

# Maputo Corridor Water Scheme

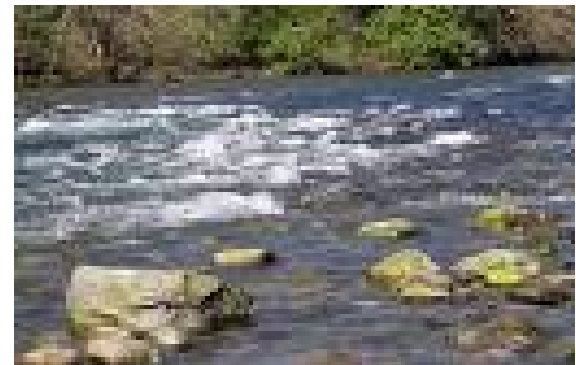
Pre-feasibility presentation

MCLI – 18 October 2007



# South Africa - Overview

- Water scares country
- Continuous demand for more water
  - Domestic;
  - Agricultural;
  - Industrial;
  - Mining;
- Limited Resources



# Allocation of water

- Currently the country is faced with a situation where no reserves are available for additional allocation;
- Current allocations are already being traded between user sectors i.e. agricultural use to mining/industrial use;

# Impact of trading

- Loss of agricultural capability;
- Loss in food production;
- Loss of employment in the agricultural sector – social impact:
- Loss of casual employment opportunities;
- Loss in base flow due to the change in demand



# Why not more dams?

- Our rivers are already over allocated
- Additional storage = more stress on the entire system
- Run-off not enough to sustain a number of dams
- Treaties are to be upheld



# So what do we want?

## Water



Households



Mining Operations



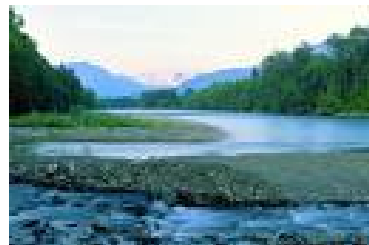
Agricultural



Electricity generation



Industrial



Sustain ecosystem

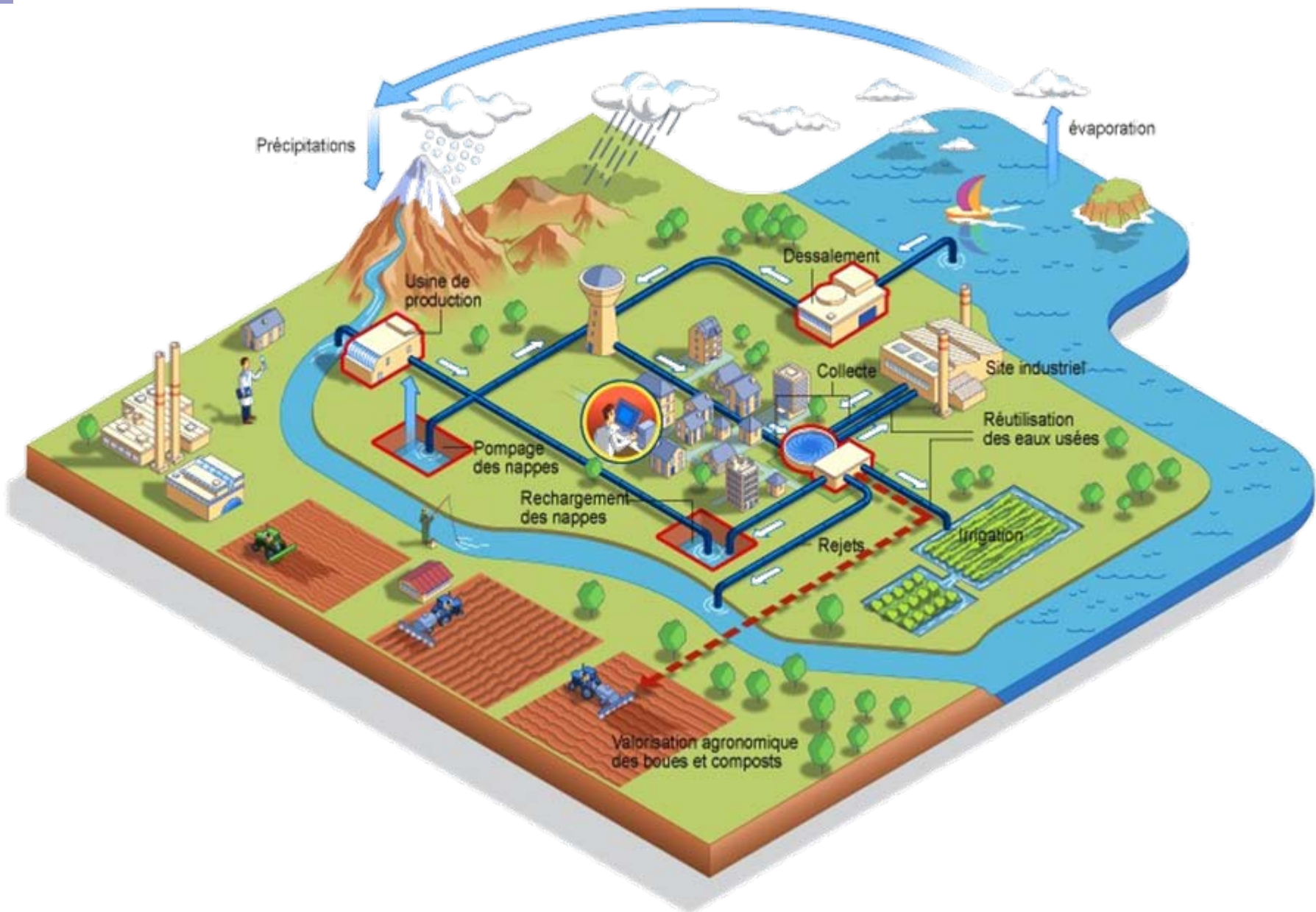
# How do we create water?

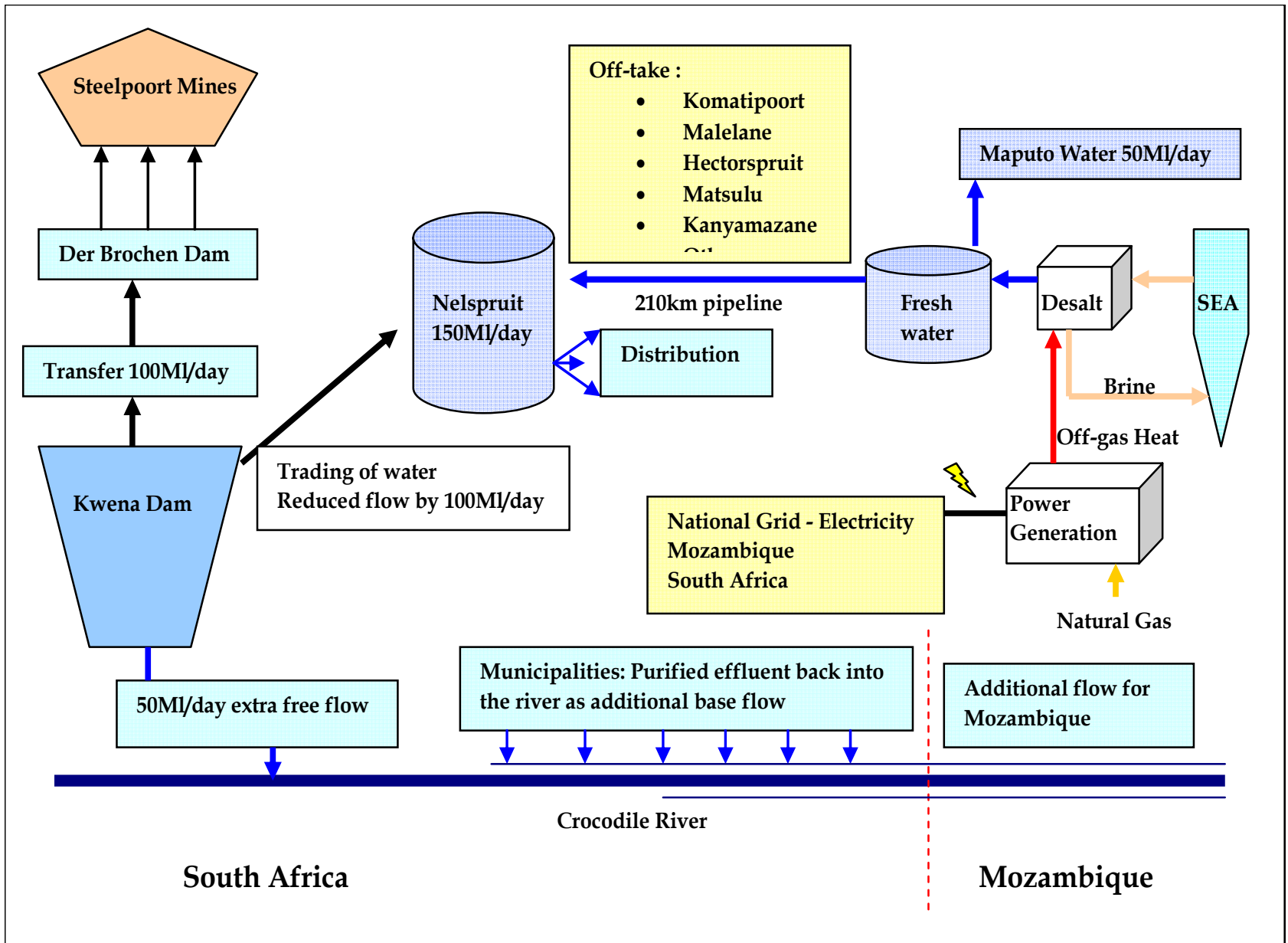
- Closest source of water for the area is the Mozambique coast line;
- Desalination of sea water is a possibility by:
  - A system of reverse osmosis;
  - A thermal process;

**VWS ENVIG**

# How will we achieve this?

- Build a 200MI/day desalination plant in Maputo with its own power generation
- Install a pipeline Maputo to Nelspruit
- Trade the existing use from the Nelspruit area allocated from the Kwena Dam for desalinated sea water
- Allow purified sewage effluent as return flow – reserve and agricultural sector - “free flow” in the river
- Transfer 100MI/day from the Kwena Dam across the mountain to the Groot Dwars River and Der Brochen Dam
- Dovetail the project with the larger Olifants River Water Development Project.





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# Value of the Investment ?

- Thermal desalination Plant R 1.5 billion
- 210 km pipeline R 1.0 billion
- Kwena transfer scheme R 80 million
- Power generation R 1.5 billion
- Total: R 4.8 billion / U\$ 800 million



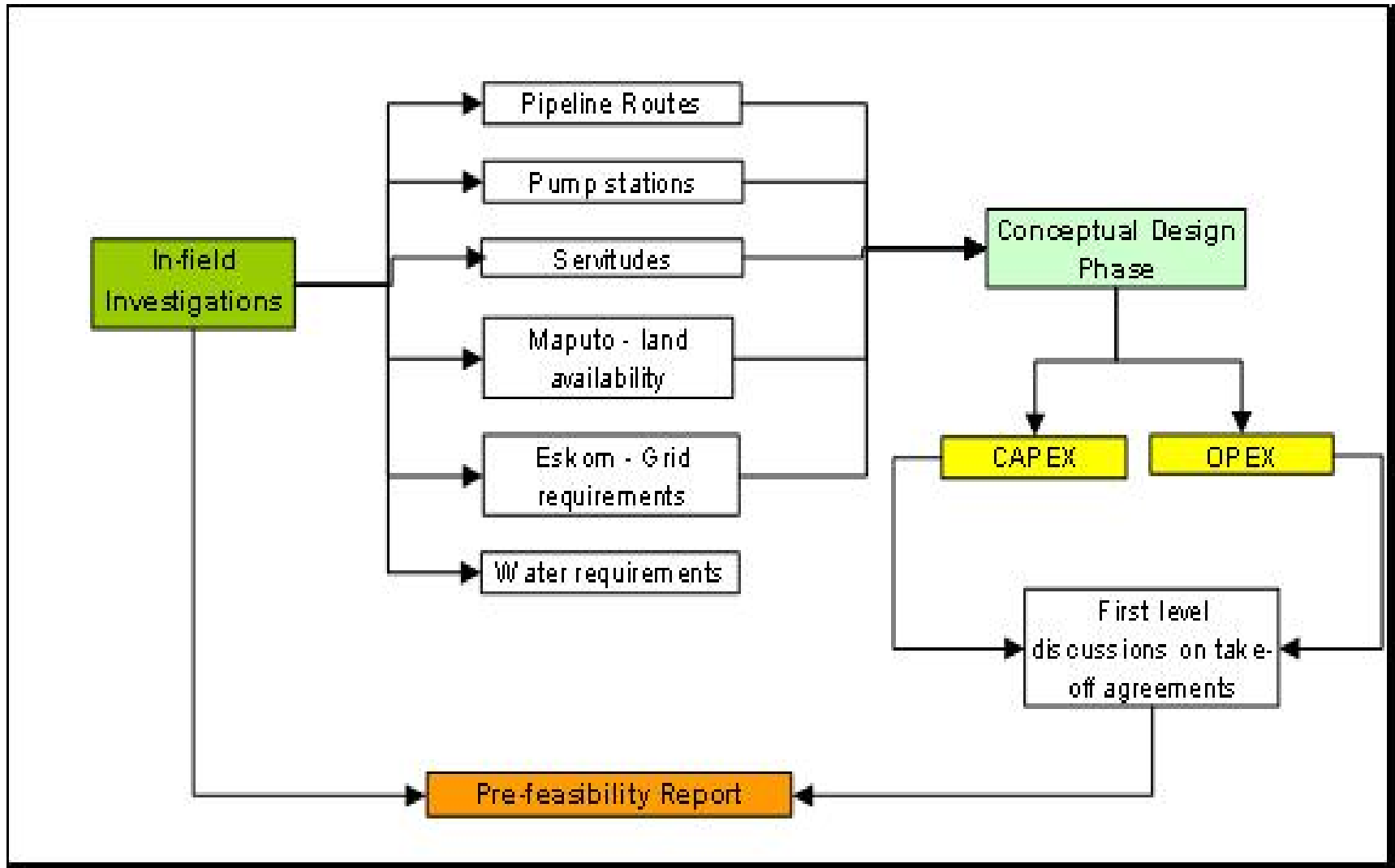
# Progress to date

- Consortium of role-players / MOR
  - Randfinn (Finance)
  - Trans West Traders (Project Management)
  - VWS Envig /Veoli Water (Desal plant)
  - Sweetwaters 296 cc (Concept & Technical)
  - MODA – Womans Group (Engineering)
  - EcoRisk SA / Ivuzi – Environmental approvals

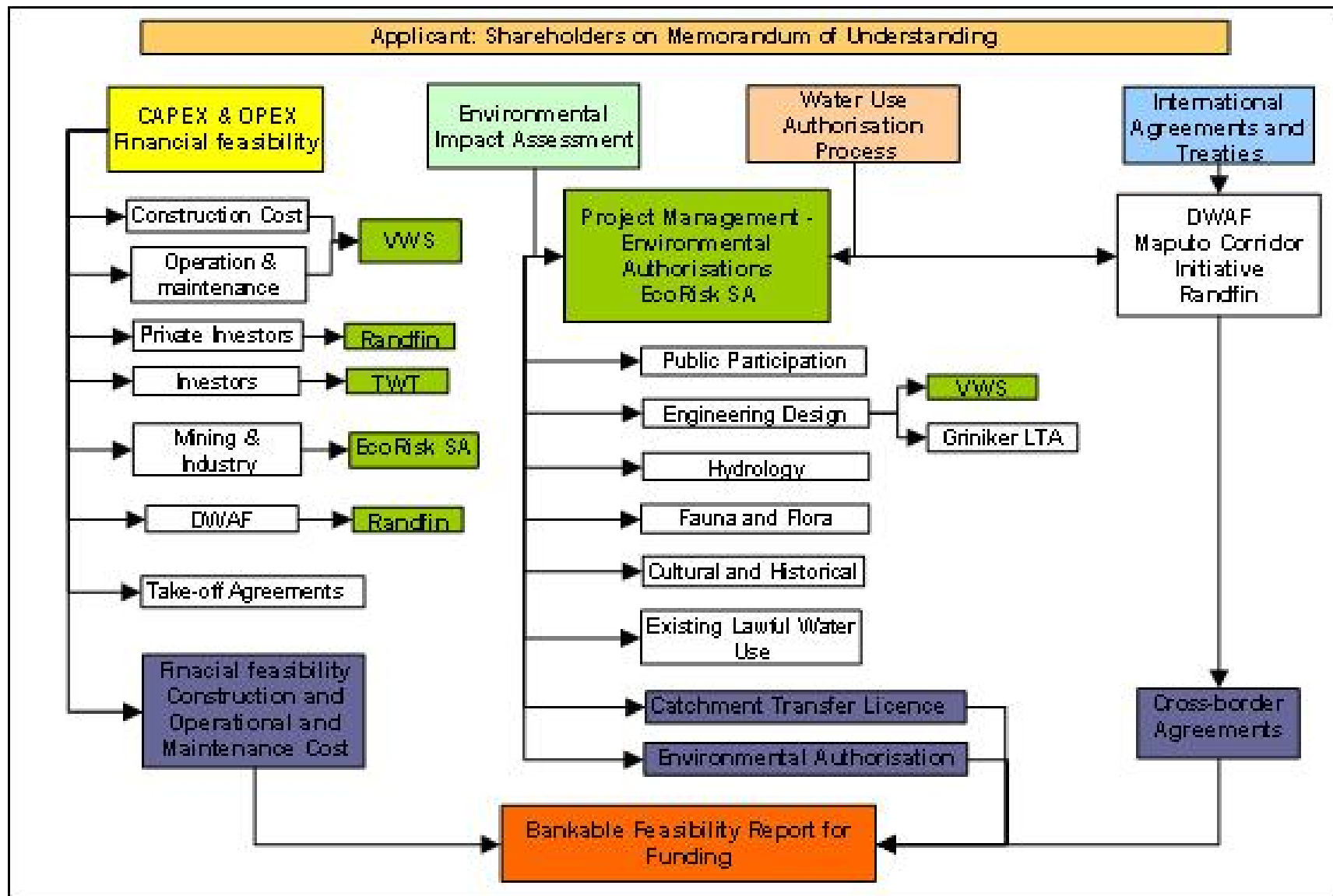
# Current Negotiations

- Supported by the Maputo Corridor Development Initiative
- Mozambique Chambers of Commerce
- Companies agreed to cooperate in sourcing funding either by equity share or external
- Randfinn – Financial model / financiers / 80% - need equity partners / source of funding profile

# Pre-feasibility Phase



# Feasibility Phase



# Funding Requirements

- Pre-feasibility Phase (10 Mil)
  - Randfinn – DWAF
  - Presentation Minister – Lindiwe Hendriks
  - MEGA – represent consumers (municipalities) – meeting CEO in October 2007 – managing relationships between Maputo and Corridor initiative. Take-off agreements
  
- Feasibility Phase
- Construction / Operational & Maintenance
  - Veoli Water France (51% equity)
  - TWT equity share
  - Others



# Timescale (pending funding)

- Secure pre-feasibility funding – Oct-Dec 07
- Commence Pre-feasibility Study – Jan 08
- **Full Feasibility study** – June 08 – June 09 (EIA process in Mozambique – construction of plant)
- **Construction** – 2 years
- **Water delivery** – Jan 2012 (latest)