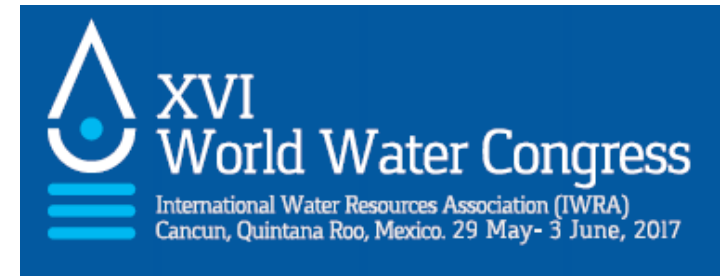


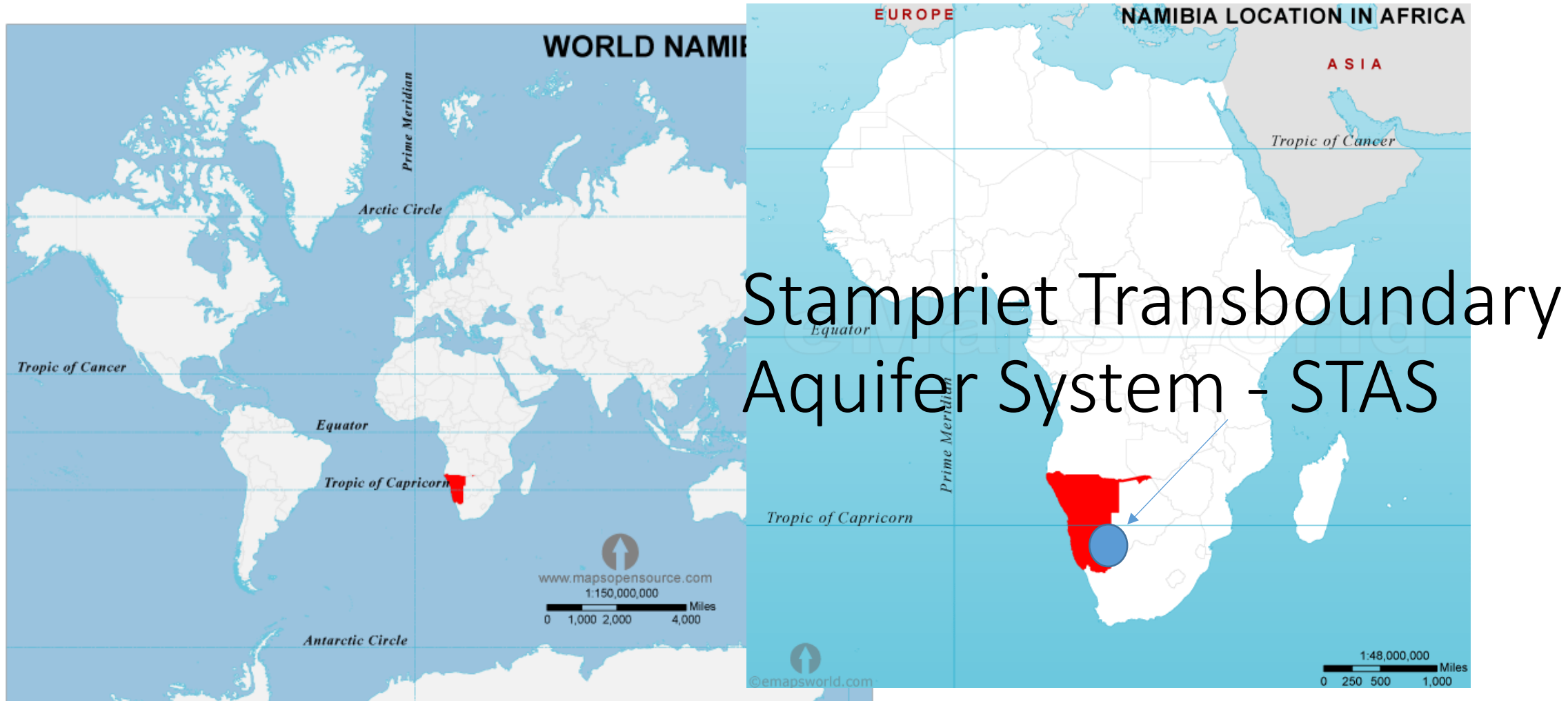
Legal and Institutional Framework for Groundwater Regulation in the Stampriet Transboundary Aquifer System –

A Case Study of Namibia

Presenter: Mr Bertram Swartz

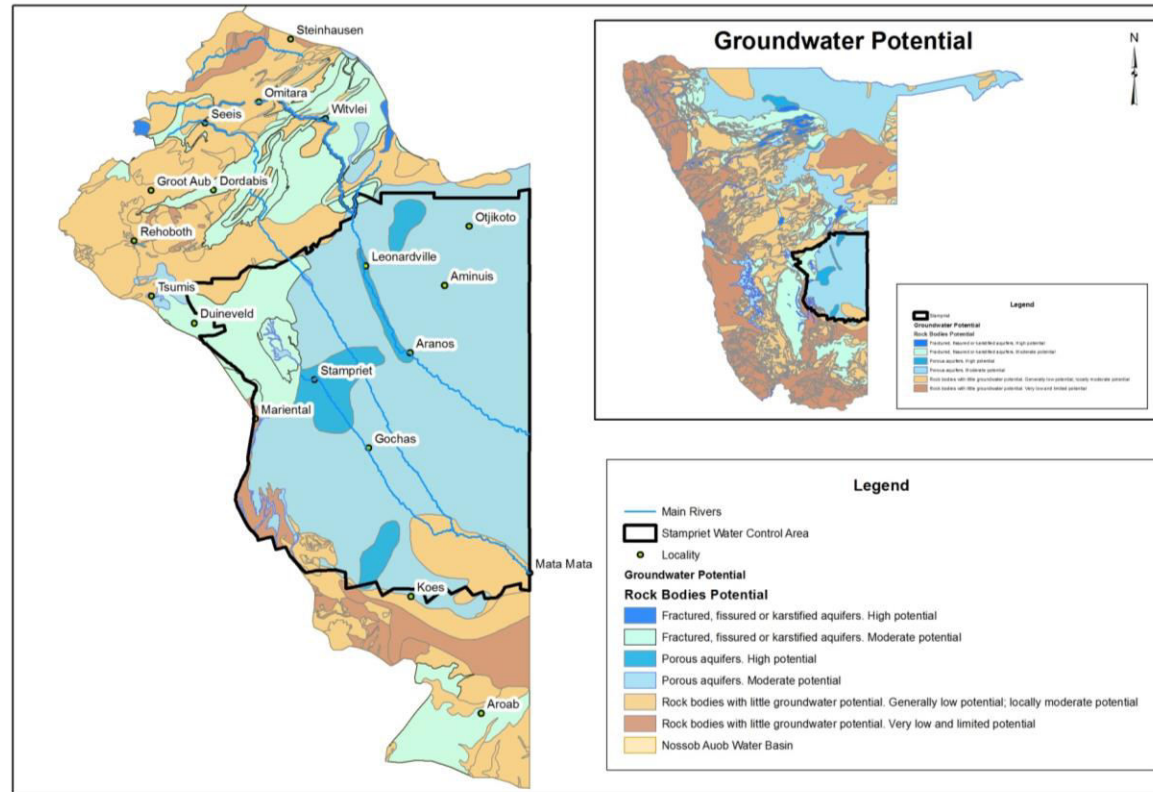


Location of Project Area



Background of Aquifer System

The Stampriet Aquifer is a Transboundary Aquifer System that stretches from Caprivi Province to Namibia



Nossob Auob Water Basin



Date: 19 July 2016
 Data Source: Geohydrology- MAWF
 Author: Nghishinawa Mudjanima
 Geographic Coordinate System- WGS1984



Background of Aquifer System...Cont

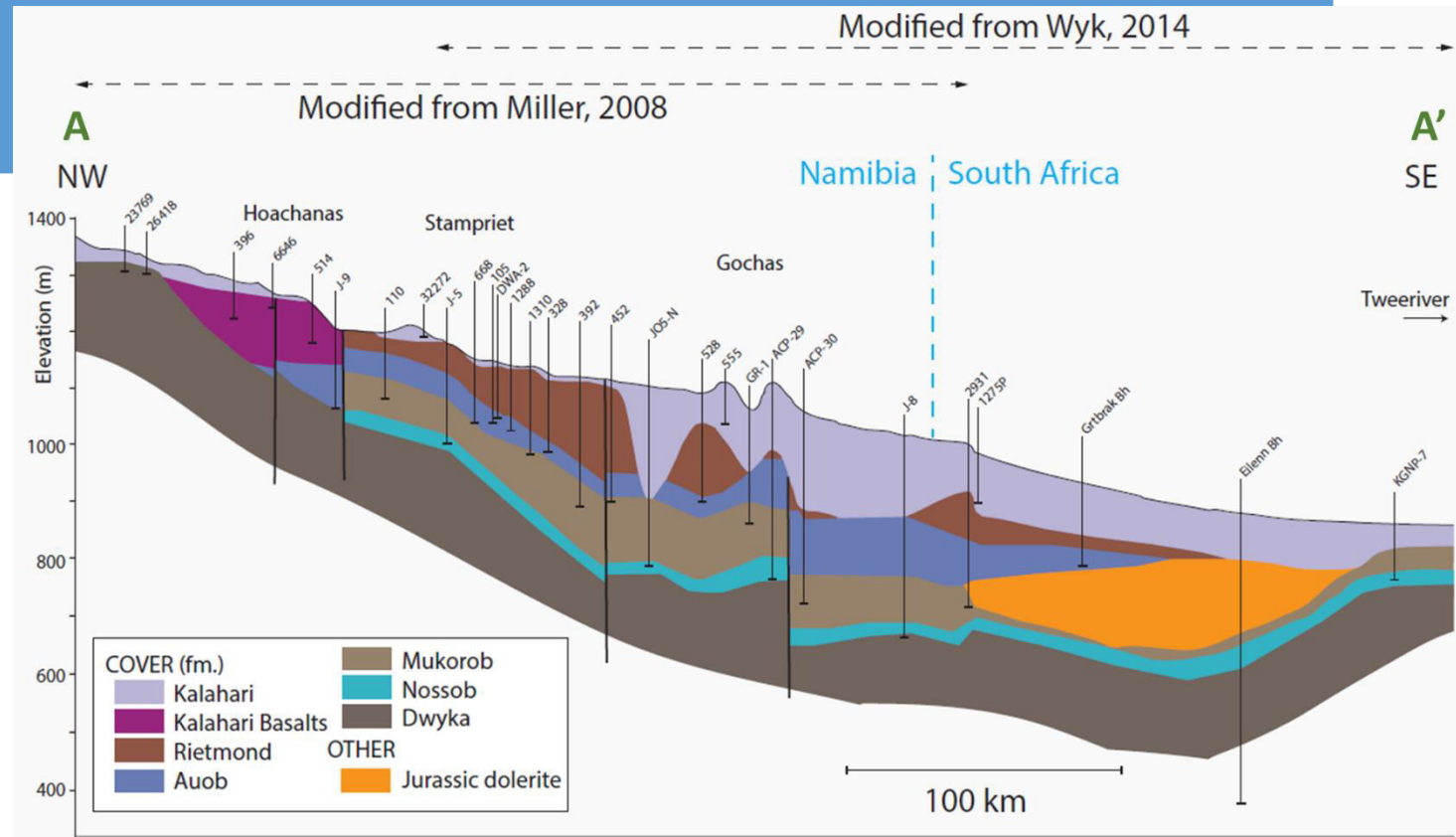
73% of the aquifer area is in Namibia, 19% in Botswana and 8% in South Africa

Stampriet Artesian Aquifer and localized secondary aquifers (with lower groundwater potential)

Groundwater Occurrence

Main hydrogeological units

- Kalahari
- Auob
- Nossob



- NW-SE cross-section through Hoachanas, Stampriet and Gochas (Namibia) and the Kgalagadi Transfrontier Park (South Africa) (Source: JICA, 2002; Van Wyk, 1987). Aquifers are shown in blue colours.

Groundwater Use

Namibia uses > 90% of current abstractable volumes

- Groundwater use: 52% irrigation, 32 % stock watering and 16% domestic use
- No mining and industrial activities
- 72 farms with valid licenses
- 8,704,040 m³ total allocation

Groundwater Governance

Usage

- Given the fragility of the aquifer system and the fact that groundwater is the only permanent source of water in this huge area, it is evident that the Stampriet Transboundary Aquifer System should be **Governed and Managed wisely.**
- A large part of the provisions and interventions to be considered are of a local nature, but **transboundary cooperation** will be very useful by sharing information, exchanging experience and by harmonizing interventions across the international boundaries.

Legal and Institutional

Legal Framework

- A domestic policy, legal and institutional framework for groundwater **is in place** in all the three STAS countries.
- The laws of the three countries regulate abstraction and potential point-source pollution through **a permit system**.
- When it comes to non-point source pollution control, other laws step in, typically environmental protection and mining Acts.

Legal and Institutional

Legal Framework

- From the domestic legal and institutional perspective, it is fair to conclude that the laws in place in the STAS countries are adequate to deal with the challenges ahead of the aquifer.
- Strengthening **domestic capacities** in *implementation and enforcement* is necessary to support cooperation for the management of the STAS.

Legal and Institutional

Namibian Legislative Framework

- The framework on water resources and the management thereof (Water Resources Management Act (2013)) makes provision for **control and protection of water resources from over-abstraction and pollution** through a licensing system.
- Various modalities on water management are in place for Namibia and there are on the control and protection of groundwater. Even though capable legal and institutional framework are in place, **implementation of these regulations are NOT YET in operation.**

Legal and Institutional

Namibian Institutional Framework

- The groundwater regulation in the STAS is enforced through various actions, e.g. the provision of groundwater monitoring through compliance checking. However through the IWRM plan and the legal framework a more encompassing approach for regulation of the groundwater and that is **“Facilitating water-user and Stakeholder participation in groundwater/aquifer management”**.
- This approach of groundwater management is more likely to succeed within Namibia because the stakeholders have a say and are actively involved. The establishment of a **BASIN MANAGEMENT COMMITTEE (BMC)** is instrumental for the management and regulation of the aquifer on the Namibian side of the border.

Conclusion

Basin Management Committee, managing use of groundwater resources

- Although not a brand new concept **stakeholder management** of groundwater/water resources is new to the region and Namibia as a whole.
- Groundwater is often considered to be one of the most mismanaged natural resources. And an area **predominantly reliant** on groundwater cannot afford to follow the norm where deficient management policies and fragmented water management institutions can have catastrophic results for the water resource.
- The effort to apply integrated water management in Namibia is in essence an attempt to put a stop to the fragmentation of water management policies and to integrate: upstream and downstream uses, land use planning, and water management.

Conclusion

Basin Management Committee, managing use of groundwater resources

- Water Law and Policy provides insights that can guide water development policies across national borders.
- And through the **GGRETA Project of UNESCO** the institutional and legal framework advancement for groundwater management, using the approach of facilitating water-user and stakeholder participation in the **Namibian BMC context and the STAS has made major strides** towards good **GROUNDWATER REGULATION.**