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# **A Snapshot: Issues and Perspectives on Water & Agriculture in South Africa**

*International Conference on the Political Economy of  
Agricultural Policy in Africa*

*18 – 20 March 2013  
Roodevallei, Pretoria, South Africa*

**Presenter: ASHWIN SEETAL**

# STRUCTURE

1. Water Situation & Timeline of Development
2. Legislative & Policy Provisions
3. Current Developments
  - i. National Water Resources Strategy
  - ii. Water Use Verification
  - iii. Licensing / Compulsory Licensing
4. The Issues .....
  - i. Land and Water
  - ii. Race & Gender Redress
  - iii. Sectoral Equity & the Economy
5. Where to from here???



# 1. WATER SITUATION & TIMELINE OF DEVELOPMENT

A. Human settlement and economic development patterns in the country:

- agriculture in the early- to mid-1900's
- later mining, urban & industrial settlements in locations unable to supply growing water demands;

B. The political legacies of Colonialism and Apartheid

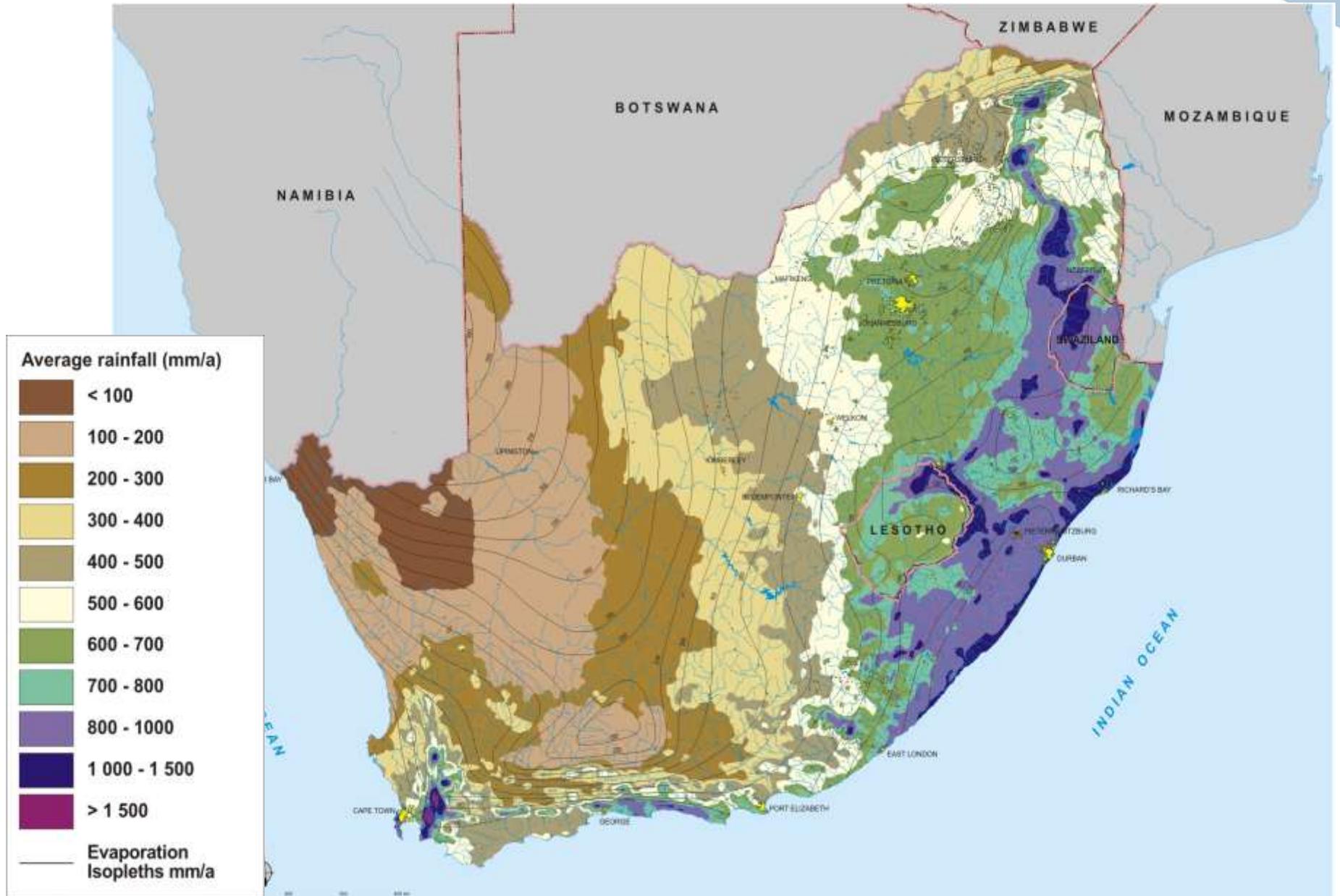
C. Legal systems affecting land settlement, ownership and water use (especially the Roman Dutch influence) that reinforced 1 & 2.

- Examples from the Water Act 54 of 1956 include:
  - (a) the riparian rights principle; and,
  - (b) the concepts of public and private water, surplus and normal flows, etc.

All further exacerbated by the fact that

**South Africa is semi-arid and has an uneven water & rainfall distribution and high evaporation rates!!!**

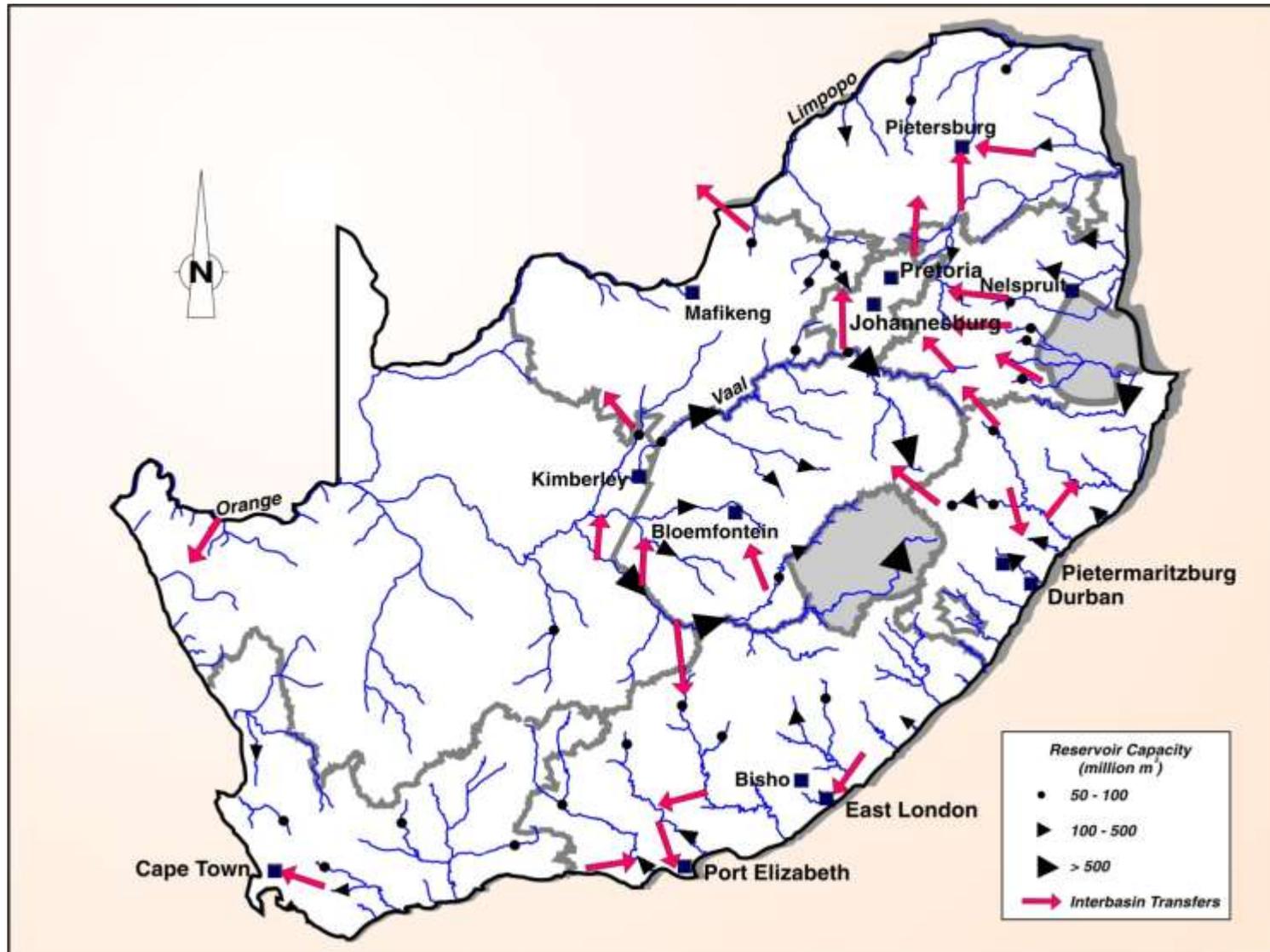
# National Rainfall and Evaporation



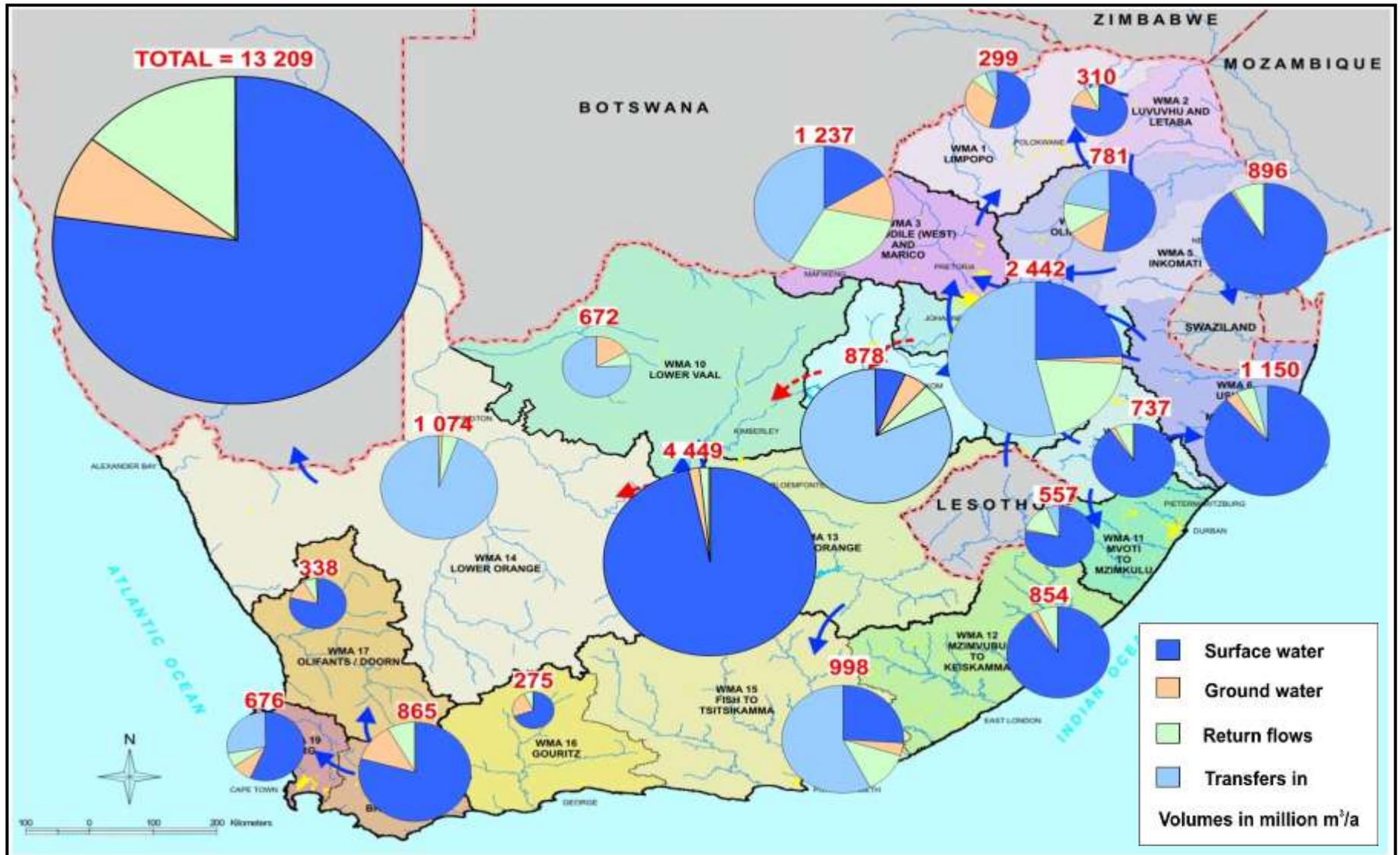
# International Rivers shared by South Africa



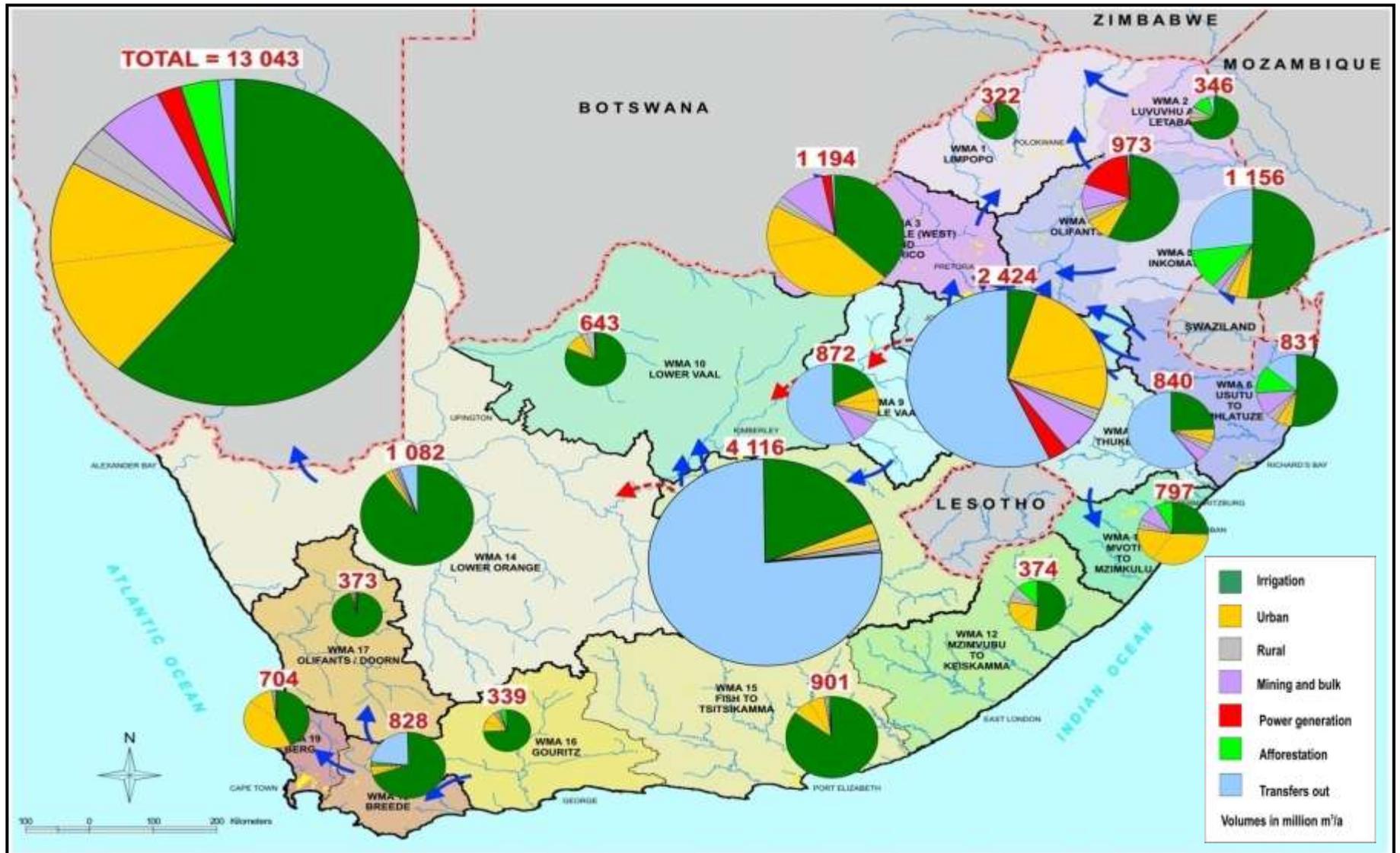
# Major Existing Dams and Interbasin Transfers



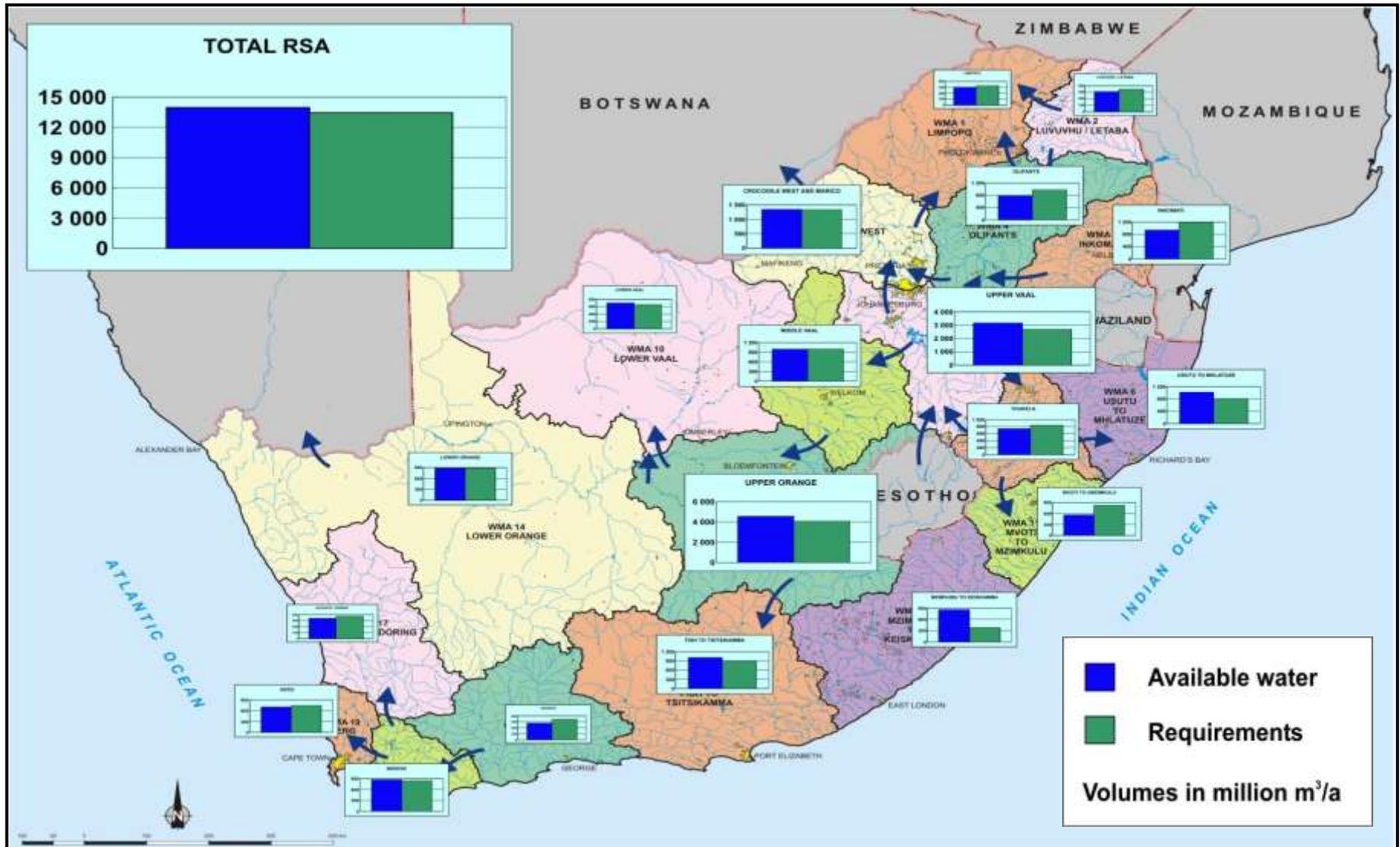
# Water Availability: Year 2000



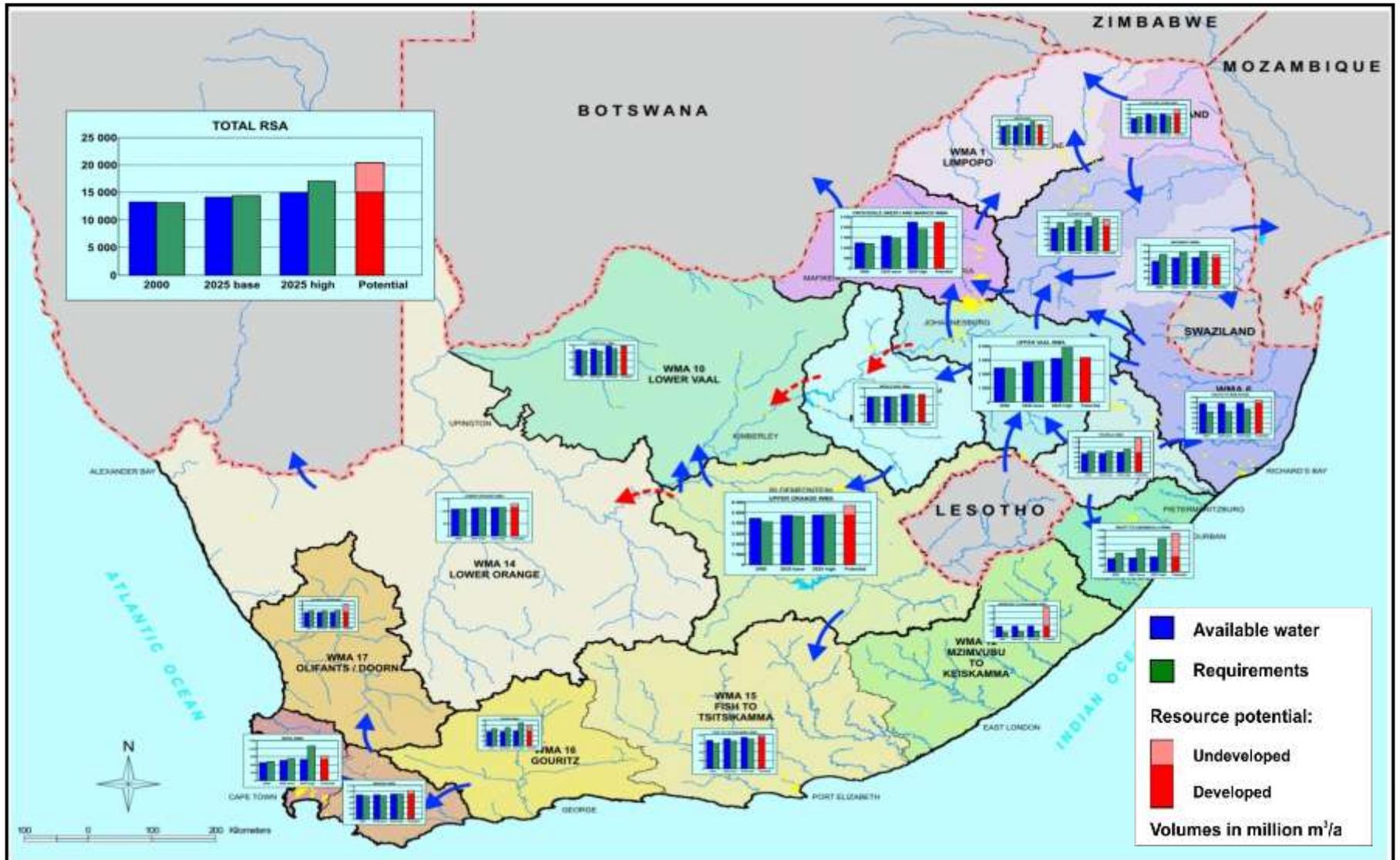
# Water Requirements: Year 2000



# Water Reconciliation: Year 2000



# The Future: Water Reconciliation Scenarios



## 2. LEGISLATIVE & POLICY PROVISIONS

- A. Agriculture dominated in the late 1800's to early- 1900's and in the absence of dams, direct abstraction was encouraged via the promotion of irrigation development = **Irrigation and Conservation of Waters Act 8 of 1912**
- B. Mining, urban settlements & industrialisation in the mid-1900's in locations unable to supply growing water demands = **Water Act 54 of 1956** (borrowed from British law – where 8x more water than in South Africa). Gave greater state control – “command and control legislation”. Radical amendments in the 1980's (urban impacts on water resources)
- C. Democracy in 1994 = **Water Services Act 108 of 1997** and **National Water Act 36 of 1998** which eliminated many earlier provisions, especially “rights”. Water was under “public trusteeship” on behalf of all South Africans and water use entitlements were time and condition-bound – “framework legislation”

## **PRIORITIES FOR ALLOCATING WATER**

**(First Edition National Water Resources Strategy, 2004)**

The Act gives highest priority to water for the Reserve, which includes water for basic human needs and for the natural environment. Thereafter international obligations as agreed with neighbouring countries must be respected and honoured.

Beyond this, water should be

**allocated to ensure that the greatest overall social and economic benefits are achieved.**

Consideration therefore needs to be given to the social and economic benefits as well as the potential disbenefits to society, of water being made available to competing optional uses.

This applies to both long-term allocations for water use as well as to short term curtailments in supply during periods of drought and temporary shortage.

Where surplus or unused water exists, prioritisation need not apply, provided that the water is not wastefully used.

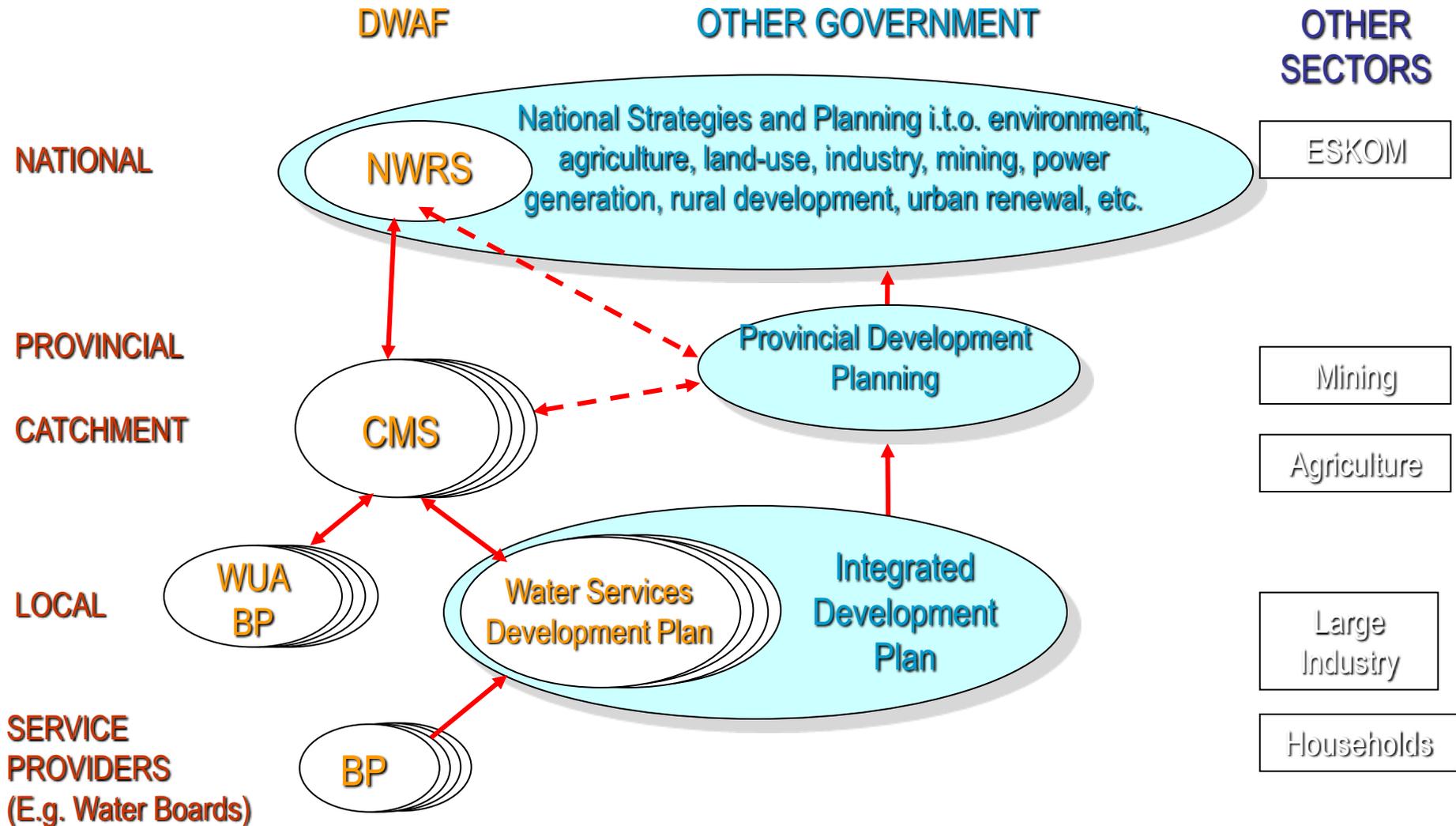
# PRIORITIES FOR ALLOCATING WATER

To facilitate the most beneficial use of water, a general guide on priorities for the use of water is given below. Priorities are stated in descending order of importance, although it is acknowledged that these may vary under particular circumstances.

- Provision for the (1) Reserve.
- (2) International Agreements and obligations.
- (3) Water for social needs such as **poverty eradication, primary domestic needs, and uses which would contribute to maintaining social stability**.
- Water for (4) key economic sectors and employment creation. This includes key industries, power generation and commerce.
- Most water use thereafter (which includes commercial forestry) can be classified as (5) general economic uses, where allocation should best be dictated by the economic efficiency of water use. With trading of water, this will automatically adjust over time according to the value of water in particular uses.
- Uses of water not measurable in economic terms, which may include (6) convenience uses and some private water use for recreational purposes, are likely to be of lowest priority.

Additional factors to be considered in assessing priorities for the allocation of water are the level of assurance of supply required, the consumptiveness of use and the quality of return flows.

# Integrated Water Resource Planning Framework



# **3. CURRENT DEVELOPMENTS**

- 1. Revision of the National Water Resources Strategy**
- 2. Water Use Verification**
- 3. Classification of Water Resources and Reconciliation (Planning) of use, supply and demand**
- 4. Compulsory Licensing**



## Compulsory Licensing - Implementation Context

- **Premise** = *licence is the basic unit for all water allocations. How these are issued has a significant bearing on achieving the objectives mentioned above.*
- **Key conflict of interest** = *allocating and managing water resources among existing competing users and potential new users in redressing past imbalances and ensuring sustainable and productive use of water resources.*
- **Challenge** = *create, promote and maintain an enabling environment for all stakeholders to engage in IWRM and the water allocation reform process in a **CONSTRUCTIVE** manner.*



- All water allocation processes are **underpinned by public engagement** to varying extents
- ***Many activities either precede or run concurrently with CL.*** These include *inter alia*:

Registration of existing water use  
Verification of existing lawful use  
NWRS and CMS's  
Classification of the water resource  
Setting the Resource Quality Objectives  
Reserve Determination  
International and Strategic obligations  
Resource availability for allocation



# GEOGRAPHIC AREA / CATCHMENT INFORMATION

PARAMETER	Geographic Area / Catchment		
	Tosca Molopo	Jan Dissels	Mhlathuze
<b>i. Geography:</b> <b>(a) Size of Area</b> <b>(b) Population</b> <b>(c) Character of Area</b>	(a) 1625 km <sup>2</sup> (b) Approximately 4 500 (c) Rural	(a) 197 km <sup>2</sup> (b) Approximately 4 000 (c) Rural	(a) 4209 km <sup>2</sup> (b) Approximately 525 000 (c) Widespread rural with urban and industrial nodes
<b>ii. Water Information</b> <b>(a) MAR / System Yield</b> <b>(b) Water Availability</b> <b>(c) Existing Lawful Use</b> <b>(d) Reserve Allocation</b> <b>(e) Main Water Uses</b> <b>(f) Total Volume Applied for in CL</b> <b>(g) Total (Proposed) CL Allocation</b>	(a) 15,597 million m <sup>3</sup> /annum (b) Groundwater 11,1 million m <sup>3</sup> /annum (c) 12,496 million m <sup>3</sup> (d) 0,577 million m <sup>3</sup> /annum (e) Agriculture & Municipal (domestic) (f) 14,424 million m <sup>3</sup> /annum (g) 9,960 million m <sup>3</sup> /annum	(a) MAR = 45,291 million m <sup>3</sup> /annum (b) 3,81 million m <sup>3</sup> /annum (surface water) (c) 4,549 million m <sup>3</sup> /annum (d) 7,45 million m <sup>3</sup> /annum. Variable – 3 different catchment reaches (e) Agriculture & Municipal (domestic) (f) 5,436 million m <sup>3</sup> /annum (g) 3,920 million m <sup>3</sup> /annum (includes groundwater)	(a) MAR = 938 million m <sup>3</sup> /annum (b) 262 million m <sup>3</sup> /annum (surface water) (c) 393.51 million m <sup>3</sup> /annum (d) Varies at different IFR sites in the catchment (e) Agriculture & Forestry and Municipal & Industrial (f) 401 million m <sup>3</sup> /annum (g) 288,088 million m <sup>3</sup> /annum
<b>iii. Specialist Reports / Studies Undertaken</b>	<b>8</b>	<b>7</b>	<b>13</b>

# STATUS OF PREPARATORY STEPS

SUB-PHASE (and NWA reference)	Geographic Area / Catchment		
	Tosca Molopo	Jan Dissels	Mhlathuze
i. Determination of Allocable Water (s23)	Completed		
ii. Reserve (Ch 3)	Groundwater Reserve Completed	Rapid Reserve Determined	Comprehensive Reserve Determined
iii. International Obligations & Strategic Uses (s23)	International obligations not established and formalised	n/a	n/a
iv. Existing Lawful Water Use Verified (s32-35)	Completed	Completed	Completed?
v. Catchment Management Strategy (s9)	None. Specialist Reports.		
vi. Catchment Assessment Report	Completed		
vii. Draft Water Allocation Plan (s9, s27)	Completed		

# IMPLEMENTATION TIMELINE & STATUS

<b>PHASE</b>	<b><u>Tosca Molopo</u></b>	<b><u>Jan Dissels</u></b>	<b><u>Mhlathuze</u></b>
<b>1. Announce CL</b>			
i. Government Gazette (60d notice)	12 August 2010	20 August 2010	12 August 2010
ii. Number of Licence Applications	60	31	670
<b>2. Proposed Allocation Schedule</b>			
i. Government Gazette (60d notice)	17 December 2010	28 September 2012	10 August 2012 (extended by 30d)
ii. Number of Objections	10	None (22 October 2012)	19 (end-September 2012)
<b>3. Preliminary Allocation Schedule</b>			
i. Government Gazette	20 May 2011	n/a	n/a
ii. Number of Appeals	None	n/a	n/a
<b>4. Final Allocation Schedule</b>			
i. Government Gazette	22 July 2011	n/a	n/a
ii. Number of Allocations	50	n/a	n/a
<b>5. Issue Licences</b>	Completed. November 2012.	n/a	n/a

# 4. THE ISSUES .....

1. **Land and Water** - Race & Gender Redress
2. Greater **Inter-Sectoral competition and impacts** (especially mining and urban use) – sectoral equity & the economy
3. **A Strategic Use .....** ??? Food security ???
4. **Rural stability** and **Contribution to the Economy** – jobs, GGP, GDP
5. **Water Use Efficiency** in relation to quantum / traditional market share (62% water used by agriculture)

# 5. WHERE TO FROM HERE???

- TRANSFORMATION AND REDRESS to be fast-tracked
- Parts of South Africa (rural) heavily dependent on an agricultural economy = entrench RURAL SOCIAL STABILITY (recent WC strikes)
- Diversification (higher value crops) and longer value chains beyond the focus on primary agriculture = ECONOMIC COMPETITIVENESS (provincial Growth & Development Plans to shift the focus more aggressively)
- “Jostling” with other water competing sectors and water resource impactors = HIGH VALUE / LOW IMPACTOR (water use efficiency programs must be intensified)

# *Thank You*

