

Break away session 4: The state
of SA's water resources

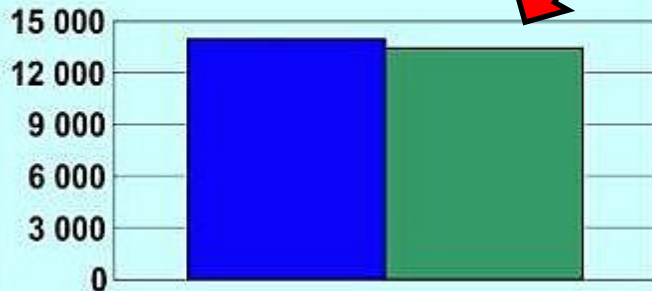
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Presenter: Thomas

The state of SA's water resources

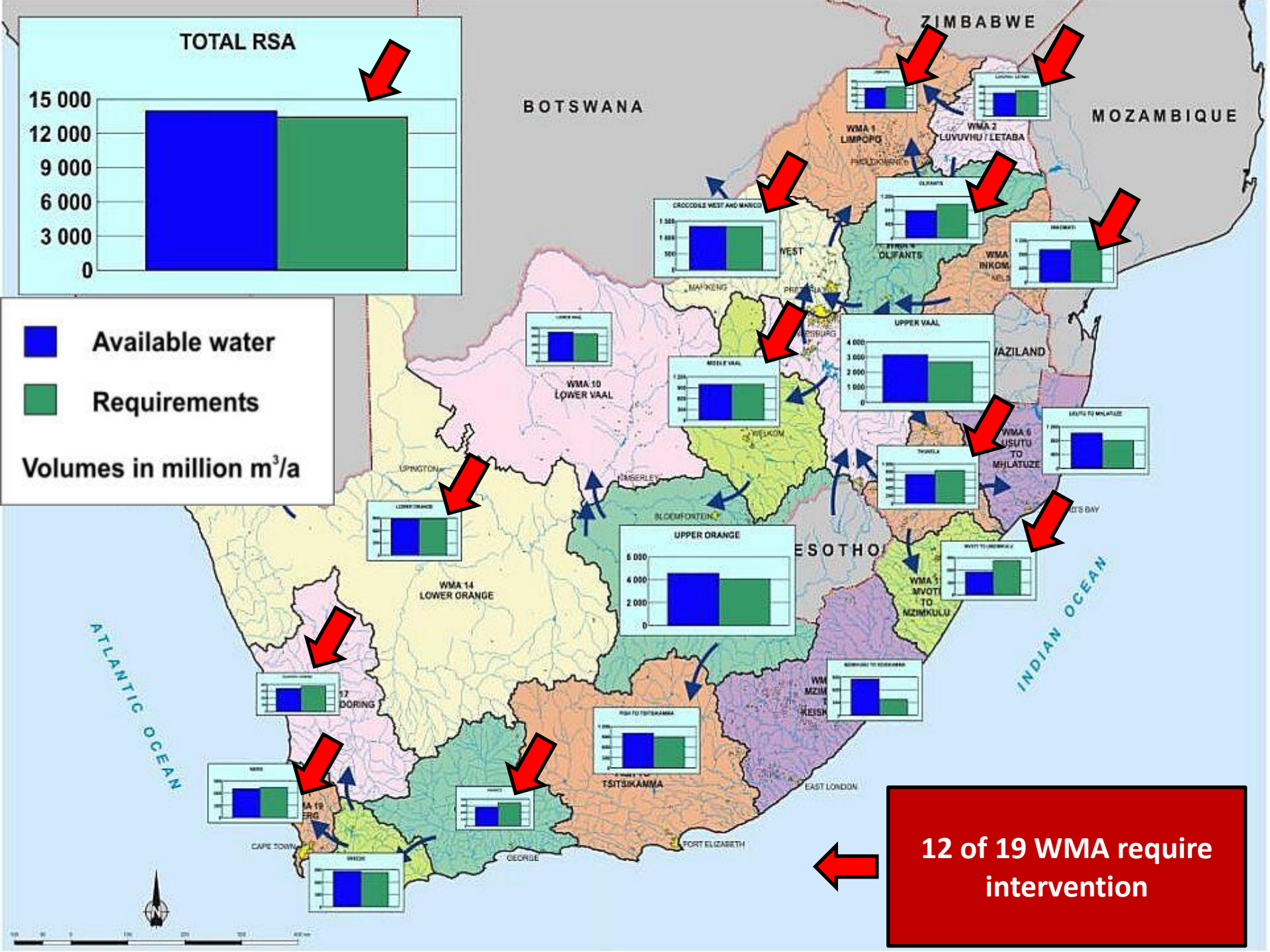
- Quantity and quality
 - Do we have enough water resources?

TOTAL RSA



Available water
Requirements

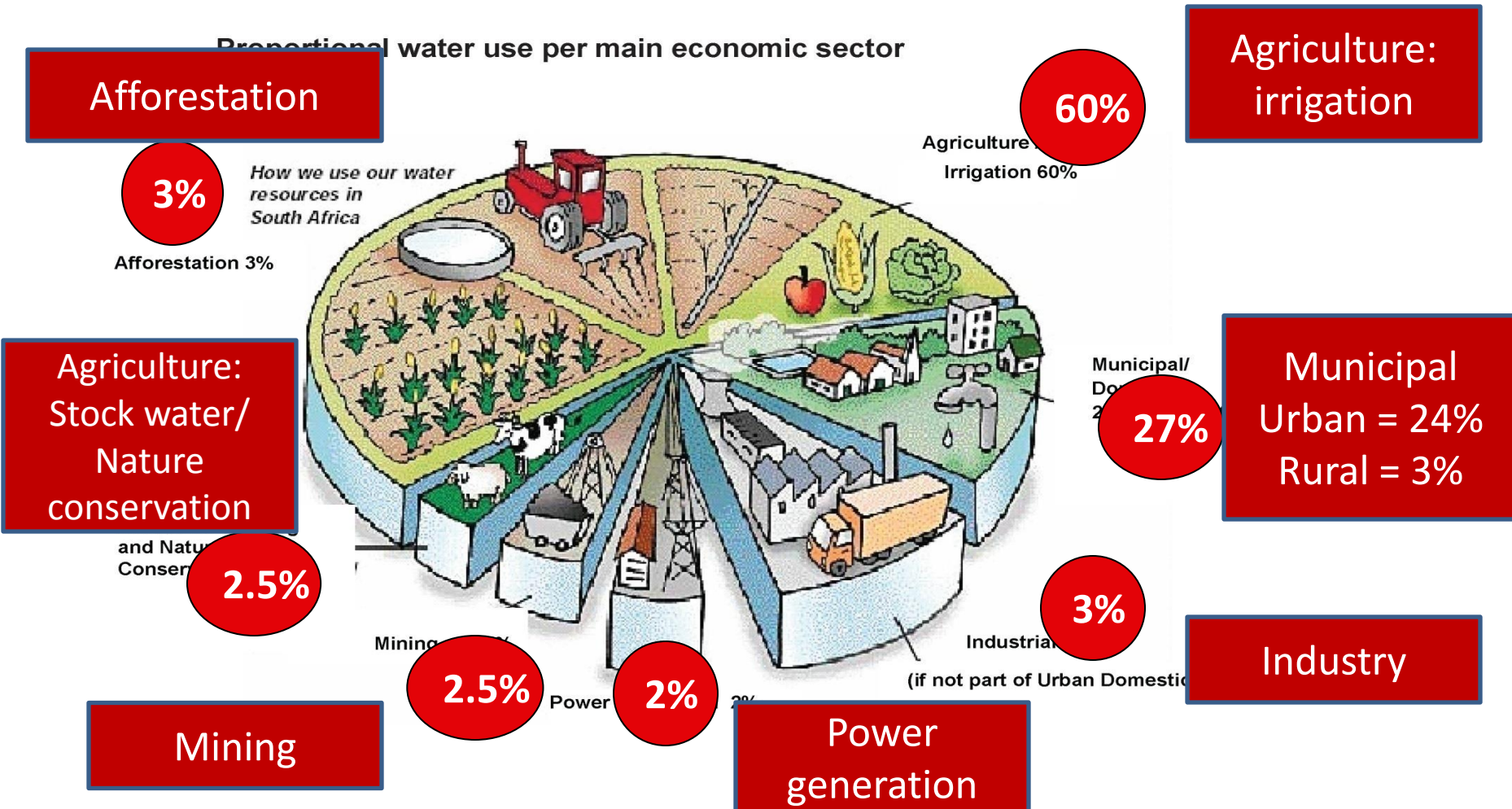
Volumes in million m³/a



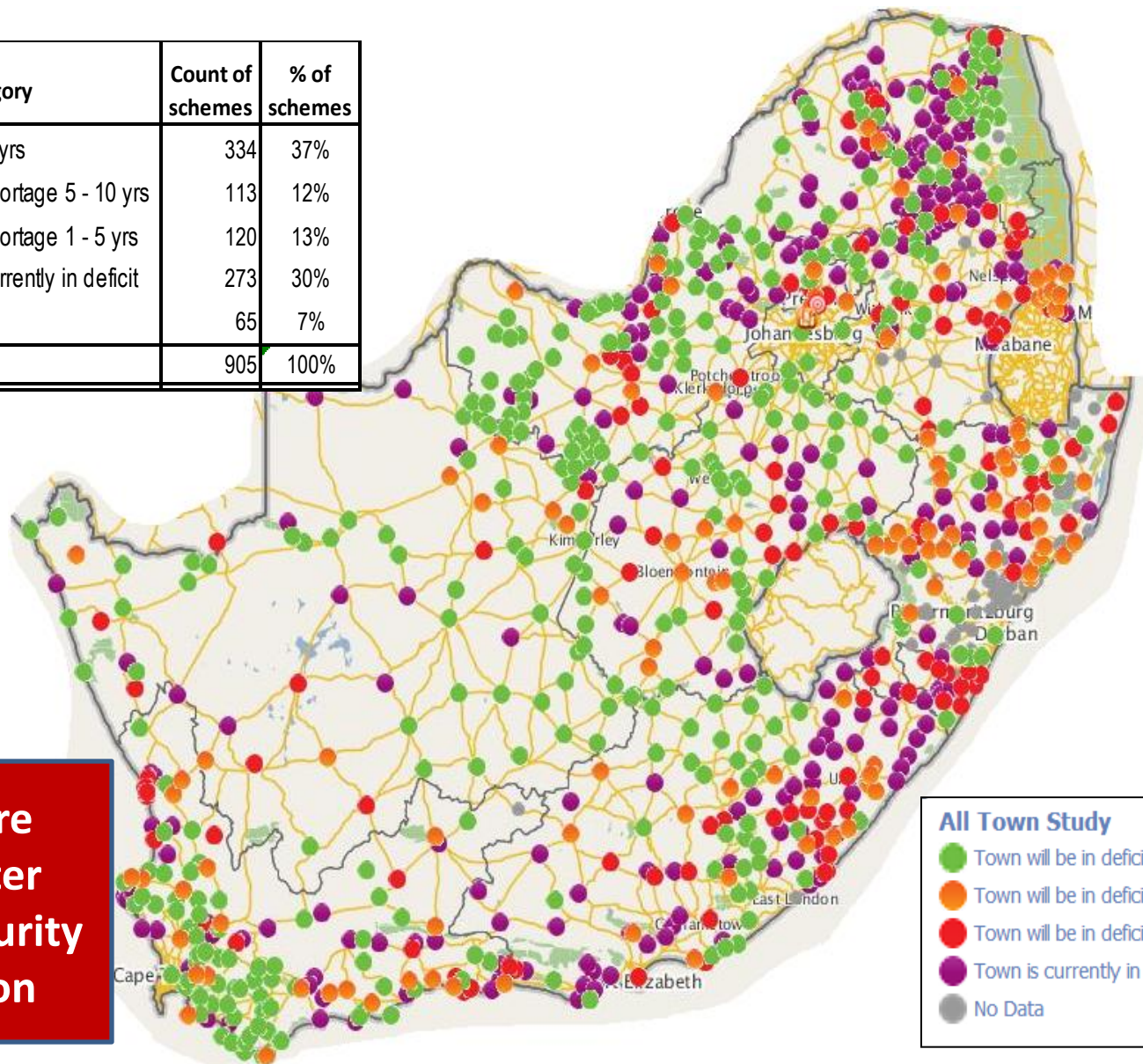
12 of 19 WMA require intervention

Water Use per economic sector

Proportional water use per main economic sector



	Category	Count of schemes	% of schemes
	no shortage > 10 yrs	334	37%
	water resource shortage 5 - 10 yrs	113	12%
	water resource shortage 1 - 5 yrs	120	13%
	water resource currently in deficit	273	30%
	unknown	65	7%
	Grand Total	905	100%



**30% require
urgent water
resource security
intervention**

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

Issues

- We need to balance the water quality and quantity management
- Water resources should be packaged to reflect the different types of sources (water mix) and one can use: (a) Ground water (b) Surface water (c) Desalination (d) Reuse
- How are we dealing with sanitation issues?

Issues Cont...

- Artificial recharge
- Land use (spatial planning) as part of the water planning process
- Small rural dams needs to be considered
- Community participation and partnership needs to be strengthen between DW&S and advocacy groups
- Stakeholder engagements should form part of the IDP activities across different municipalities

Issues Cont...

- We need to have long – term water plan that would form part of the economic development activities
- Planning and infrastructure should be aligned with the NDP agenda
- We need to have a catchment management strategy

Issues Cont...

- Licensing delays, especially for domestic use
- Water quality – from the municipalities, mines and other water users
- Monitoring information/data – you cannot manage if you do not know what you have. If you cannot monitor, then you guess to make decisions
- Storage capacity – where are the dams and where are the people? Do we have enough?

Issues Cont...

- Water demand management – non revenue water
- Unlawful water use
- Legislation synchronisation now that we have sanitation added to water
 - 5 years strategy period, e.g. NWRS is short considering the period of review and consultation
- Capacity – critical skills shortage across all sectors
- WMIs – realignment never finalised
 - Institutional arrangement – uncertainty
- Climate change – ready for crisis?

Short - Term Intervention

(a) Water availability

- Verification and Validation - we have to know what is available, who has how much.... so that we can do the WAR, Compulsory licensing, etc., CMAs are waiting...
 - Licensing for domestic water access being delayed - we need to accelerate the allocation licensing . Might also depend on the V/V.
 - WCWDM - Fix the leaks to conserve water.
- Water quality – dilution and blending for salinity currently; for example, *E coli* from dysfunctional WWTWs.
- Institutional arrangements for effective water resource management
 - give CMAs their functions
 - Dep't should settle on a functional structure
 - Stakeholder engagement

Medium -Term Intervention

- Climate change adaptation
- Resource operation rules
- Water quality – salinity/Ecoli etc
- AMD treatment – regional
- Capacity building – use the various academies
- Succession planning for the staff
- Information gathering – put systems in place to ensure data/information gathering

Medium - Term Intervention Cont...

- Development of management intervention plans for the reconciliation strategy
- Implementation of legislation on the defaulting municipality
 - Use of capable institutions to help
- Infrastructure siltation – reducing capacity of storage systems; Desilting needed
- Science/ Policy interface should be encouraged
- WMIs at the catchment level should take care of water allocation problems
- WMIs should be made to come up with management plans to ensure efficient and collaborative WRM

Medium - Term Intervention Cont...

- 300 000 subsistence & smallholder farmers need water allocation
- 500 000ha needs to expanded
- We're targeting 15% physical reduction of water loss

Long - Term Intervention

- Storage – we need to create additional storage capacity
- Policies regarding water quality should be imposed
- Ecological infrastructure
- Water resource protection
- Human capacity development
- Water Management Plans should become legal requirements
- Enhancement of current penalties needs to be increased.

Long - Term Intervention Cont...

- We need to have long – term water plan that would form part of the economic development activities
- Planning and infrastructure should be aligned with the NDP agenda
- We need to have a catchment management strategy
- There should be a follow up discussion