



Water Transfer Enabling Sustainability



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National Commitments

Bulk water transfer infrastructure is required for achieving:

Government Outcomes

- Efficient, competitive and responsive economic infrastructure network
- Environmental assets and natural resources that are well protected and continually enhanced

Department of Water and Sanitation Priorities

- Contribute to Economic growth, rural development, food security and land reform
- Promote sustainable and equitable water resource management

Government is tasked with the delivery of water and water dependant services under the growing risk of political volatility - manifesting in service delivery protests, failing infrastructure, declining water resource quality and growing water demand

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TCTA: Enabling Water Transfer

TCTA projects impact on ecosystems that :

- Deliver essential environmental resources and services
- Are significant to a diversity of cultures
- Provide people with livelihoods

Sustainability requirements become loan conditions to ensure that Lender sustainability commitments are upheld.

Water availability enables Water Off-takers to operate and deliver on their commitments (including the supply of potable water, sanitation and power)

National Water Resource Infrastructure



Treat raw water to potable level



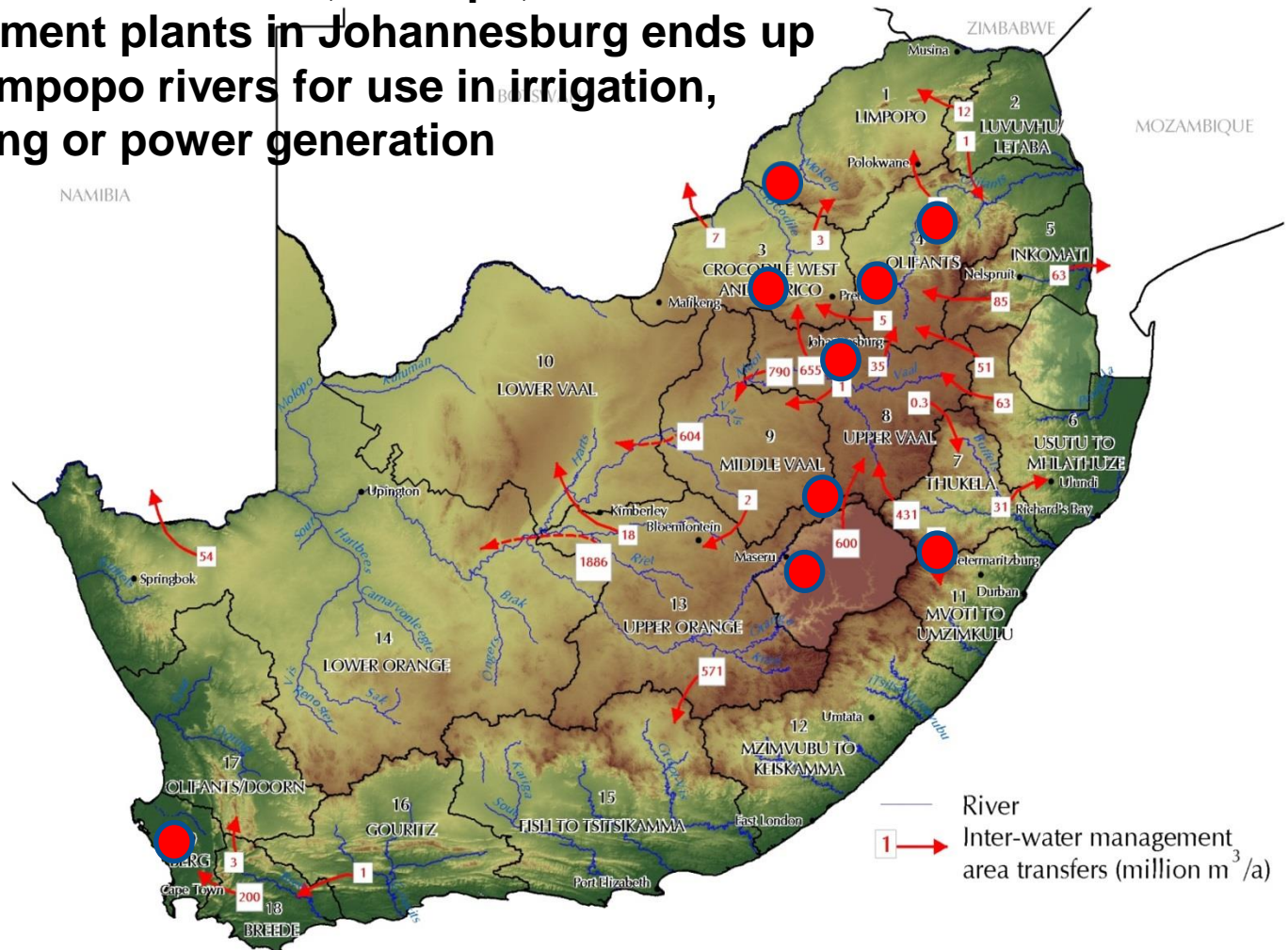
Distribution of water



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What is water transfer ?

Water from Lesotho, via taps, toilets and treatment plants in Johannesburg ends up in Limpopo rivers for use in irrigation, mining or power generation



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Dams & associated infrastructure





Pipelines & associated infrastructure



Project Scale Impact

Environmental Assessment:

- Biophysical and Social Impact assessment
- Project Level and Scale
- Specialist studies consider environmental sensitivity
- General consideration of development activities
- Specific focus on listed activities
- Sound public participation

Outcomes:

- Input into EA conditions
- An approved EMP for implementation
- Limited Impact Potential (Negative & Positive)

Challenges:

- Predictive interpretation without a mechanism for retrospective evaluation
- Limited developer representation
- EMP and EA requirements which are often not objectives driven
- Implementation challenges
- Compliance focus

Broader Impacts – Positive

Positive changes resulting from water transfer:

- Increased agricultural potential through irrigation
- Economic Growth
- Water and sanitation availability
- Electricity
- Industrial stability
- Employment opportunities
- Improved potential for political and social stability



Broader Impacts - Negative

Negative Changes resulting from water transfer:

- Mining of non-renewable resources
- Habitat destruction
- Reduced agricultural potential of land
- Aesthetic Impacts
- Air Quality Impacts
- Dirty energy generation
- Industrialisation

Environmental Requirements for mitigation

- Mining of non-renewable resources for the generation of dirty energy has been made more palatable through the imposing of air quality improvement measures such as Flue Gas Desulphurisation (FGD)

Mitigation Impacts?

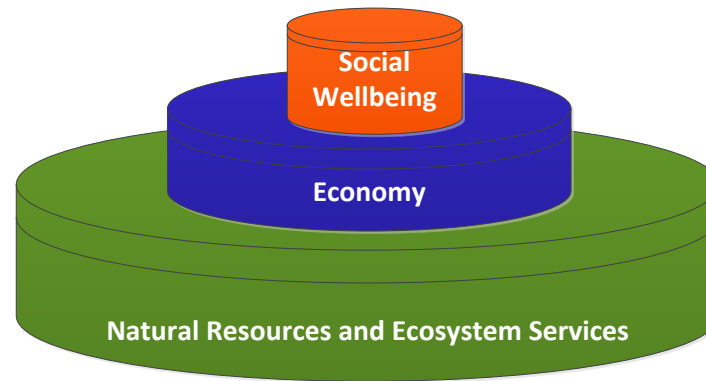
Are strict environmental requirements a victory?

- Water cost of FGD in our arid region?
- An “unintended” impact of “cleaner” energy
- What is the real cost of water?
- Who uses energy being produced?
- Are these the driver of the pollution?
- What is the energy used for?
- Is the polluter prepared to pay the real cost of water & energy?



Sustainable Development

Sustainability is only achievable through sustainable development.



*Sustainable Development is the selecting and implementing **development options** which allows for the achievement of **appropriate and justifiable economic and social goals** without compromising the **natural system***

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Sustainability Elements and Drivers

**Government
Development
Agenda**

**Legal
Requirements
e.g. PFMA**

**Lenders
Conditions**
e.g. Equator
Principles
IFC Standards

King III

**Integrated &
Sustainability
Reporting**

TCTA Sustainability Policy

Governance & Risk &

Governance

Compliance with
Laws & Regulations

Public Policy

Stakeholder
Engagements

Economics

Economic
Performance

Market Presence

Indirect economic
impacts

Transformation

Skills Development

Local Spending

Socio Economic
Development

Enterprise
Development

Preferential
Procurement

Natural & Social Environmental

Resource
Transformation

Resource Use

Waste & Pollution

Social Impacts

Land, Rights & Compensation

Land Acquisition &
Compensation

Relocation &
Compensation

Loss & Damage
Claims

Labour practices & Decent Work

Occupational Health
and Safety

Training and
Education

Diversity & Equal
Opportunity

Employment &
Labour
Management

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EAP's role in realising sustainability?

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Find and Build Enabling Relationships

- Openness and less “independence”
- Identifying partners and clients
- The role of environmental representatives in the various phases of the proposed developments
- Get involved before and beyond EIA for true influence over options.
- Work with the Developer and use technical expertise
- Engage a new breed of EIA specialist – Design Engineers
- **Integrate**



Know your tools and mechanisms

- Sound impact mapping
- Use of broader planning tools
- Understand co-ordination tools (SIP)
- Develop an understanding of the contractual mechanisms that can make objectives binding
- Understand what you require and how it



- Compliance driven work is less effective
- Self evaluation – even if not paid for it
- Alignment with good practice standards
- Adopt an objectives based approach with clear indicators
- Consider the consequences of your recommendations and their impact potential
- Challenge what may be harmful – even if it is law ... what amendments and exemptions are for ?

Thank you

Questions ...

TCTA

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