



INFRASTRUCTURE

Better analysis
Better decisions
Value unlocked for our clients

Africa's largest economics-based consultancy

G:ENESIS
UNLOCKING VALUE FOR 20 YEARS

ABOUT US

Genesis Analytics was one of the first economics-based consultancy firms to be established in Africa and has grown into the largest. More than 45% of our work is now outside of South Africa.

OUR PURPOSE IS TO UNLOCK VALUE IN AFRICA.

Our 80-plus full-time consultants use their analytical capabilities to improve decision-making and, through better decisions, unlock substantial value for our clients and society. We use a variety of techniques and approaches to bring clarity for decision-makers.

We know that Africa holds great opportunities for unlocking social value and for business growth. The growing youth population in Africa presents a historic opportunity to change the course of the future for the continent.

OUR INFRASTRUCTURE PROJECT TEAM IS ONE OF EIGHT PRACTICES AT GENESIS

Agriculture & Agribusiness | Applied Behavioural Economics |
Competition Economics | Financial Services Strategy | Health |
Monitoring & Evaluation | Shared Value



Infrastructure holds the key to development in Africa but there has been limited success in meeting the challenge. We offer the tools and expertise to strengthen infrastructure planning, identify sources of finance, measure the economic impact of infrastructure investments and enable project development to be delivered efficiently and effectively.



[READ MORE ABOUT GENESIS ON OUR WEBSITE](#)

WHY CLIENTS CHOOSE GENESIS

Over the past 20 years Genesis has forged relationships with governments, foundations and donor organisations, NGOs, multi-national companies and trade unions across more than 36 countries in Africa.

THE QUALITY OF OUR INFRASTRUCTURE WORK HAS A REPUTATION FOR:



FOCUS

We focus on the successful preparation and structuring of bankable infrastructure projects across Africa



EXPERTISE

We package infrastructure projects that align to investor needs. We work across the infrastructure lifecycle, from concept to financial close



SPECIALIST KNOWLEDGE

We give our clients the technical depth and strategic insight to implement bankable infrastructure projects



UNLOCKING VALUE

While economics is core, we apply other tools – financial, strategic and evaluative – to improve decisions and unlock value

WE GENERATE INNOVATIVE SOLUTIONS THAT BUILD AFRICA'S INFRASTRUCTURE.

[READ MORE ABOUT UNLOCKING VALUE](#)

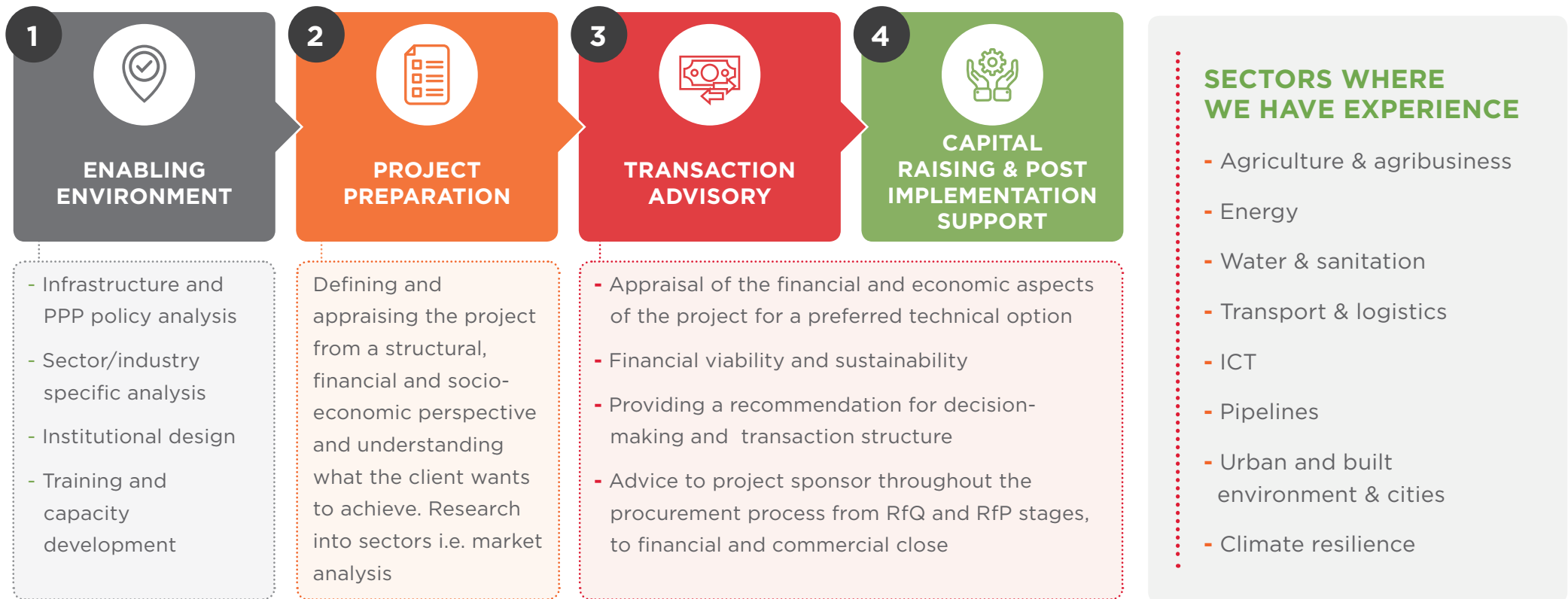
Our skills and experience enable **OUR CLIENTS** to make better decisions





OUR AREAS OF EXPERTISE

Our expertise lies in taking projects from concept phase to appraisal, preparation, the design of financing strategies and providing transaction advisory services, often using PPPs as a model for design and implementation:



Our team has strong financial and economic modelling skills and we are able to appraise and structure projects to deliver the best value with the minimum risk. Together with our understanding of the regulatory environment for infrastructure development, we provide new solutions to many infrastructure development challenges.

OUR TOOLS

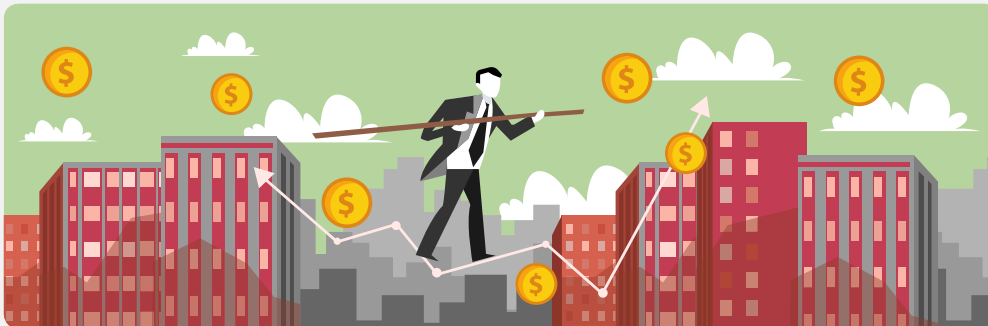
Our technical tools are designed and specified for each project. We use industry standards and international best-practice to design financial and economic models that are rigorous and also aligned to the needs of the client.

FINANCIAL MODELS AND RISK ANALYSIS

We conduct financial appraisals to assess the commercial viability of a project. This involves firstly, a detailed financial model to assess the project's bankability and whether the project, as designed, will be commercially attractive to private investors.

To assess the viability of a project, the project costs are balanced against ring-fenced revenues for the project to assess the expected financial return. Its financial viability is based on various parameters like net present value (NPV), IRR (internal rate of return), DSCR (debt service coverage ratio) etc. which help in deciding financial viability.

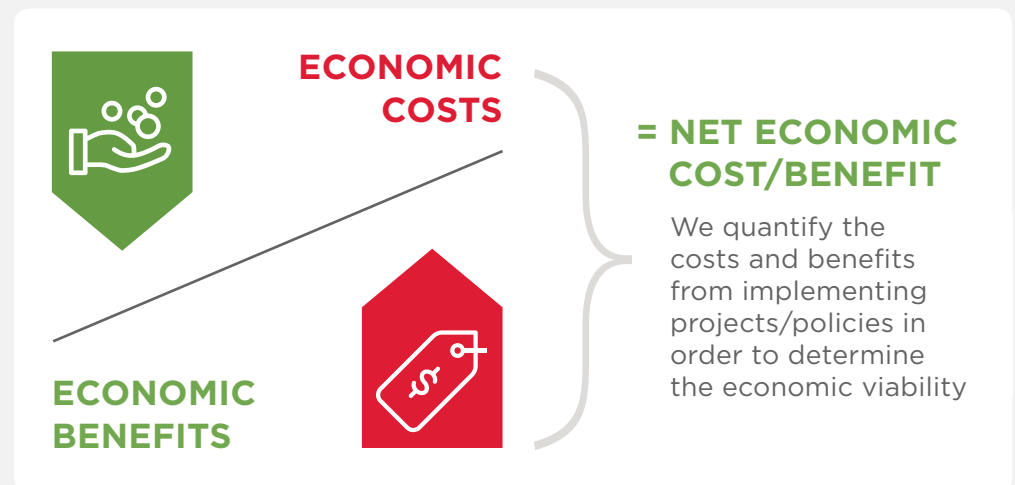
Our financial modelling service also provides an indication of how effectively risks have been allocated. Our risk analysis centres on the development of a risk matrix, to determine optimal risk transfer. Our risk quantification and allocation methodology employs a **Monte Carlo Simulation** approach.



ECONOMIC MODELS

We use **Cost Benefit Analysis (CBA)** as a framework for assessing the economic impact of projects. CBAs provide a systematic and consistent approach to quantifying the positive and negative implications of implementing a project. Building on the financial valuation of the project, the CBA identifies and quantifies additional economic costs and benefits associated with the project.

We specialise in quantifying the economic impact of projects and policies through **Social Accounting Matrix (SAM)** modelling and **Computable General Equilibrium (CGE)** modelling. This enables us to quantify the potential impact on GDP and employment.





ENABLING ENVIRONMENT

With specific expertise in PPPs at both a policy framework and project level, and across multiple sectors, our Infrastructure and PPP Advisory Practice provides financial, economic and PPP advisory services to both the public and private sectors on the enabling environment that could impact the implementation of a project.

We have advised African governments on the development of effective PPP policies, the establishment of PPP units as well as the planning and implementation of PPP projects. Our team offers holistic solutions in terms of project preparation, management of public procurement, PPP transaction advisory services and capacitation of government officials. Genesis also has experience in regulatory economics from our Competition and Regulatory Economics practice.

OUR EXPERTISE

- Infrastructure & PPP policy analysis
- Sector/industry specific analysis
- Institutional design
- Training & capacity development

HOW WE HAVE UNLOCKED VALUE

Genesis develops five-year plan to electrify rural Lesotho

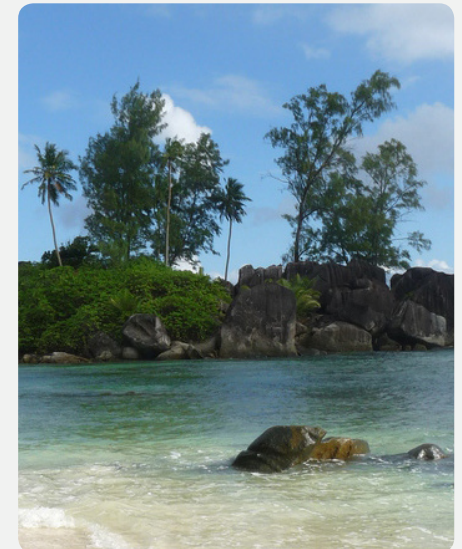
Genesis Analytics has developed a five-year plan to restructure Lesotho's Rural Electrification Unit to extend electrification to rural areas in Lesotho.

[Read more](#) ↓



Developing national PPP policy for Seychelles

We were commissioned by the Investment Climate Facility to assist the Seychelles government in developing a legal and regulatory architecture to support PPPs in that country. [Read more](#) ↓



Development of tools for project appraisals

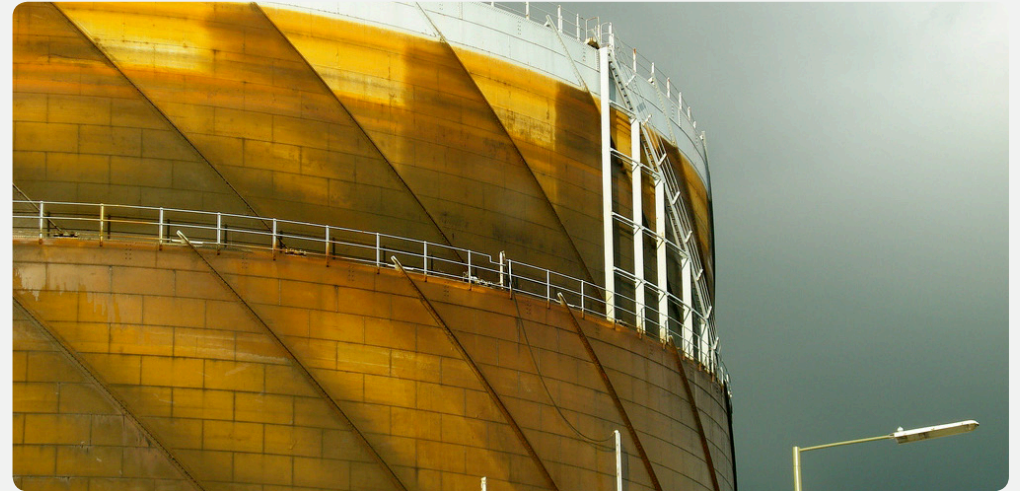
Genesis was appointed by the United Nations Development Programme (UNDP) to provide technical assistance to the Ministry of Finance in Zambia to assist the country in developing a framework for appraising projects in order to ensure alignment between policy objectives of the government and the implementation of projects. [Read more](#) ↓

Genesis quantifies benefits of Maseru managing water loss

Genesis was contracted to undertake a financial analysis of the potential costs and benefits in isolating a water demand management (WDM) zone in Maseru and quantifying the potential revenue benefits from reducing water losses. [Read more](#) ↓

Policy memo on PPPs for Zambian government

Genesis was contracted by the Department of International Development (DFID) to carry out a diagnostic study of the PPP market in Zambia and to propose reforms in relation to the functions and location of the PPP unit. [Read more](#) ↓



Review of gas master plan for SA government

The Development Bank of South Africa (DBSA) retained Genesis Analytics was retained by the DBSA to advise the South African government on the Gas Utilisation Master Plan (GUMP). [Read more](#) ↓

Review of government's infrastructure plan for big business

Genesis was retained by Business Leadership South Africa to conduct a detailed review of the National Infrastructure Plan of South Africa and to assess which of the government's strategic infrastructure projects would lend themselves to private sector participation. [Read more](#) ↓

Genesis sets up standard PPP documents for SADC

Genesis was commissioned by the Southern African Development Community (SADC) 3P Network to prepare standard PPP documents in the form of guidelines and templates that would assist its members to efficiently prepare key documents required for PPP procurement. [Read more](#) ↓



PROJECT PREPARATION

We appraise the financial and economic viability as well as the broader socio-economic impacts of a project to provide our clients with a solid foundation for data-driven decision-making.

Financial appraisal entails an assessment of the cash flows of a project by estimating the project-related revenues and costs. It accounts for only part of the impact of a project. We also do market sector research to assist clients to make an investment decision, either on project basis or company basis.

The preparation of public and social projects is expanded to include impacts that are broader than financial viability. We therefore extend our analysis to include the socio-economic costs and benefits associated with project implementation.

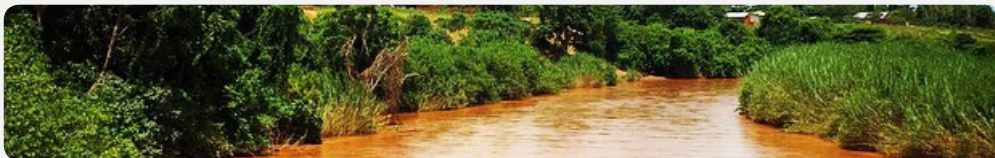
OUR EXPERTISE

- Design of decision-making tools
- Financial and economic valuation
- Financial modelling
- Climate resilience
- Assessing project feasibility & bankability

HOW WE HAVE UNLOCKED VALUE

Feasibility study for Songwe River Basin

Genesis worked with the African Development Bank to provide financial modelling and analysis for the structuring and implementation of the Songwe River Basin Development Project - a transboundary hydro powerplant project on the border of Tanzania and Malawi. [Read more](#) ↓



Plan for safe water in 12 Zambian border towns

Genesis was retained as the project economists for the 12 Towns Project aimed at providing a sustainable and equitable supply of safe water and appropriate sanitation to 12 border towns in Zambia, a country strategically and centrally located in the SADC region. [Read more](#) ↓



Logistics hub for Harrismith

Genesis was retained as part of a consortium of firms providing transaction advisory services to the Free State departments of Police, Roads and Transport for the development of the Harrismith Logistics Hub, an inland intermodal freight terminal with value-added logistics services.

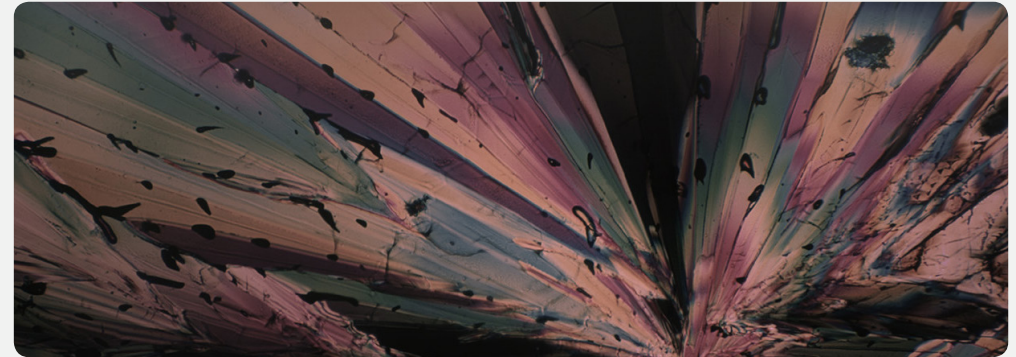
[Read more](#) ↓



Climate risk assessment of Tanzanian dam project

Genesis provided support for the climate-change risk assessment and the financing strategy of the Kikonge Hydropower Project in Tanzania.

[Read more](#) ↓



Plan to expand water supply to 25 000 Malawians

Large regional sugar producer wanted to improve the water supply to Nchalo town and the communities surrounding its sugar facility. The area is characterised as very poor and lacking in clean water and sanitation.

[Read more](#) ↓

Feasibility of dam to boost Mbabane water supply

Genesis was part of a multi-disciplinary team providing input to the feasibility study of the Nondvo Dam in Swaziland. Given water-supply constraints in Swaziland, the government aims to augment water supply to the capital city, Mbabane, through the dam. [Read more](#) ↓



Water for livelihoods in transfrontier area

Genesis was retained to support CRIDF in its work to improve the livelihoods of local communities within and around the Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA). [Read more](#) ↓



TRANSACTION ADVISORY

Our finance advisory service is geared towards assisting public institutions and private investors in the planning, procurement and implementation of large-scale transactions for infrastructure and related services.

Our expertise is in concessions and public-private partnerships (PPPs), which involve a contract between a public sector institution and a private party for the provision of an infrastructure asset or service.

Our service and expertise span the full project cycle, from inception, planning, project appraisal (including financial and economic modelling), financial structuring, procurement, capital raising (debt and equity), contract negotiation to commercial and financial close.

OUR EXPERTISE

- Feasibility assessment
- Risk analysis quantification
- PPP transaction advisory
- Financial structuring & capital raising
- PPP project management
- Procurement support
- Tariff analysis & modelling

HOW WE HAVE UNLOCKED VALUE

Genesis is the lead in hostel plan for 35 000 Kenyan students

Genesis is the lead partner in a consortium that has been retained to provide transaction advisory services for the development of hostels for 35 000 students at five universities in Kenya. [Read more](#) ↓



Financial lead in multi-million plan to revamp Joburg CBD

Genesis is the lead financial and economic adviser on the Kopanong Precinct Project (KPP), which aims to transform the Johannesburg Central Business District (CBD) by upgrading and refurbishing office accommodation for the Gauteng Provincial Government. [Read more](#) ↓



Feasibility of recycling water for KwaZulu-Natal coastal city

Genesis Analytics has been appointed the lead financial transaction adviser in a consortium tasked by the City of uMhlatuze's municipality to assess the feasibility of re-using wastewater and associated by-products through a PPP. [Read more](#) ↓



Procurement of new office space for metrology institute

Genesis has been appointed by the National Metrology Institute of South Africa (NMISA) to undertake the function of project officer for the possible PPP procurement of new office accommodation. [Read more](#) ↓



CAPITAL RAISING

Both the Infrastructure and Financial Services Strategy practices offer expertise in capital raising.

OUR SERVICES INCLUDE:

- Identifying and engaging with potential funders to leverage finance for projects
- Preparing project information memoranda and commercial business cases for investors
- Facilitating relationships between government and investors
- Assistance with preparation of tender submissions on behalf of private and public parties (including financial modelling and structuring)



Projects that our technical expert, Malcolm Pautz, has worked on include the Siyathemba Solar One 50MW PV project under the REIPPP and Kariba South Hydro Expansion Project.

INFRASTRUCTURE THAT SUPPORTS CLIMATE RESILIENCE

Climate change represents a significant obstacle to sustained economic growth and poverty eradication. At Genesis, our agriculture and infrastructure teams work together to help increase the resilience of individuals and communities to these climate shocks.

In agriculture, which is critical to poverty alleviation on a large scale, we provide design and implementation support for climate-smart agriculture programmes, as well as strategic and advisory services to governments, the private sector, donors and farmer organisations, on adaptation and mitigation in land-use sectors.

In the infrastructure sector, we prepare, appraise and mobilise finance for climate-resilient infrastructure projects that enhance and improve the resilience of poor and vulnerable communities, many of which are rural.

OUR EXPERTISE

- Climate risk & vulnerability analysis
- Climate-smart agriculture (CSA) design, implementation & evaluation
- CSA options analysis, screening & evaluation
- Climate change adaptation strategy formulation
- Climate proofing of investments

HOW WE HAVE UNLOCKED VALUE

Early flood forecasting system for Incomati Basin

Genesis was engaged as the financial and economic adviser on a three-year project to support a holistic flood-risk mitigation system in the Incomati Basin. Our work was integral in establishing the need for an early warning flood forecasting system and its requirements for financial sustainability.

[Read more](#) ↓



Genesis supports SADC water and infrastructure projects

Genesis worked with the Climate Resilient Infrastructure Development Facility (CRIDF), a DFID-funded facility that prepares water and infrastructure projects across SADC, in the design and delivery of water infrastructure that fosters sustainable development of the region's water, food and energy security. [Read more](#) ↓



Early flood warning systems to stop Mozambique floods

Genesis was appointed to assess the costs and benefits of an early warning flood forecasting system in the Limpopo River basin, which is shared by Botswana, South Africa, Zimbabwe and Mozambique. [Read more](#) ↓



Building case for climate-compatible development

The Climate Development Knowledge Network (CDKN) in Rwanda wanted to develop a business case for climate-compatible development in Rwanda. [Read more](#) ↓

We study impact of climate-smart models across five countries

Genesis has been appointed to conduct an impact analysis of climate-smart innovation models that have been rolled out successfully across five countries. [Read more](#) ↓



OUR TEAM

Our Infrastructure team is part of the 80-plus full-time consultants at Genesis.
Our team has decades of experience working across 36 countries in Africa.



SPECIALIST KNOWLEDGE

- Financial modelling
- Financial & economic appraisal
- Transaction advisory
- Deal structuring
- Procurement
- PPPs financial models
- Risk analysis
- Tariff modelling

SOME OF OUR QUALIFICATIONS INCLUDE

PhD in Environmental Science | MBA, MSc (Engineering) | MSc (Political Economy of Development) | MCom (Economics) | MA (Financial Economics) | MCom (Financial Markets) | MSc (Finance) | Graduate Diploma in Engineering | BSc (Engineering) | Honours in Structural Engineering | BCom Hons (Economics) | BCom Hons (Econometrics) | BSocSci (PPE) | BCom (Econometrics) | BCom (Economics and Statistics) | Advanced Certificate in Emerging Markets and Risk | Certificate Course in Competition Law

We are here to help YOU make better decisions

[FURTHER INFORMATION ON OUR TEAM >](#)

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