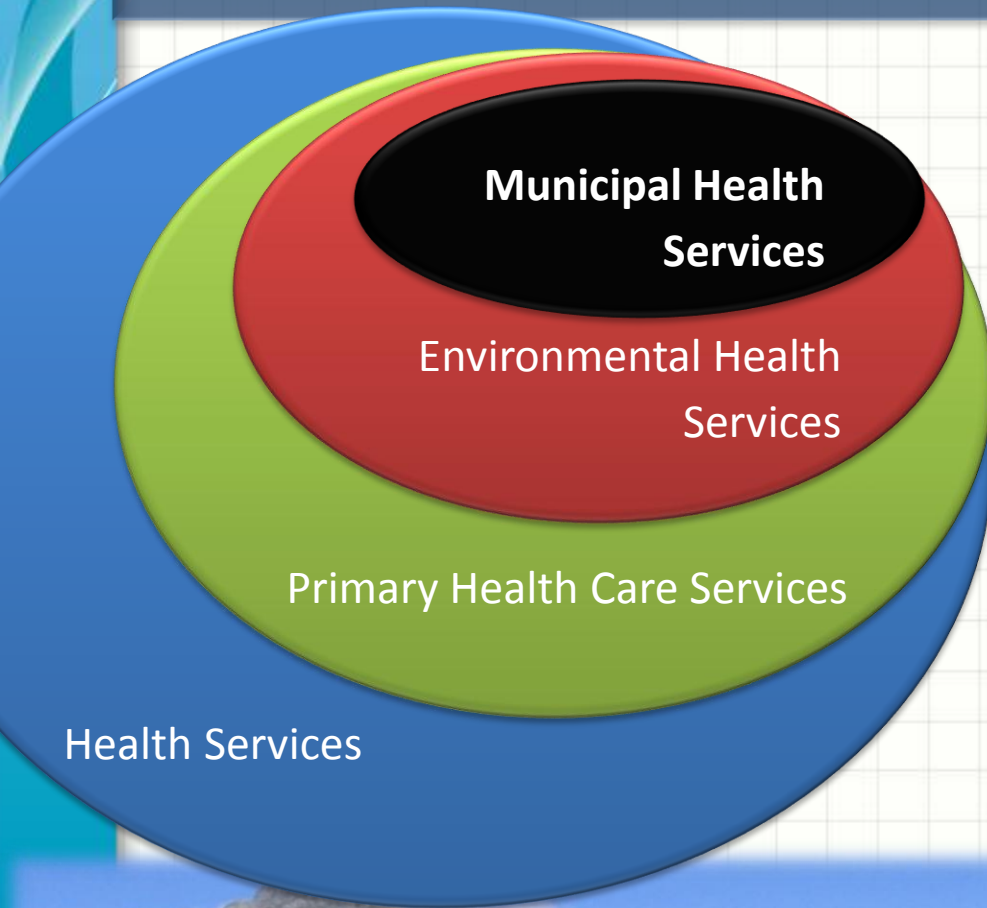


Purpose of Env. Health

- Prevent people from getting into clinics and hospitals due to preventable diseases / conditions.
- WHO – **85 out of 102** diseases and injuries in World Health Report originated from the environment.
- Prevent **social & environmental determinants** of health **at source**.



Health Services – PHC - EHS – MHS



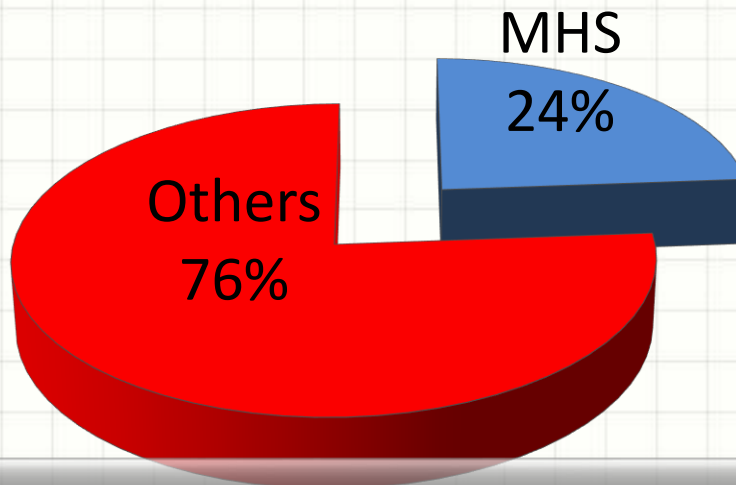
NHA, 2003 (Act 61 of 2003) defines “**Health Services**” to mean-

- a) health care services, including reproductive health care and emergency medical treatment, contemplated in section 27 of the Constitution;
- b) basic nutrition and basic health care services contemplated in section 28(l)(c) of the Constitution;
- c) medical treatment contemplated in section 35(2)(e) of the Constitution; and
- d) **municipal health services;**

Equitable Share: District Mun. usage of MHS allocation from National Treasury

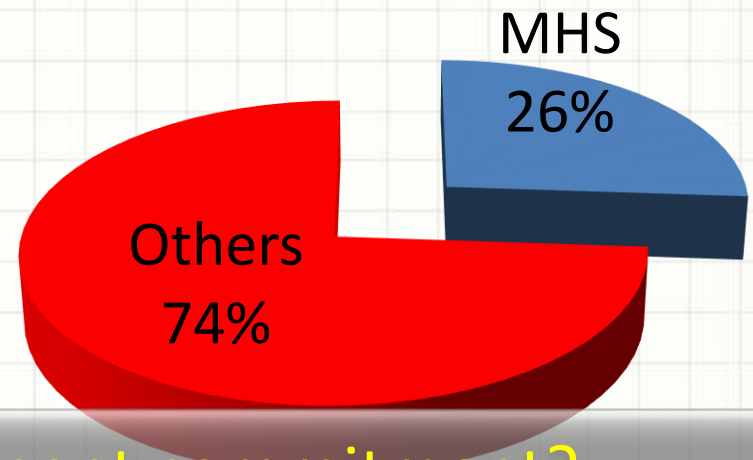
MHS Equitable Share - 2012/13

R 8, 209 742



MHS Equitable Share - 2014/15

R 8, 507 161

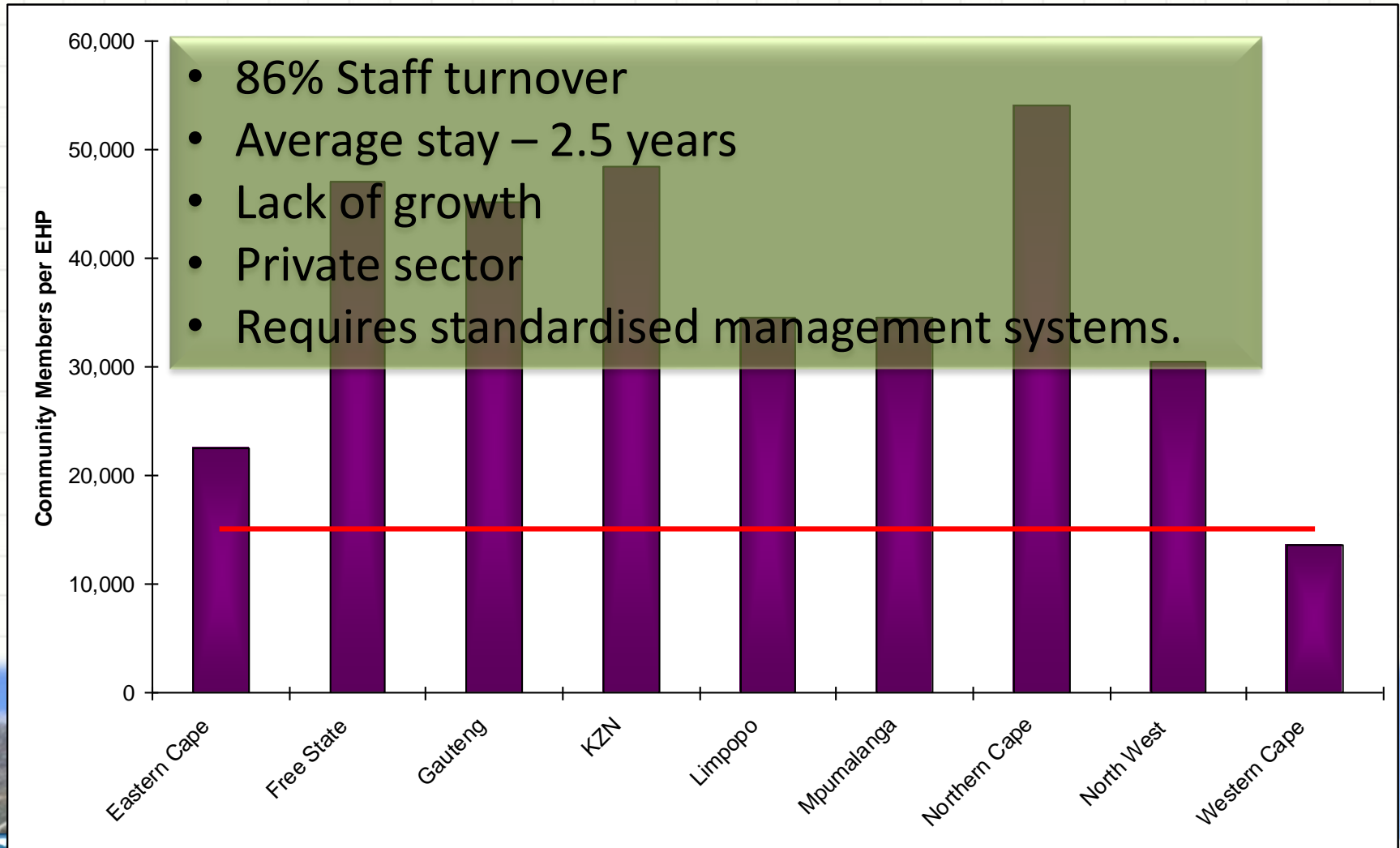


Political and Management commitment?

'Psychological distance'

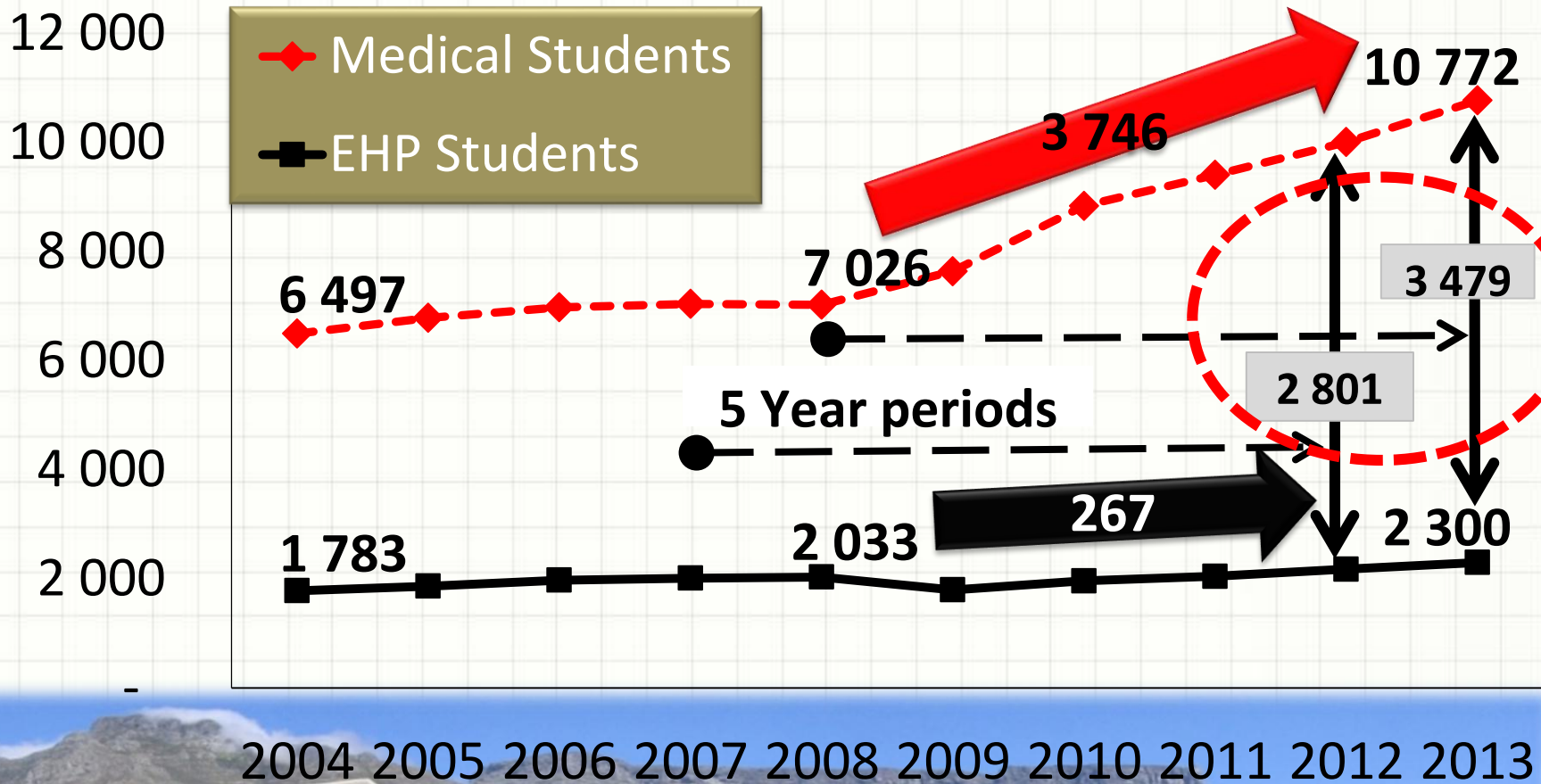
- LGTAS & MUCAT – Assessed basic service – did not cover MHS

Equitable Human Resource Distribution – EHPs (Source: SAHR, 2008)



Thrust of the District Health System

SA National Policy shift: PHC – Prevention



2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

1,200 houses built with sanitary facilities but no connection to sewerage system!

IGR ?

Psychological distance?



No elbows

6 mnts

MEC for LG in KZN (30/06/2016) reported on improved water, sanitation - **Functionality ?**

Landfill not managed

Waste covers all access roads on site



Rehabilitation - R250k versus tyre repairs?

- Psychological distance?
- IGR ?



Appropriately organised and managed
MHS Risk identification and mitigation of
social determinants of health

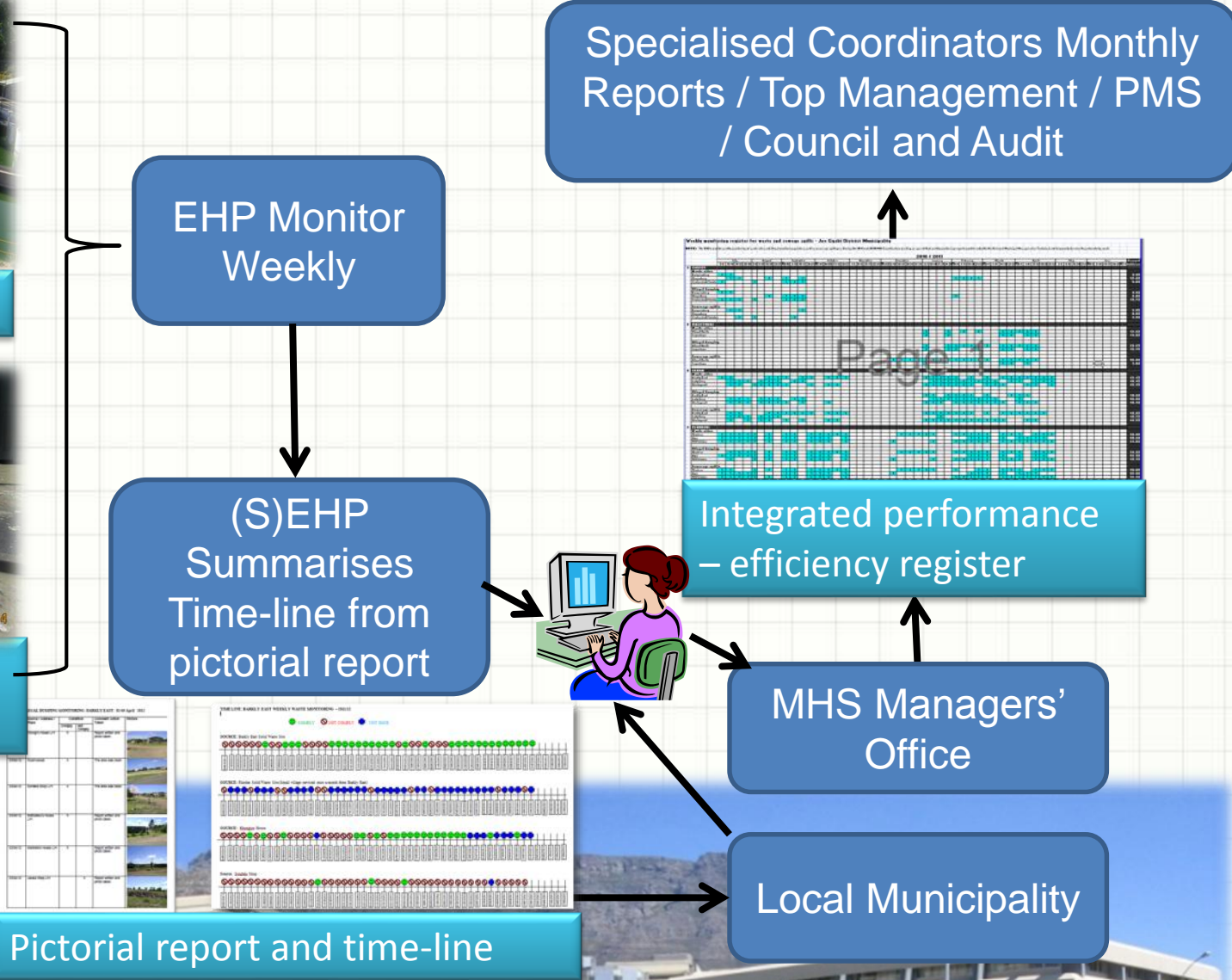
MHS Monitoring system and approach



WWTWs



Sewage spills –
reticulation system

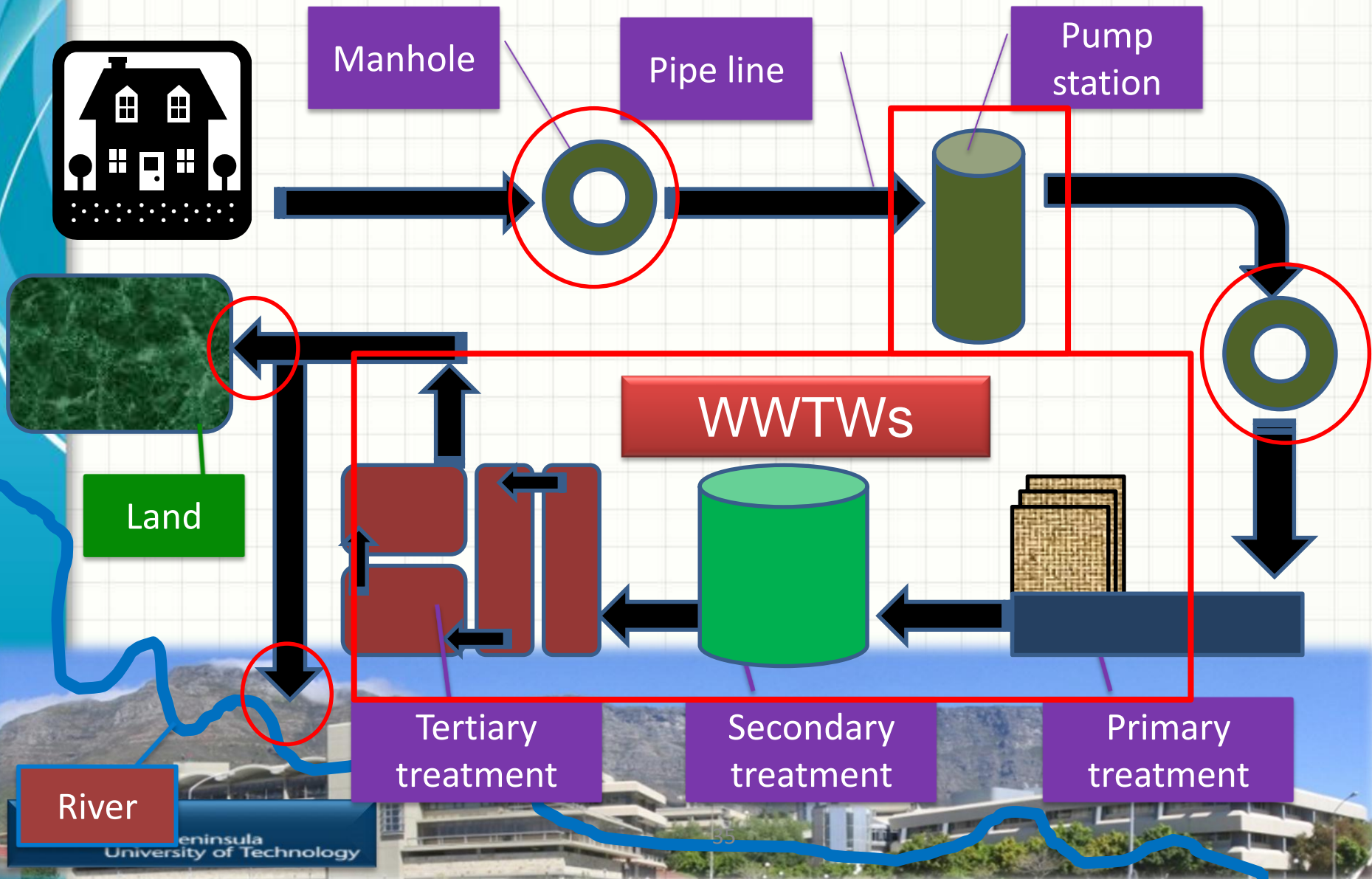


Pictorial report and time-line

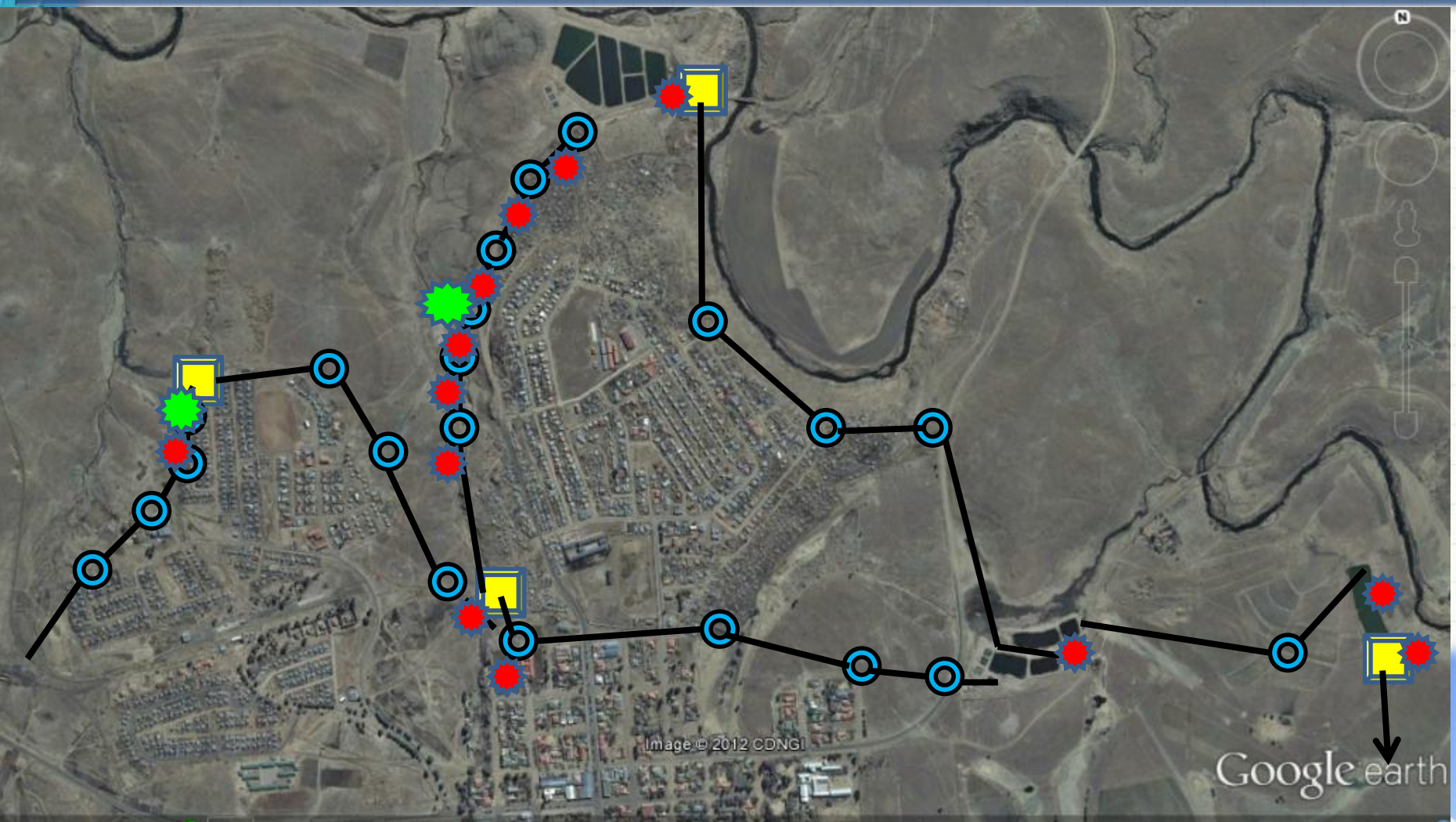


Integrated performance – efficiency register

Sewerage system – Diagram - CCPs



ID all EH Risks – Know your sewerage system - Critical Control Point (CCP) approach



Overview: Pictorial report interpreted on time-line

- Pictorial report depict weekly sewage pollution status.
- Time-line represents a financial year.
- Time-line weekly increments - capture weekly status for each WWTWs & Sewage spill.

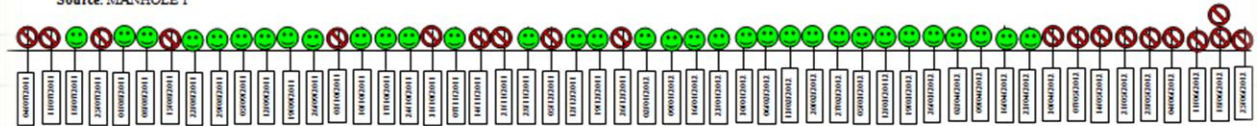
ILLEGAL DUMPING MONITORING: BARKLY EAST: 03-06 April 2012

Date	Source / Address / Place	Condition		Comment / Action Taken	Picture
		Comply	Not Comply		
03/04/12	Young's House LH	X		Report written and photo taken.	
03/04/12	Scamman	X		The area was clean	
03/04/12	Sonaka Shop LH	X		The area was clean.	
03/04/12	Wardlaw's House LH	X		Report written and photo taken.	
03/04/12	Wardlaw's House LH	X		Report written and photo taken.	
03/04/12	JAKA3 Shop LH	X		Report written and photo taken.	

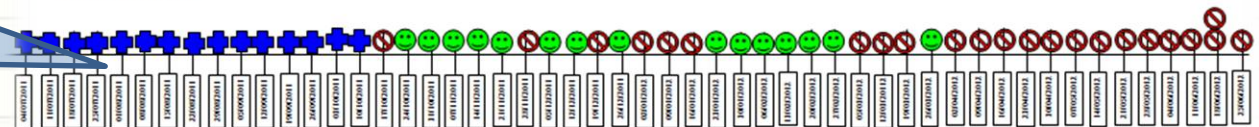
SEWAGE SPILLAGE MONITORING: TIME LINE - 2013/14

KEY: COMPLY  NOT COMPLY  NOT DONE 

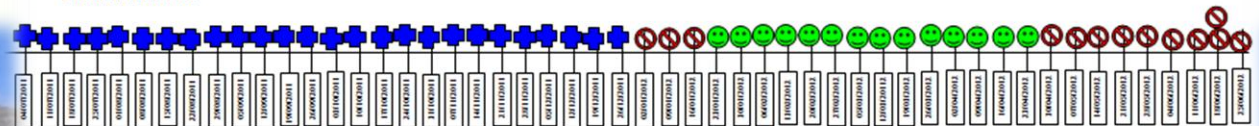
Source: MANHOLE 1



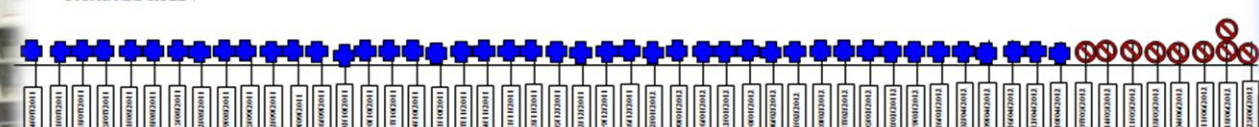
Source: MANHOLE 2



Source: MANHOLE 3



Source: MANHOLE 4



Sewage spillage monitoring impact

Before (09/04/2011)



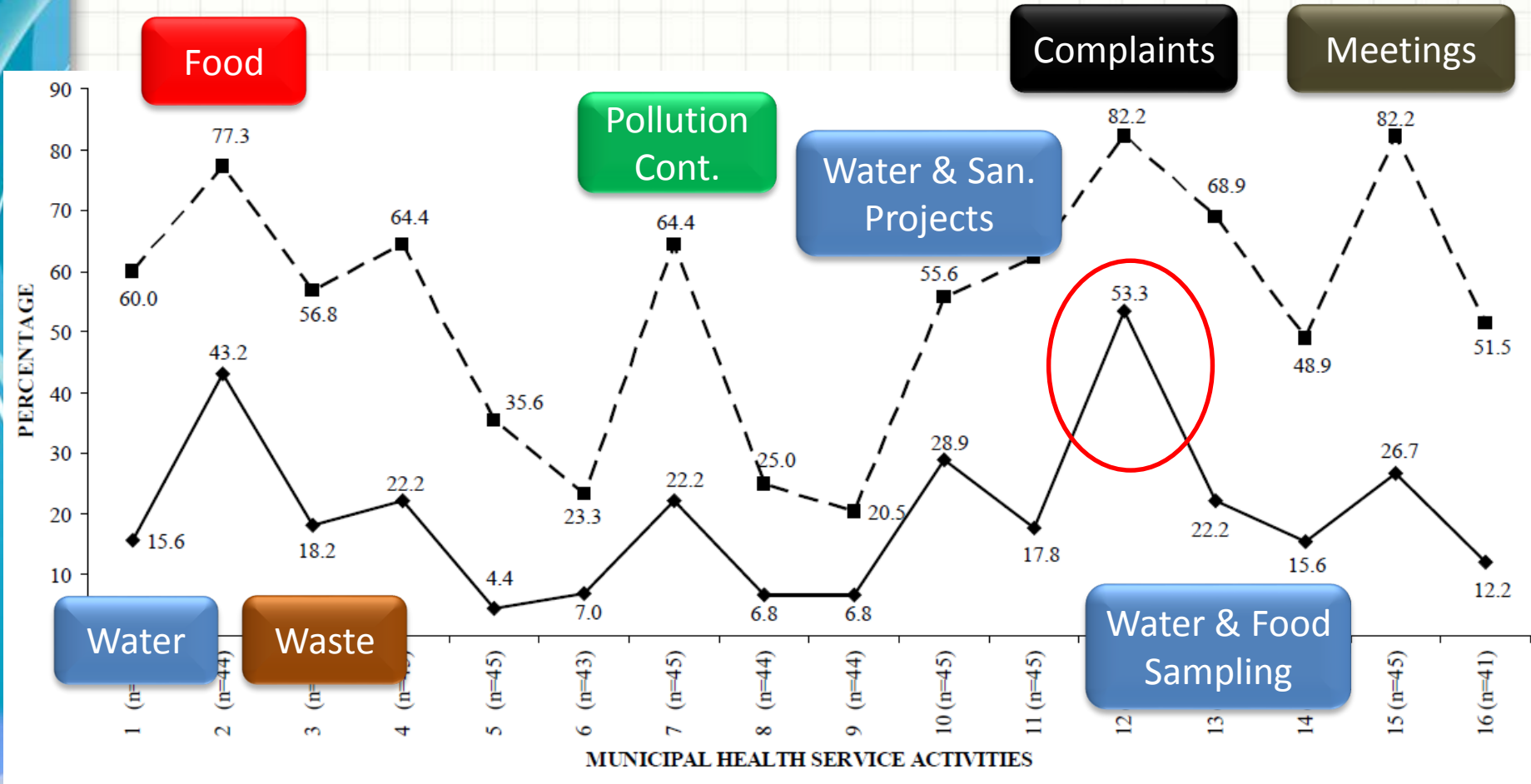
- After (05/12/2012)



- Before (20/09/2011)



MHS Activities – Mainly *ad-hoc*



Enforceable & Implementable Env. Health Bylaws are reflected in ...



Proposed new approach for EH

(Bridging the gaps – World Bank Discussion Paper, May 2001)

- **Targeted collaboration** among different sectors (DWS & DEA);
- Consider new tools or enhances existing ones to facilitate the contributions of different sectors to help relieve health problems; and (Clarify roles & responsibilities - MOUs)
- Exploits health benefits outside health sector through multisectoral collaboration - **Determinants of health.**
- Provides basic tools to identify, prioritize, and propose remedial measures for many multisectoral health problems, many of which could and do otherwise fall between the cracks in single sector projects. **EHS early warning system.**

Recommendations

- Standardised bylaws are not the solution! to address social and environmental determinants of health.
- Env. Health bylaws should provide for detailed content and prescriptions for EHS in line with EH risk profile and national priorities.
- Role clarity (B & C Mun & Sector departments)
- Appropriate authority and protection is required for EHS / MHS.
- Legislative provisions for EHPs to report EH risks to higher authority for compliance enforcement by provincial and national sector departments.

Recommendations

- Shorten the political and managements' **'Psychological distance'** – Tools to be used:
 - Auditor General assessments linked to PMS?
 - Regular service assessments by NDoH and research.
- Provision for professional accountability (e.g. EHPs, Engineers etc.
- Appropriate monitoring and evaluation of MHS implementation (LGTAS / MUCAT / AG)
- Funding sufficient regulation of funding for MHS & Com. Service.

Conclusion

Implementable and enforceable regulatory interventions and the administrative wills by the government institutions are powerful tools that can be optimally used to regulate and control the conduct of people to ensure that they maintain and conserve clean water (Manual, 2008) as noted in Nkosi and Odeku, 2014.



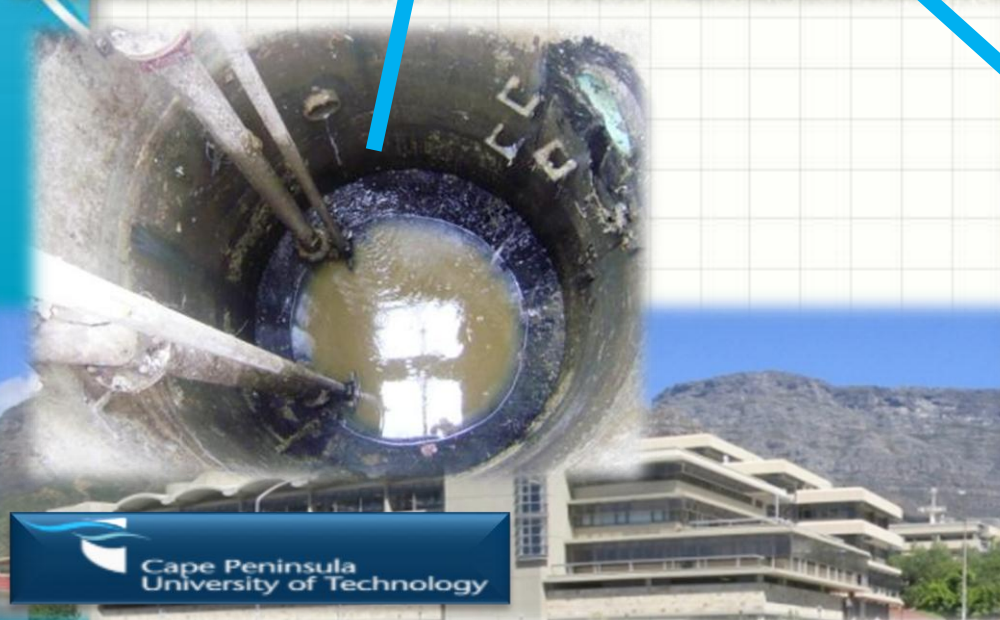
BACK 2 BASICS

welcome to
BACK 2 BASICS

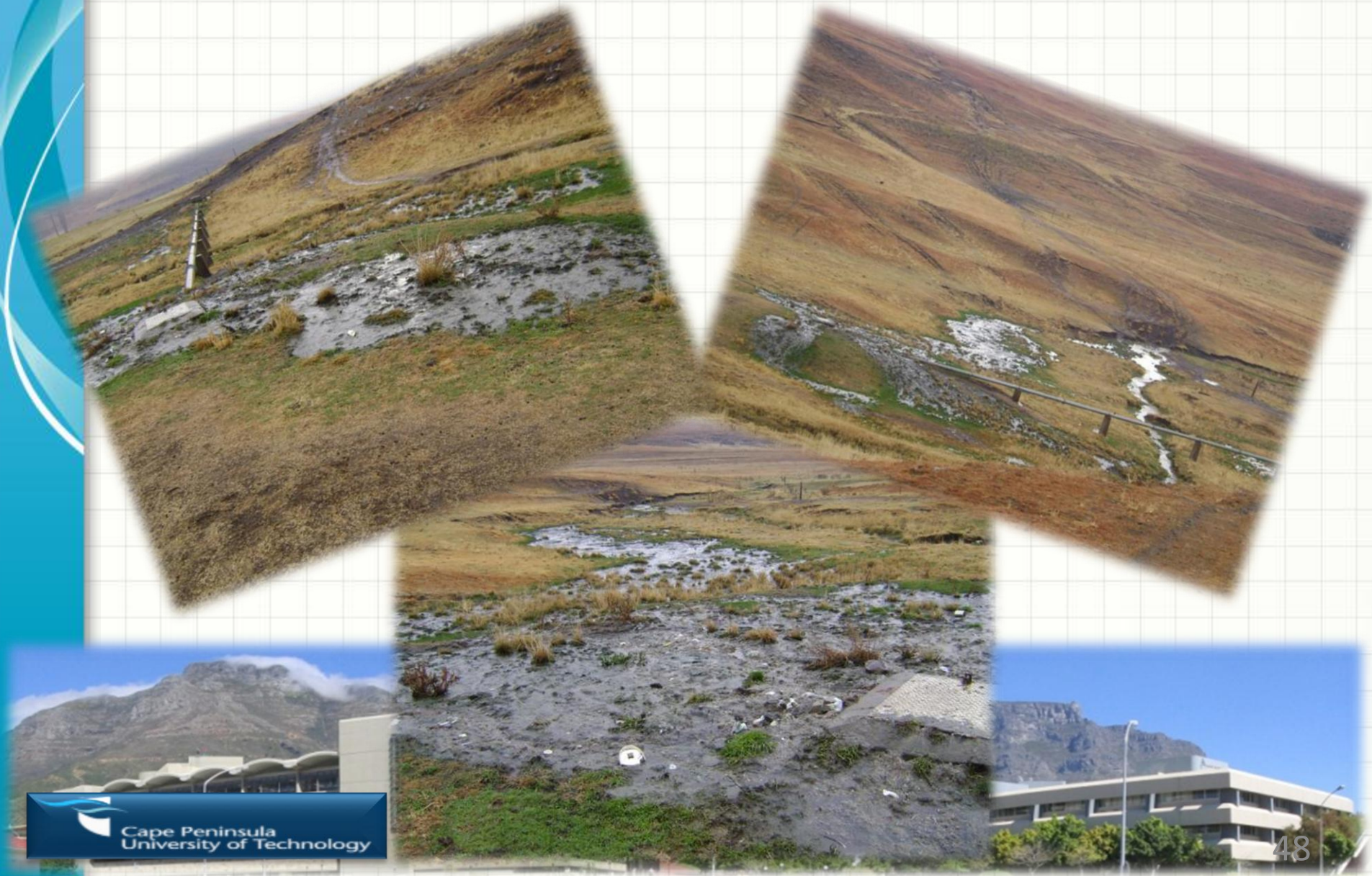
Bush Camp ←
Main Camp →



Pump Station



Sewerage line with manhole



Sewage risks to health and the environment

- Manhole overflowing raw sewage
- Giant roundworm from sewage on left. (***Ascaris lumbricoides***)



Ascaris lumbricoides is the giant roundworm of humans, growing to a length of up to 35 cm

Enforceable, Implementable bylaws?

Cape Town has SA's toughest rules to deal with animal behaviour, including noise limits and pooh. But do they work?

- Barking and pooh clauses – **'simply establishes an objective measure for magistrates dealing with nuisance complaints** involving warring neighbours'
- Nazeer killed neighbour in Pietermaritzburg (Sept'12) due to barking dog.
- Capetonian spent R50k defending annoying dog barking complaints.

Never sufficient resources!

Risk and Project Management