

# Inkomati-Usuthu

## Socio-economic and sustainability challenges

The Inkomati-Usuthu Catchment Area is home to 1.5 million people. Most of its inhabitants find employment in local agriculture and forestry, while mining remains an important economic activity in the region.

Most of South Africa's electricity comes from outdated coal plants that require large amounts of water for cooling. Paired with other water management challenges in the area, like increased droughts, uncertain water availability and pollution through mining, providing access to clean water to locals remains a challenge. Moreover, the access to irrigation systems for farming excludes 60% of small-holding farms, that are managed by an ageing population of black women who are the backbone of securing local food production.

### Water management

#### Water Scarcity:

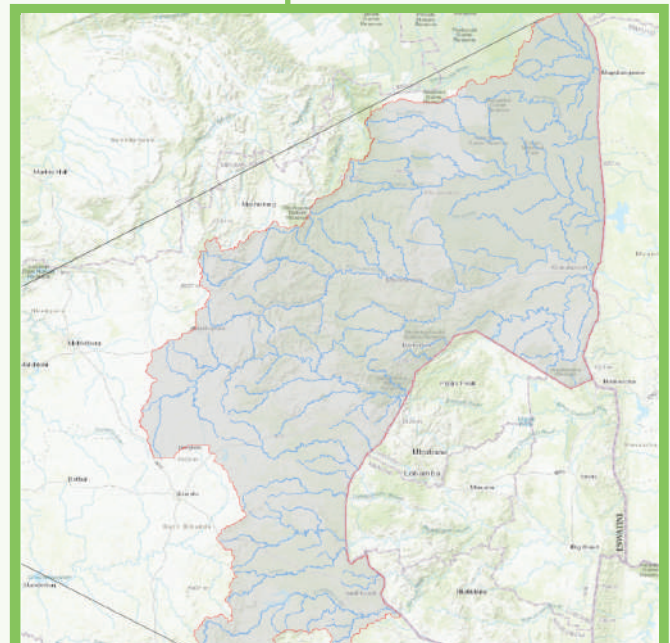
- Climate varies between subtropical and semi-arid areas with inherent water scarcity.
- **Climate change:** Increased droughts and uncertain water availability.

#### Water Quality:

- **Pollution:** Mining activities significantly impact water quality.

### Agriculture and land use

- **Economic Role:** Irrigation-based agriculture is a major economic driver.
- **Employment:** Majority of jobs are in agriculture and forestry.
- **Subsistence Farming:** 60% of smallholder farmers lack irrigation access.
- **Food Insecurity:** Climate change exacerbates food insecurity issues



The Inkomati-Usuthu Catchment Area spans 37,000 km<sup>2</sup> and is located in South Africa's Mpumalanga province, which borders Mozambique and Eswatini. The area's mountainous landscape and its wide range of elevation create mixed rainfall patterns and micro-climates, that face increased aridification through climate change.

### Energy

#### Coal Dependency:

- South Africa's electricity generation heavily relies on coal.
- Coal power plants require significant water resources and divert it from other activities like agricultural irrigation.

#### Infrastructure Issues:

- **Aging Systems:** Old and poorly planned water and energy infrastructure.
- **Power Outages** - load shedding, the planning of power cuts to avoid excessive load on power plants, is frequently experienced.

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## Stakeholder map

