

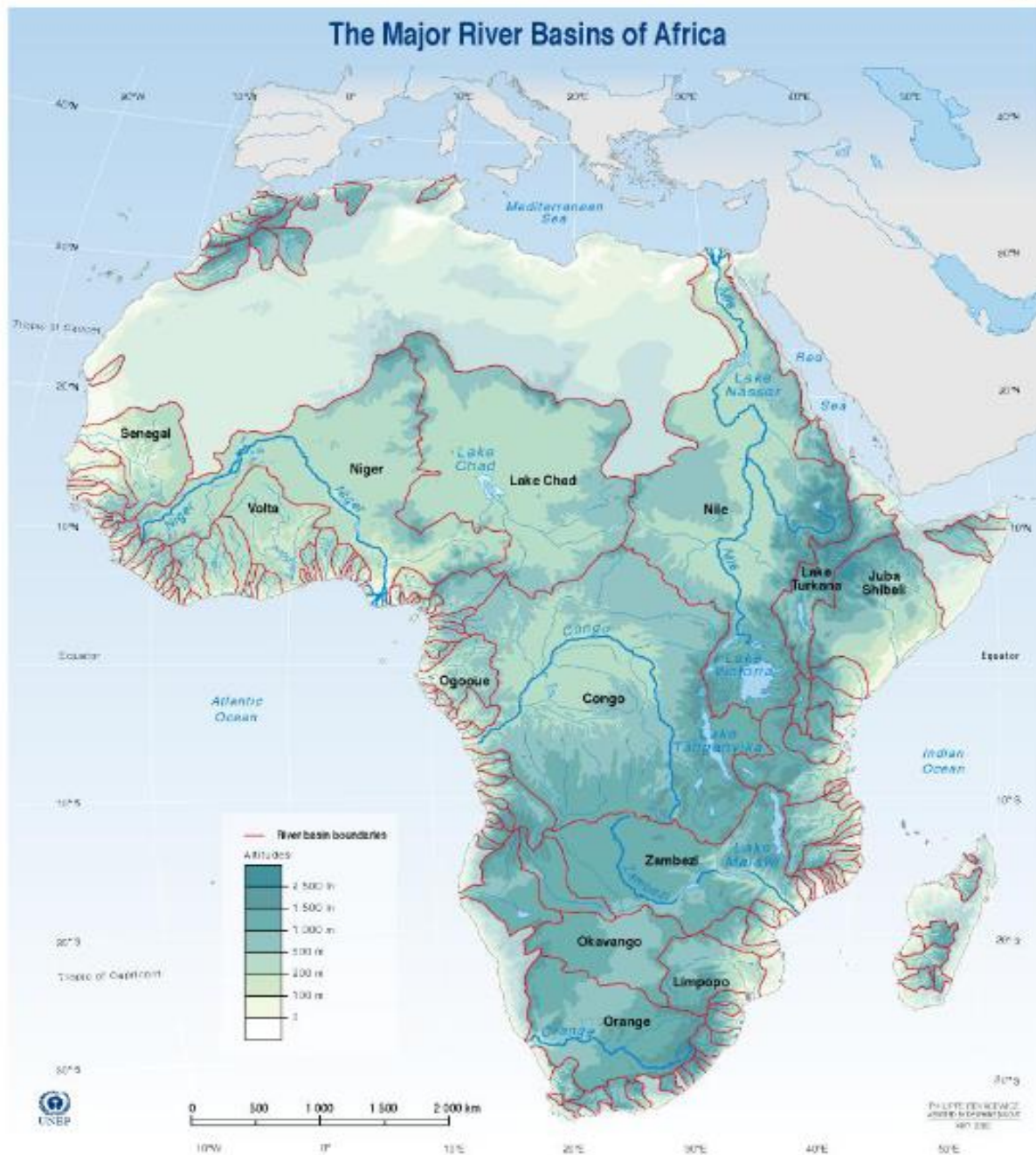


RSA National Water and Sanitation Summit

Transboundary Water Cooperation: Governance and Financing – Lessons from the Orange -Senqu River Commission

18th February 2022

Lenka Thamae – Executive Secretary
www.orasecom.org



Source: Aaron T. Wolf et al., 1996; Revenga et al., *Watersheds of the World*, World Resources Institute (WRI), Washington DC, 1998; Philippe Rekacewicz, *Atlas de poche*, Livre de poche, Librairie générale française, Paris, 1996 (revised in 2001).

Location, Extent, Countries, Population

**Basin Area : approx.
1 million sq km.**

**Population
Depending on Basin
Water: 19 million
(Earle et al. 2004).**

**Population Living
Within Basin: 14,27
million**

**Basin States:
Botswana,
Lesotho, Namibia
and South Africa.**



Orange-Senqu sources in highlands of Lesotho at around 3000 metres above mean sea level (alpine wetlands “sponges”) – very important for sustaining flows especially in dry season and during drought periods.



Confluence of Vaal and Orange/Senqu Rivers



The River Mouth along the border between Namibia and South Africa has been declared a Ramsar Site on both sides of the border.





Sasol Petrochemical Plant Secunda

Produces >30% of SA's Petrol/Diesel from coal

Export grapes Aussenkehr

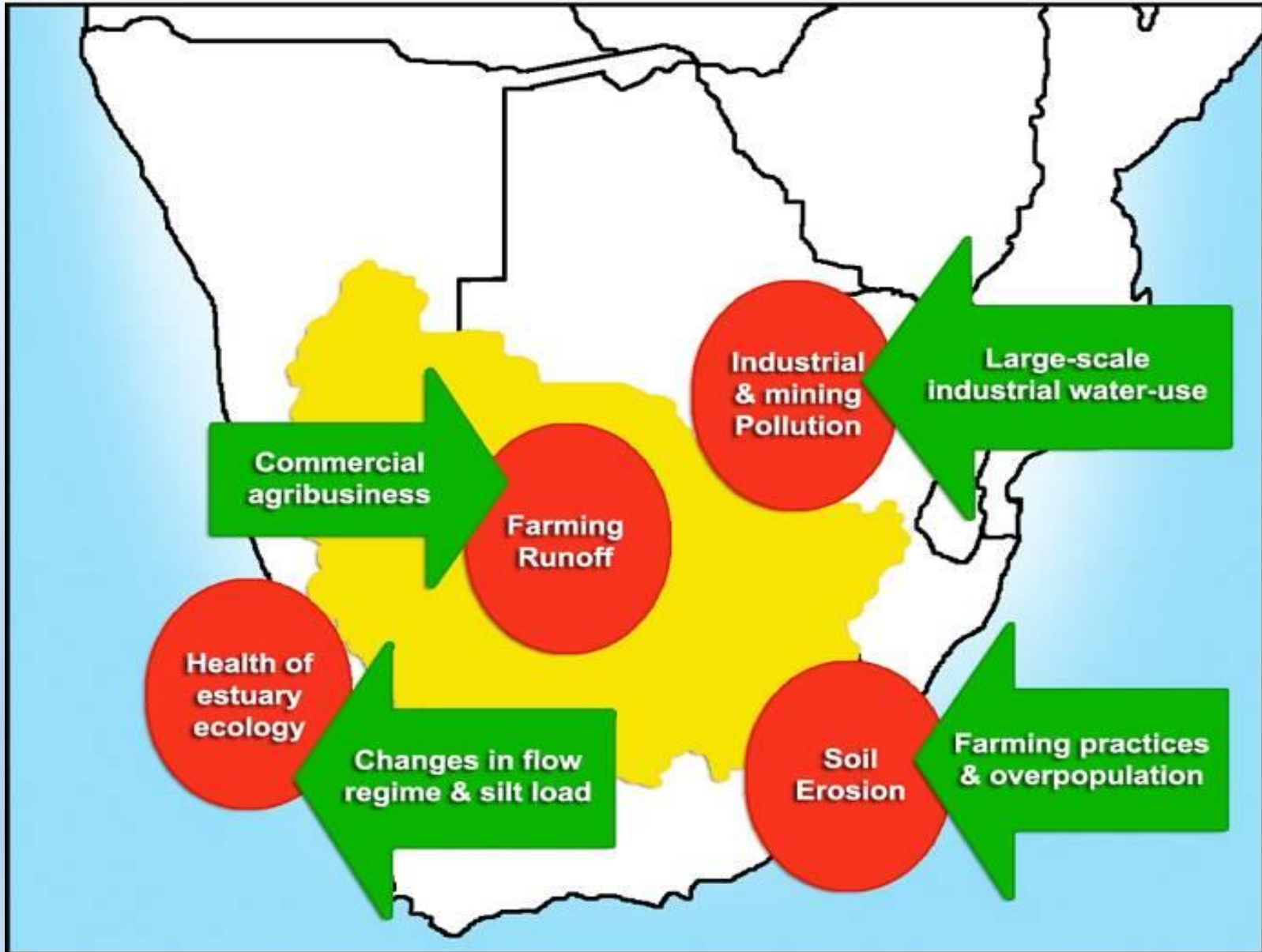
Namibia





Alluvial diamond mining operations are also found on the lower Orange-Senqu, the estuary and along shallow sea bed of the Atlantic Ocean.

Basin Challenges



Climate – temperature change

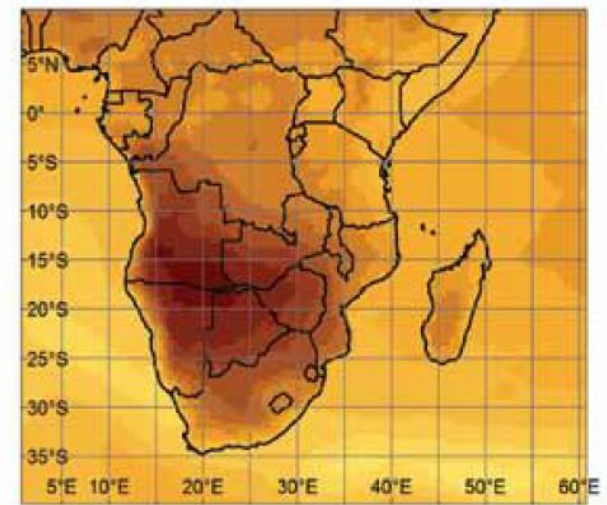
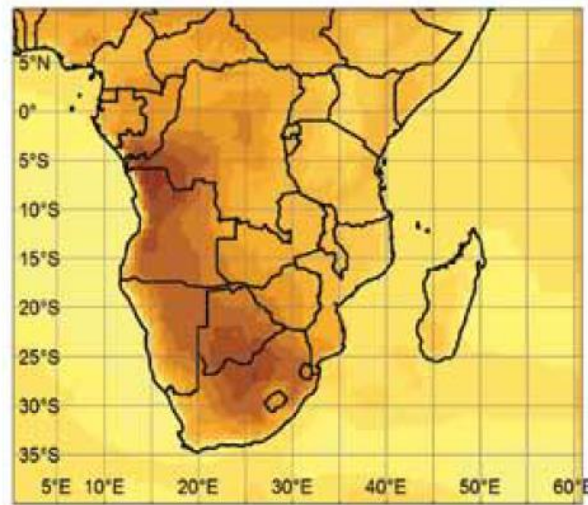
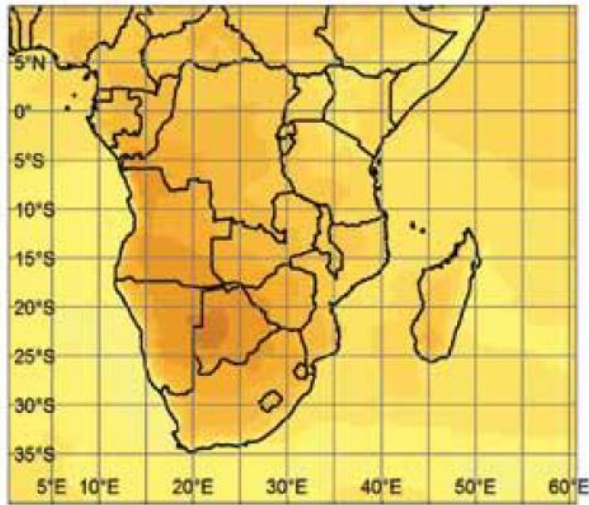
By 2050

Projected change in mean annual maximum temperature based on 6 dynamically downscaled GCMs

10th percentile

Median

90th percentile



degrees C per annum



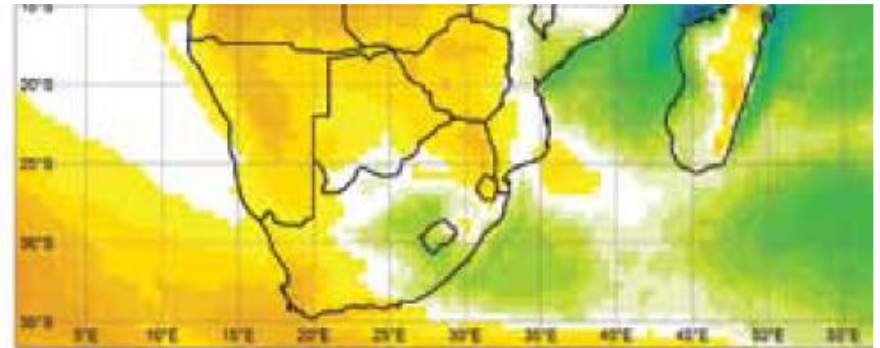
CSIR

our future through science

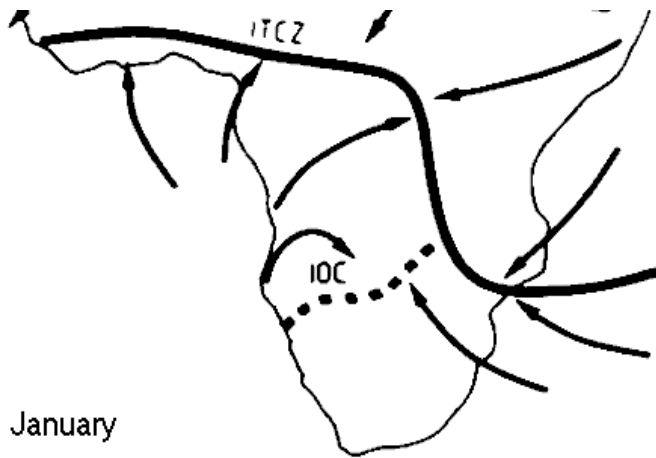
Created by Claire Davis, 2011

Climate – precipitation change

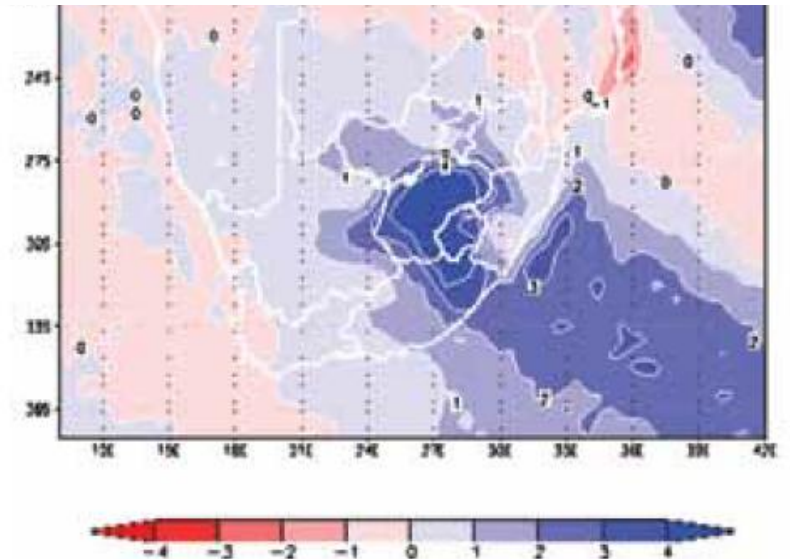
By 2050



CSIR



January



Reservoir Storage in the Orange-Senqu Basin



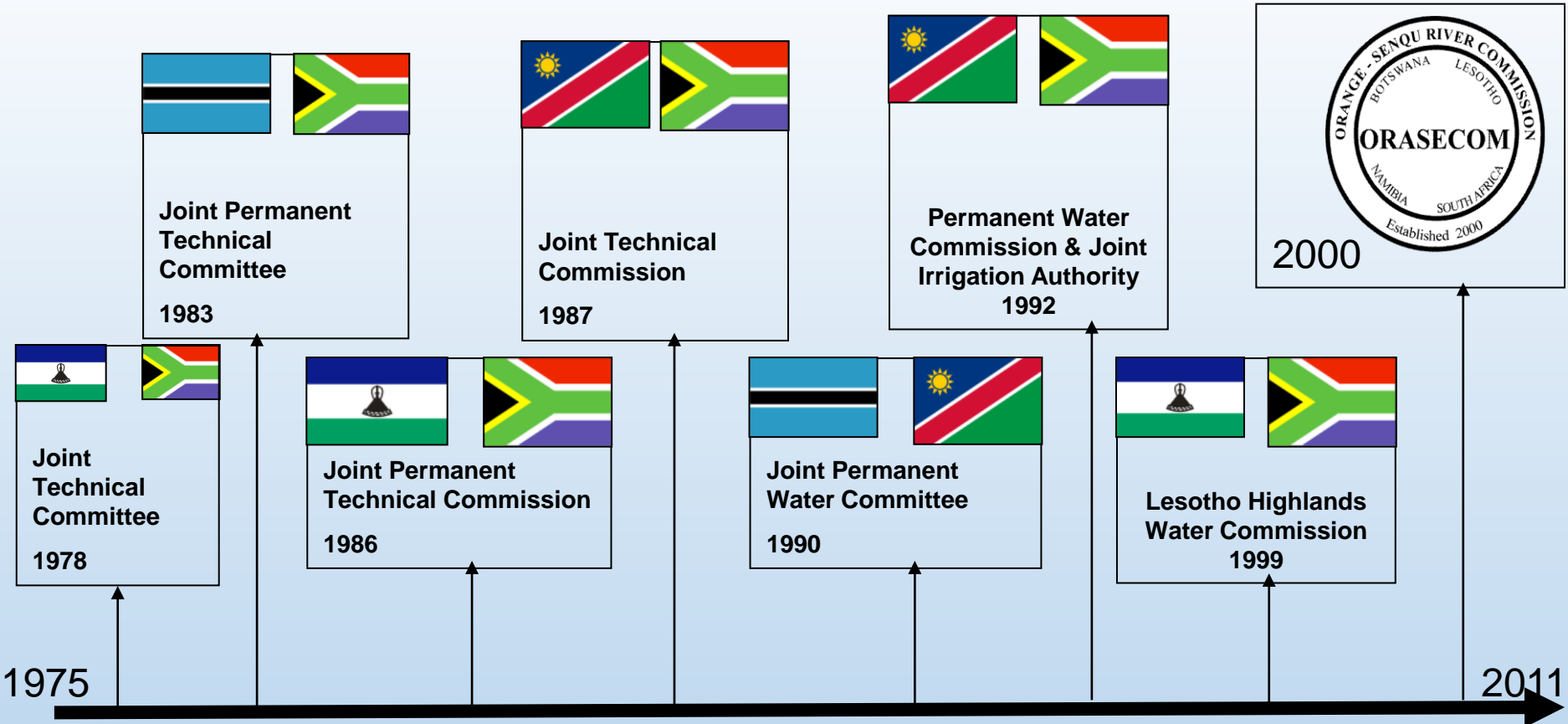
Legend

- Major town
- Orange-Senqu
- Main rivers
- Main reservoirs
- Live storage (>1 Mm³)
- Watershed
- Country
- Sub-catchment

> 4 000
 3 000 - 4 000
 2 000 - 3 000
 1 000 - 2 000
 500 - 1 000
 100 - 500
 10 - 100
 < 10

August 2014
Source :

**EVIDENCE OF TRANSBOUNDARY
WATER COOPERATION IN THE ORANGE
SENQU RIVER BASIN**



Botswana



Lesotho



Namibia



South Africa

History of Trans-boundary Cooperation in the Orange-Senqu Basin, 2013 MOU, 2017 MOA on Lesotho-Botswana Water Transfer Project)

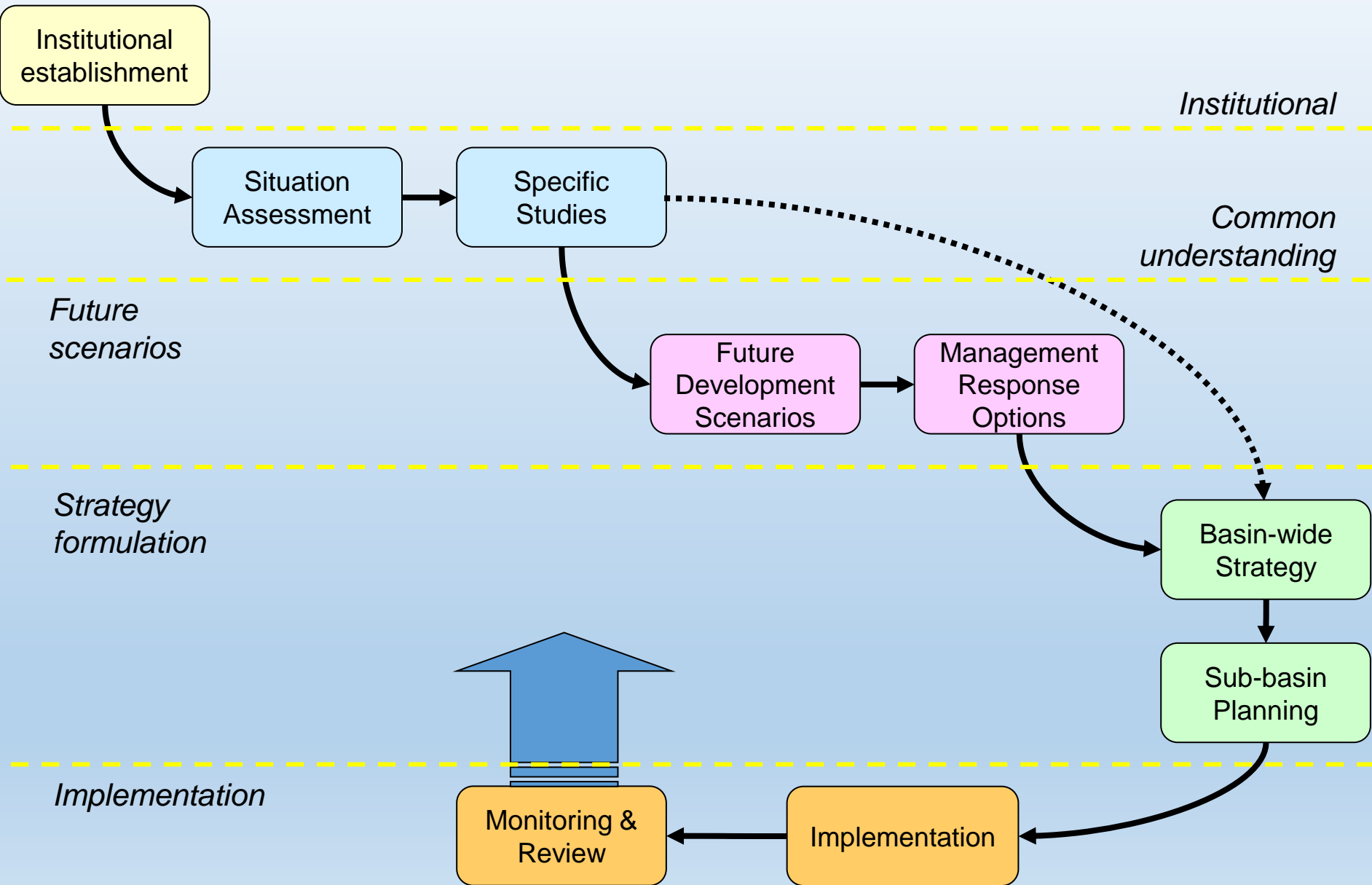
The Orange-Senqu River Commission

Establishment and Purpose

ORASECOM agreement was signed on 3rd November 2000 by Republic of Botswana, Kingdom of Lesotho, Republic of Namibia and Republic of South Africa (*within framework of SADC Protocol on Shared Watercourse Systems Article 5,3 which in turn is derived from principles of UN Convention on Non-Navigational Uses of Water*)

- Commission was established to advise Parties on matters related to development, utilisation and conservation of the water resources in the River Basin.

Programme Delivery Schematic (Since 2000)

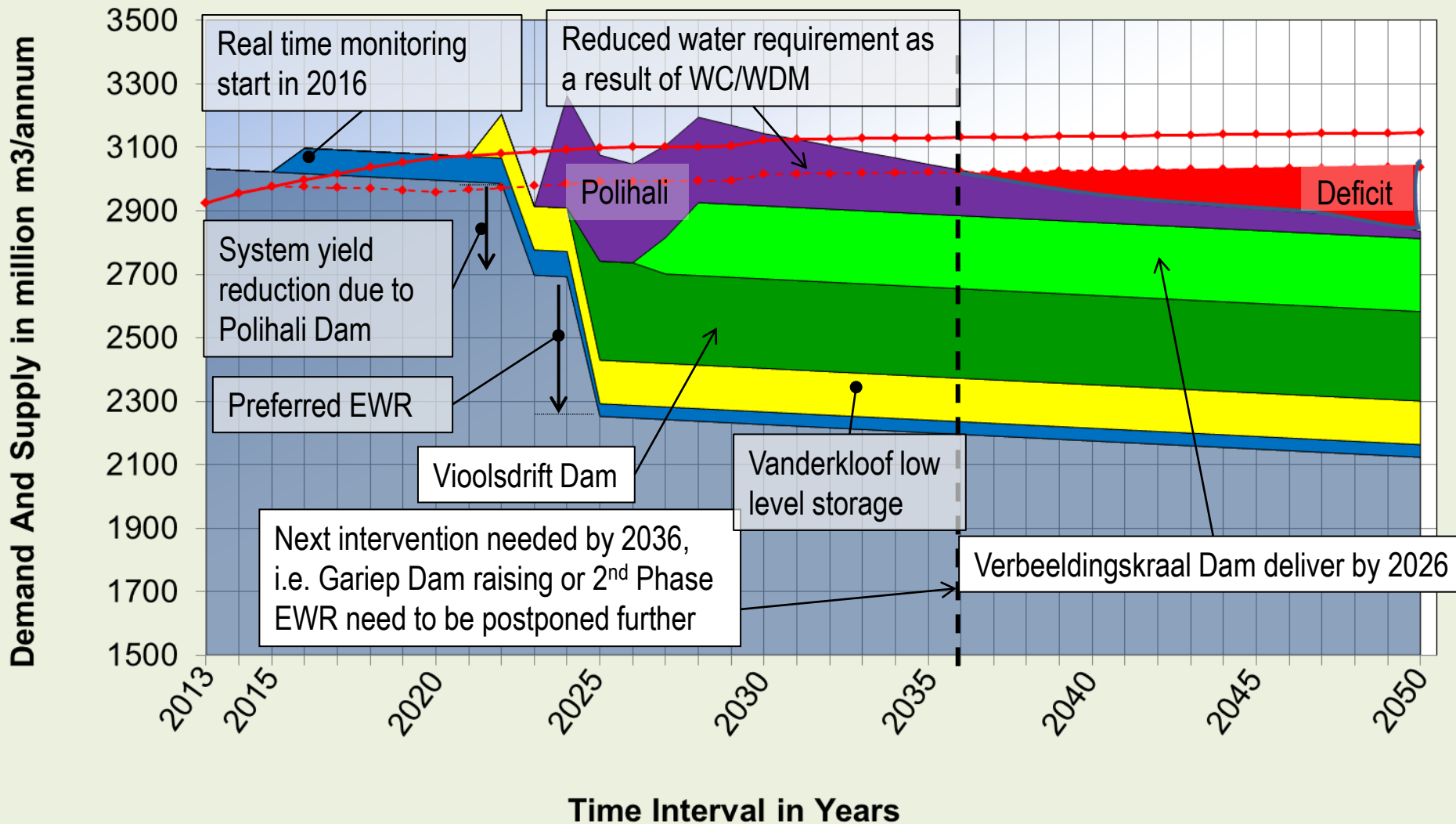


The 2015-2024 Basin IWRM Plan Strategic Objectives

Table 4-1: Summary of strategic objectives

<p>Central Objectives (CO 1 to 4)</p>	<p>Enabling strategic objectives (EO 1 to 5)</p>	<p>Cross-cutting strategic objectives (XO 1 and 2)</p>
<ol style="list-style-type: none"> 1. Ensure the optimised sustainable management of the basins water resources 2. Support socio-economic upliftment and eradication of poverty in the basin 3. Ensure that the adverse effects of catchment degradation are reduced and the sustainability of resource use is improved 4. Maximise security from water-related disasters (especially flood and drought) 	<ol style="list-style-type: none"> 1. Put an adequate knowledge base in place, 2. Build sufficient capacity and institutional strength, 3. Promote high level of stakeholder engagement 4. Ensure appropriate financing mechanisms are in place, 5. Promote adaptive management and effective monitoring and evaluation systems. 	<ol style="list-style-type: none"> 1. Promote the mainstreaming of adaptation to potential impacts of climate change into planned actions 2. Ensure the mainstreaming of gender considerations into planned actions

Interventions – esp. Dam Options



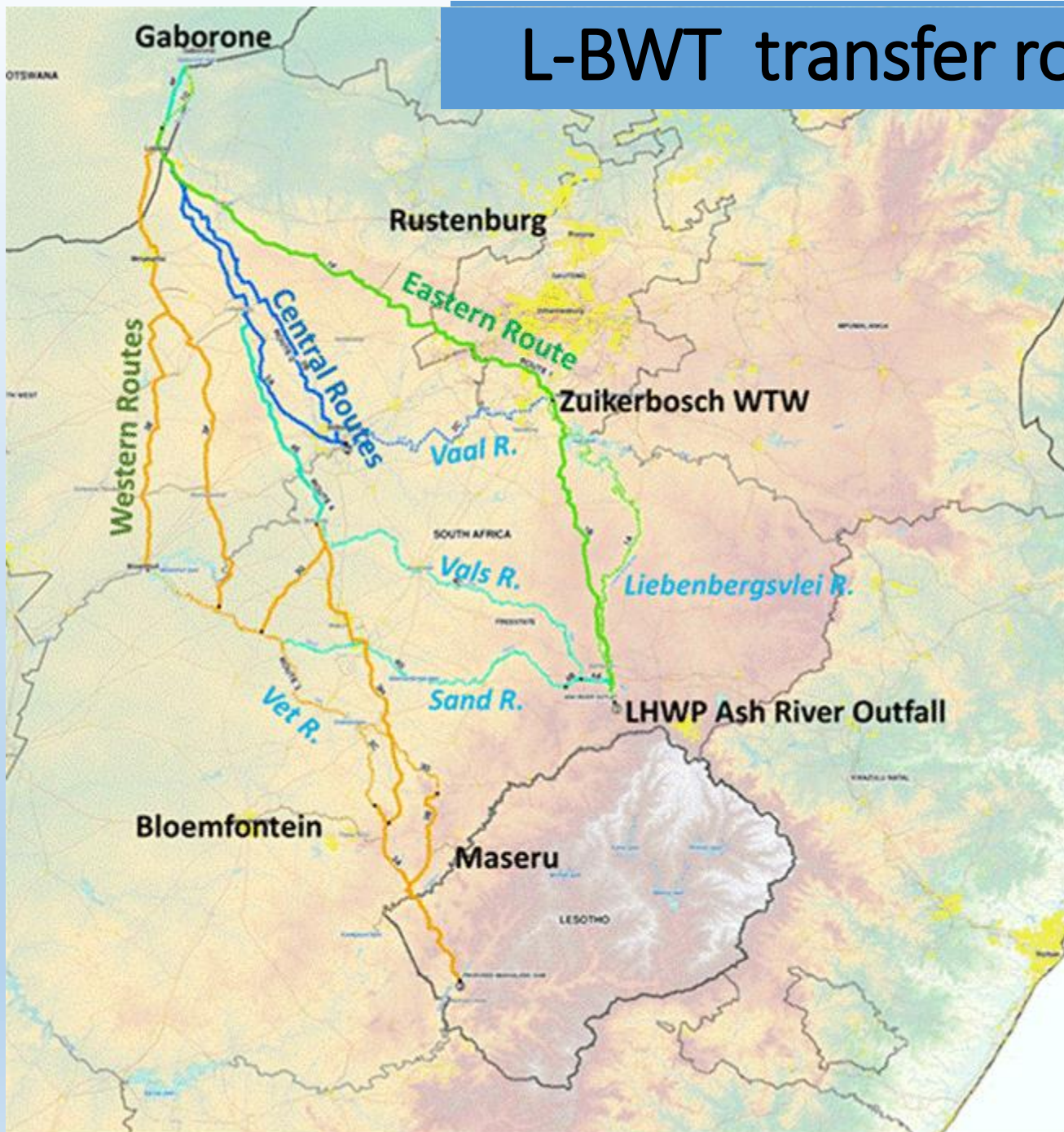
- Resource including EWR
- VanderKloof Lower Level Storage
- Verbeedingskraal Dam
- High Growth

- Real Time Monitoring
- Vioolsdrift Dam
- Polihali Yield to Orange
- High Growth with WC/WDM

ORASECOM Role In Transboundary Water Investments

- Consolidating climate resilient investment strategy, 2 million Euro - AWF – to consolidate portfolio of water related investments in basin.
- Infrastructure project preparation – to enable multi-sectoral basket of investment opportunities, promote joint investment, attract private investors (both on PIDA PAP 2):
 - Lesotho-Botswana Water Transfer, 5 million Euro - NEPAD IPPF, AWF, DFID, GIZ, EU, state financing, (Dam in Lesotho, 700 Km conveyance to South Africa and Botswana, water supply, irrigation, hydropower at dam and along conveyance route): initial capital estimate - 3 billion USD
 - Noordoewer/Vioolsdrift Dam Project 100,000 USD - state Party financing, (Dam along common border between Namibia and South Africa, water supply, irrigation, ecological flow requirements): initial capital estimate – 500 million USD.
- Implementation of Strategic Action Plan for environmental sustainability. 10.9 million USD – GEF, (Includes Transboundary ESIA, Joint basin-wide survey of water quality and pollution, groundwater desalination, catchment rehabilitation, source to sea approach with Benguela Current Commission).
- Multi Country Cooperation Mechanism (MCCM) between Botswana, Namibia and South Africa on the shared Stampriet Aquifer System, UNESCO, SDC - 2 mill USD.

L-BWT transfer routes



Challenges and Lessons

Challenges:

- Ensuring timely decision making and delivery of transboundary water infrastructure.
- Limited scope on mandate of transboundary water cooperation institutions, compare with Senegal (OMVS) and Volta (VBA) River Basins in West Africa.
- Limited involvement of Finance Depts or Ministries in transboundary water infrastructure conversations.

Lessons:

- Transboundary water cooperation should also be anchored on recognition of interdependence of states beyond just water.
- Countries cooperate in good faith, for peaceful co-existence, through mutual respect, trust and solidarity.
 - But this does not remove individual state interest and sovereignty.
- The central requirement for continued investment in joint water cooperation actions, including water infrastructure, hinges on financial commitment by state Parties themselves.

Thank you

Tshimolodiso semmuso ya tiriso ya metsi mo metseng
ya Middlepits go tswa Aferika Bo
Metsi ga a itse melelwan
Tirisanyo ya mafatshe a

Joint Official Commissioning of Cross Border Water
Supply to Middlepits Cluster from South Africa.
Water knows No boundaries,
Trans Boundary Cooperation.

