Gamagara-Tsantsabane: Session 4

Our desired future, 6-7 November 2024

AngloAmerican

De Beers Group

cooperative governance
Department: Cooperative Governance
REPUBLIC OF SOUTH AFRICA

CSIR
Touching lives through innovation

MCPP Municipal Capability & Partnership Programme

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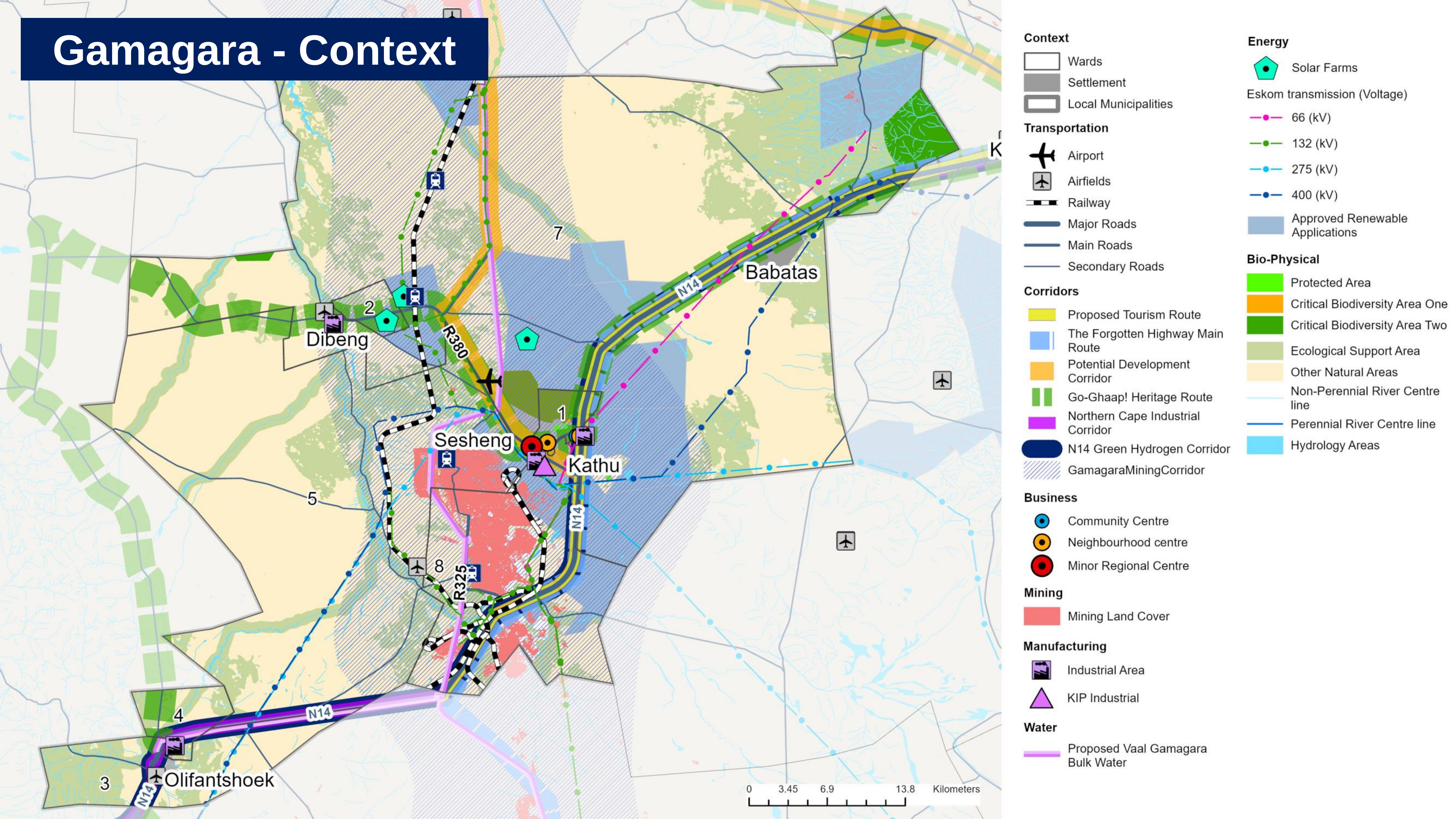
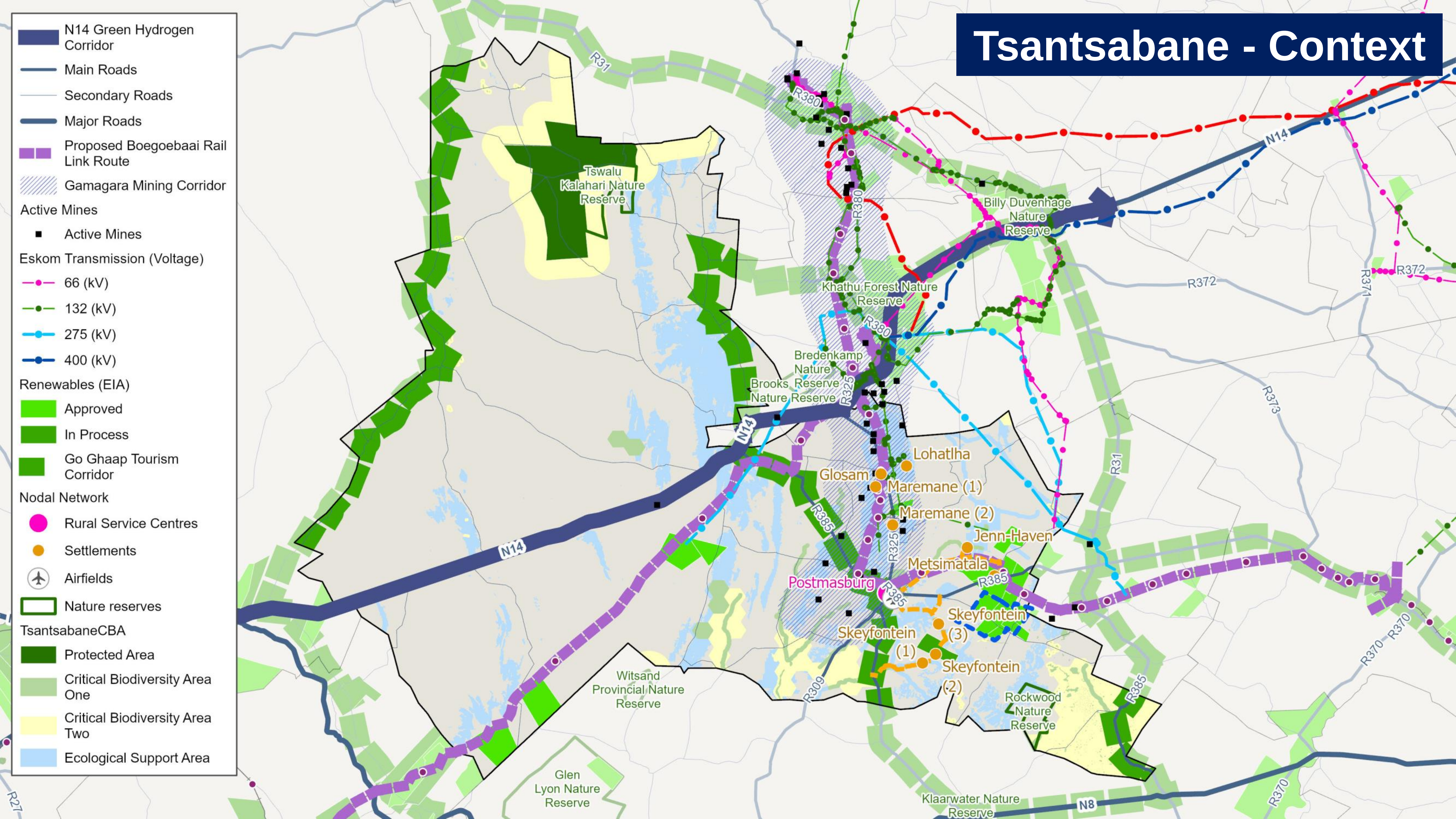
Spatial context

Gamagara - Context



Tsantsabane - Context



Scenarios, forecasts, strategies and catalytic interventions

Scenario 1: Certain Collapse: From Mining Shovels to Mining Ashes and Dust in the Wind

MCPP Municipal Capability & Partnership Programme

Scenario 1:

Certain Collapse: From Mining Shovels to Mining Ashes and Dust in the Wind

Tsantsabane and Gamagara host large iron ore mines, which form the backbone of their economies and those of neighboring municipalities. Most of these mines are expected to reach the end of their operational life between 2030 and 2040.

Alongside the effects of climate change and deteriorating municipal infrastructure and finances, this situation is likely to lead to a perfect storm. As a result, the region could face significant economic collapse, major employment and labor income losses, failing municipal finances, and various social issues.

3 manganese mines in Joe Morolong to reach end-of-life around 2033-34, 4 will operate beyond (between 2053 – 2084).

- The Sishen iron ore mine, one of the largest in the world, will reach end-of-life between 2035 – 2040.
- The Assmang Khumani iron ore mine will keep producing until 2048.

- The large iron ore mines in Tsantsabane will reach end-of-life between 2031 – 2035 (Kolomela & Beeshoek).
- The end-of-life of the Sedibeng mine is unknown.

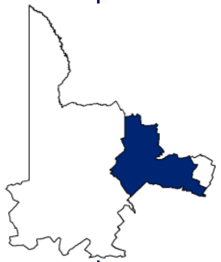
Unpacking scenario 1: Job and labour income losses from mine closures

Labour income losses (R million)

- 6 081.0

Gamagara

- 2 388.4



Tsantsabane

- 9 021.9

Northern Cape

- 17 733.00

South Africa

Job losses

Tsantsabane

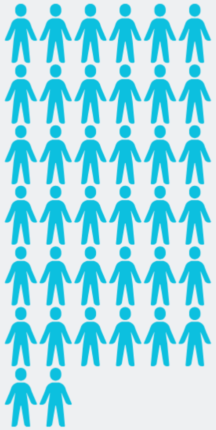
11 834 jobs

Gamagara

26 359 jobs

Northern Cape

38 193 jobs

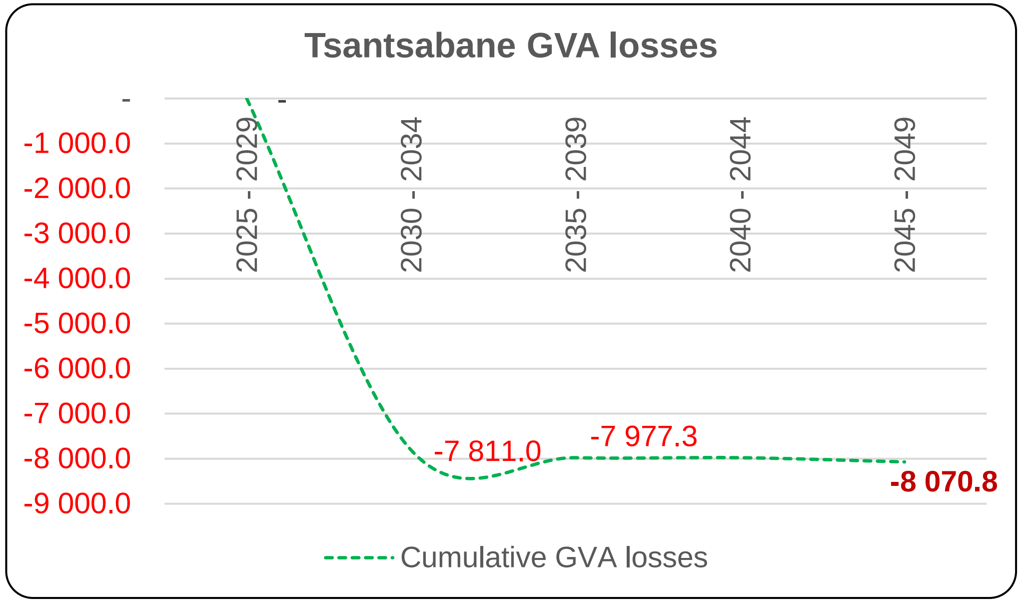


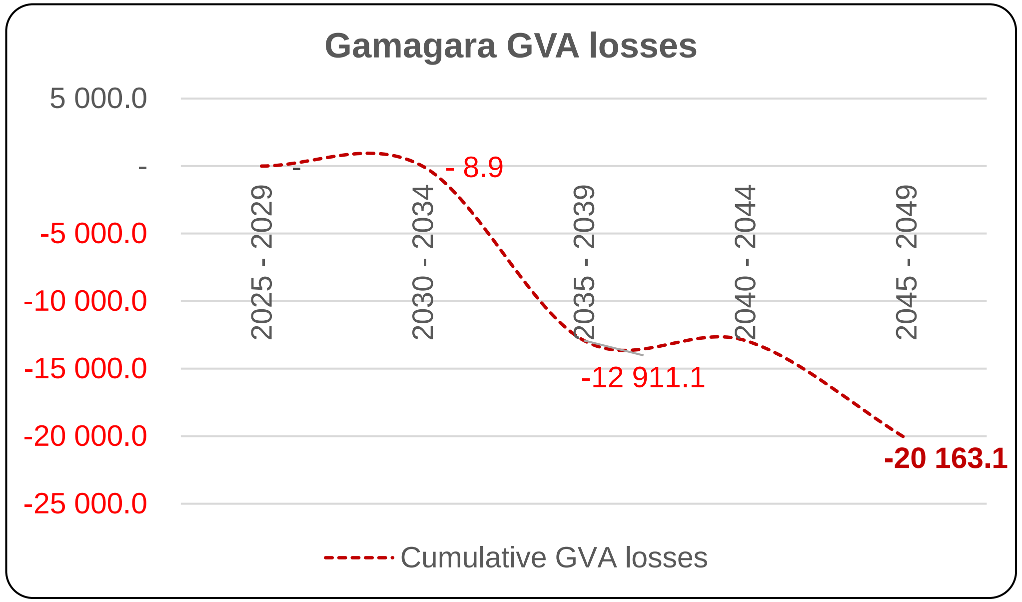
South Africa

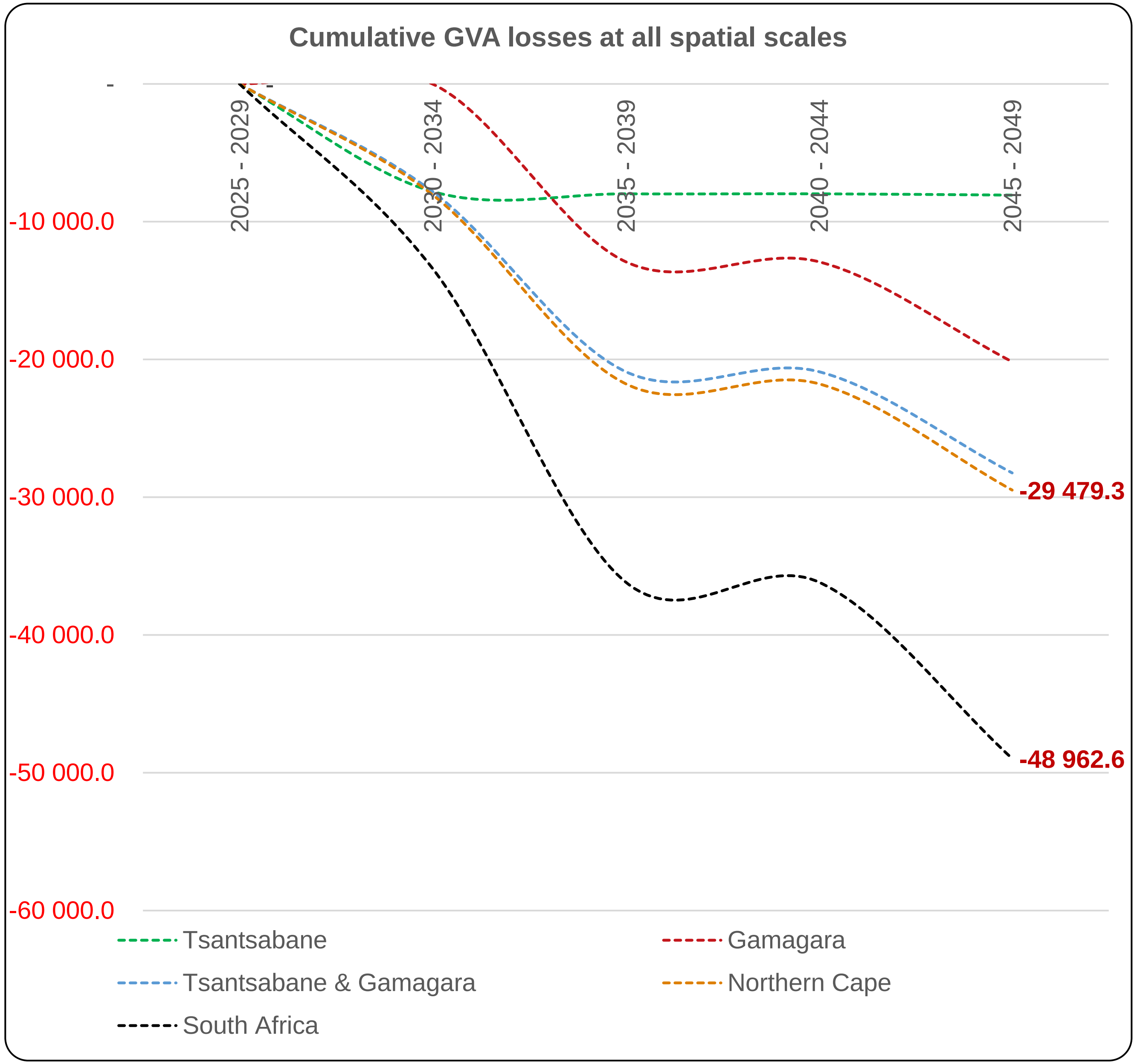
90 730 jobs

Source: South African MRIO Model (2024), Draft Gamagara Local Municipality LED Strategy 2024

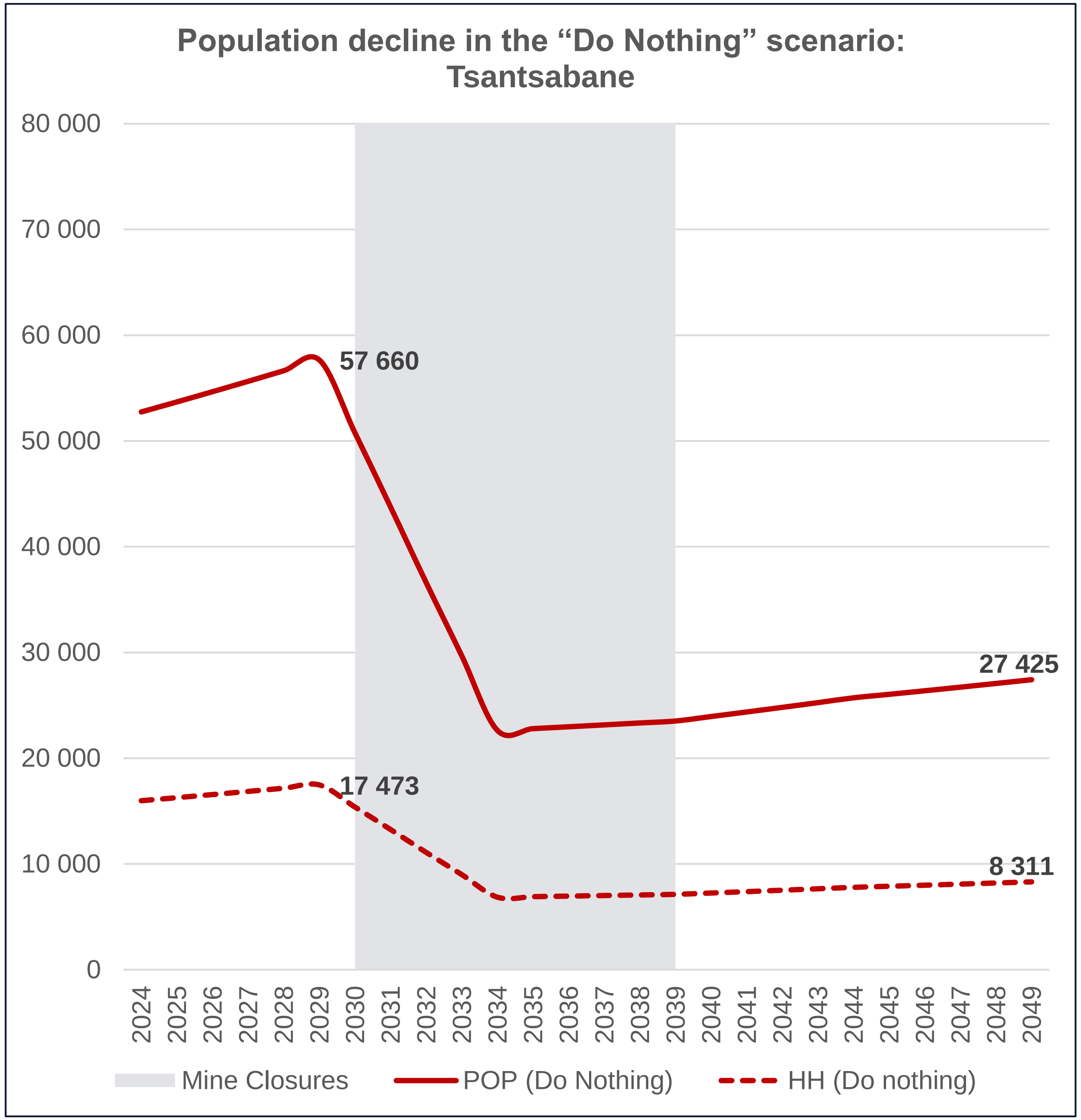
Unpacking scenario 1: Economic shrinkage resulting from mining closures

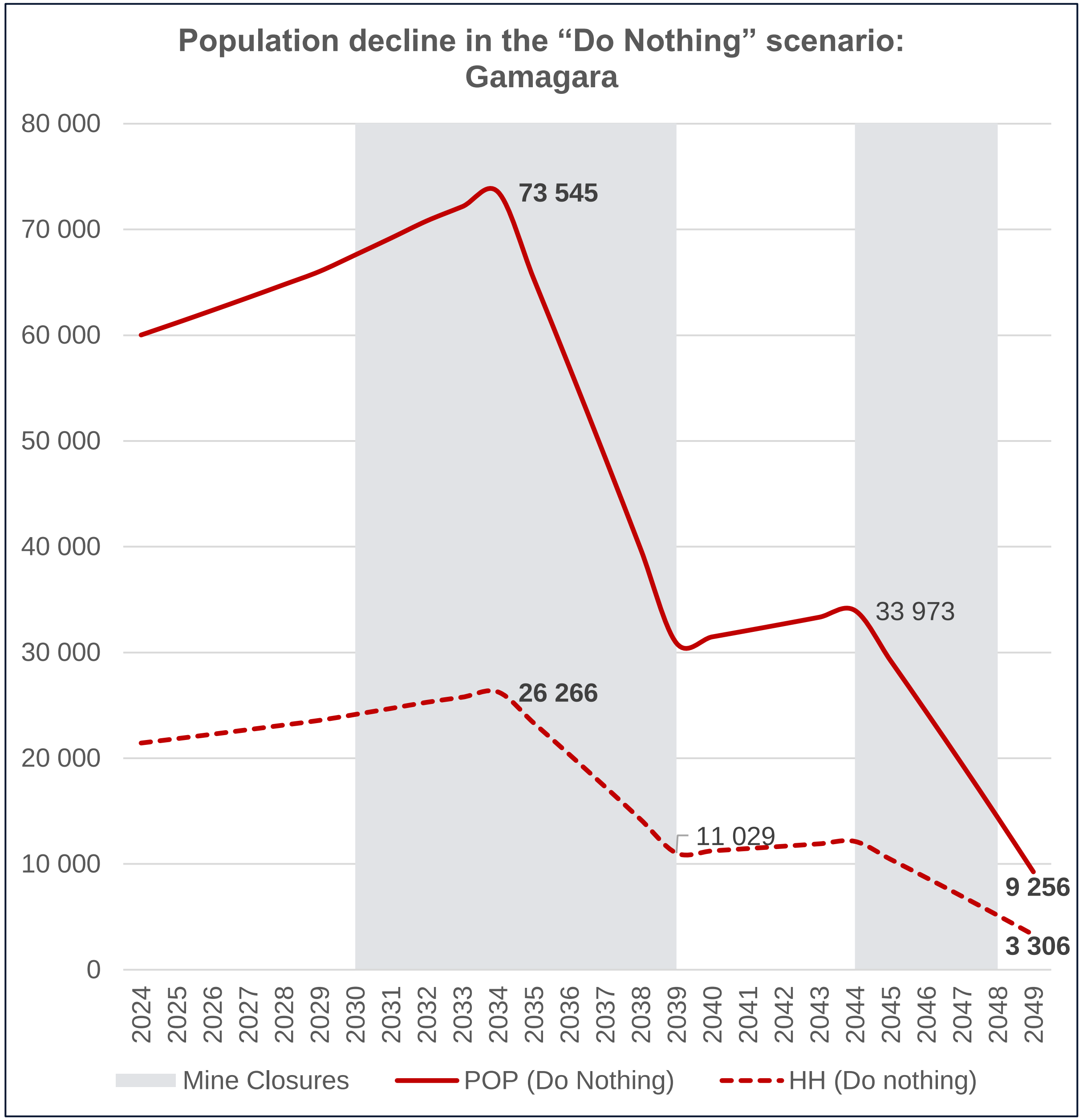






Unpacking scenario 1: Out migration and depopulation

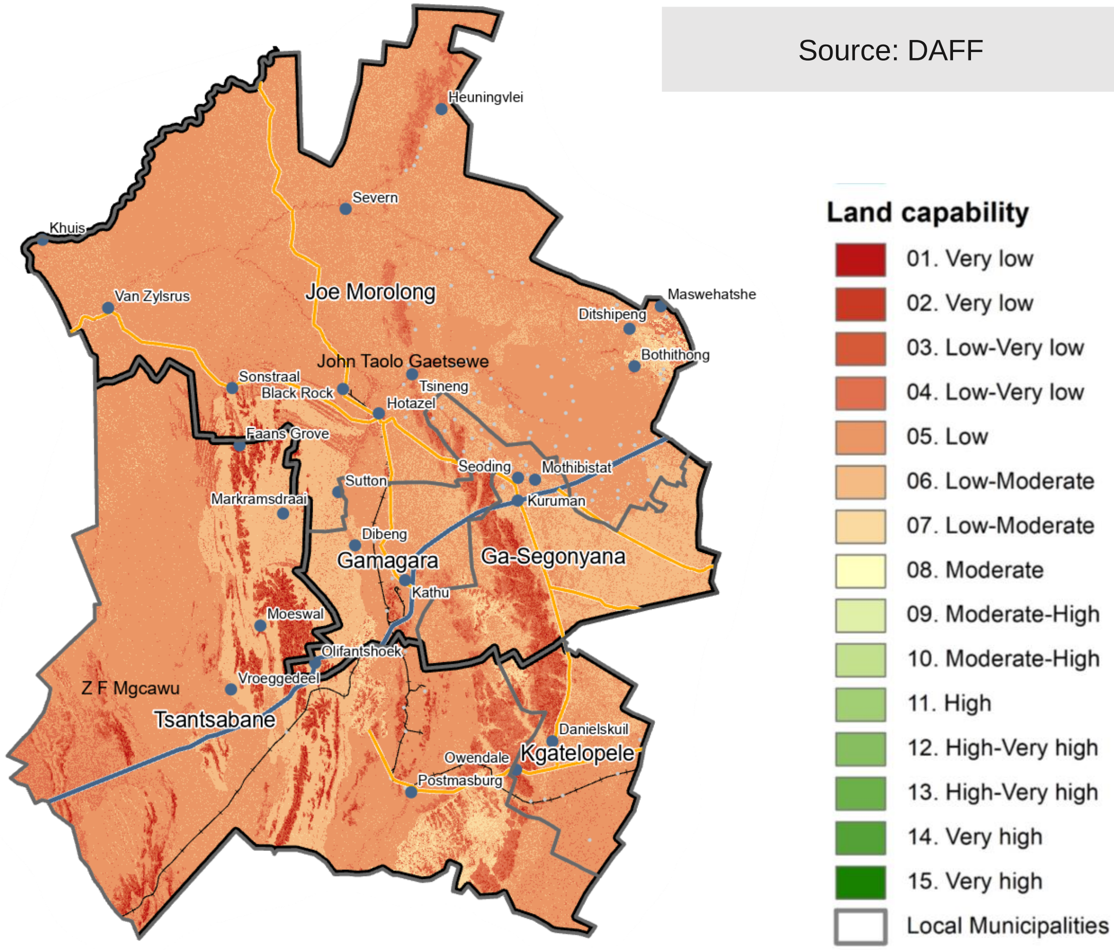




Unpacking scenario 1: Climate change

Agricultural capabilities

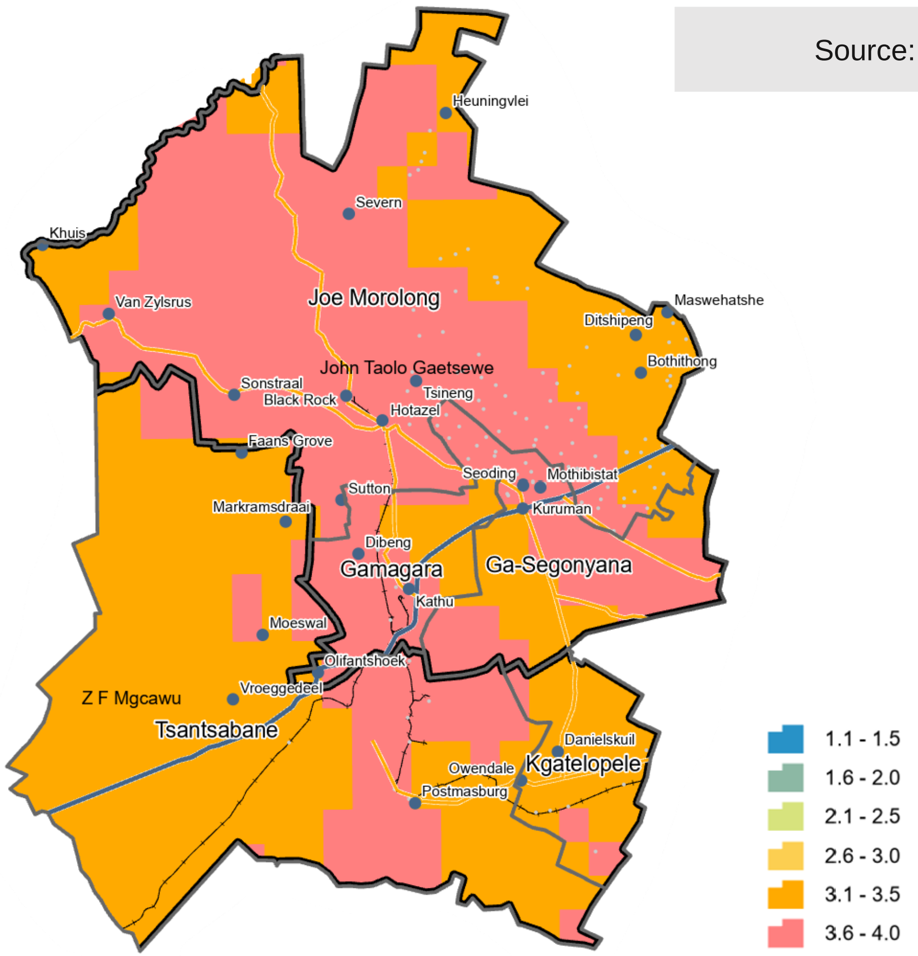
Source: DAFF



The region is generally not well-suited for large-scale agriculture, and agriculture alone is not a viable alternative to mining – BUT there is scope for the roll-out of arid technology agricultural projects

Climate change: Change in max temperatures 2050 (°Celsius)

Source: CSIR

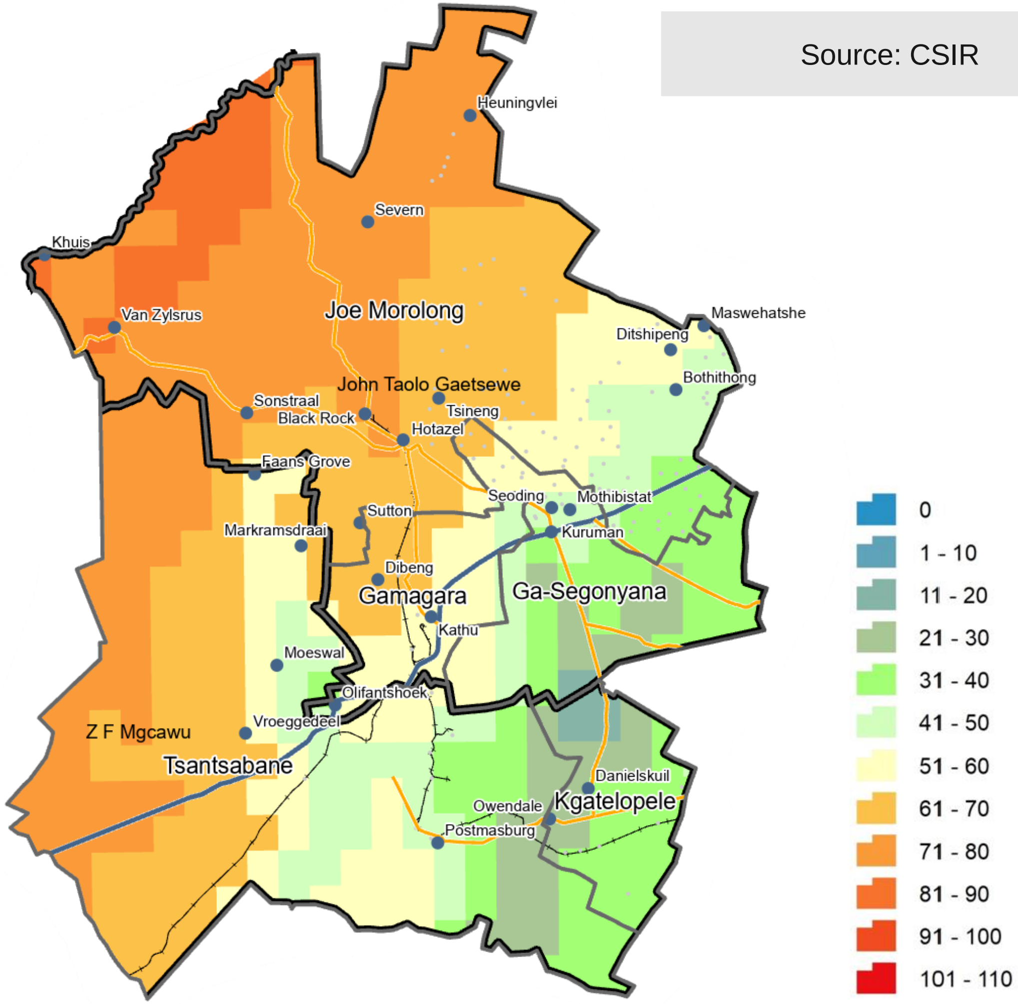


Average maximum temperatures will likely increase between 3.1 – 4.0 °C.

Unpacking scenario 1: Climate change

Change in nr of very hot day 2050

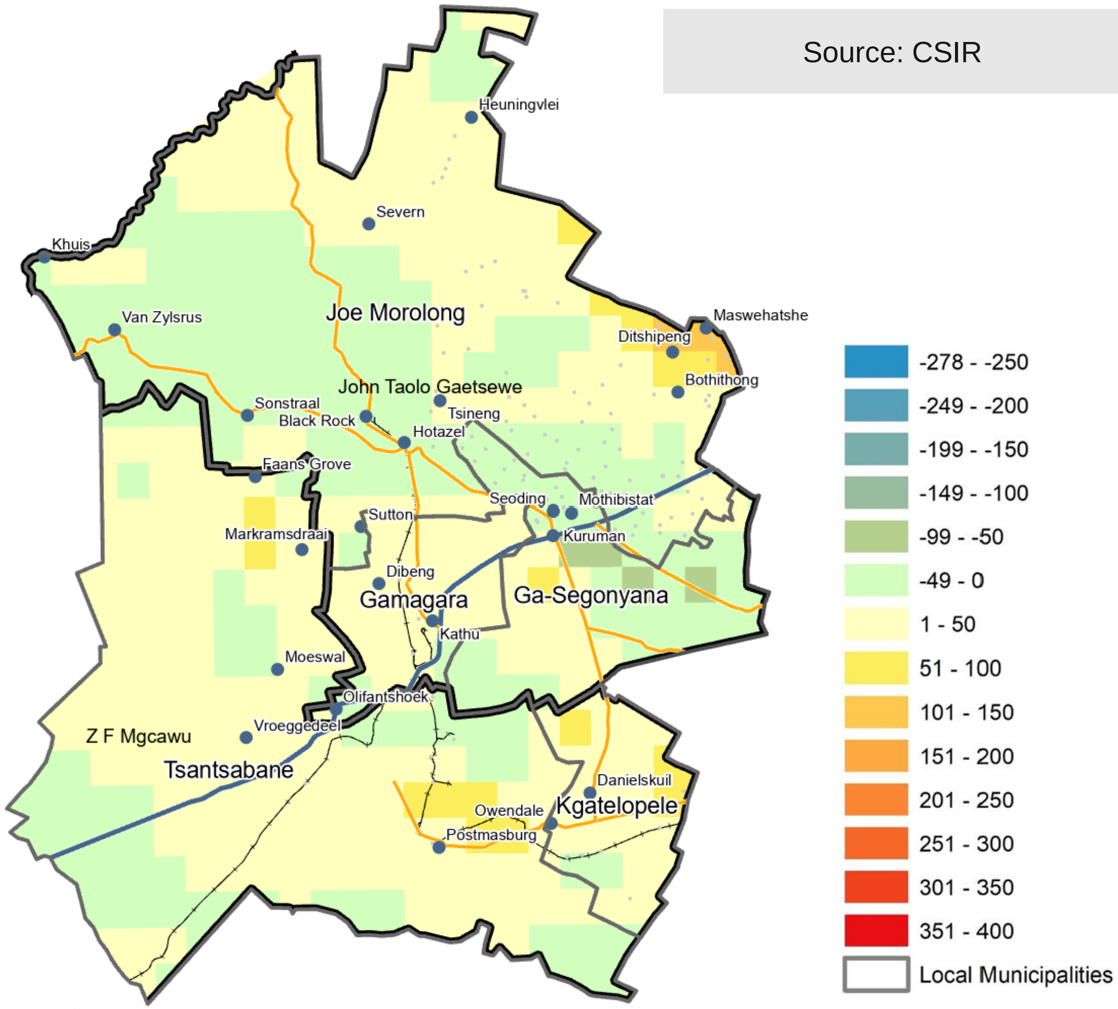
Source: CSIR



The change in the number of very hot days will likely range between 31-40 and 81-90 days, depending on location

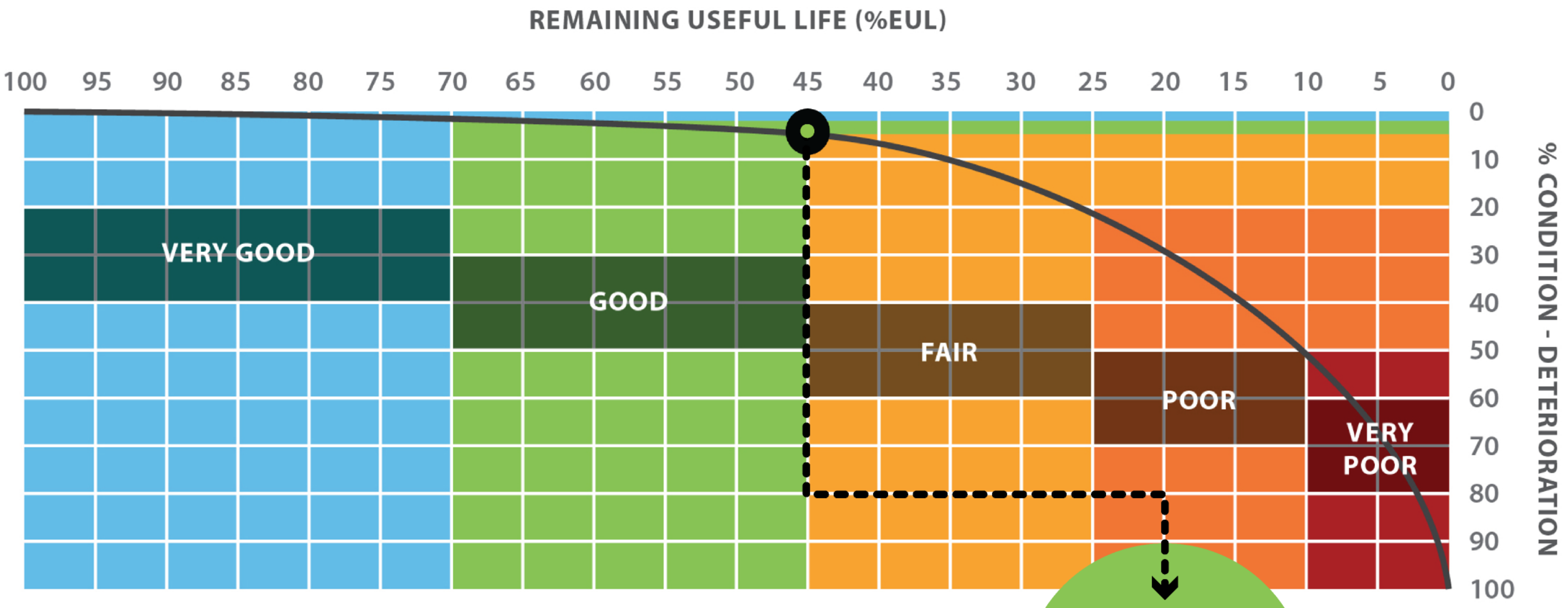
Climate change: Change in average rainfall 2050

Source: CSIR



Rainfall will variably decrease by between 0 to -49 days and in some instances will increase by between 51-100 days

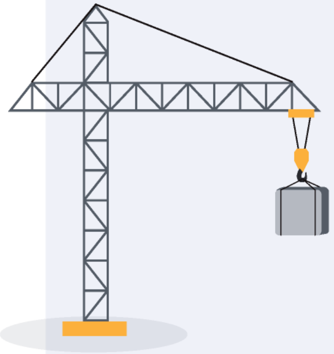
Unpacking scenario 1: Deteriorating municipal infrastructure - Gamagara



Asset portfolio health status:

45%

ASSET INVESTMENT

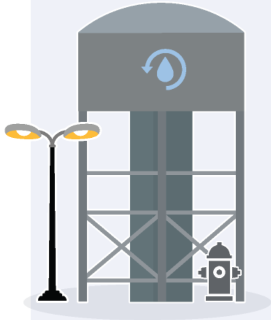


New asset creation:
R14.23 million

Asset upgrading:
R17.29 million

R 31.5 million / annum

COMMUNITY WEALTH / EQUITY



Asset replacement value:
R 2 677 million

Accumulated wear and tear:
R 1 175 million

Annual depreciation:
R 53 million

R 1 156 million

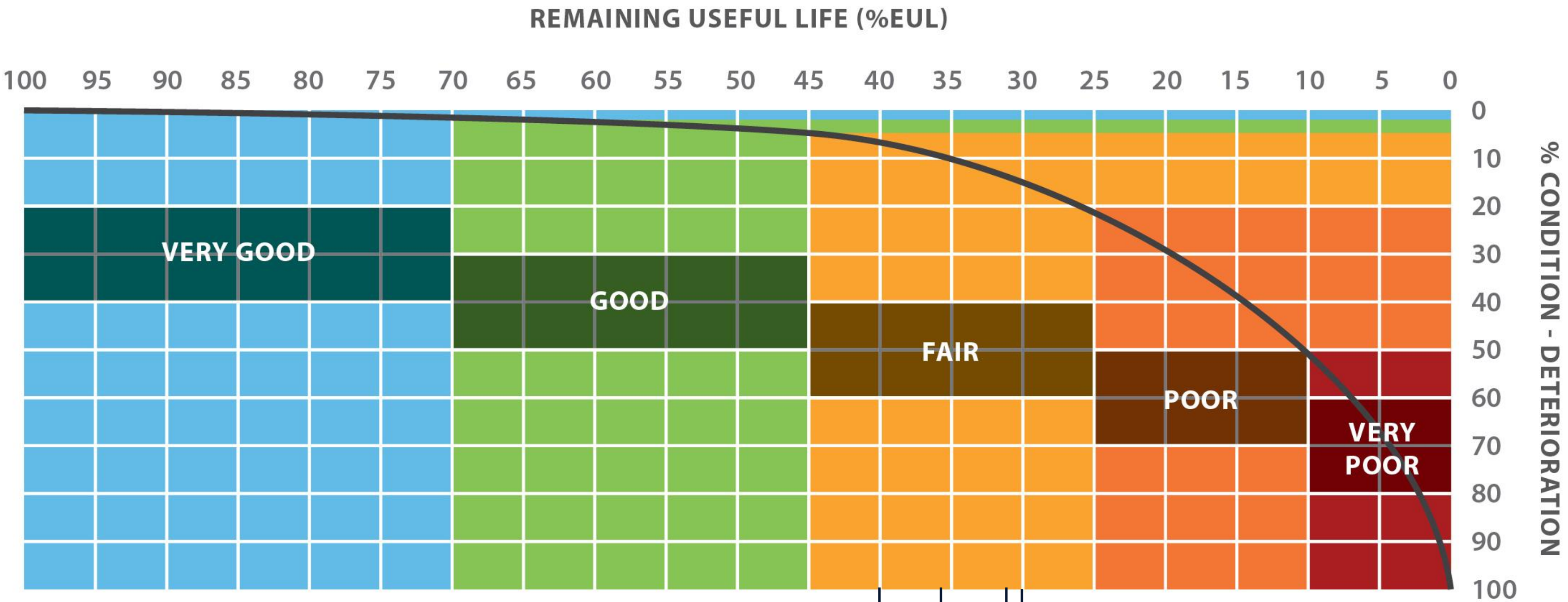
ASSET CARE: MAINTENANCE

Underspending on maintenance:
R 107 million

R 40.6 million / annum

Unpacking scenario 1: Deteriorating municipal infrastructure - Gamagara

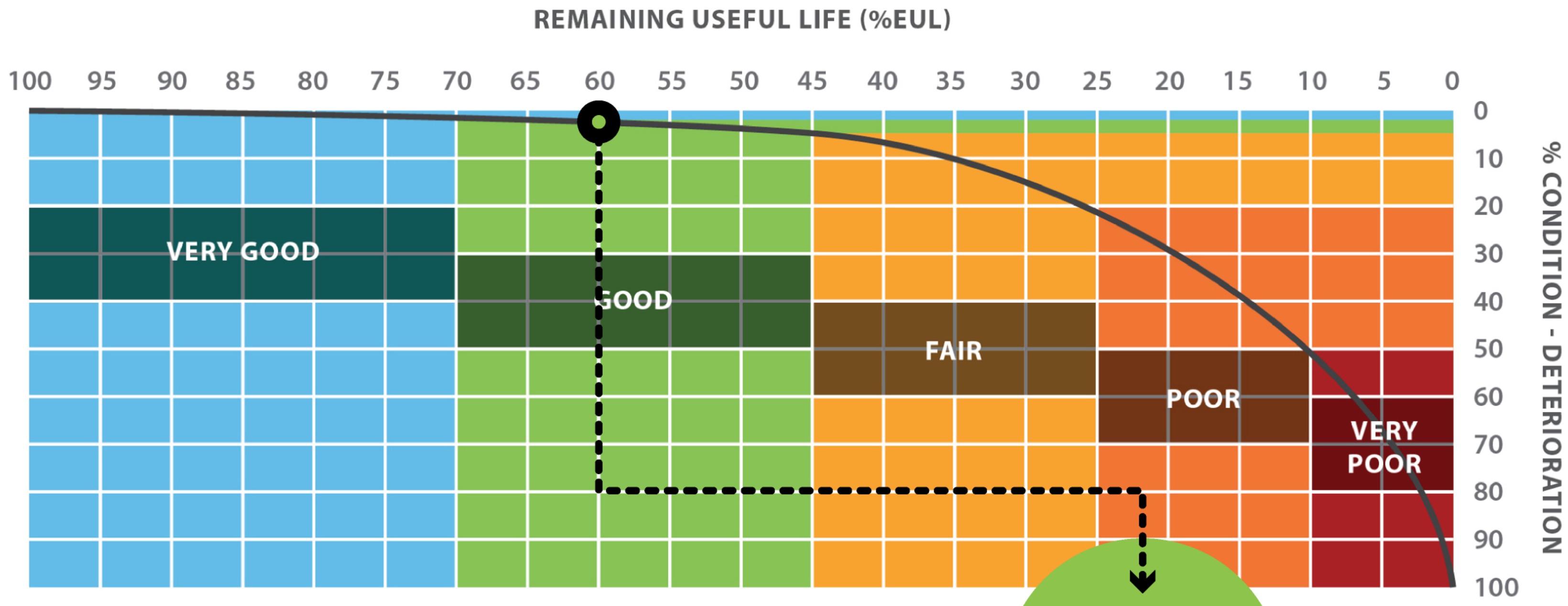
Community equity and asset health status



Accumulated underspending on maintenance of R 700 million even with sustained annual increases of 4%/pa from 2026 – 2039.

	2025	2030	2035	2040
Asset portfolio health	40%	36%	32%	30%
Asset replacement value	R 2 807 million	R 3 123 million	R 3 539 million	R 4 070 million
Asset carrying value	R 1 128 million	R 1 117 million	R 1 141 million	R 1 239 million

Tsantsabane Community Wealth & Equity (in municipal assets)



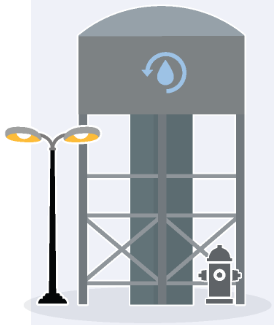
ASSET INVESTMENT

New asset creation:
R64 million (incl. R22m donations)

Asset upgrading:
No provision for asset renewal

R 64 million/annum

COMMUNITY WEALTH / EQUITY

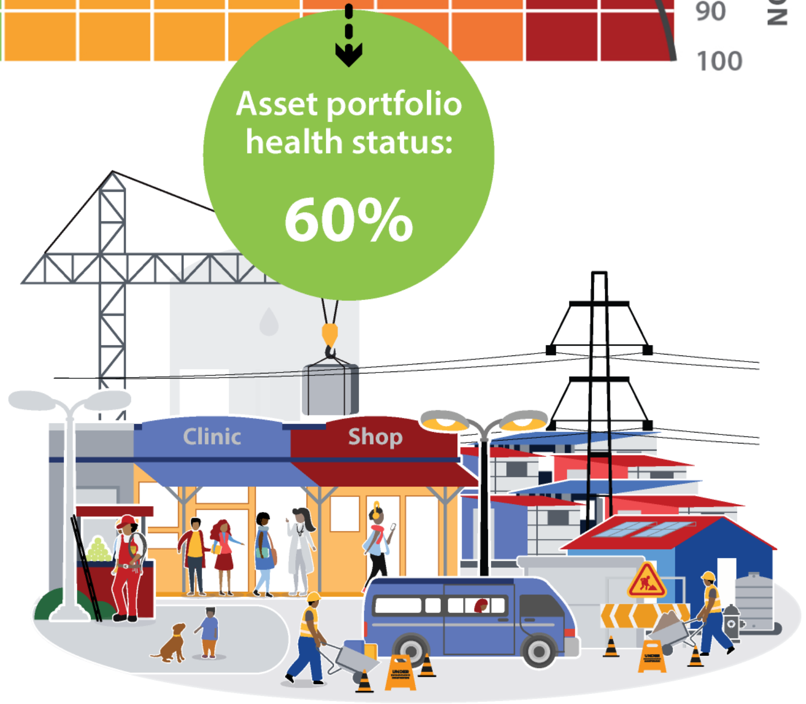


Asset replacement value:
R 1 140 million

Accumulated wear and tear:
R 434 million

Annual depreciation:
R 35 million

R 706 million

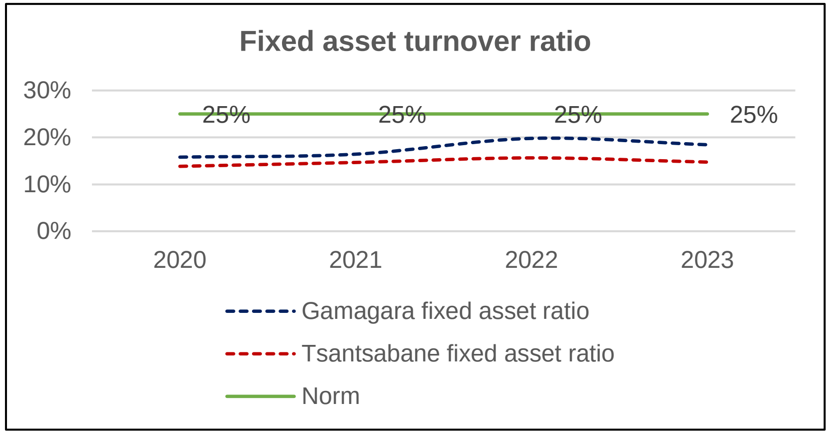


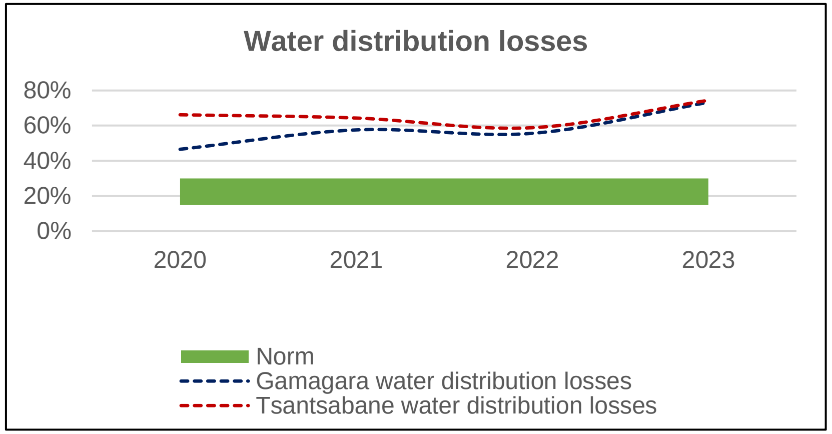
ASSET CARE: MAINTENANCE

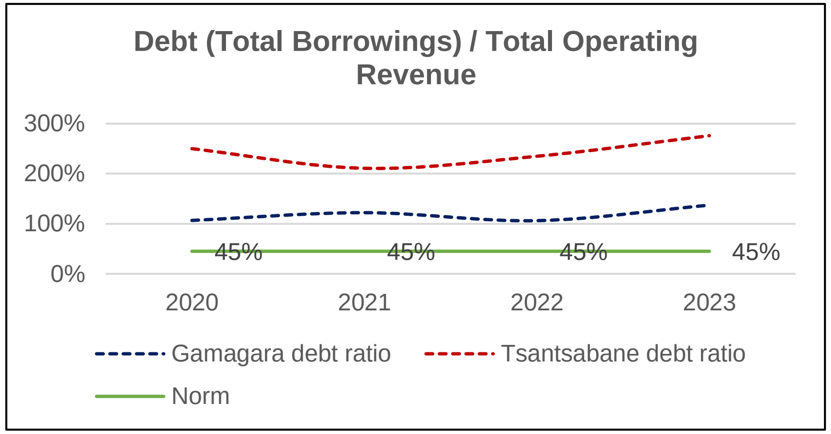
Underspending on maintenance:
R 50 million

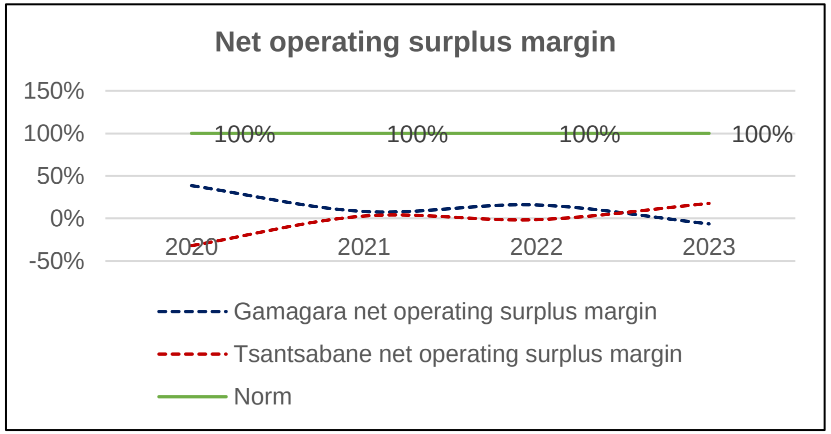
R 13 million / annum

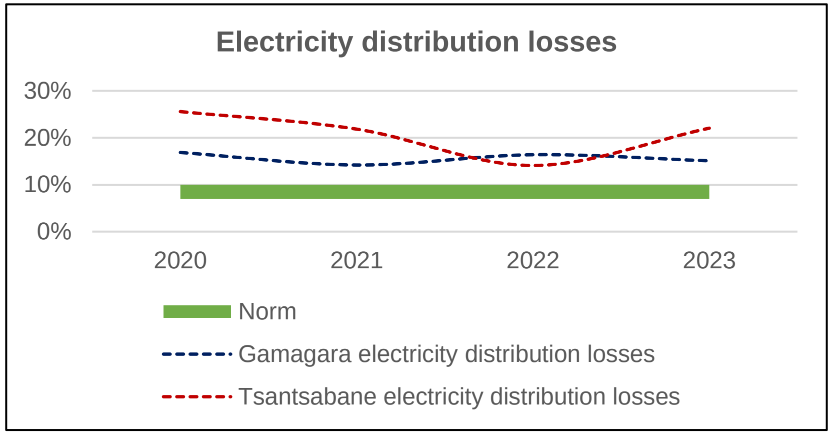
Unpacking scenario 1: Deteriorating municipal finances and reduced capacity to deal with future shocks

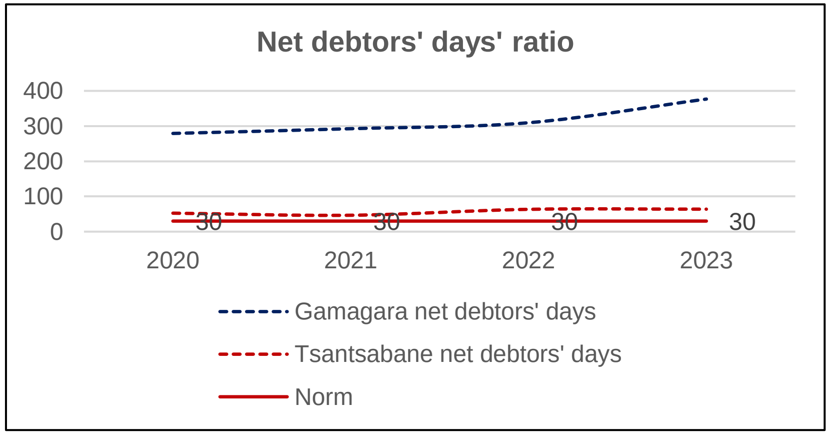


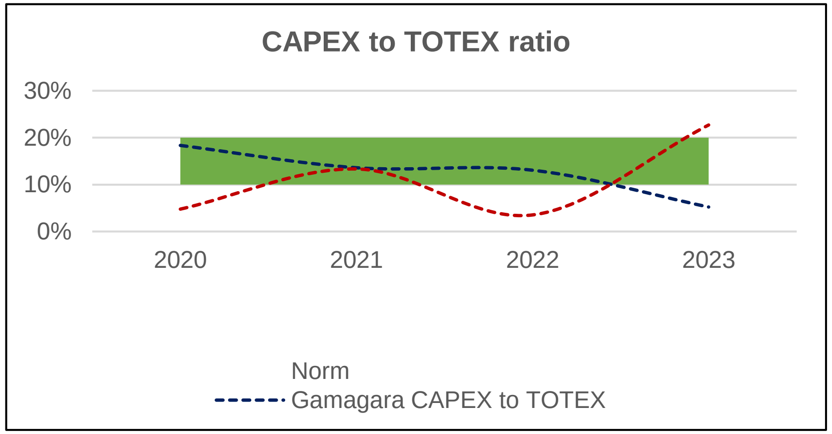












- Asset portfolios not configured for municipalities to sustainably generate sufficient revenue and/or tariffs are not cost-reflective, and/or input costs are excessive.
- Tariffs are unaffordable, there may be community resistance to paying for services and/or debtors' management practices need to improve.
- Excessive water and electricity distribution losses contribute to cost pressures and reduced net revenue margins. It is essential to investigate and address the underlying causes.
- Capital investment does not consistently meet the norm for growing economies & populations.
- Both municipalities carry very high levels of debt gearing. Any significant additional debt will likely be constrained to ring-fenced revenue generating initiatives.
- Grant allocations to these municipalities may decrease due to the outcomes of the Census 2022, putting additional strain on municipal finances.

Unpacking scenario 1: The Tsantsabane future narrative

2030 → 2035 → 2040

Business as usual

Inadequate (1) bulk infrastructure provision, (2) maintenance of assets

Lack of mixed housing options, land for business & industrial activities

Job and labour income losses due to mine closures leads to households relocating to neigbhouring areas

Pressure, panic & social discord

Further mine closures, job and labour income losses, leads to further out-migration

Vacant housing stands, reduced spending power, decline in retail industry & public realm decay leads to further disinvestment

Social discord, frustration & fear due to joblessness, declining service delivery & no investment

Mining dust

Major declines in the hospitality, retail and general service sectors. Many properties for sale at highly discounted prices.

Remaining non-mobile population is destitute

Sharply declining municipal revenues, widespread infrastructure and service delivery failures

Unpacking scenario 1: The Gamagara future narrative

2030 → **2035** → **2040**

Business as usual

Inadequate (1) bulk infrastructure provision, (2) maintenance of assets

Insufficient housing provision & informal settlement growth

Continued economic leakage, insufficient economic growth & diversification, and weakening community resilience

Pressure, panic & social discord

Large-scale job and labour income losses in Tsantsabane, some of whom seek economic opportunities in Gamagara and Ga-Segonyana

Social discord, frustration & fear due to joblessness, declining service delivery & weakening retail sector

Mining suppliers & contractors prepare to divest from the area

Mining dust

Job and labour income losses reached critical levels, resulting in out-migration, loss of skills and depopulation

Major declines in the hospitality, retail and general service sectors. Many properties for sale at highly discounted prices.

Sharply declining municipal revenues, widespread infrastructure and service delivery failures

Summary of shocks and their impacts under Scenario 1

Mine closures

Economic collapse with sharply declining GVA, job losses and labour income losses, depopulation/out-migration with associated social disruptions

Deteriorating municipal infrastructure

Municipal infrastructure maintenance is consistently underfunded, which will likely result in significant deterioration of asset portfolios, service delivery failures, and the need for extensive capital renewal programs

THE PERFECT STORM

Strained municipal finances & likely reduction in grant allocations

Municipal revenues under pressure

Asset portfolios not configured to support municipal revenue capacity and financial sustainability

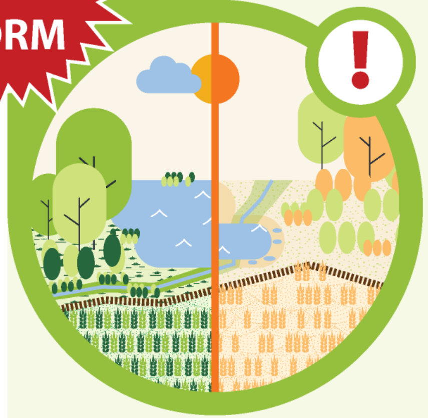
Difficulties in collecting municipal revenue

Unacceptably high water and electricity distribution losses

Limited borrowing capacity

Insufficient investment in growth prospects

Climate change



Climate change will result in an increases in average temperatures, the number of very hot days and fire risks.

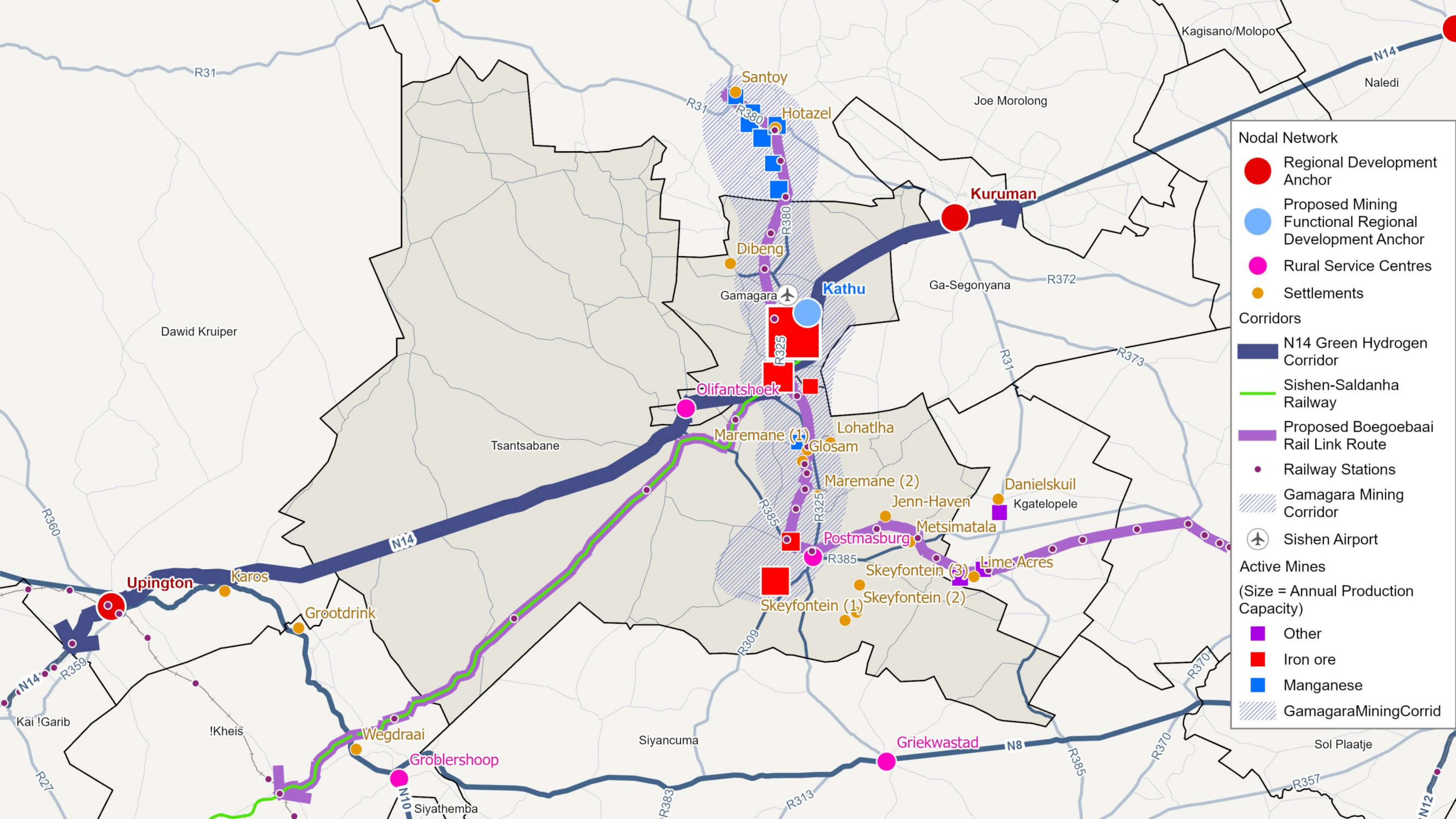
Climate change will likely result in heat stress, affecting human populations, ecosystems and agriculture, ecosystem changes and loss of biodiversity.

Human health will be affected, infrastructure systems stressed, and the cumulative impacts of climate change may result in economic and social disruptions.

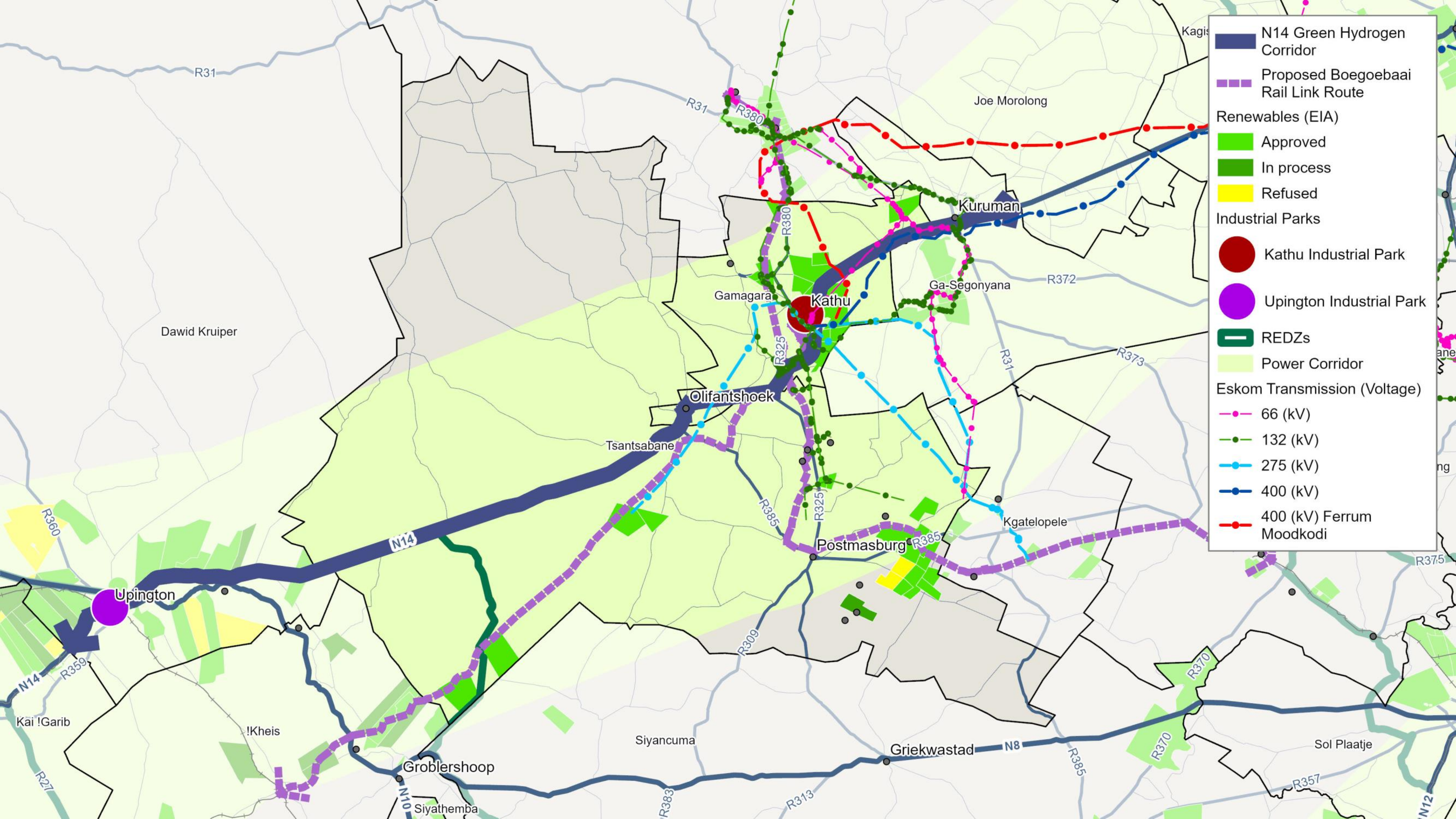
Scenarios, forecasts, strategies and catalytic interventions

Scenario 2: Key capabilities, opportunities and informants

MCPP Municipal Capability & Partnership Programme



Nodal Network
Regional Development Anchor
Proposed Mining Functional Regional Development Anchor
Rural Service Centres
Settlements
Corridors
N14 Green Hydrogen Corridor
Sishen-Saldanha Railway
Proposed Boegoebaai Rail Link Route
Railway Stations
Gamagara Mining Corridor
Sishen Airport
Active Mines
(Size = Annual Production Capacity)
Other
Iron ore
Manganese
GamagaraMiningCorrid
Kuruman
Kathu
Upington
Olifantshoek
Postmasburg
Groblershoop
Griekwastad
Santoy
Hotazel
Dibeng
Gamagara
Lohatlha
Maremane (1)
Glosam
Maremane (2)
Danielskuil
Kgatelopele
Jenn-Haven
Metsimatala
Lime Acres
Skeyfontein (3)
Skeyfontein (2)
Skeyfontein (1)
Karos
Grootdrink
Wegdraai
Kagisano/Molopo
Naledi
Joe Morolong
Ga-Segonyana
Dawid Kruiper
Tsantsabane
Kai !Garib
!Kheis
Siyancuma
Siyathemba
Sol Plaatje
N14
N8
N10
N12
R31
R380
R325
R372
R373
R385
R309
R360
R359
R27
R383
R313
R357
R370



N14 Green Hydrogen Corridor
Proposed Boegoebaai Rail Link Route
Renewables (EIA)
Approved
In process
Refused
Industrial Parks
Kathu Industrial Park
Upington Industrial Park
REDZs
Power Corridor
Eskom Transmission (Voltage)
66 (kV)
132 (kV)
275 (kV)
400 (kV)
400 (kV) Ferrum Moodkodi
Kuruman
Kathu
Gamagara
Ga-Segonyana
Joe Morolong
Olifantshoek
Tsantsabane
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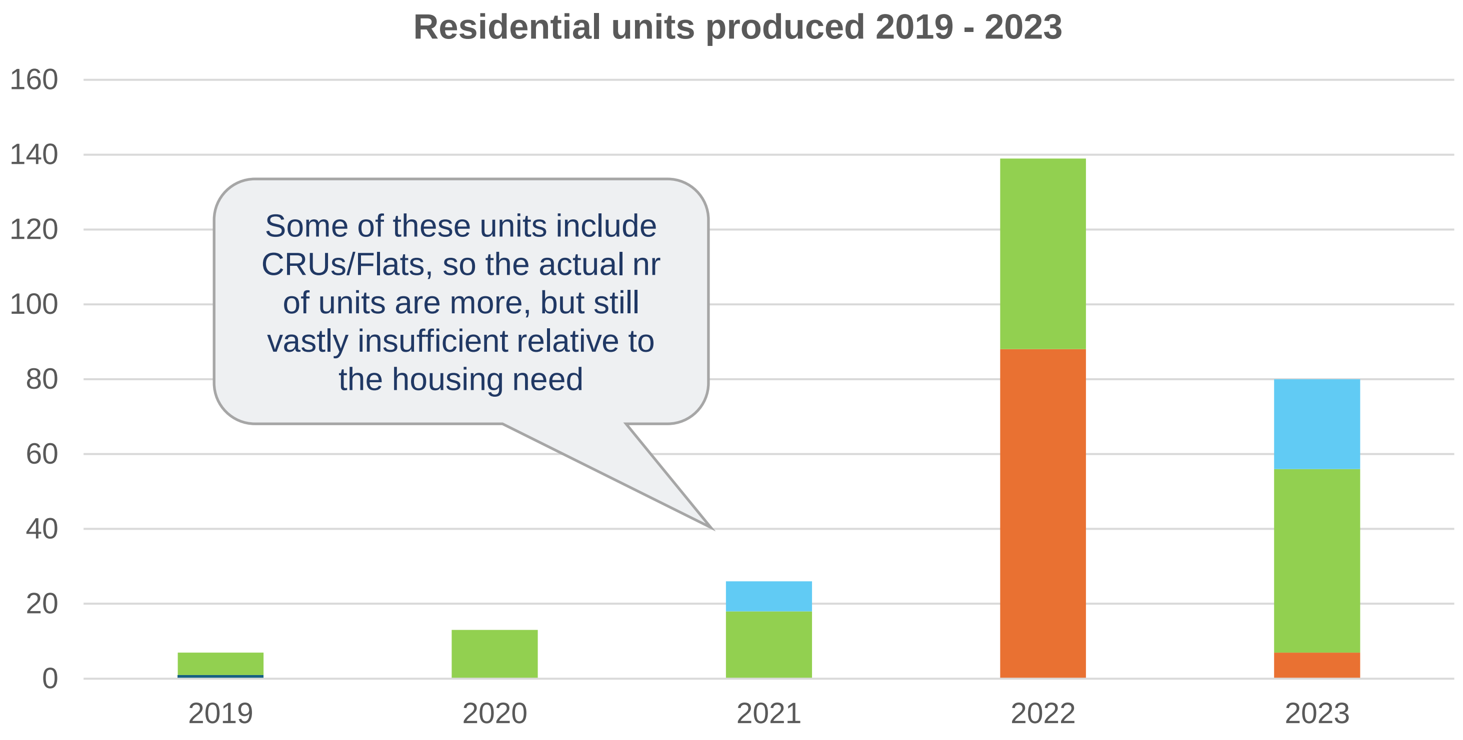
Reversing economic leakage and full activating land markets and the local economy



265 units produced over a 5-year period

- Private sector other residential buildings
- Private sector tourism accommodation and casinos
- Private sector blocks of flats
- Private sector townhouses
- Low cost housing floor area > 30 m2 - ≤80 m2
- Low cost housing floor area ≤30 m2
- Dwelling houses floor area ≥ 80 m2
- Dwelling houses floor area > 30 m2 - <80 m2
- Dwelling houses floor area ≤30 m2

Kathu – 733 structures

NHNR (G): 6 373

Deben – 658 structures

NHNR (G): 1 472

Olifantshoek – 489 structures

NHNR (G): 1 055

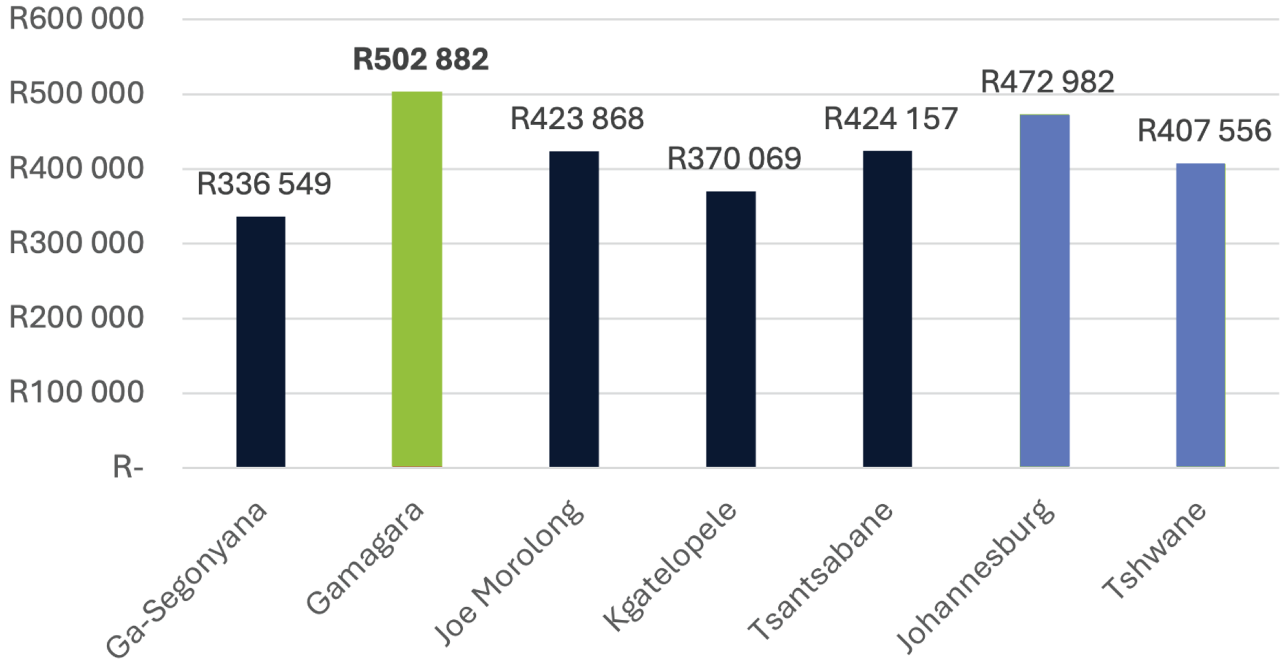
8 900 respondents registered on the NHNR for Gamagara by end of July 2024

GAMAGARA ECONOMIC LEAKAGE

Gamagara boasts the highest average taxable income in South Africa at

R 502 882

Average taxable income 2022



R 2 238 451 758.76 / annum

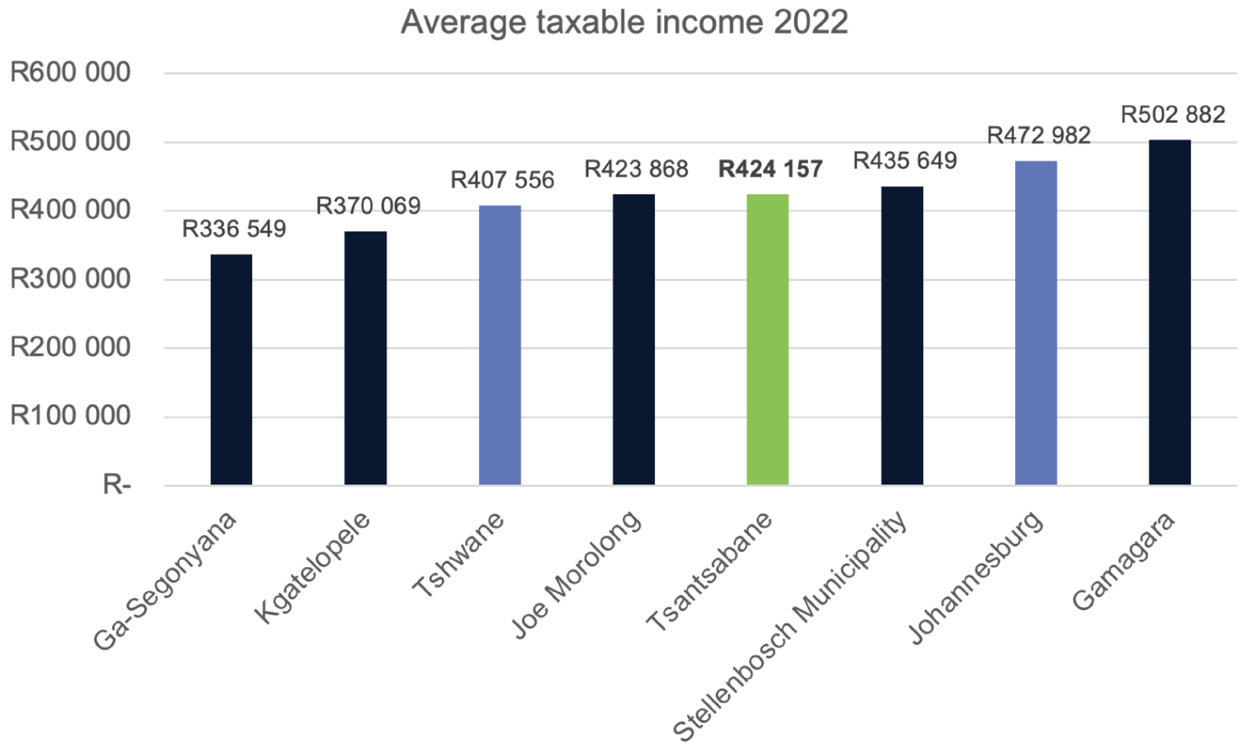
Potential economic leakage to due to the lack of housing

R 502 882	Taxable income
R 118 400.42	Taxes: R 77 362 + 31% above R 370 500
R 384 481.58	After-tax / disposable income
5 822	Nr of mining employees not living in GLM
R 2 238 451 758.76	Potential economic leakage

- Economic leakage is not contained to loss of personal incomes from the local economy.
- Mines are also constrained in their ability to localise their sizable supply chains due to a shortage of industrial space.

TSANTSABANE ECONOMIC LEAKAGE

Tsantsabane boasts the fourth highest average taxable income in South Africa at **R424 157**, only surpassed by Gamagara, COJ and Stellenbosch



R1 186 599 820 / annum

Potential economic leakage due to the lack of housing OR due to Postmasburg **NOT** being the location of choice

R 424 157	Taxable income
R 93 995.67	Taxes: R 77 362 + 31% above R 370 500
R 330 161.33	After-tax / disposable income
3 594	Nr of mining employees not living in GLM
R1 186 599 820	Potential economic leakage

- Economic leakage is not contained to loss of personal incomes from the local economy.
- Mines are also constrained in their ability to localise their sizable supply chains due to a shortage of industrial space.

Scenarios, forecasts, strategies and catalytic interventions

Scenario 2: Gamagara: Hope Materialised

Gamagara scenario 2: Proposed strategy

1 Implement a catalytic bulk infrastructure upgrading programme that ignites a sustained construction boom upto 2040 creating almost 60 000 direct, indirect and induced jobs.

2 Deliver an optimised housing delivery program that supports various socio-economic needs, enhances municipal financial viability, and reverses economic leakage.

3 Comprehensively develop a circular economy that:

- supports the Northern Cape Green Hydrogen Industrialisation Strategy
- invests in eco-industrial infrastructure capabilities and circular economy infrastructure
- develops green construction materials production capabilities from mining wastes
- creates economic opportunities for local entrepreneurs and labour force
- supports medium and large businesses to benefit from CBAMs
- delivers more attractive, investor-friendly human settlements designed for climate resilience.

4 Entrench Kathu's position as a regional retail and recreation hub.

4 Encourage multiple diversification opportunities.

6 Position Kathu as a boutique town for activity-based tourism and as a specialised knowledge hub for focussed training, research and development related to mining, arid technologies and circular economy technologies.

Infrastructure Investment

Housing & Diversification

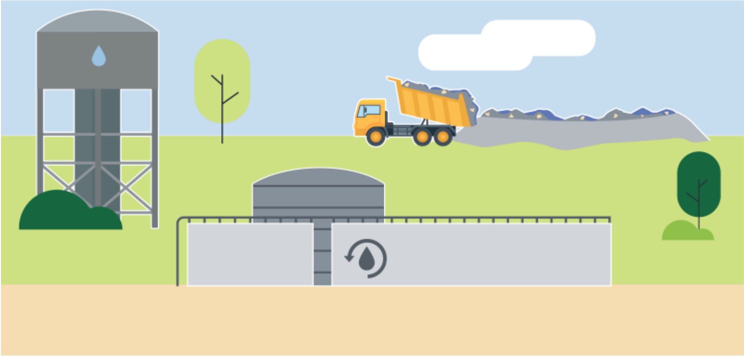
Circular Economy Development

EMERGING HUB OF ECO-INDUSTRIAL EXCELLENCE

DIVERSIFIED, RESILIENT GREEN ECONOMY

Gamagara Scenario 2: Programmes, projects and initiatives

Gamagara Bulk Infrastructure Programme (GBIP)



Kathu 5700 Mixed Housing Programme (KHD)

Kathu Industrial Park (KIP)

Linked components in the nationally Gazetted Strategic Infrastructure Project 5

Gamagara Bulk Infrastructure Programme (GBIP)

Description:

Bulk and connector infrastructure upgrades to water, sanitation, roads and electrical infrastructure, and includes a new landfill site, transfer stations and a waste sorting, recycling and buy-back facilities.

Benefits:

- Enables growth in Kathu and surrounds
- R 1 380 mn fixed capital investment
- 2 873 construction jobs & 642 permanent jobs
- Labour income of R 513.6 mn during construction and R 114.7 mn during operations
- GVA contribution of R 898.6 mn during construction and R 200.7 mn thereafter

2025 - 2030

Kathu 5700 Mixed Housing Programme (KHD)

Description:

5 069 high-income free-standing houses, middle-income housing, GAP housing, and low-income housing with provision for institutional and commercial land use, and public open space.

Benefits (Ext 6-8):

- 3,286 housing units with a total value of R2.04 bn.
- Necessary to accommodate new job opportunities and reserve economic leakage of over R 2.2 bn/annum
- R 2 bn fixed capital investment
- 4 244 construction jobs and labour income of R 758.6 mn during construction
- GVA contribution of R 1.33 bn during construction

2030 – 2034 (Ph1), 2035 – 2039 (Ph 2)

Kathu Industrial Park (KIP)

Description:

KIP is strategically located near major transportation routes and is envisioned as a diversified eco-industrial hub, incorporating 62 hectares of prime industrial land along with protected tree areas. The park aims to attract various industries, including manufacturing, logistics, and services.

Benefits:

- Fixed capital investment R 253.7 mn
- 528 construction jobs & 3 442 manufacturing jobs
- Labour income of R 94.4 mn during construction and R 629 mn thereafter
- GVA contribution of R 165.2 mn during construction and R 1.14 bn thereafter

2030 – 2034

Kathu Ext 8

- 976 stands catering for the entry level market
- 21 business stands
- 4 institutional stands
- Significant public open space provision

Kathu Ext 7

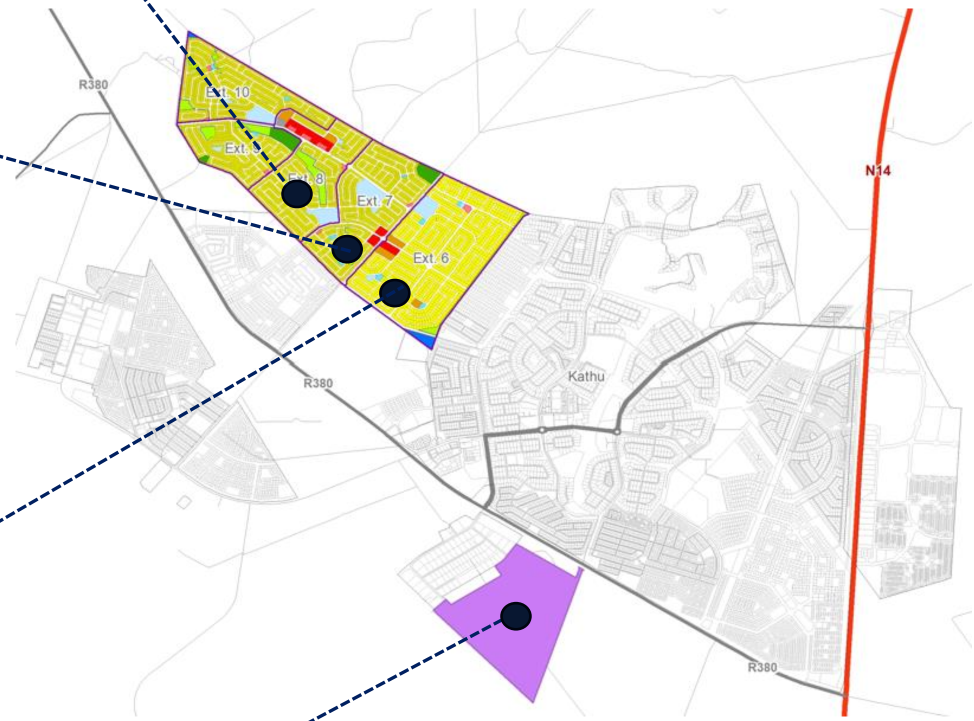
- 1 166 stands
- 1 129 residential stands for the affordable market
- 4 stands for business and commercial use
- Public open space provision

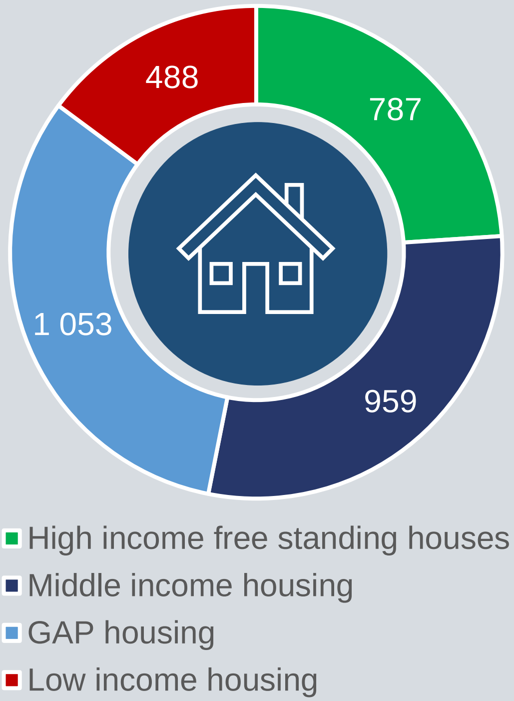
Kathu Ext 6

- 1 240 stands
- 1 178 high-end income housing
- 3 stands for high-density residential
- Provision for 7 institutional stands
- Limited business and shops

Kathu Industrial Park

Site measures 91 ha in extent of which 62 ha is developable.



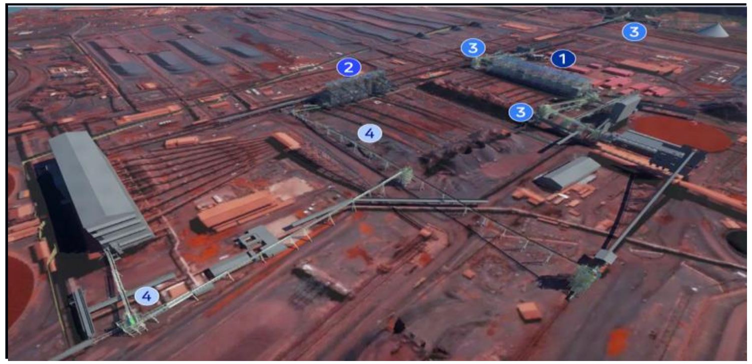


R 6 893 million

Additional revenue to the GLM over 20 years

Gamagara Scenario 2: Programmes, projects and initiatives

Kumba UHDMS Processing Technology Project

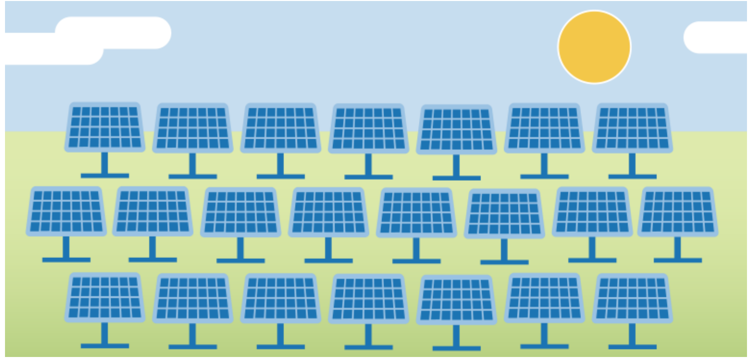


Description:
Implementing the UHDMS technology will raise the proportion of premium iron ore production from 18% to 55%. The project will extend life of mine to 2038 and possibly 2044.

Benefits:
- The total investment in the project is R11.2 billion, with R7.6 billion recently approved for further development
- This technology helps reduce carbon emissions in the steelmaking process, thus supporting green steel production
- 19 570 construction jobs & 576 permanent jobs
- Labour income of R 3.5 bn during construction and R 147.3 mn during operations
- GVA contribution of R 6.1 bn during construction and R 460.6 mn thereafter

2025 - 2029

Renewable Energy Projects



Description:
The Northern Cape requires 40 TwH clean energy to meet its green hydrogen aspirations. The DEA approved 28 renewable energy applications in Gamagara, and Eskom plans to upgrade its transmission infrastructure through the Ferrum-Hotazel-Mookodi 400kV power line.

Benefits:
- 23 313 construction jobs and 10 070 jobs during the operations' phase
- Labour income of R 4.17 bn during construction and R 2.95 bn during operations
- GVA contribution of R 7.29 bn during construction and R 9.47 during operations

2025 - 2034

Iron ore smelter

Description:
Establishment of an iron and manganese smelter and local beneficiation capabilities given that two of South Africa's largest iron ore mines are located in Gamagara. A production volume of 867 506 897 kg has been estimated for the 1st year of operation.

Benefits:
- Fixed capital investment of R 2.5 bn
- 3 566 construction jobs and 9 268 manufacturing jobs
- Labour income of R 637.5 mn during construction and R 2.58 bn thereafter
- GVA contribution of R 1.15 bn during construction and R 4.7 bn thereafter

2025 - 2029

Gamagara Scenario 2: Programmes, projects and initiatives

Sishen airport upgrading

Description:
The airport, is strategically positioned near Kumba's Iron Ore mine, serving the broader mining community of Kathu. This project aims to enhance connectivity and attract businesses and tourists by upgrading the Kathu Airport. The estimated CAPEX for this project is R2 billion.

Benefits:
- 4 164 construction jobs and 363 permanent jobs
- Labour income of R 744 mn during construction and R 94.8 mn during operations
- GVA contribution of R 1.3 bn during construction and R 265 mn thereafter

2025 - 2030

Gamagara Schools Programme

Description:
This programme involves the construction of two new schools, Deben Off-Shoot Primary School and Laerskool Kathu Offshoot, with a combined capital expenditure (CAPEX) of R304.8 million.

Benefits:
- 635 construction jobs and 327 jobs during the operations' phase
- Labour income of R 113.5 mn during construction and R 89.3 mn during operations
- GVA contribution of R 198.5 mn during construction and R 143.8 mn during operations

2025 - 2029

Khai Appel Resort Reinstatement

Description:
This project aims to revitalise the tourism sector in Gamagara by reinstating the Khai Appel Resort. The estimated CAPEX for this project is R200 million.

Benefits:
- 416 construction jobs and 110 manufacturing jobs
- Labour income of R 74.4 mn during construction and R 18.3 mn thereafter
- GVA contribution of R 130.2 mn during construction and R 38.9 mn thereafter

2025 - 2029

Gamagara Scenario 2: Programmes, projects and initiatives

Gamagara Municipal Infrastructure Renewals Programme (GLM IRP)

Description:

This large-scale municipal infrastructure programme will renew ageing infrastructure, improving its condition and functioning, and introduce green technologies to improve energy, water and carbon performance and the ability to withstand climate change stresses.

Benefits:

- 4 164 construction jobs and 434 permanent jobs
- Labour income of R 744 mn during construction and R 137.2 mn during operations
- GVA contribution of R 1.3 bn during construction and R 422 mn thereafter

2035 - 2039

Other major initiatives and operations' phase impacts:

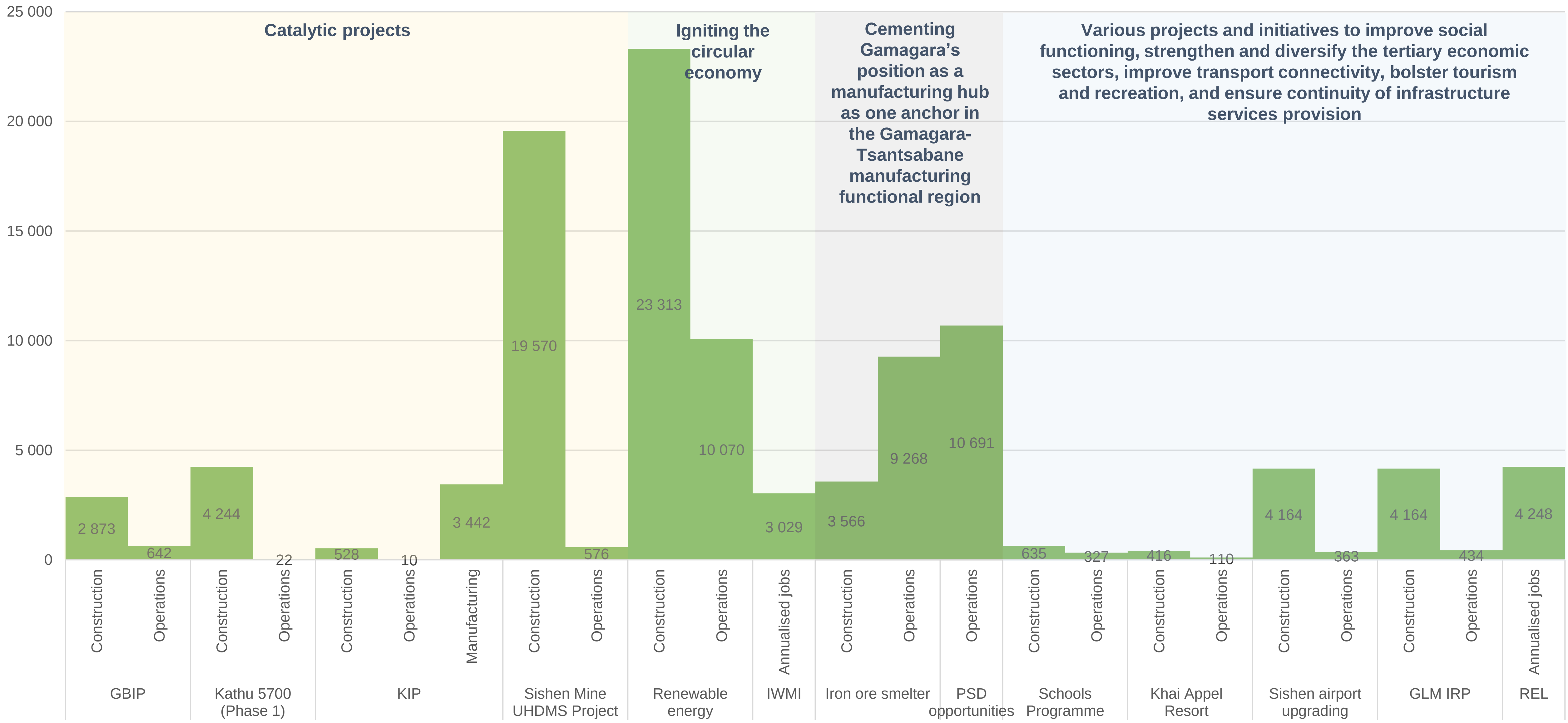
Initiative	Jobs created	Labour income	GVA contribution
Impact of Reversing Economic Leakage from the Local Economy	4 249	848.8	1 780.3
Integrated Waste Management Project	3 029	986.9	2 020.2
Product Space Diversification Opportunities	10 691	2 059.2	3 396.0

PLUS green construction materials manufacturing (brick and concrete) from iron ore mining wastes with the following associated benefits:

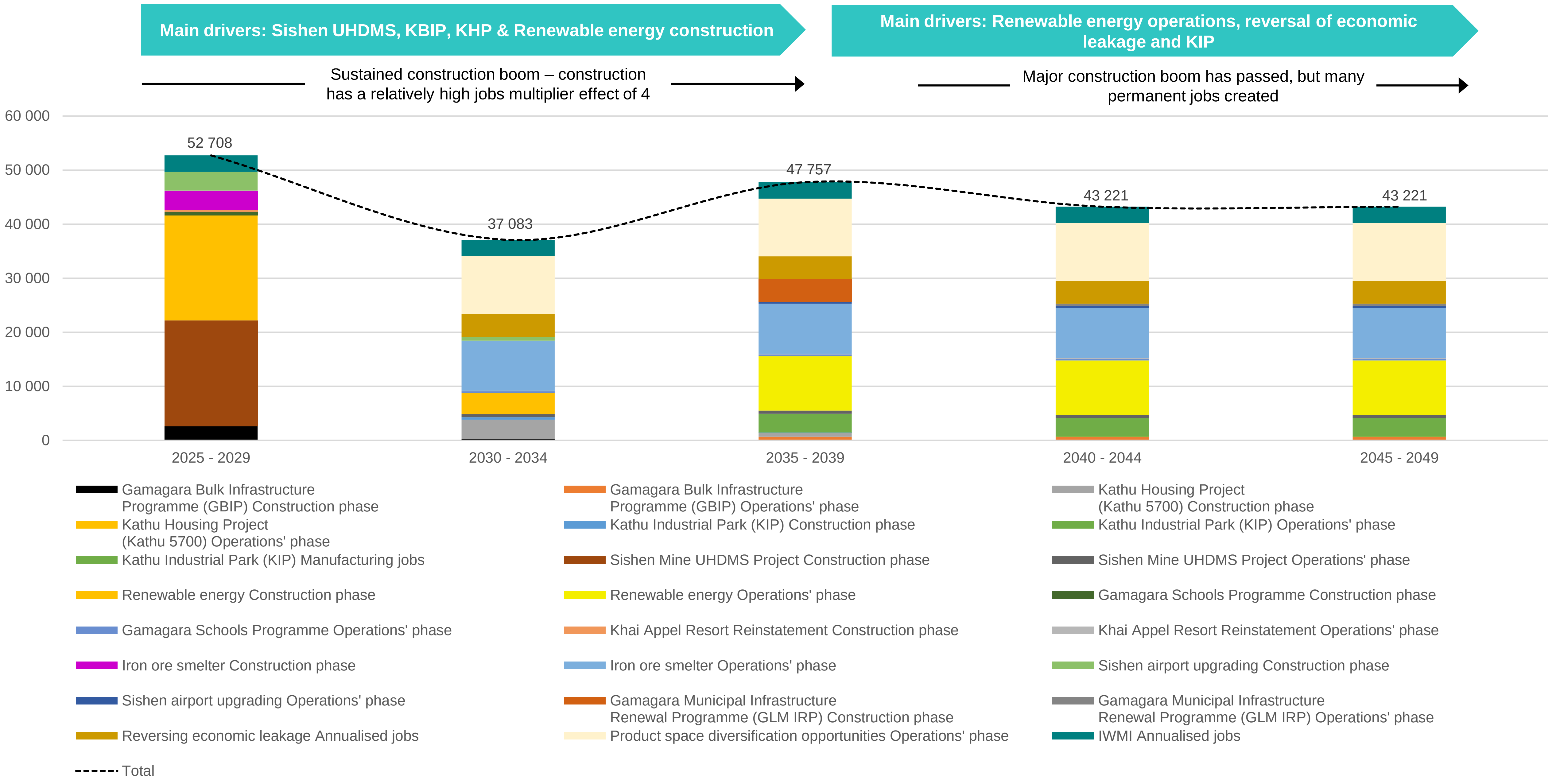
- Contributes to mine rehabilitation efforts
- Adds further impetus to the circular economy and the green manufacturing sector
- Lowers the construction input costs of catalytic projects such as mixed housing typology programmes in Gamagara and Tsantsabane, and beyond to the Upington SEZ and Boegoesbaai
- Lowers the carbon footprint of the N14 Green Hydrogen Corridor
- Creates Gamagara-Tsantsabane regional economic development and entrepreneurship opportunities
- Contributes towards several Sustainable Development Goals

This opportunity to be explored further, and follow-up actions generated.

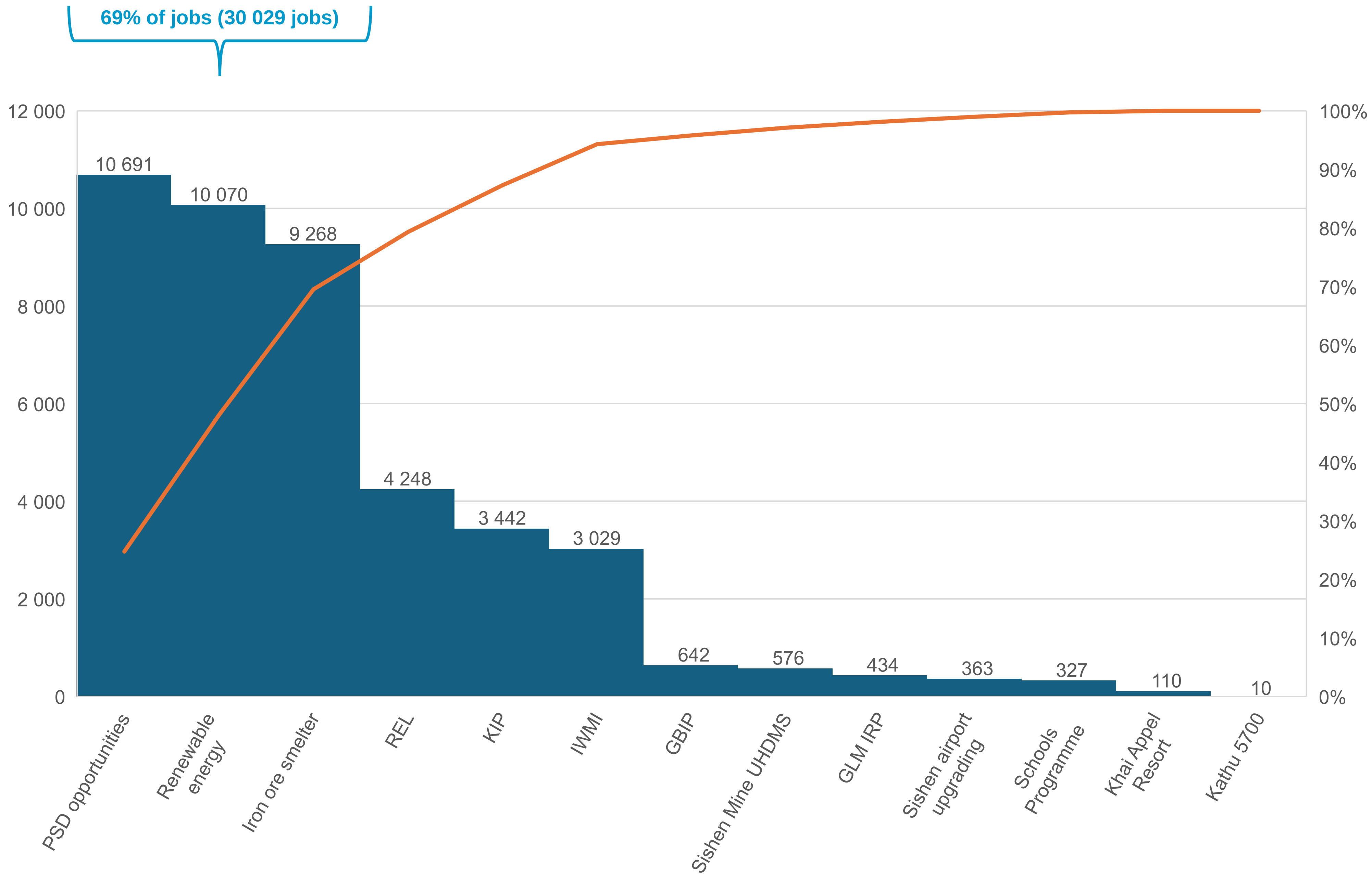
Gamagara scenario 2: Comparative jobs potential of projects



Gamagara scenario 2: Job creation potential time-series view



Gamagara scenario 2: Sustainable jobs potential (permanent jobs)

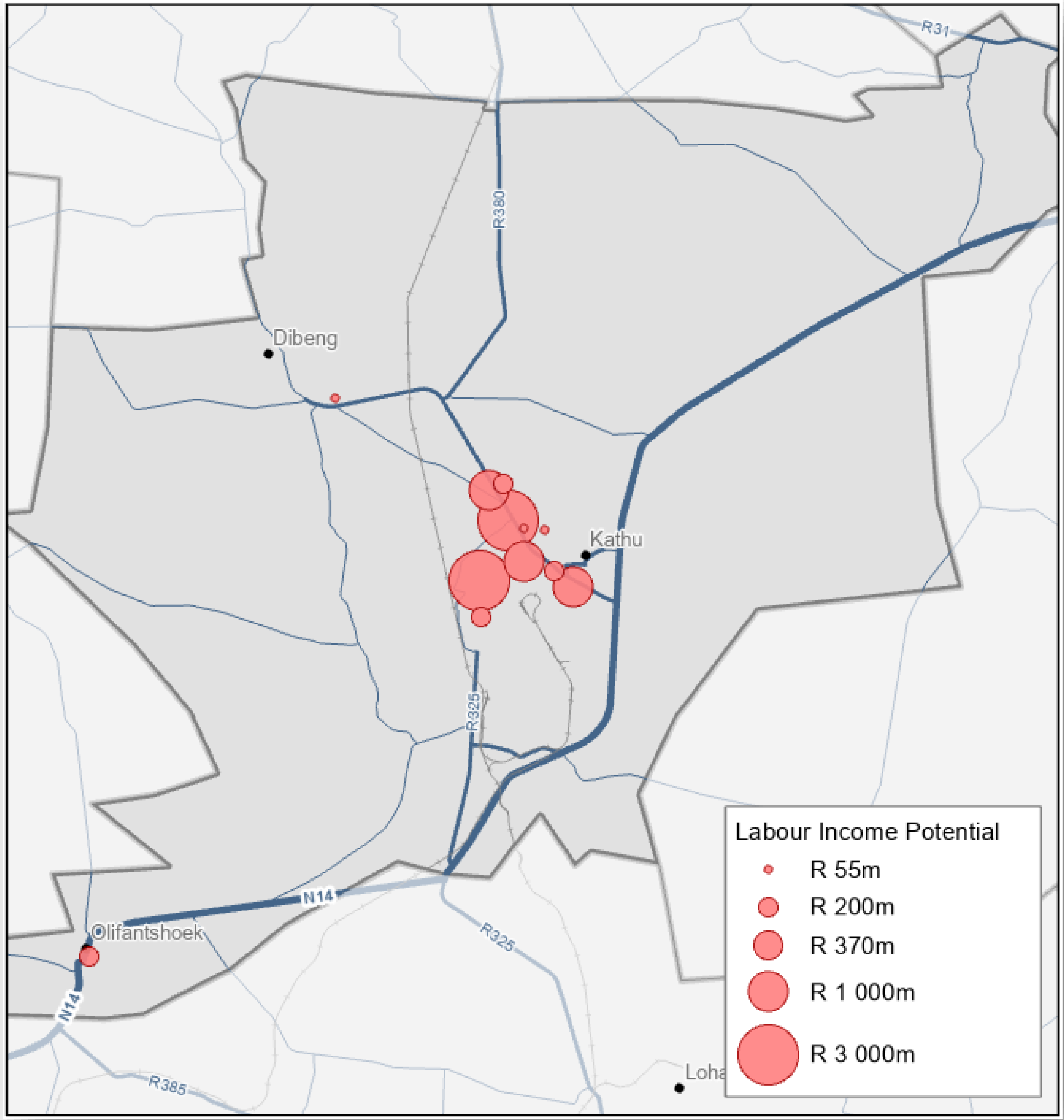


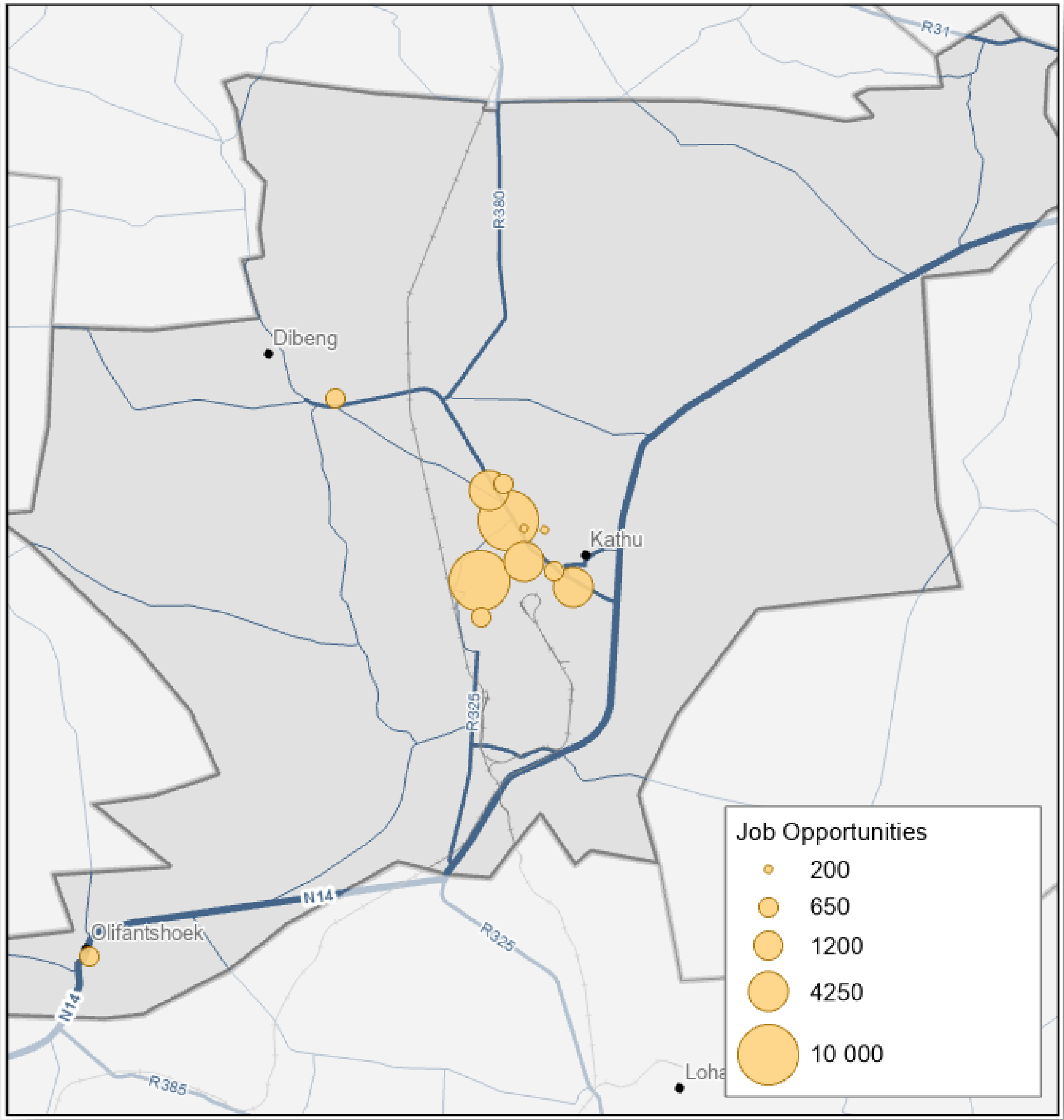
16 879 permanent jobs needed to mitigate against mine closures 2030 - 2039

26 359 permanent jobs needed to mitigate against mine closures 2035 - 2049

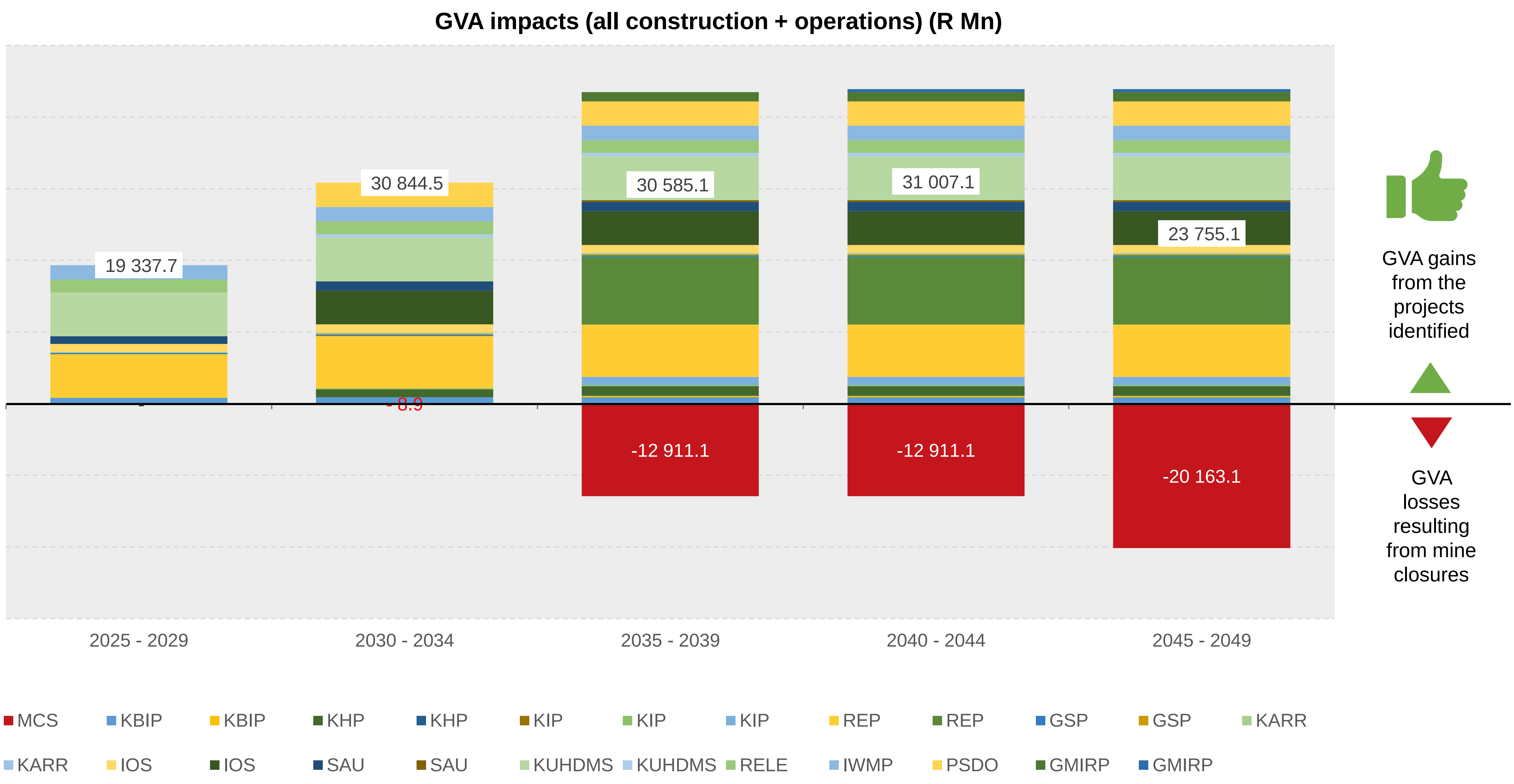
30 029 permanent jobs ID to date

Gamagara Scenario 2: Job Opportunities and Labour Income Potential





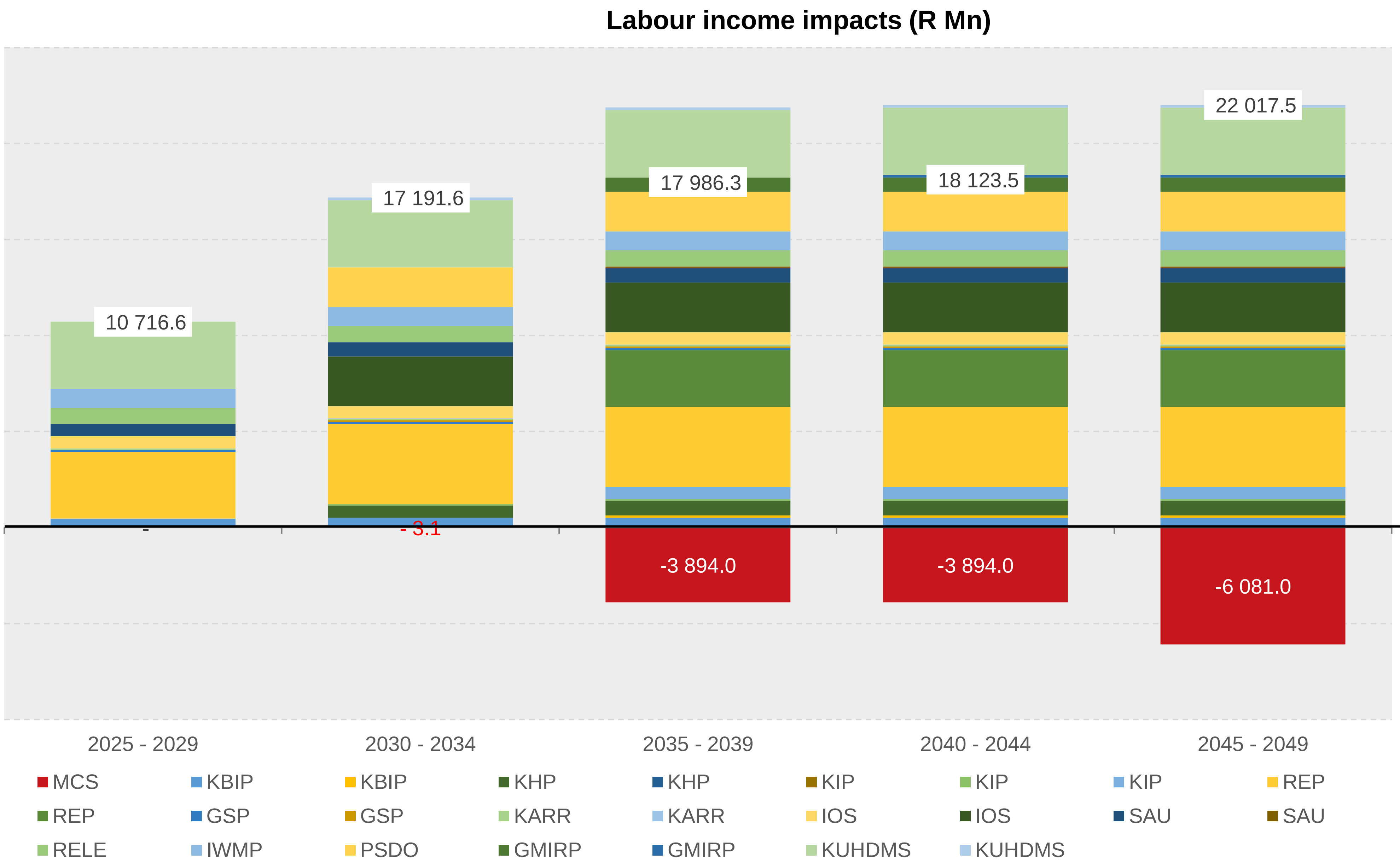
Gamagara scenario 2: GVA impacts

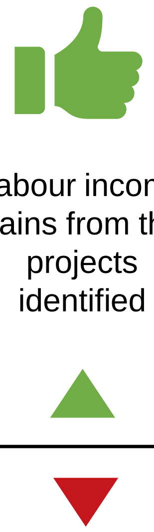


GVA gains from the projects identified

GVA losses resulting from mine closures

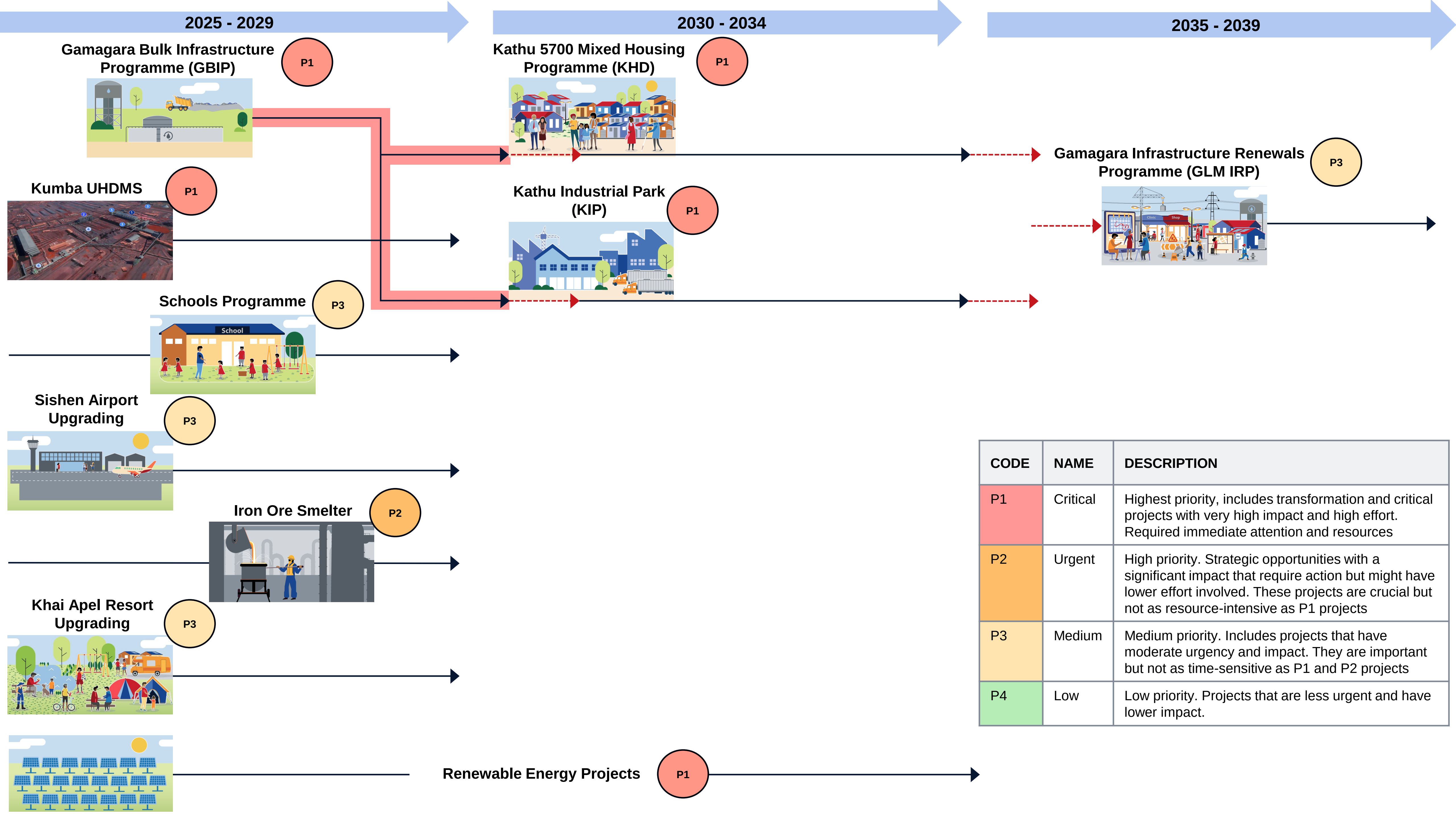
Gamagara scenario 2: Labour income impacts





Labour income gains from the projects identified

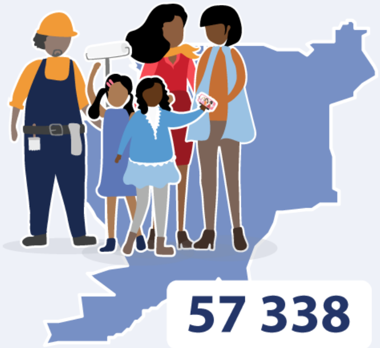
Labour income losses resulting from mine closures



CODE	NAME	DESCRIPTION
P1	Critical	Highest priority, includes transformation and critical projects with very high impact and high effort. Required immediate attention and resources
P2	Urgent	High priority. Strategic opportunities with a significant impact that require action but might have lower effort involved. These projects are crucial but not as resource-intensive as P1 projects
P3	Medium	Medium priority. Includes projects that have moderate urgency and impact. They are important but not as time-sensitive as P1 and P2 projects
P4	Low	Low priority. Projects that are less urgent and have lower impact.

Population and Household Growth Forecasts: Key Assumptions: Gamagara

Population 2024:



57 338

Population Growth Rate:

1.93%
(JTG District, Census 2022)

Households:

20 478
(GLM spatially-based customer database)

Average Household Size:

2.8 People
(Census 2022)

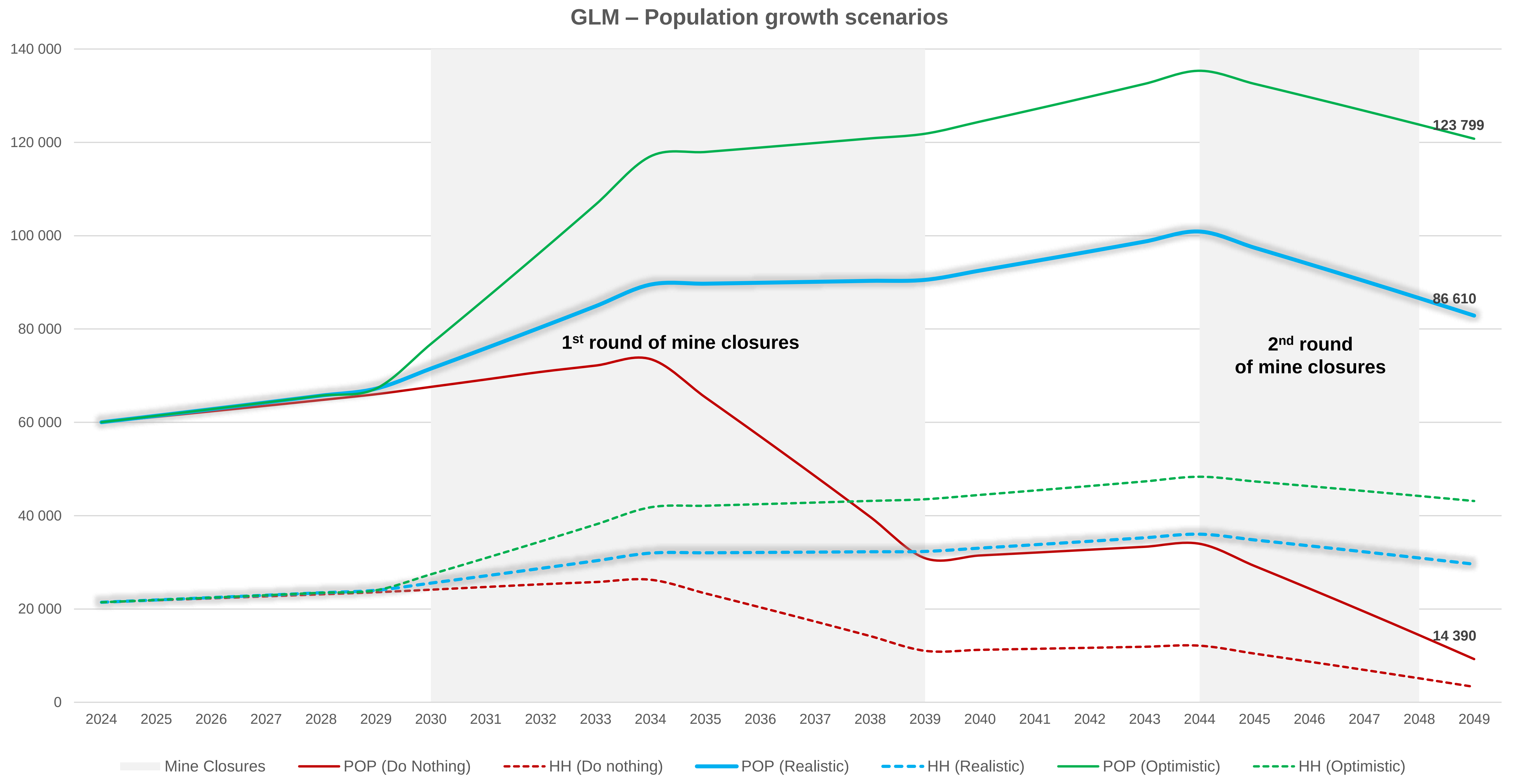
Job losses from mine closures

Jobs impact	2025 - 2029	2030 - 2034	2035 - 2039	2040 - 2044	2045 - 2049	Total
Direct Jobs	0	-5	-7 588	0	-4 265	-11 858
Indirect Jobs	0	-7	-9 279	0	-5 215	-14 501
Total	**0**	**-12**	**-16 867**	**0**	**-9 480**	**-26 359**

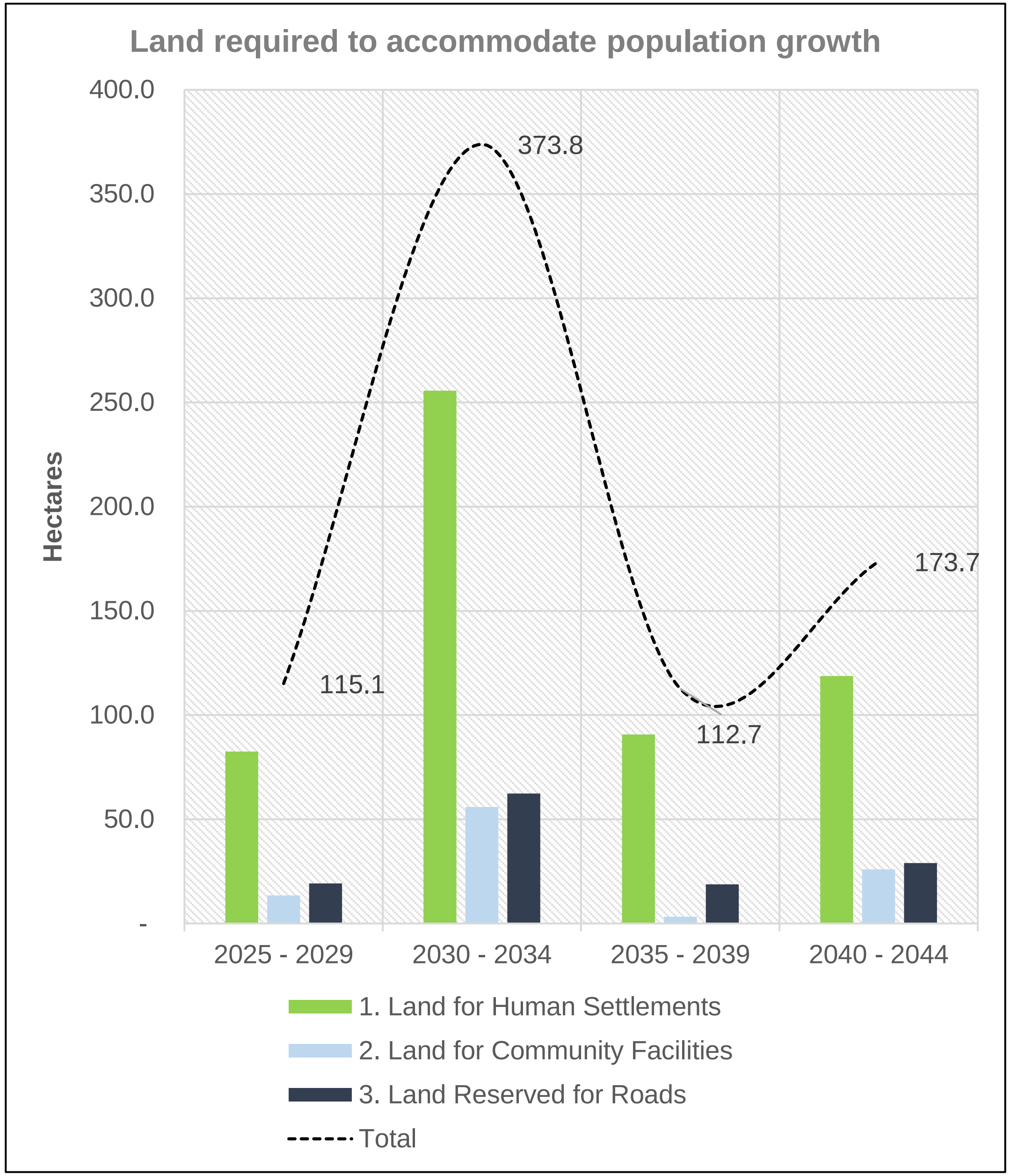
Sustainable job creation estimates from implementing catalytic projects for a sustainable future post-mining

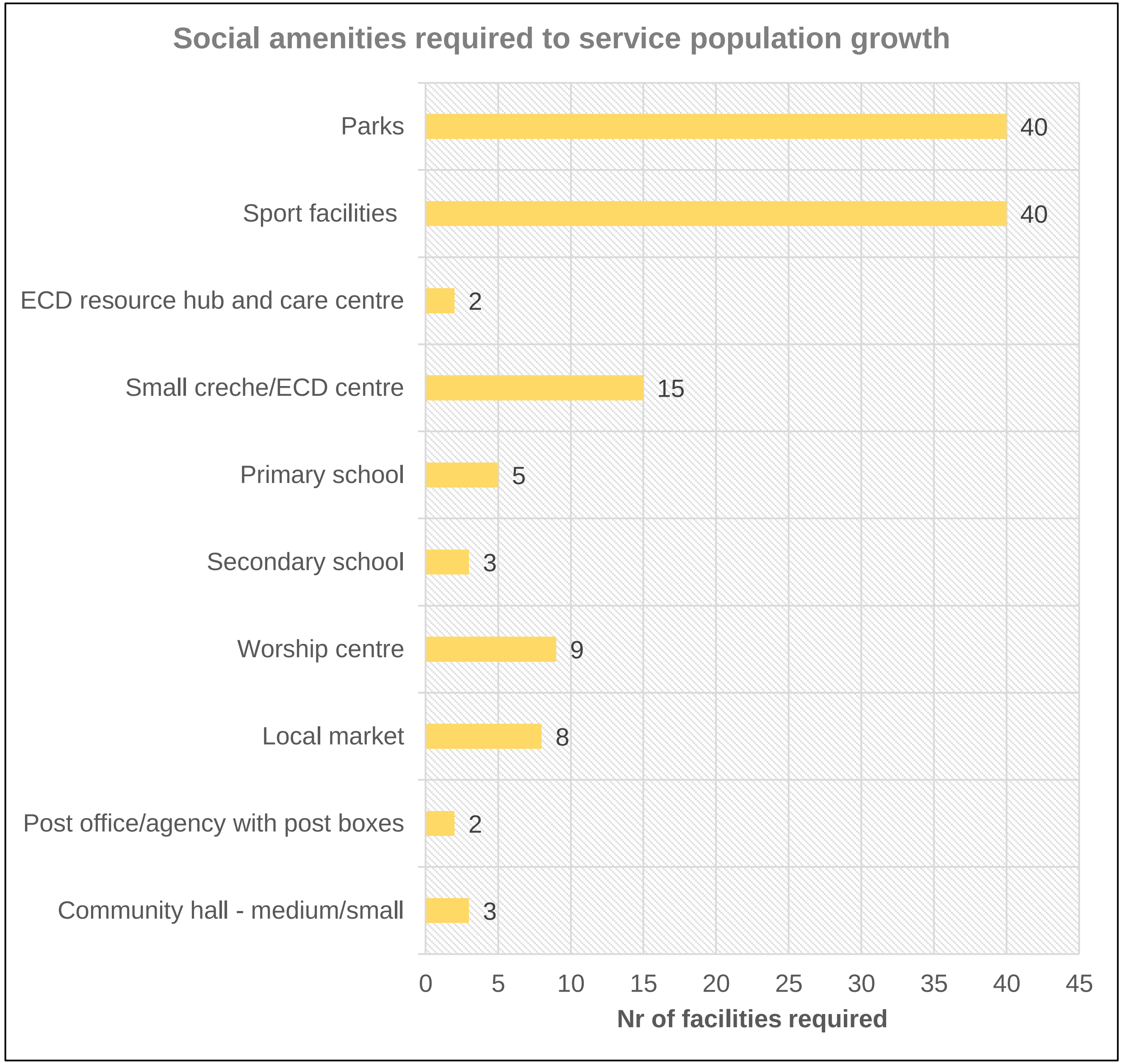
Job Opportunities linked to scenarios	2025 - 2029	2030 - 2034	2035 - 2039	2040 - 2044	2045 - 2049	Total
Realistic sustainable jobs - only Operations	400	5 261	14 185	434	0	20 281
Optimistic sustainable jobs- only Operations	400	14 529	14 548	434	0	29 911

Population growth estimates for the preferred scenario: Gamagara

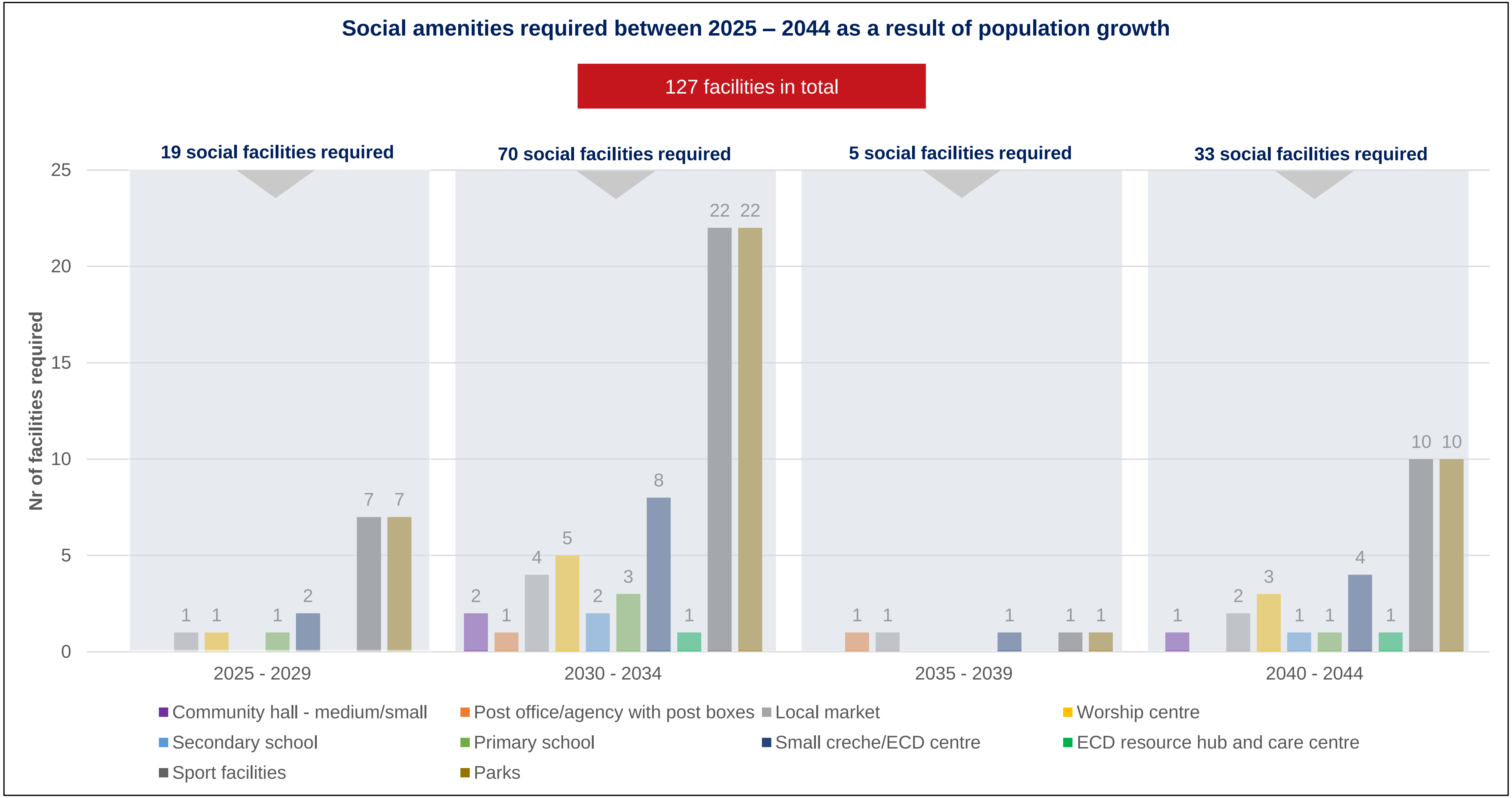


Gamagara scenario 2: Implications of population growth



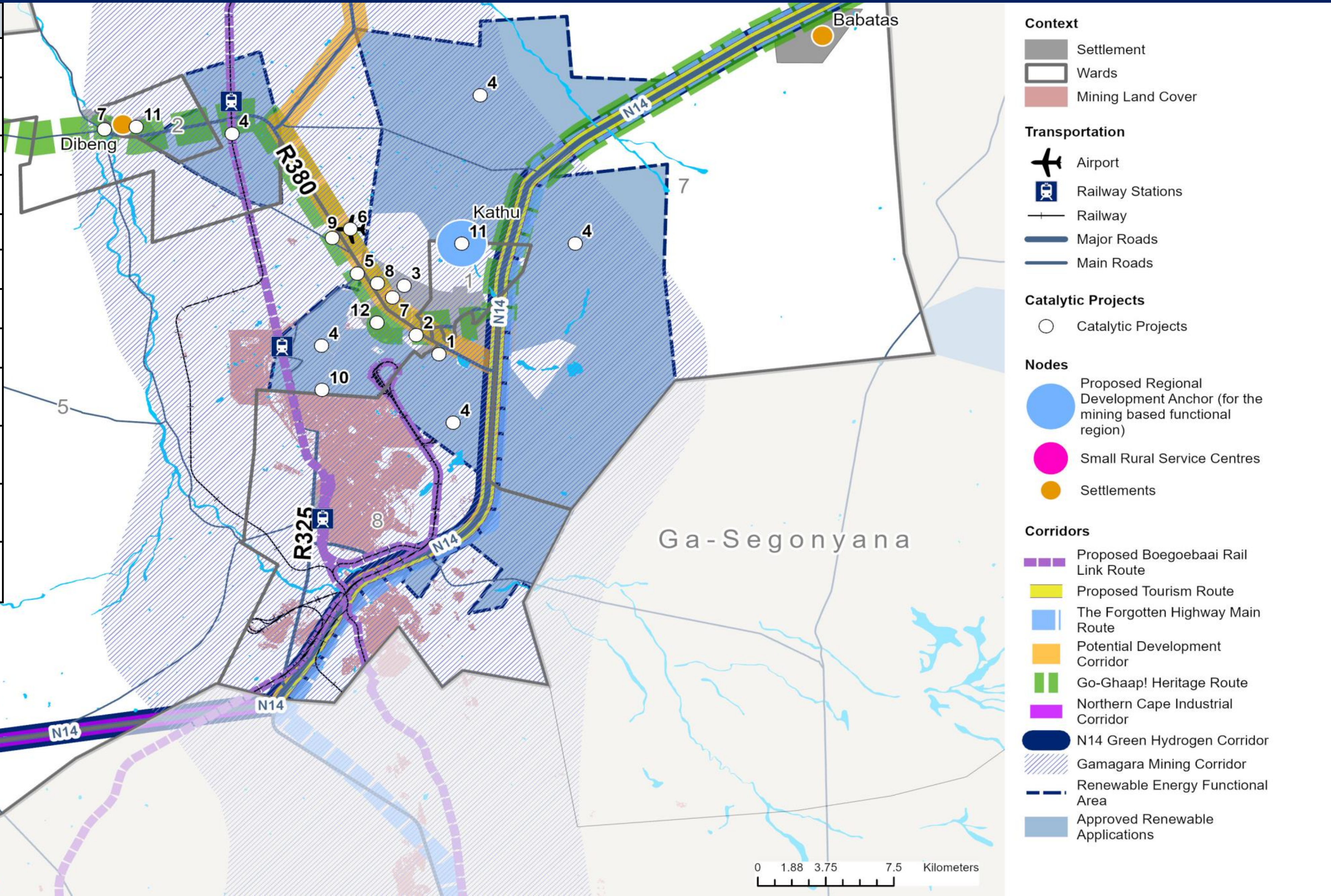


Gamagara scenario 2: Implications of population growth



Catalytic Projects

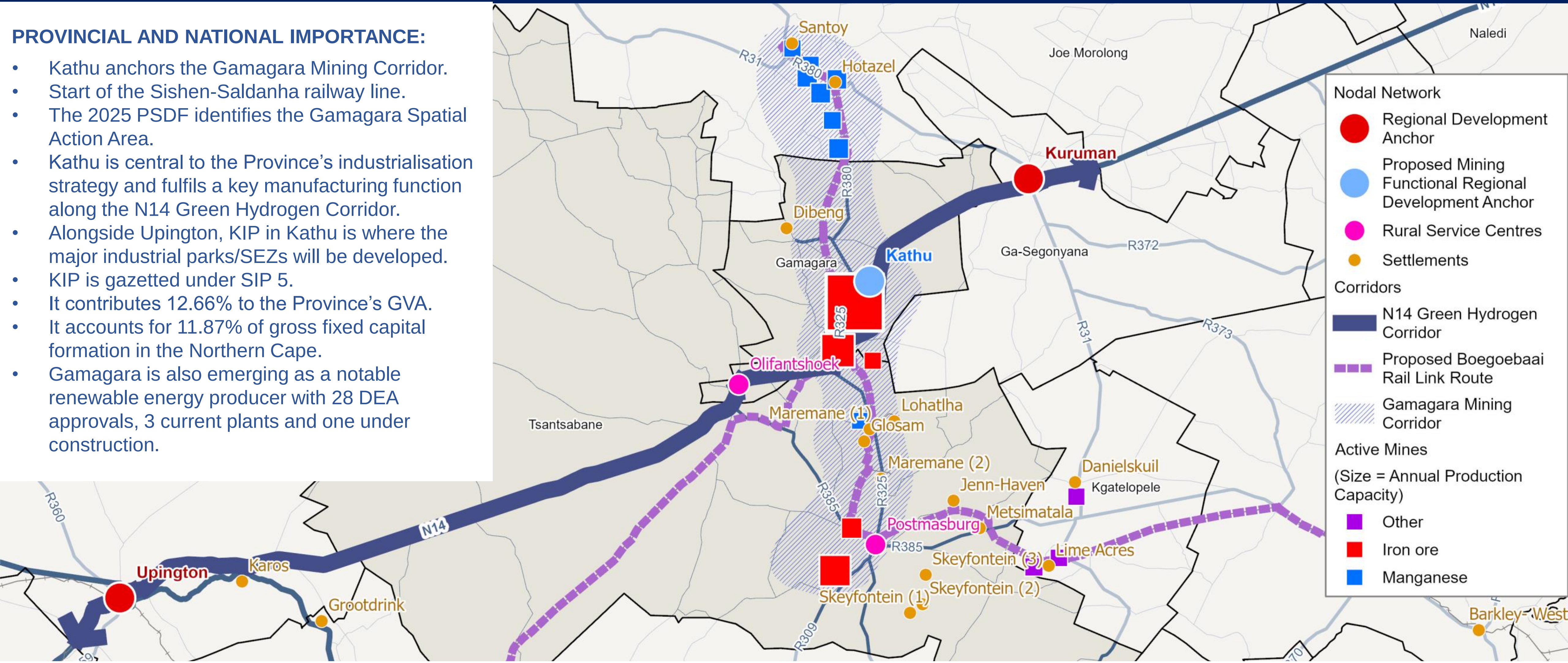
ID	Project
1	Kathu Industrial Park (KIP)
2	Gamagara Bulk Infrastructure Programme (GBIP)
3	Kathu Housing Project (Kathu 5700)
4	Renewable Energy Projects
5	Iron Ore Smelter
6	Sishen Airport Upgrading
7	Gamagara Schools Programme
8	Khai Appel Resort Reinstatement
9	Integrated Waste Management Project
10	Kumba UHDMS Processing Technology Project
11	Gamagara Municipal Infrastructure Renewals Programme
12	Impact of Reserving Economic Leakage from the Local Economy



Proposed reclassification of Kathu's nodal status to regional economic development anchor

PROVINCIAL AND NATIONAL IMPORTANCE:

- Kathu anchors the Gamagara Mining Corridor.
- Start of the Sishen-Saldanha railway line.
- The 2025 PSDF identifies the Gamagara Spatial Action Area.
- Kathu is central to the Province's industrialisation strategy and fulfils a key manufacturing function along the N14 Green Hydrogen Corridor.
- Alongside Upington, KIP in Kathu is where the major industrial parks/SEZs will be developed.
- KIP is gazetted under SIP 5.
- It contributes 12.66% to the Province's GVA.
- It accounts for 11.87% of gross fixed capital formation in the Northern Cape.
- Gamagara is also emerging as a notable renewable energy producer with 28 DEA approvals, 3 current plants and one under construction.



CURRENT REGIONAL RETAIL AND MANUFACTURING STATUS:

- Kathu offers 55 875 m^2 of shopping center GLA with about 96% occupancy rate.
- The Kathu Village Mall at 26 179 m^2 is comparable in size to the Kalahari Mall in Upington, the Kuruman Mall and the North Cape Mall in Kimberley.
- ± 277 763 m^2 GLA industrial space in Kathu. 2019-2023: R 234 817 250 invested in industrial space.

INFRASTRUCTURE & SERVICES:

- Sishen commercial airport
- Private hospital.
- TVET college and the Sivos Training Center.
- Kathu Country Club multi-purpose sports facility.

How does this strategy benefit me? - Gamagara

I have a family

- More housing options and prospects for affordable home ownership or rental
- More schools and amenities
- More attractive, liveable neighbourhoods

I'm a teacher or social/community worker

- New social amenities, more work opportunities
- More capacity to service the community
- Can now afford to live in Gamagara

I am a mayor or councillor

- I have a strong vision, strategy and projects to give hope to my constituency

I'm a youth

- There is a new lease on the future, and there are opportunities for me to be educated, to experience more retail, social and recreation options, and I can find a job

I am a job seeker

- Upto 63 474 construction jobs will be created between now and 2039
- Upto 43 231 permanent jobs will be created between now and 2039

I am a municipal manager or CFO

- Clear, long-term strategy that capitalises on opportunities and mitigates major risks
- Alignment between stakeholders
- Enhanced municipal capabilities and financial viability

I am a municipal engineer or town planner

- Forecasts, clear strategy and enabling plans and projects
- Clarity on spatial and sectoral alignment

I am an investor

- Clearly identified investment opportunities
- Critical enabling environment issues addressed, e.g. bulk infrastructure provision, social amenities and housing

I am a mining company

- Clear, collective strategy to mitigate against mine closures
- Strategic and investment alignment
- Improved employee value proposition

I am a sector department or SOE

- Sector priorities and projects have been factored in and synchronised spatially and between sectors

I am a renewable energy producer

- Priority attention is given to renewable energy development
- Opportunities to invest in social betterment identified

I am a member of the formal business community

- The projects identified will result in a GVA boost of upto R 19.69 billion during construction, and R 24.23 billion during operations, with many spillover effects across sectors

I am a SMME owner

- Many economic opportunities related to construction and other industries, including retail, services, tourism and hospitality

I'm a community trust or NGO

- Strong focus on improving socio-economic conditions and creating opportunities for all
- CBOs & NGOs recognised as critical social development partners

Gamagara summary

Functions and nodal status

1. Gamagara plays a vital economic role in the region and the Northern Cape, significantly contributing to regional employment, Gross Value Added (GVA), fixed capital investment, and the national tax base.

2. Gamagara is the anchor of the Gamagara Mining Corridor and the proposed Gamagara Spatial Action Area, as outlined in the draft 2025 Provincial Spatial Development Framework (PSDF).

3. In addition to mining, Gamagara serves important regional retail and manufacturing functions. The Kathu Village Mall is of comparable size with malls in especially Upington and Kuruman. Kathu also offers close to 280 000 m^2 of industrial space. The town is equipped with infrastructure and social amenities typically found in regional nodes, unlike its status as a rural service center, comparable to nodes like Olifantshoek.

4. The Kathu Industrial Park is part of Strategic Infrastructure Project 5 at the national level and plays a significant role in the N14 corridor and the province’s industrialization strategies.

5. Furthermore, Gamagara is strategically located within the Northern Cape power corridor, featuring three significant solar power plants, with additional projects under development. A total of 28 solar applications have been approved by the Department of Environmental Affairs (DEA).

6. Several tourism corridors pass through Gamagara, with Kathu offering a diverse range of hospitality, culinary, retail, and activity-based tourism options. This includes the renowned Sishen Golf Course, with access being enhanced by the Sishen Commercial Airport.

7. Therefore, it is proposed that the 2025 PSDF reclassifies Kathu as a regional development anchor for the mining functional area, while Kuruman would maintain its status as the primary regional administrative and services node.

Gamagara summary

Creating a resilient, prosperous post-mining feature

1. Mining closures, coupled with other shocks such as climate change, will have far-reaching impacts on the regional economy and society.
   - Job losses: GLM 26 359 | Northern Cape 38 193 (GLM + TLM)
   - Labour income losses: GLM R 6 081 million | Northern Cape: R 9 022 million (GLM + TLM)
   - GVA losses: GLM R 20 163 million | Northern Cape: R 29 479 million (GLM + TLM)

2. The economies of Gamagara and Tsantsabane are not sufficiently diversified to withstand the impacts of large mine closures. These impacts will ripple through neighboring municipalities, all of which are labor-sending areas.

3. An alternative, more resilient future is possible. A portfolio of programmes, projects and initiatives have been identified that collectively can: -
   - build and capitalise on existing strengths and potential,
   - diversify, modernise and anchor the economy around renewable energy and eco-industrial capabilities,
   - deliver more resilient communities and human settlements,
   - Create possibilities for all stakeholders, and that
   - enables improved municipal financial sustainability and secures continuity of infrastructure services provision.

4. This portfolio of programmes, projects and initiatives can potentially deliver the following benefits:
   - Close to 60 000 construction jobs between 2025 – 2039, and 30 029 permanent jobs (16 879 jobs are needed to replace mining job losses in the 2030s).
   - Labour income and GVA: This portfolio holds the potential to not just replace labour income and GVA losses, but to increase both compared to the current status.

5. This future is not only possible, but has a high level of probability of success, provided that catalytic programmes are advanced without delay. Several of these opportunities are time-sensitive, and there is limited time to act and substitute at the scale required.

6. These catalytic programmes include (1) the Gamagara bulk infrastructure programme, (2) the Kathu 5700 mixed housing development, and (KIP). Where possible, options and intermediate solutions should be implemented to advance these initiatives.

Scenarios, forecasts, strategies and catalytic interventions

Scenario 2: Tsantsabane: Hope Materialised

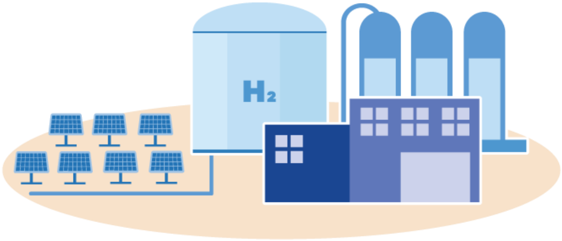
Tsantsabane scenario 2: Proposed strategy

1 Celebrate "The Big Small" by creating a dynamic environment that attracts businesses, fosters thriving retail and recreational spaces, and instills a deep sense of pride in Postmasburg.

2 Implement a catalytic bulk infrastructure upgrading programme that enables future growth and development.

3 Deliver an optimised housing delivery program that supports various socio-economic needs, enhances municipal financial viability, and reverses economic leakage.

4 Adopt a transformative vision for Green Hydrogen and become the Gamagara-Tsantsabane Regional Development Hub for Sustainable Energy and Green Hydrogen Production, establishing itself as a crucial Green Hydrogen Center in the Northern Cape.



5 Establish a premier regional hub for bulk transport and logistics, supported by the Kalahari Fuel Depot, planned Transnet rail connections to ports, and Eskom transmission lines.

6 Promote various opportunities for diversification, including the PMG Manganese Smelter, to create jobs and kickstart the diversification process.

Create Enabling Environment

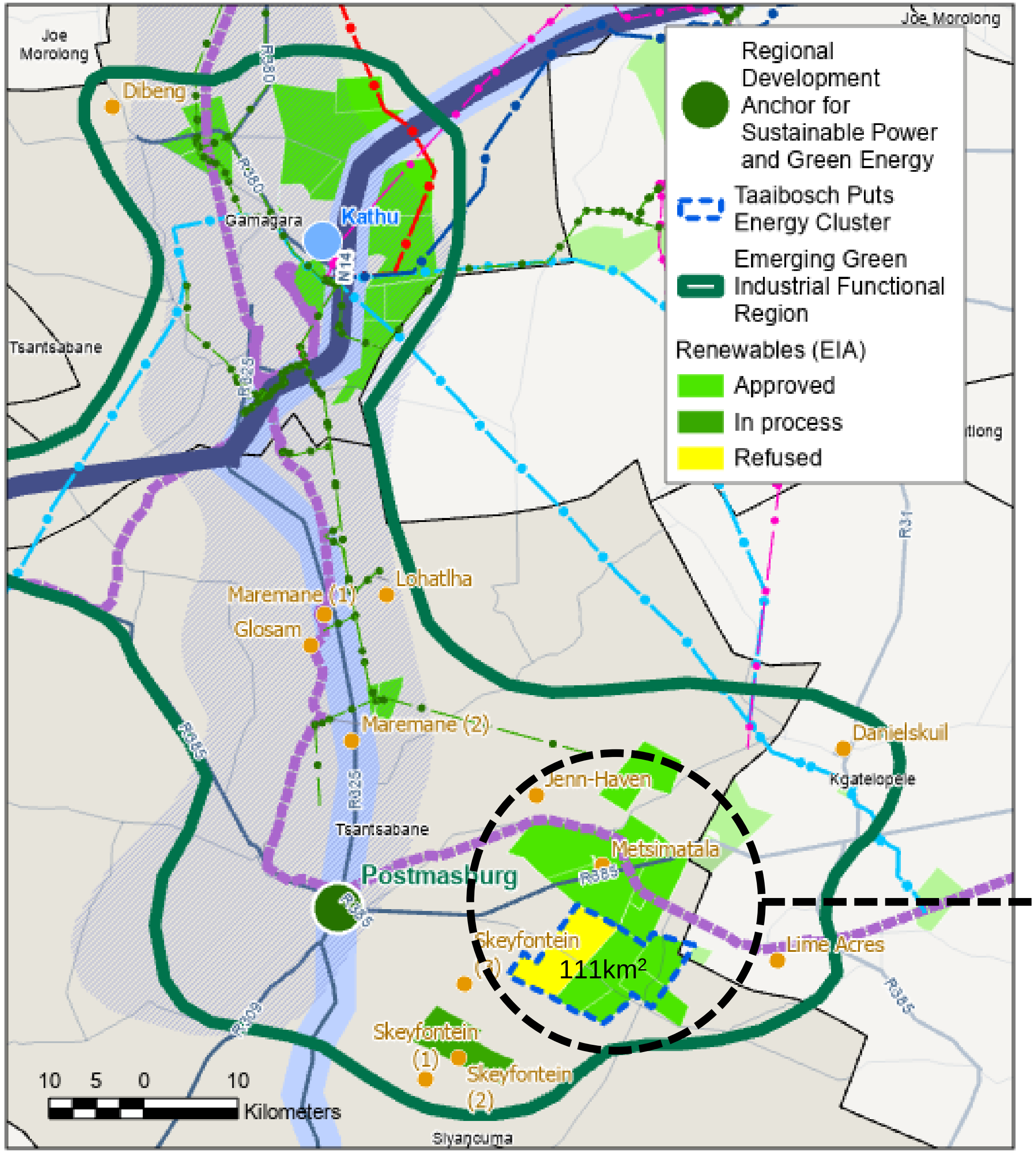
Transition from mining to sustainable energy & greens hydrogen production

Build out of transport and logistics capabilities

EMERGING REGIONAL SUSTAINABLE ENERGY & GREEN HYDROGEN HUB WITH TRANSPORT & LOGISTICS CAPABILITIES

DIVERSIFIED MODERN GREEN ECONOMY

Becoming a leading force in Green Hydrogen: Emerging as the Gamagra-Tsantsabane Regional Development Anchor for Sustainable Power and Green Energy Production and a key Green Hydrogen Hub within the Northern Cape.



NOW

- Jasper Solar Plant: (75MW)
- Lesedi Solar Plant: (64 MW)
- Redstone Solar: (100 MW)

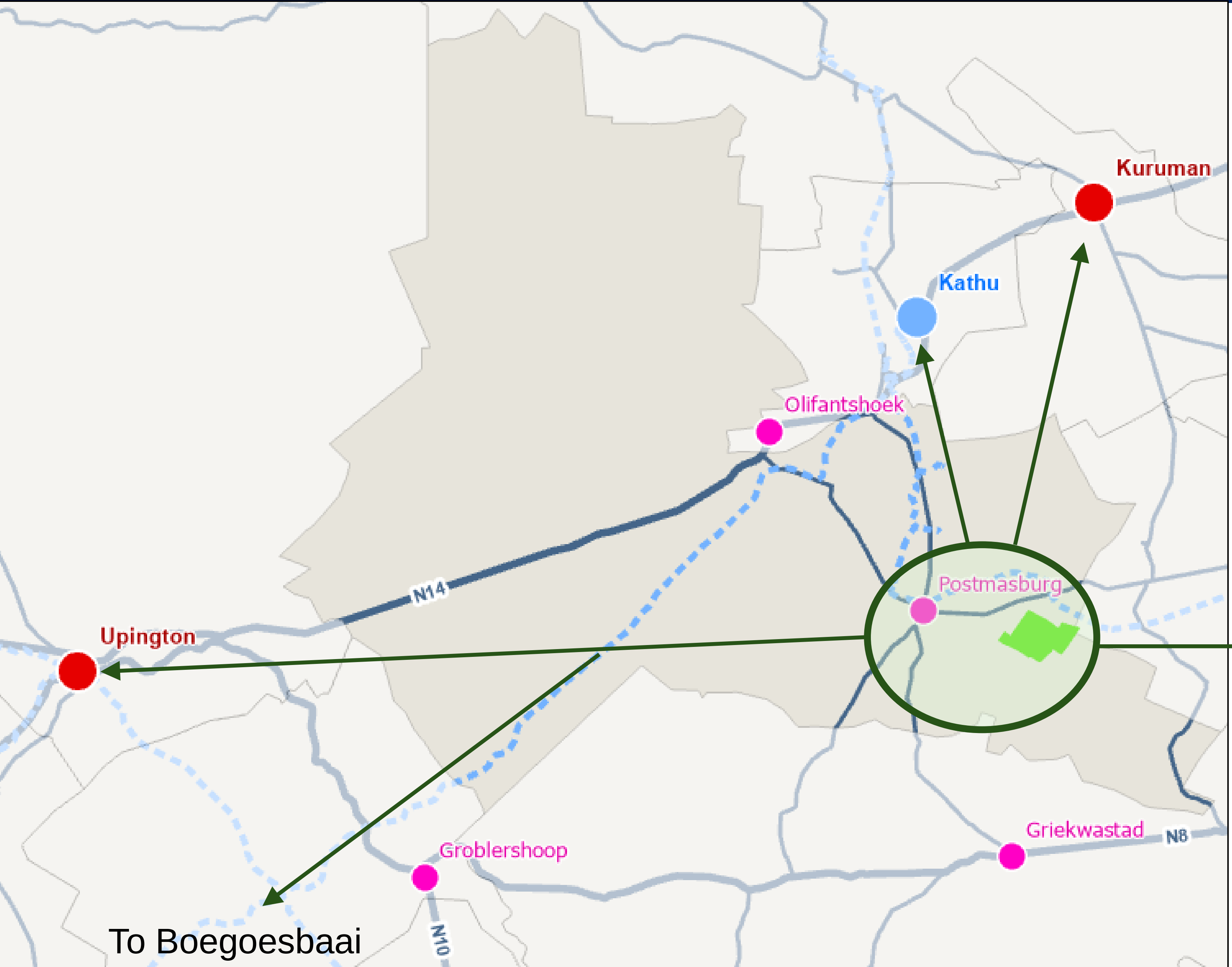
COMING SOON

Taaibosch Puts Energy Cluster

- Kora I – IV Solar Energy Facilities: (400 MW)
- Koraqua I – V Solar Energy Facilities (500 MW)
- Khoemana Wind Energy Facility: (200 MW)
- Gorachouqua Wind Energy Facilities: (200 MW)
- Korakobab Hydrogen Electrolyser Facility
- Kei Korana Ammonia Facility

To Postmasburg – 25 min
To Kathu – 1 hr, 18 min
To Kuruman – 1 hr, 11 min
To Upington – 2 hr, 40 min

Establish a leading Regional hub for bulk transport and logistics enabled by the Kalahari Fuel Depot, planned Transnet rail connections to Ports and Eskom transmission lines



"To consolidate green hydrogen based product supply, generated across the Northern Cape solar and wind belts, for export via an aggregator network anchored at the Boegoebaai SEZ"
Action item 7: Northern Cape Green Hydrogen Strategy (2021)

- Jasper Solar Plant
- Lesedi Solar Plant
- Redstone Solar
- Taaibosch Puts Energy Cluster
- Kalahari Fuel Depot (Postmasburg)
- Manufacturing of Hydrogen Fuel Cells (Postmasburg)

Tsantsabane Scenario 2: Programmes, projects and initiatives

Tsantsabane Bulk Water and Sanitation Upgrade Programme

Description:
This programme aims to address the demand for water and sanitation in Postmasburg. It includes combining water supply from boreholes and Sedibeng Water as well as constructing a new WWTW.

Benefits:
- Total investment of R 927 mn
- Upgrading walk water and sanitation will enable development planned since 2016 and unlock further growth opportunities in Postmasburg
- 2 167 construction jobs & 200 permanent jobs

2025 - 2034

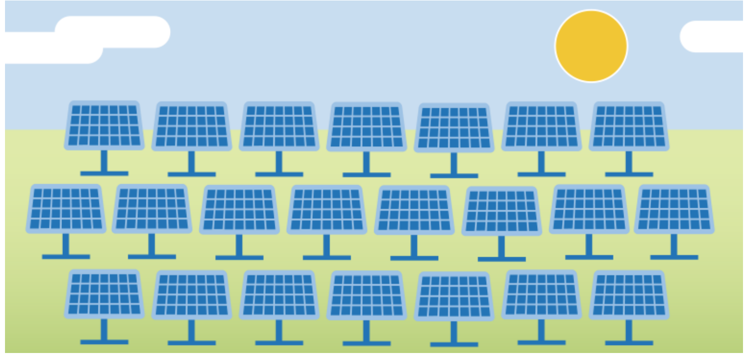
Tsantsabane Housing Development Programme

Description:
Establishment of a “mixed typology” housing programme in Postmasburg to accommodate residents from Mountainview and Greenfields informal settlements.

Benefits:
- 4 700 residential erven, 24 business stands, 37 erven zoned for community facilities.
- GVA contribution of R1.5 bn during construction.
- 4 765 construction jobs with a labour income of R 818 mn.
- Opportunity exists to reconfigure the programme to include higher densities, rental stock and different housing typologies.

2025 - 2034

Renewable Energy Projects



Description:
The Northern Cape requires 40 TwH clean energy to meet its green hydrogen aspirations. The DEA approved 21 renewable energy applications in Tsantsabane, with 3 new renewable energy project currently in town planning stage.

Benefits:
- 2 071 construction jobs and 1 169 jobs during the operations’ phase
- Labour income of R 366 mn during construction and R 370 mn during operations
- GVA contribution of R 636 mn during construction and R 1.2 bn during operations

2025 - 2034

Tsantsabane Scenario 2: Programmes, projects and initiatives

Iron Ore / Manganese smelter

Description:

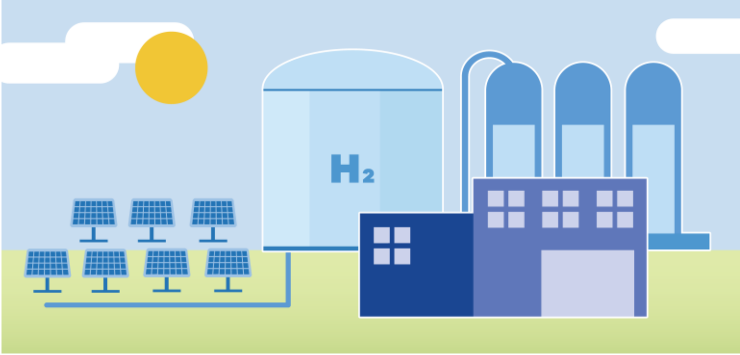
Establishment of an iron and manganese smelter and local beneficiation capabilities capitalizing on mining activities in the Gamaraga-Tsantsabane Mining Corridor. The current location is the OMG mine in TLM.

Benefits:

- 3 007 construction jobs and 7 622 permanent jobs
- Labour income of R 516 mn during construction and R 2 bn thereafter
- GVA contribution of R 923 mn during construction and R 4.1 bn thereafter

2025 - 2034

Korakobab Hydrogen Facility



Description:

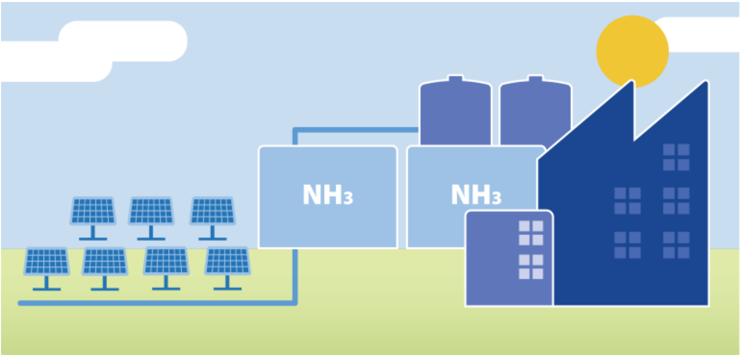
The Korakobab Hydrogen Facility, part of the Taaibosch Puts Energy Cluster in Tsantsabane Local Municipality, is poised to be a pioneering venture in green hydrogen production. The facility's focus on green hydrogen production aligns with the global shift towards renewable energy and positions the Northern Cape as a potential leader in this emerging sector.

Benefits:

- Construction expenditure of R2.3 bn over 18 months, operational expenditure R168 mn per annum
- 5 266 construction jobs, 814 permanent jobs.
- GVA contribution of R1.6 bn during construction and R 370 mn thereafter

2025 - 2034

Kei Korana Ammonia Facility



Description:

Also, part of the Taaibosch Puts Energy Cluster, the facility aims to leverage the region's renewable energy resources to produce green ammonia. This facility, by focusing on green ammonia production, further contributes to the region's efforts towards a sustainable and diversified economy

Benefits:

- Estimated construction expenditure of R1.5 billion over 18-24 months, R 328 mn GVA contribution during operations phase.
- 4 200 construction jobs, 734 permanent jobs.
- Labour income of R 727 mn during construction and R 185mn thereafter.

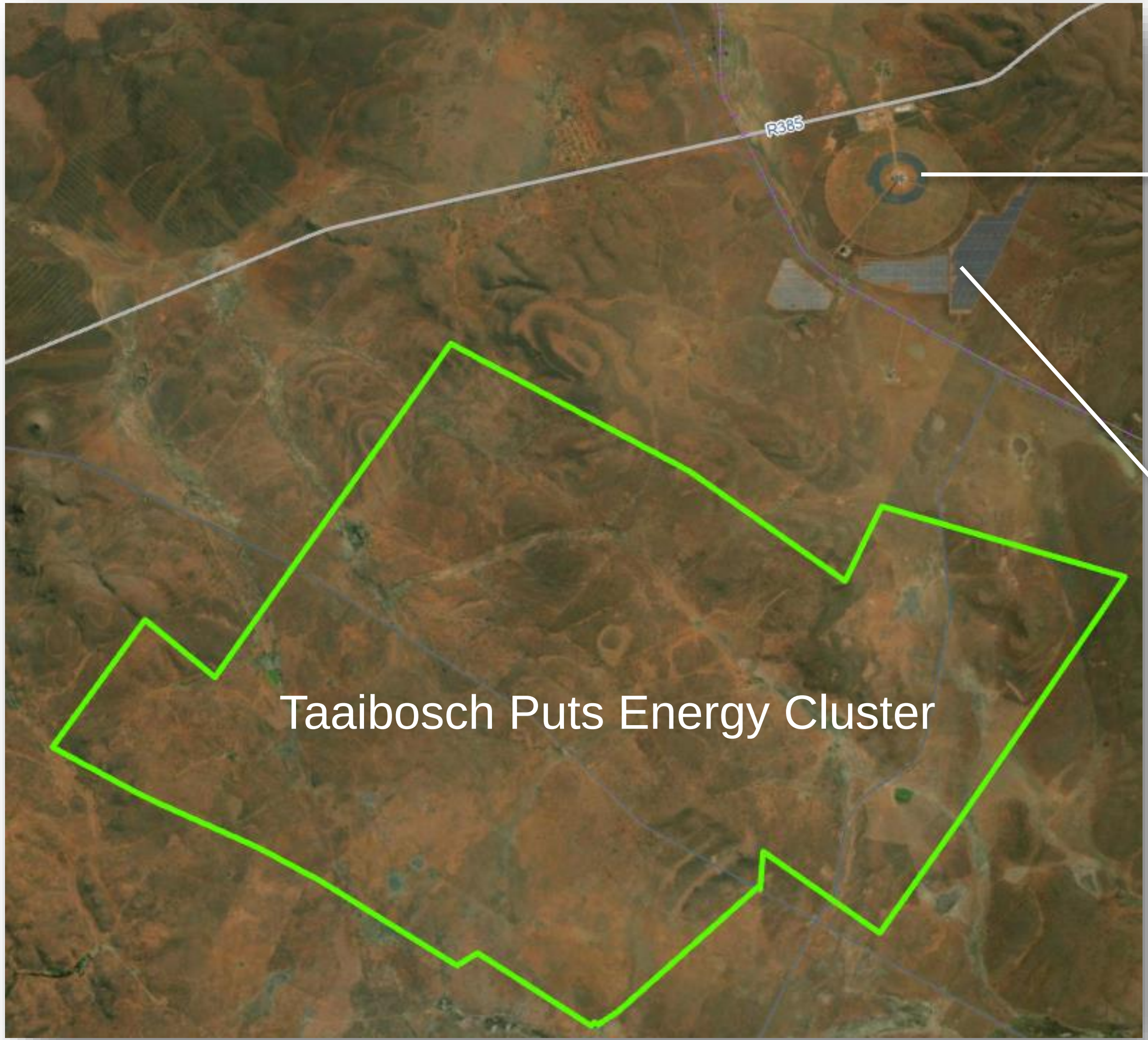
2025 - 2034

Taaibosch Puts Energy Cluster

Summary of Components:
- 9 Solar Facilities
- 3 Wind
- Kei Korana Ammonia Facility
- Korakobab Hydrogen

Output:
- 1 300 MW Energy*
- **120 000 tpa of green ammonia***
- 30 000 tpa of green hydrogen
- 60 000 tpa of green oxygen

Benefits:
- R 698 m GVA (Operations)
- 1 547 permanent jobs.
- R 390 m labour income during operations phase.



- The Prieska Power Reserve project, considered to be a Catalytic Green Project, aims to produce 70 000 tons green ammonia per annum.
- The largest solar installation in South Africa is the Solar Capital De Aar project, which has a combined capacity of 175 MW across its phases.

Tsantsabane Scenario 2: Programmes, projects and initiatives

Kalahari Fuel Depot

Description:
This project involves constructing a fuel depot with a storage capacity of 40 million liters for petrol, diesel, transmission oil, and lubricants. The project has secured funding from the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC) and has been approved for integration into the Saldanha-Sishen rail corridor by Transnet (Dobbin International, 2020).

Benefits:
- The estimated CAPEX for this project is R400 million
- 779 construction jobs, 376 permanent jobs
- R240 mn contribution to GVA during construction with R123 mn thereafter

2025 - 2029

Postmasburg CBD Revitalisation

Description:
This project aims to revitalize the Postmasburg central business district (CBD) by improving infrastructure, enhancing public spaces, and attracting new businesses and investment. The project's focus is on the construction phase, with an estimated CAPEX of R 200 million and an implementation period from 2025 to 2029.

Benefits:
- Contributes to an enabling business environment in Postmasburg
- Kick-starts a sense of place and local pride, contributes to the reversing of economic leakage

2025 - 2029

Initiative	Jobs Created	Labour Income (R'm)	GVA Contribution (R'm)
Pensfontein ("Mixed Typology" Housing Project)	246	R42	R75
Product Space Diversification Opportunities	12 570	R2 019	R 5 135
Reversing Economic Leakage In Tsantsabane	2 467	R341	R 822
Integrated Waste Management Solution (IWMS) Project	2 652	R784	R 1 647

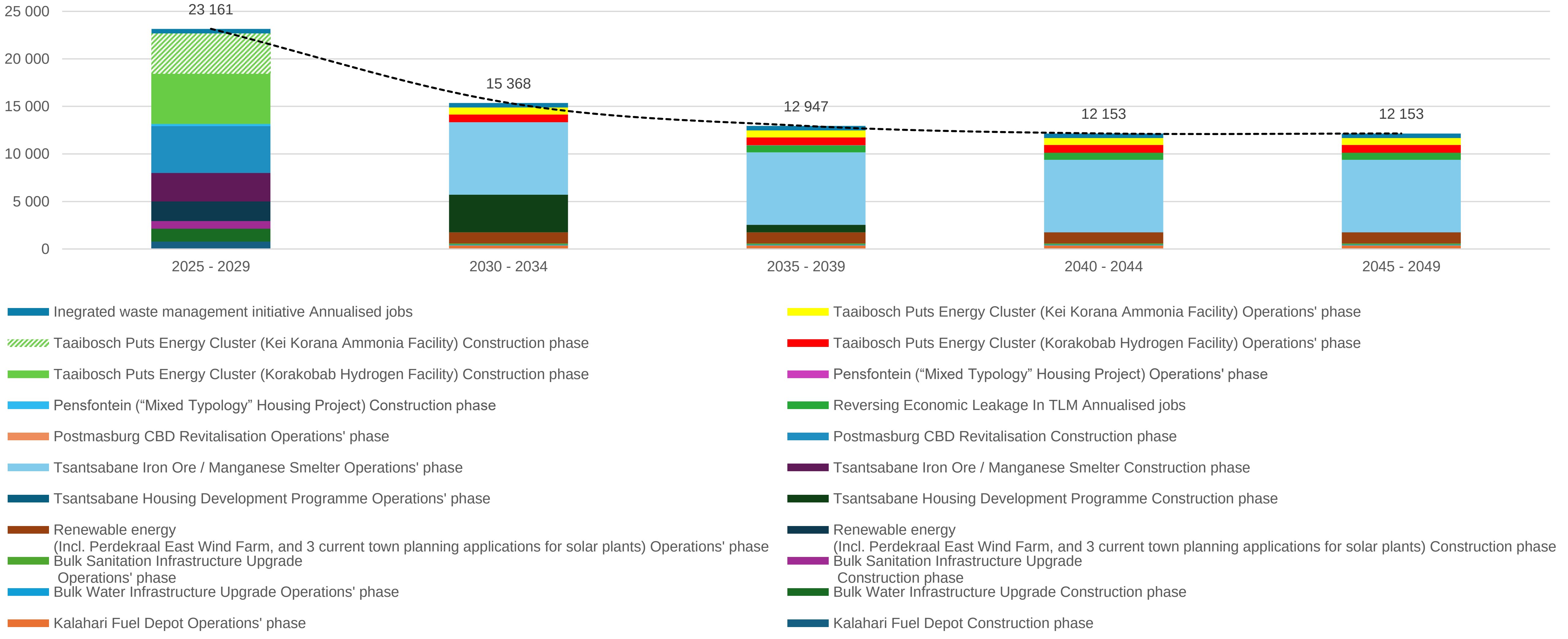
Job creation potential in Tsantsabane: Time-series view

Main drivers: Construction jobs from Renewable Energy & Smelter Projects

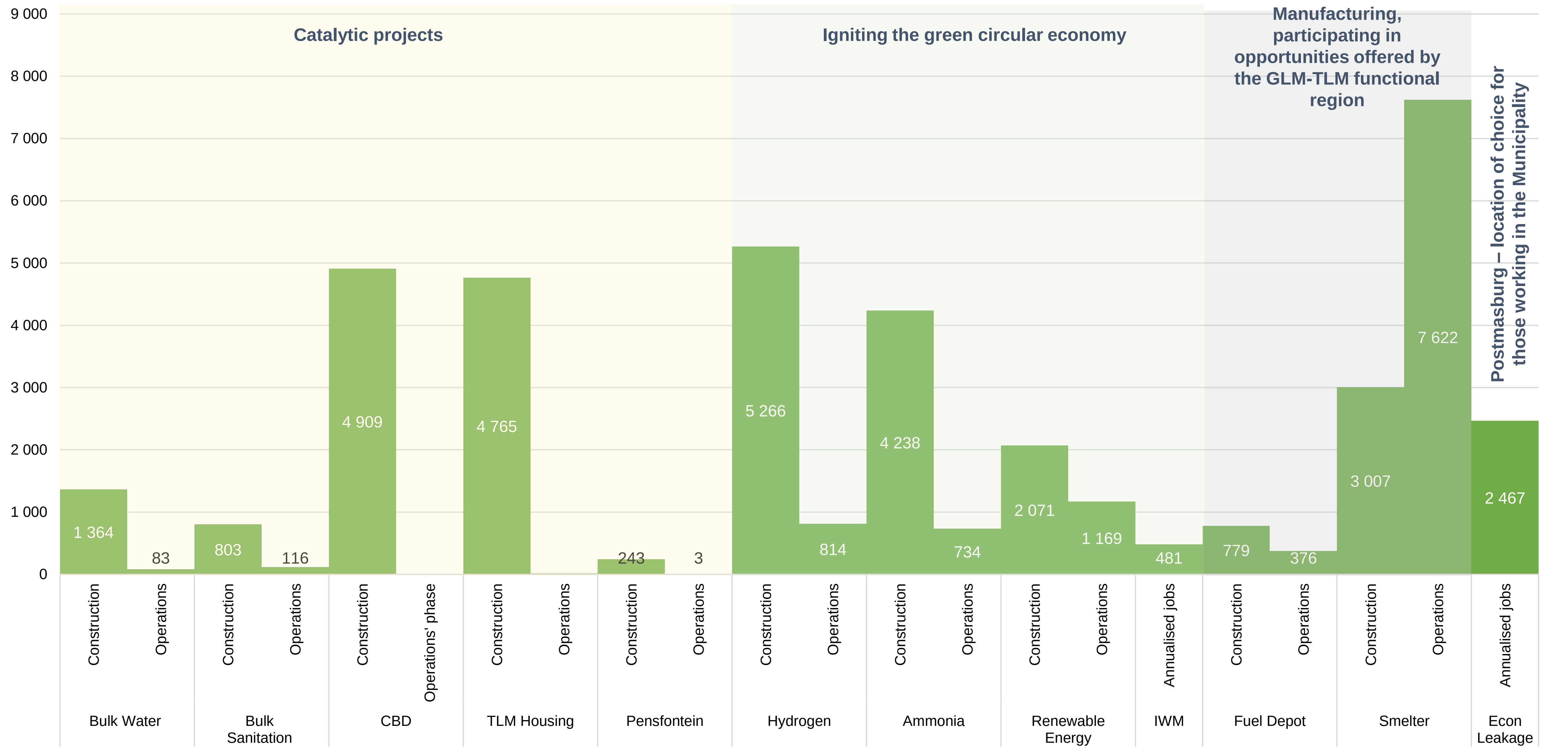
Main drivers: PMG Smelter, Renewable Energy + Hydrogen & Ammonia, reversal of economic leakage

Sustained construction boom – construction has a relatively high jobs multiplier effect of 4

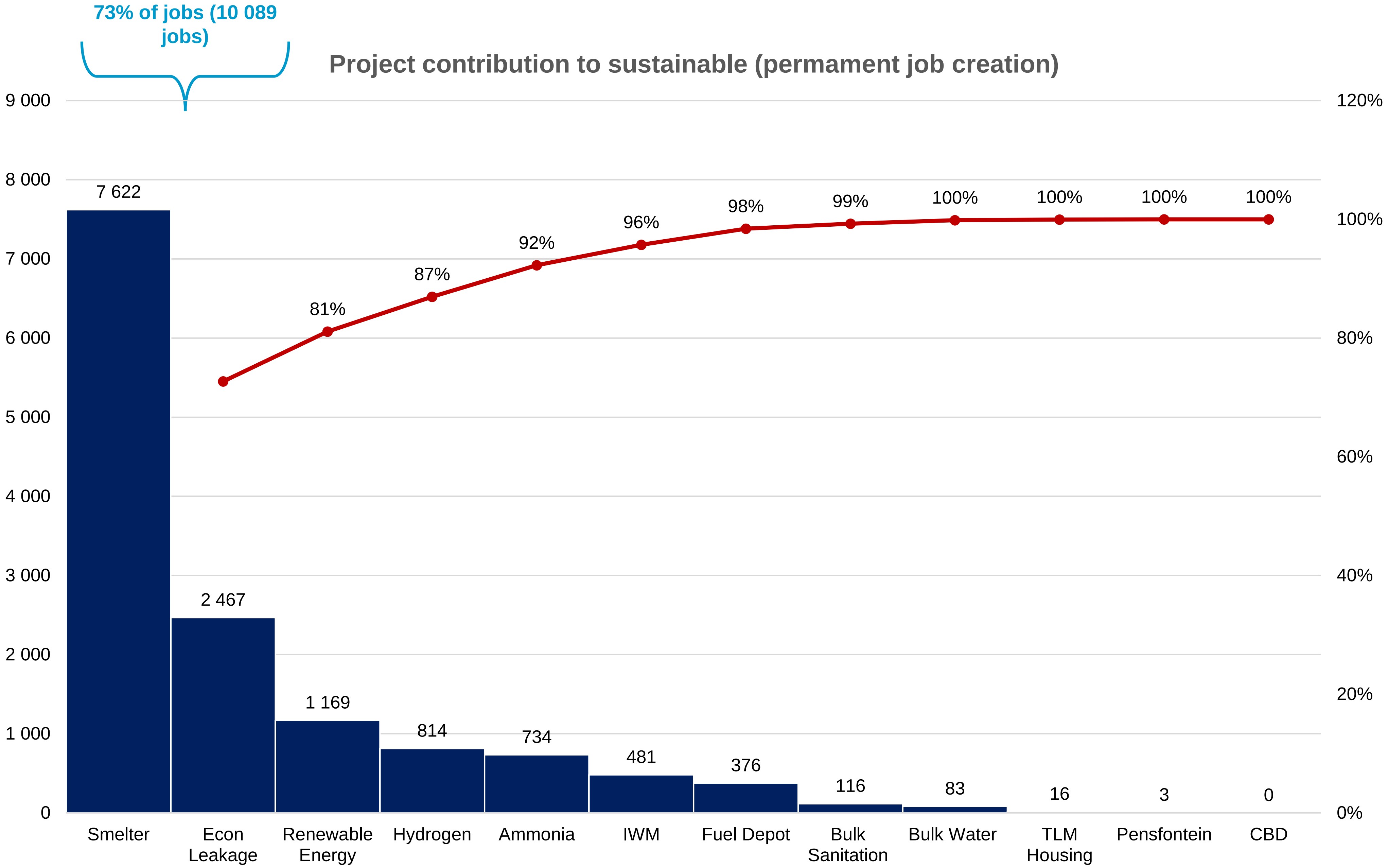
Major construction boom has passed, but many permanent jobs created



Preferred scenario's job creation potential in Tsantsabane: Comparative jobs potential of projects



Preferred scenario's job creation potential in Tsantsabane: Sustainable jobs potential (permanent jobs)



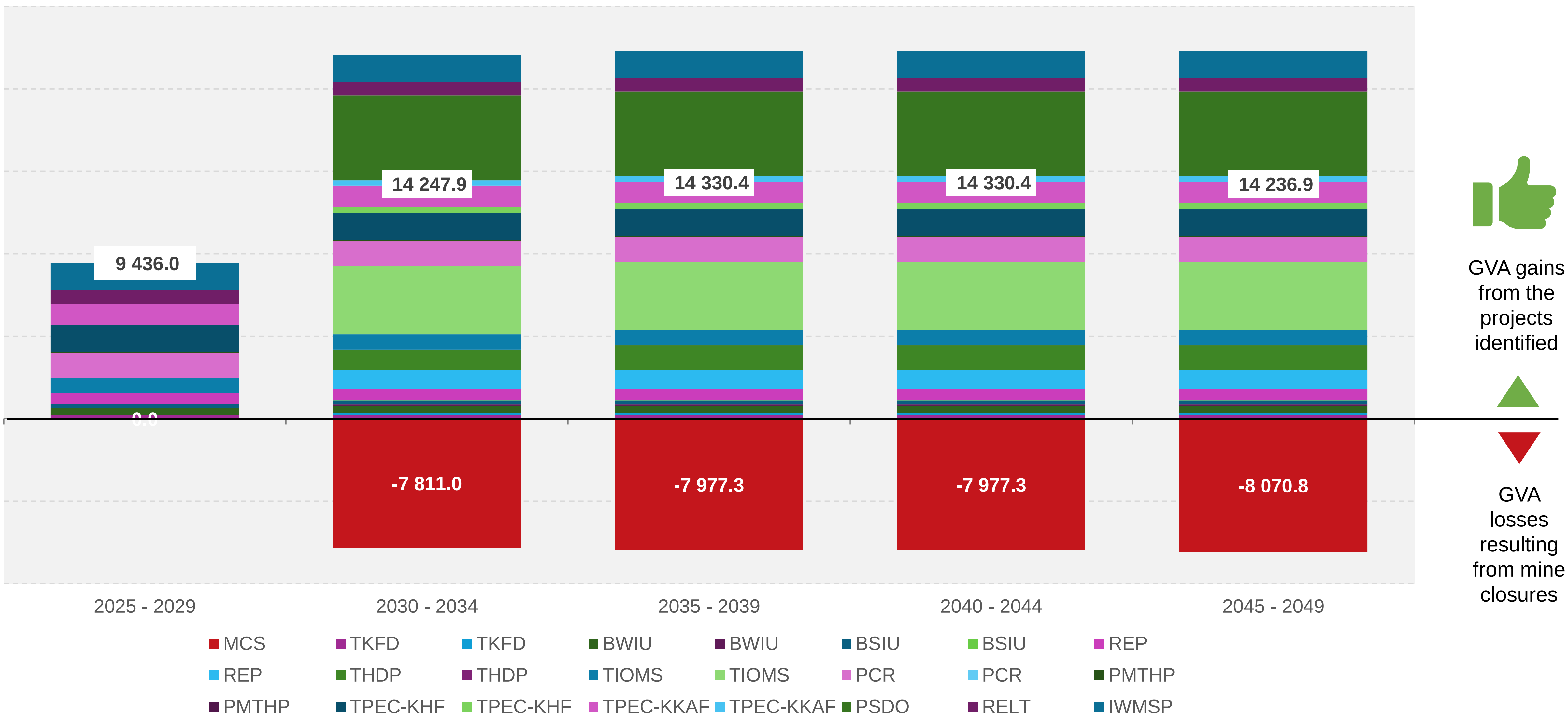
11 289 permanent jobs needed to mitigate against mine closures 2035 - 2039

11 839 permanent jobs needed to mitigate against mine closures 2040 - 2049

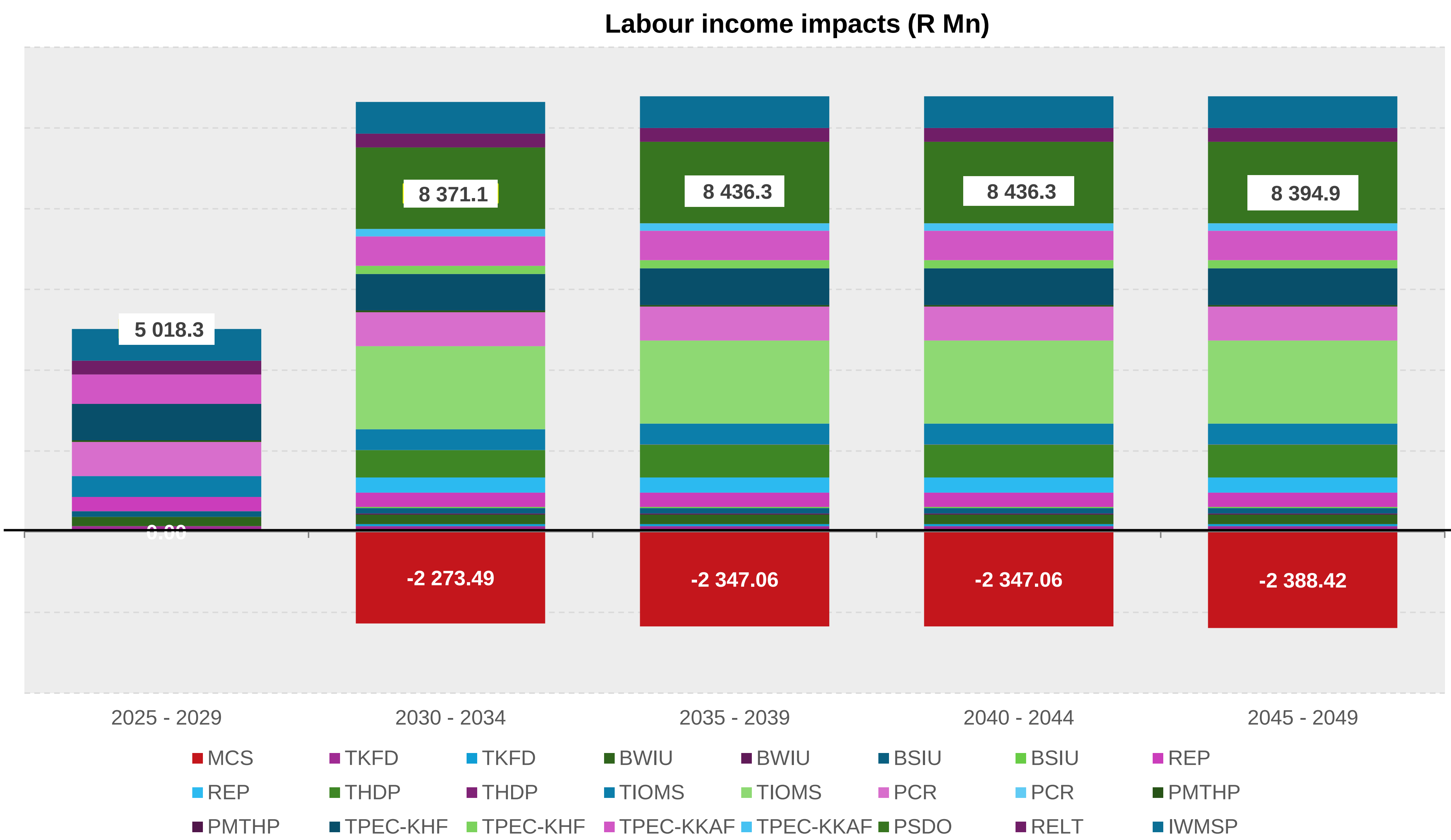
13 880 permanent jobs ID to date

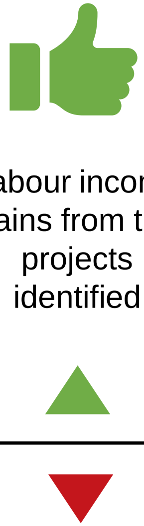
Preferred scenario's job creation potential in Tsantsabane: GVA impacts

GVA impacts (all construction + operations) (R Mn)



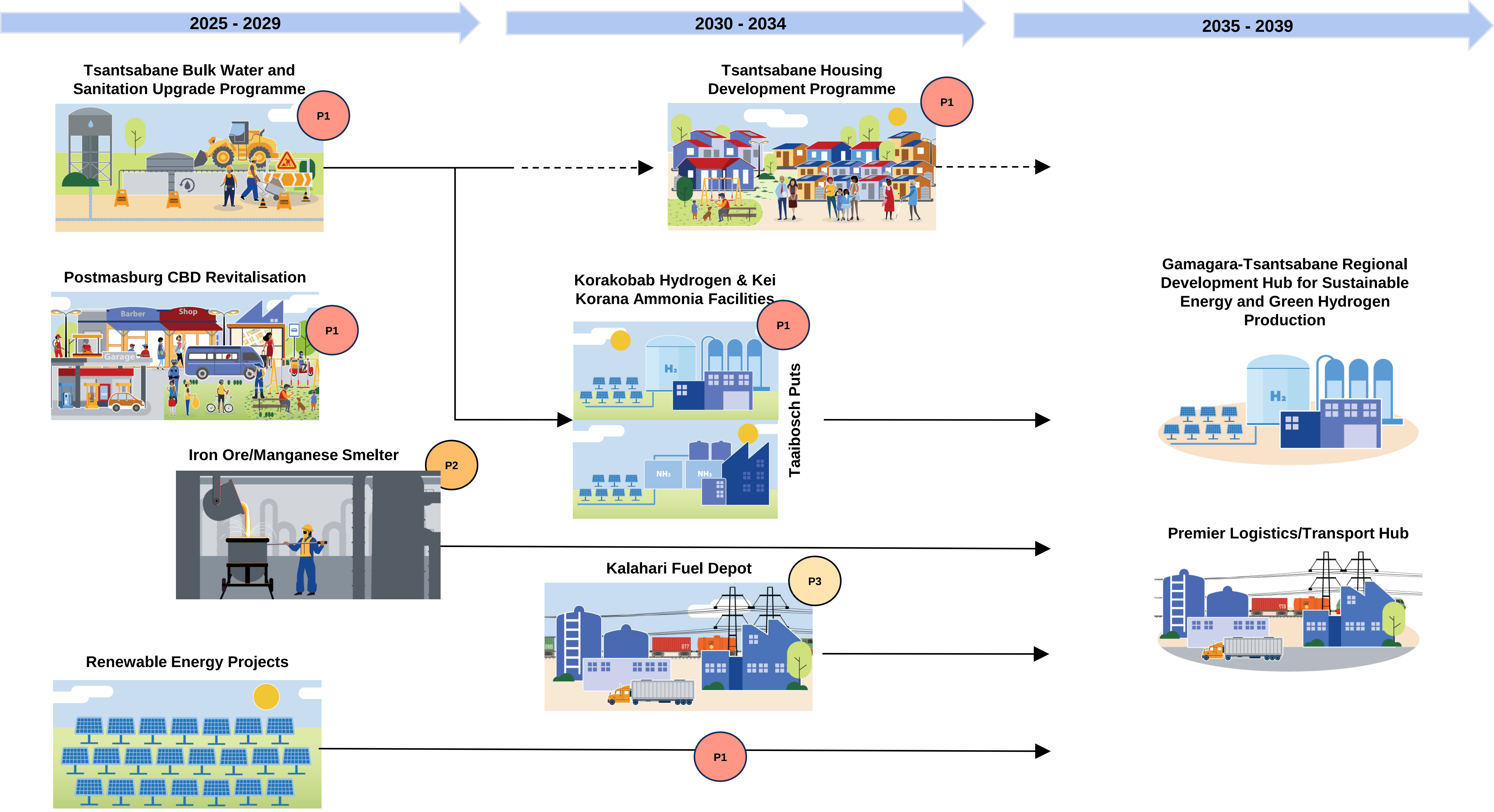
Preferred scenario's job creation potential in Tsantsabane: Labour Income impacts





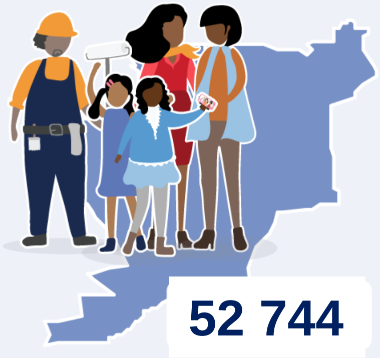
Labour income gains from the projects identified

Labour income losses resulting from mine closures


2025 - 2029
2030 - 2034
2035 - 2039
Tsantsabane Bulk Water and Sanitation Upgrade Programme
P1
Tsantsabane Housing Development Programme
P1
Postmasburg CBD Revitalisation
Barber
Shop
Garage
P1
Korakobab Hydrogen & Kei Korana Ammonia Facilities
P1
H_2
NH_3
NH_3
Taaibosch Puts
Gamagara-Tsantsabane Regional Development Hub for Sustainable Energy and Green Hydrogen Production
H_2
Iron Ore/Manganese Smelter
P2
Kalahari Fuel Depot
P3
Premier Logistics/Transport Hub
Renewable Energy Projects
P1

Population and Household Growth Forecasts: Key Assumptions: Tsantsabane

Population 2024:



52 744

Population Growth Rate:

1.80%
(ZFM District, Census 2022)

Households:

15 983
(TLM spatially based customer database)

Average Household Size:

3.3 People
(Census 2022)

Job losses from mine closures

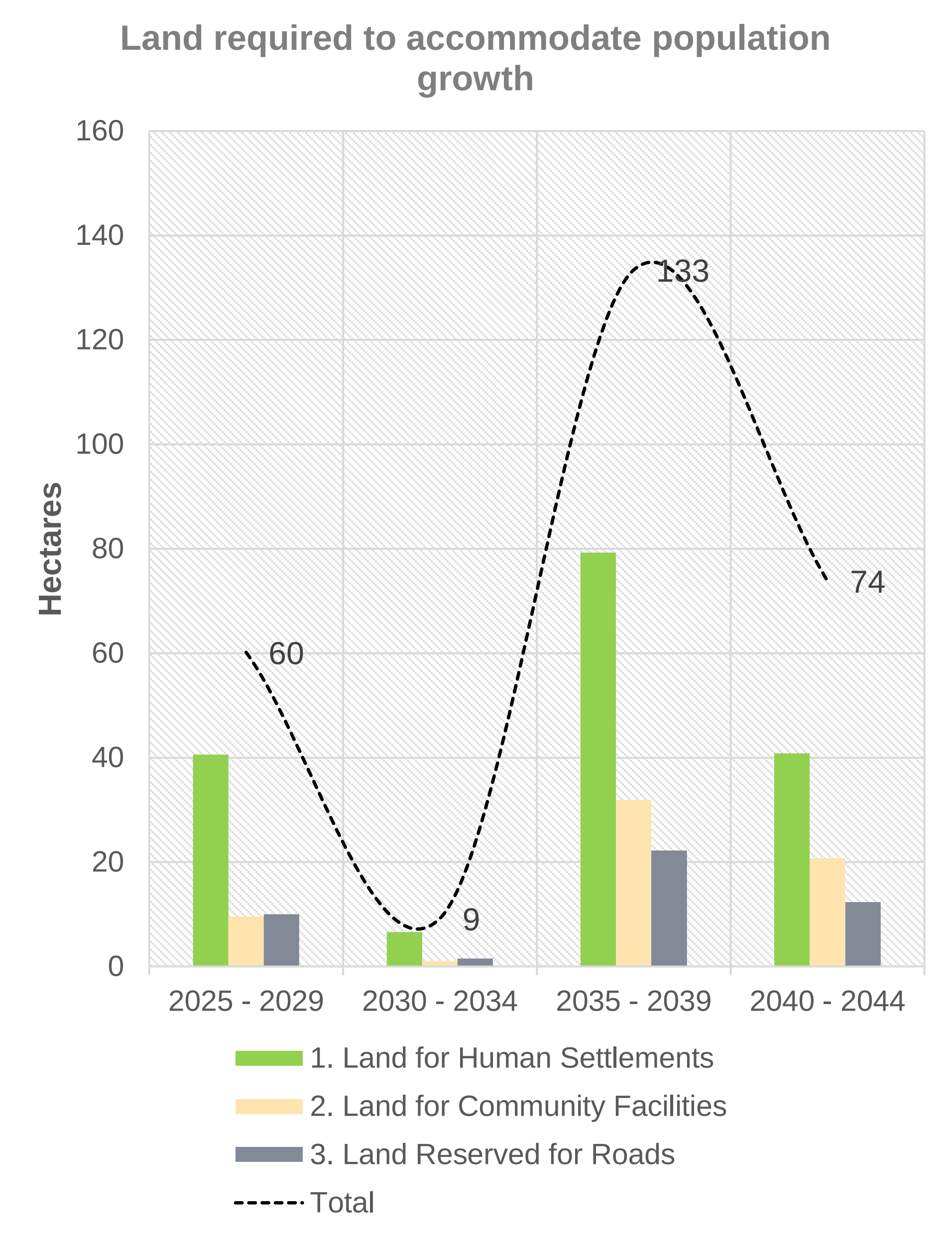
Jobs impact	2025 - 2029	2030 - 2034	2035 - 2039	2040 - 2044	2045 - 2049	Total
Direct Jobs	0	-6 501	-268	0	-151	-6 920
Indirect Jobs	0	-4 788	-81	0	-45	-4 914
Total	**0**	**-11 289**	**-349**	**0**	**-196**	**-11 834**

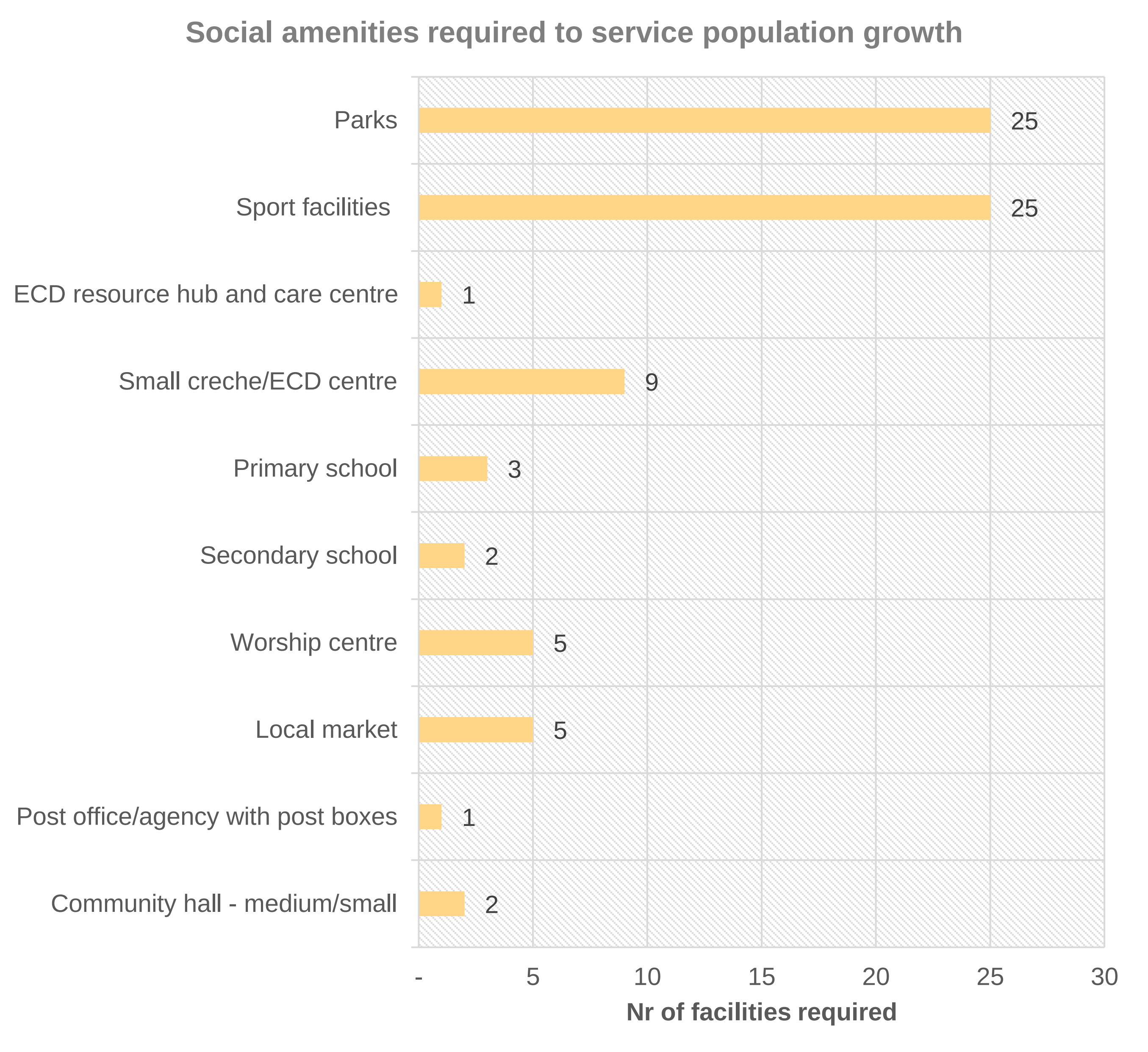
Sustainable job creation estimates from implementing catalytic projects for a sustainable future post-mining

Job Opportunities linked to scenarios	2025 - 2029	2030 - 2034	2035 - 2039	2040 - 2044	2045 - 2049	Total
Realistic sustainable jobs - only Operations	481	9 392	2 486	0	0	12 359
Optimistic sustainable jobs- only Operations	481	10 916	2 486	0	0	13 883

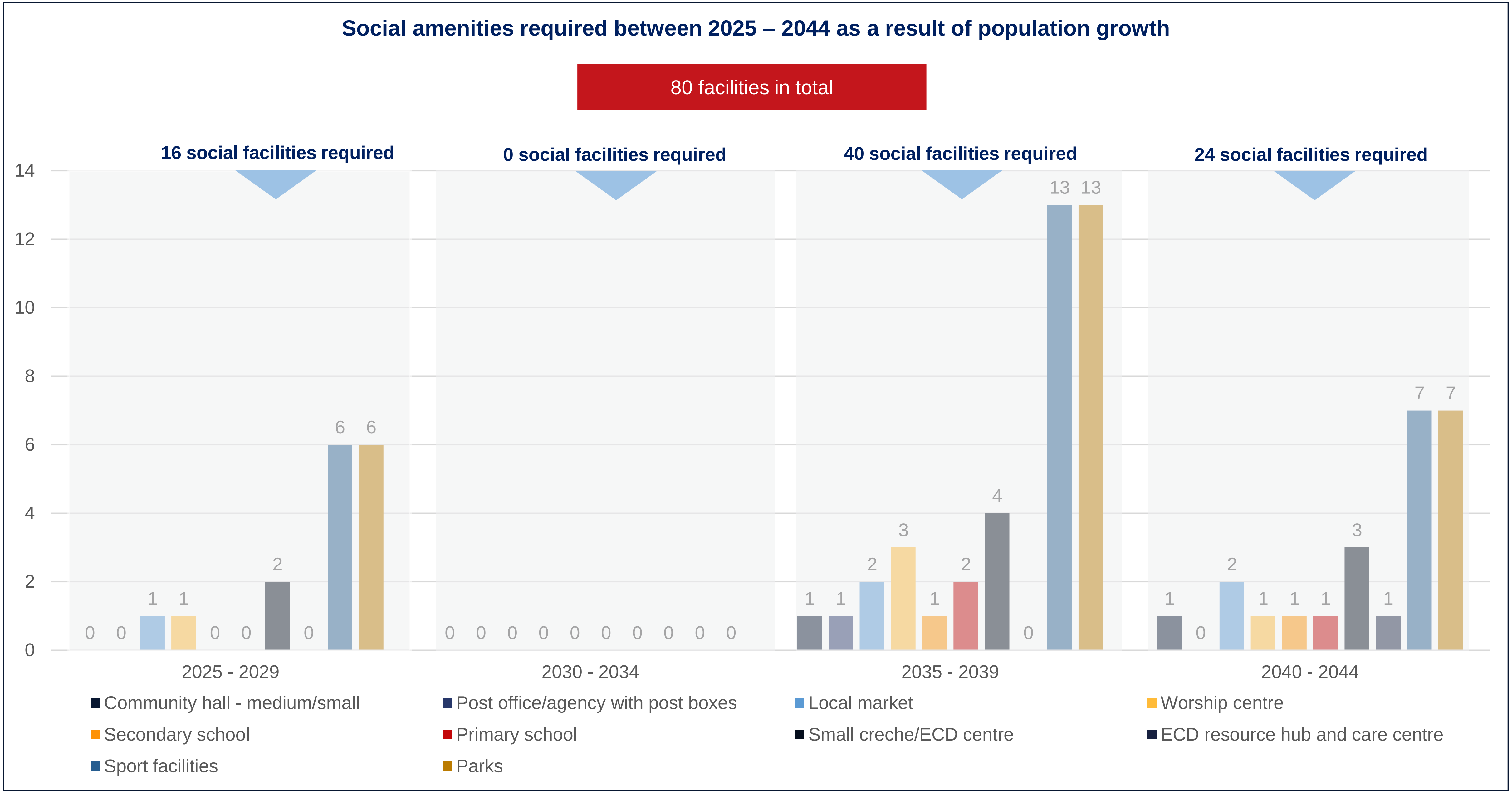
Population growth estimates for the preferred scenario: Tsantsabane

Implications of population for the preferred scenario: Tsantsabane

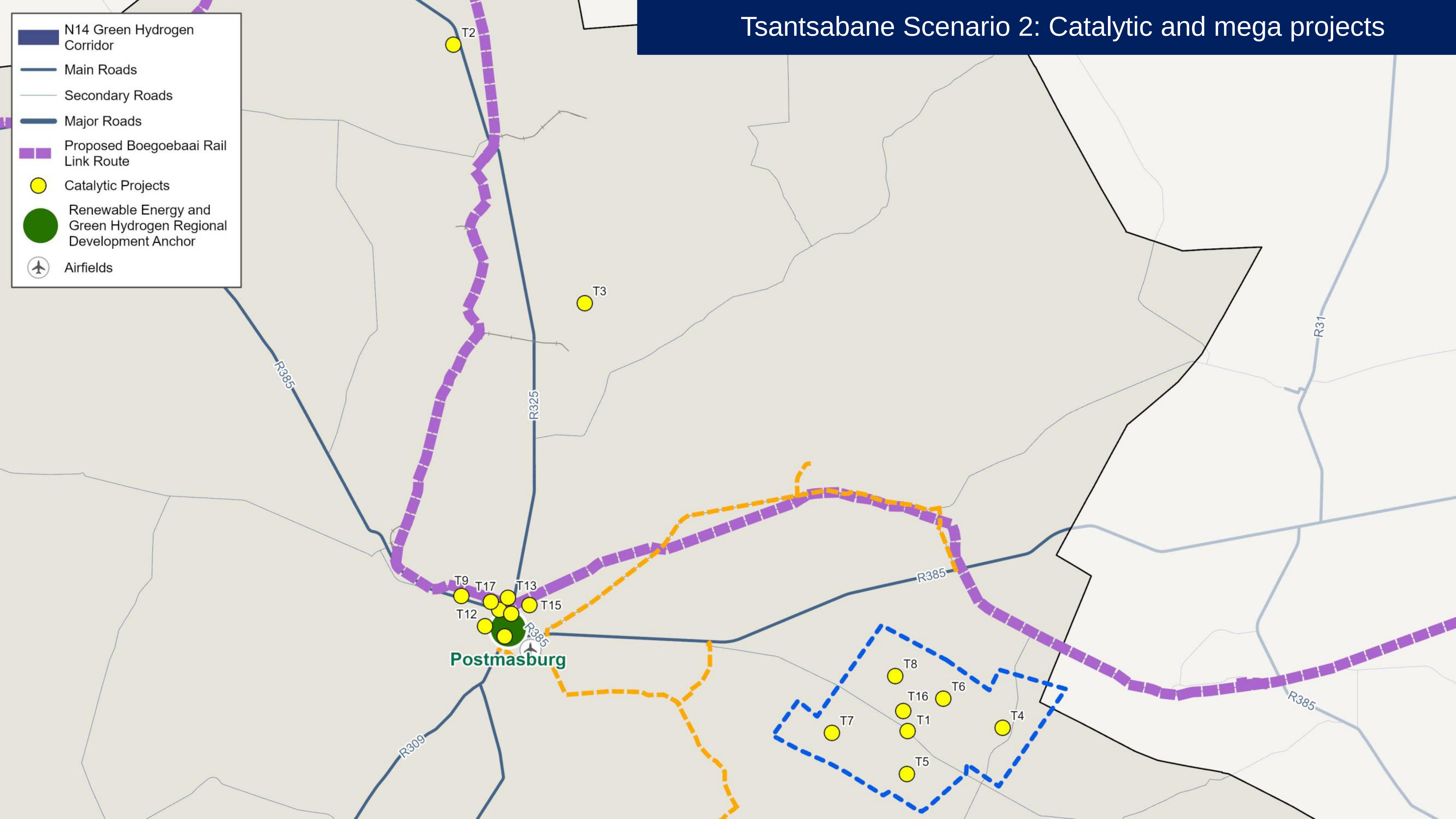




Implications of population for the preferred scenario: Tsantsabane



Tsantsabane Scenario 2: Catalytic and mega projects



How does this strategy benefit me? - Tsantsabane

I have a family

- More housing options and prospects for affordable home ownership or rental
- More schools and amenities
- More attractive, liveable neighbourhoods

I'm a teacher or social/community worker

- New social amenities, more work opportunities. I now prefer to live in Postmasburg.
- More capacity to service the community

I am a mayor or councillor

- I have a strong vision, strategy and projects to give hope to my constituency.
- I can inform my people about opportunities where they can benefit.

I'm a youth

- There is a new lease on the future, and there are opportunities for me to be educated, to experience more retail, social and recreation options, and I can find a job

I am a job seeker

- Upto 27 000 construction jobs will be created between now and 2039
- Upto 14 000 permanent jobs will be created between now and 2039

I am a municipal manager or CFO

- Clear, long-term strategy that capitalises on opportunities and mitigates major risks
- Alignment between stakeholders
- Enhanced municipal capabilities and financial viability

I am a municipal engineer or town planner

- Forecasts, clear strategy and enabling plans and projects
- Clarity on spatial and sectoral alignment

I am an investor

- Clearly identified investment opportunities
- Critical enabling environment issues addressed, e.g. bulk infrastructure provision, social amenities and housing

I am a mining company

- Clear, collective strategy to mitigate against mine closures
- Strategic and investment alignment
- Improved employee value proposition

I am a sector department or SOE

- Sector priorities and projects have been factored in and synchronised spatially and between sectors

I am a renewable energy producer

- Priority attention is given to renewable energy and green hydrogen development.
- Opportunities to invest in social betterment identified

I am a member of the formal business community

- The projects identified will result in a GVA boost of upto R 8.5 billion during construction, and R R 8.7 billion during operations, with many spillover effects across sectors

I am a SMME owner

- Many economic opportunities related to construction and other industries, including retail, services, tourism and hospitality

I'm a community trust or NGO

- Strong focus on improving socio-economic conditions and creating opportunities for all
- CBOs & NGOs recognised as critical social development partners

Tsantsabane summary

Functions and nodal status

1. Postmasburg, the main town in Tsantsabane, is a historic town, primarily known for its mining activities. Despite its large size as a municipality, it is often overlooked in many spatial planning documents. Nevertheless, it continues to make a substantial contribution to regional employment and Gross Value Added (GVA) in the Northern Cape.

2. Postmasburg is currently not the preferred location for many people working in Tsantsabane. This is partly due to a lack of adequate retail facilities, although it does offer key services like the Postmasburg District Hospital. Additionally, this situation can be attributed to limited opportunities for medium- and high-income residents, including housing, amenities, private healthcare, and education.

3. The municipality and its partners have embarked on upgrading bulk water, sanitation and solid waste facilities to remove development barriers and enable several major human settlement projects, particularly in Postmasburg. However, there is still an opportunity to revise some of these human settlement plans to increase density near employment areas and to provide diverse housing options for residents across various socio-economic groups.

4. While public investment and interest in the municipality have been inconsistent, the private sector is showing strong interest in Tsantsabane's green energy opportunities. Red Stone Solar, one of South Africa's largest new solar facilities, has even gained attention in the Northern Cape's Green Hydrogen Strategy. Alongside Jasper and Lesedi Solar Farms, it has created a new renewable energy hub just 20 minutes from Postmasburg.

5. The proposed Taaibosch Puts Energy cluster has demonstrated a strong commitment to participating in the Northern Cape's green hydrogen future. Along with existing facilities, this cluster has the potential to transform Tsantsabane into the Gamagara-Tsantsabane Regional Development Hub for sustainable energy and green hydrogen production, positioning itself as a key center for green hydrogen in the Northern Cape.

6. Therefore, it is proposed that the 2025 PSDF reclassifies Postmasburg as Tenewable Energy and Green Hydrogen Regional Development Anchor, while Upington would still maintain is status as the primary regional administrative and services node.

Tsantsabane summary

Transforming Tsantsabane into a vibrant, sought-after destination is within reach

1. Mining closures, coupled with other shocks such as climate change, will have far-reaching impacts on the regional economy and society.
   - Job losses: TLM 11 834| Northern Cape 38 193 (GLM + TLM)
   - Labour income losses: TLM R 2 388 million | Northern Cape: R 9 022 million (GLM + TLM)
   - GVA losses: TLM R 8 071million | Northern Cape: R 29 479 million (GLM + TLM)

2. The economies of Gamagara and Tsantsabane are not sufficiently diversified to withstand the impacts of large mine closures. These impacts will ripple through neighboring municipalities, all of which are labor-sending areas.

3. An alternative, diversified and sustainable future is possible. A portfolio of programmes, projects and initiatives have been identified that collectively can: -
   - create a dynamic and attractive environment over the short term,
   - diversify the economy around renewable energy, manufacturing of powerfuels and transportation thereof,
   - deliver more resilient communities and human settlements,
   - create possibilities for all stakeholders, and that
   - enables improved municipal financial sustainability and secures continuity of infrastructure services provision.

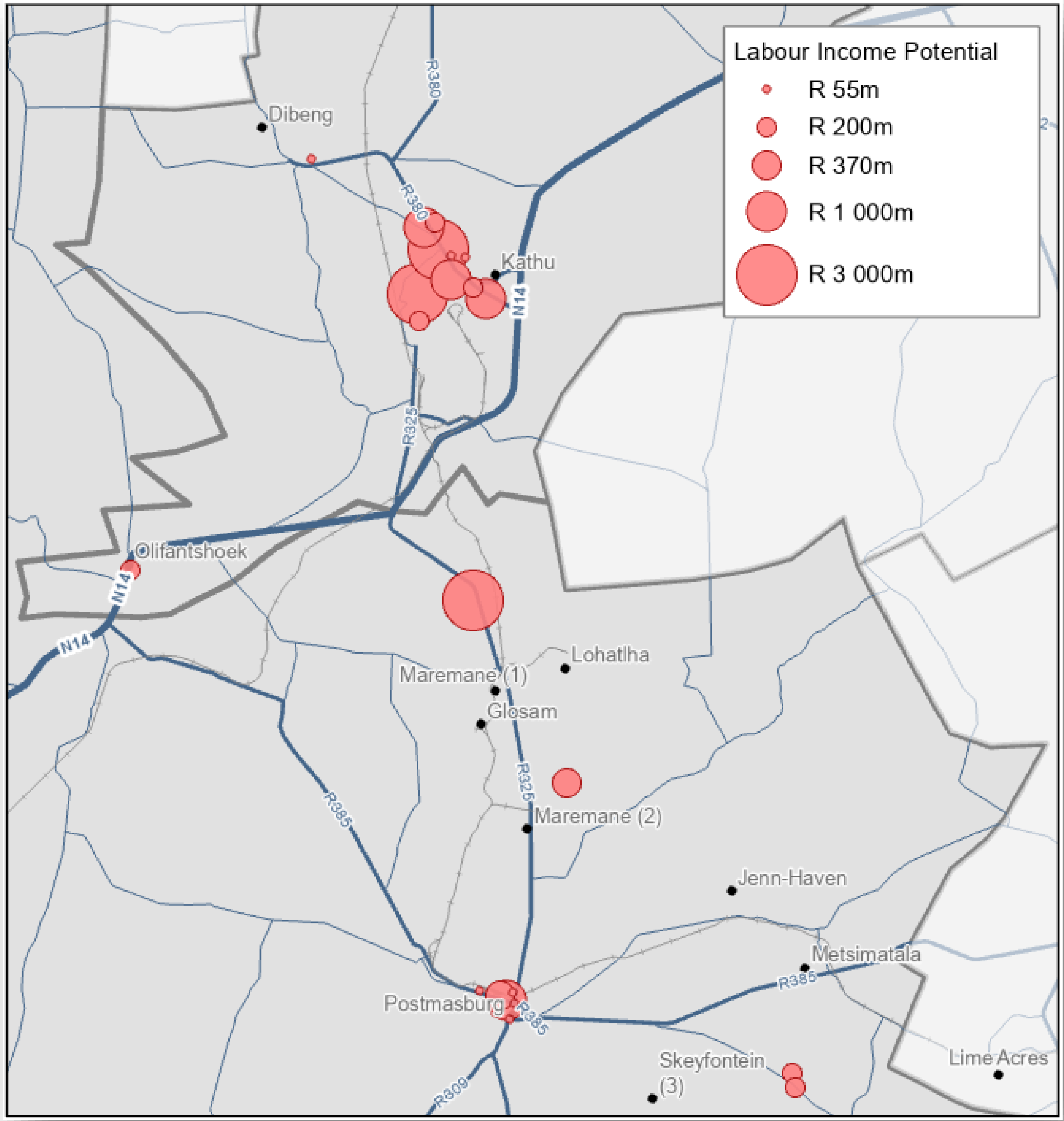
4. This portfolio of programmes, projects and initiatives can potentially deliver the following benefits:
   - Close to 27 000 construction jobs between 2025 – 2039, and 13 880 permanent jobs (11 834 jobs are needed to replace mining job losses in the 2030s).
   - Labour income and GVA: This portfolio holds the potential to not just replace labour income and GVA losses, but to increase both compared to the current status.

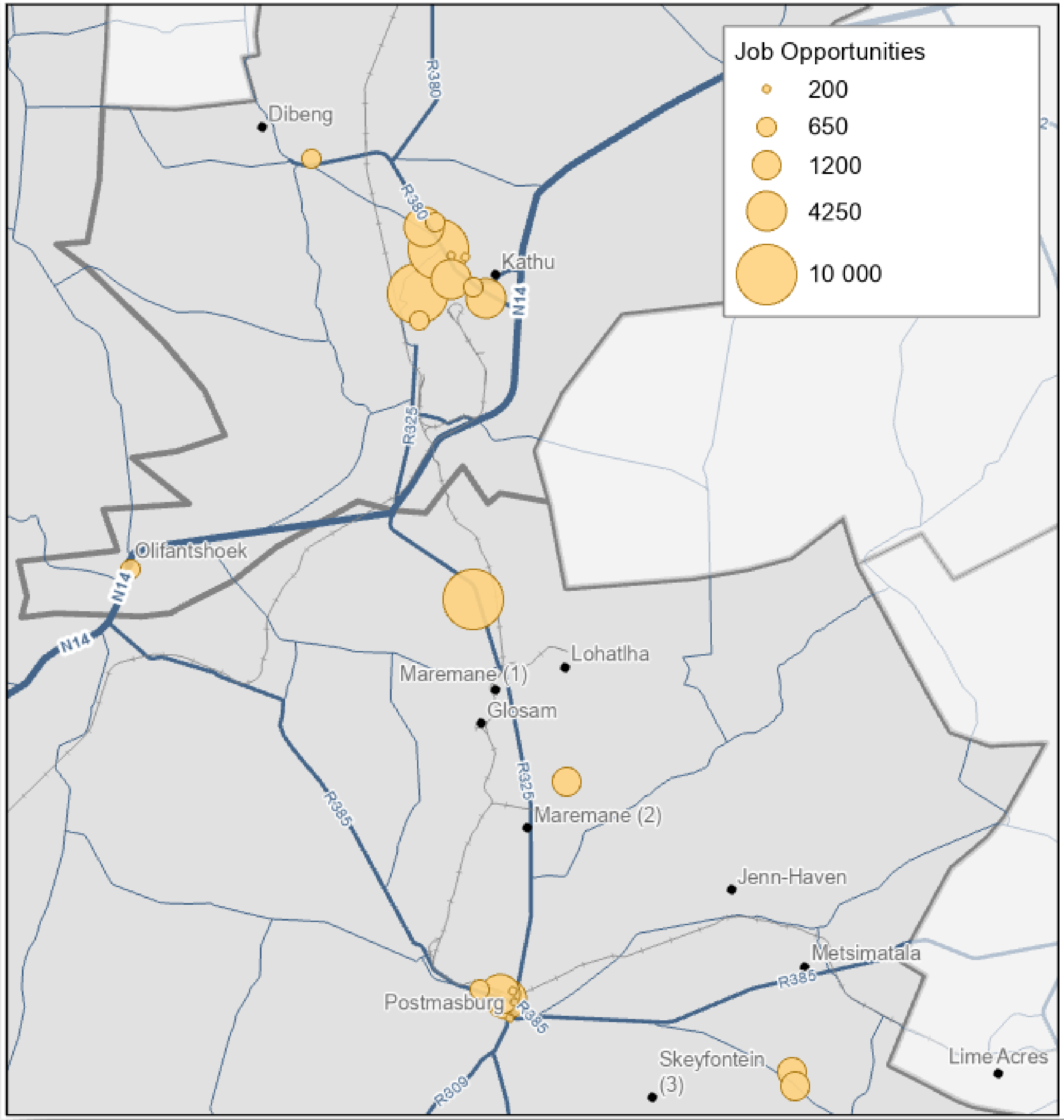
5. This future is not only possible, but has a high level of probability of success, <u>provided that catalytic programmes are advanced without delay</u>. Several of these opportunities are time-sensitive, and there is limited time to act and substitute at the scale required.

4. These catalytic programmes include (1) the Tsantsabane bulk infrastructure programme, (2) the Taaibosch Puts Energy Cluster, and (3) a revised Human Settlements programme. Where possible, options and intermediate solutions should be implemented to advance these initiatives.

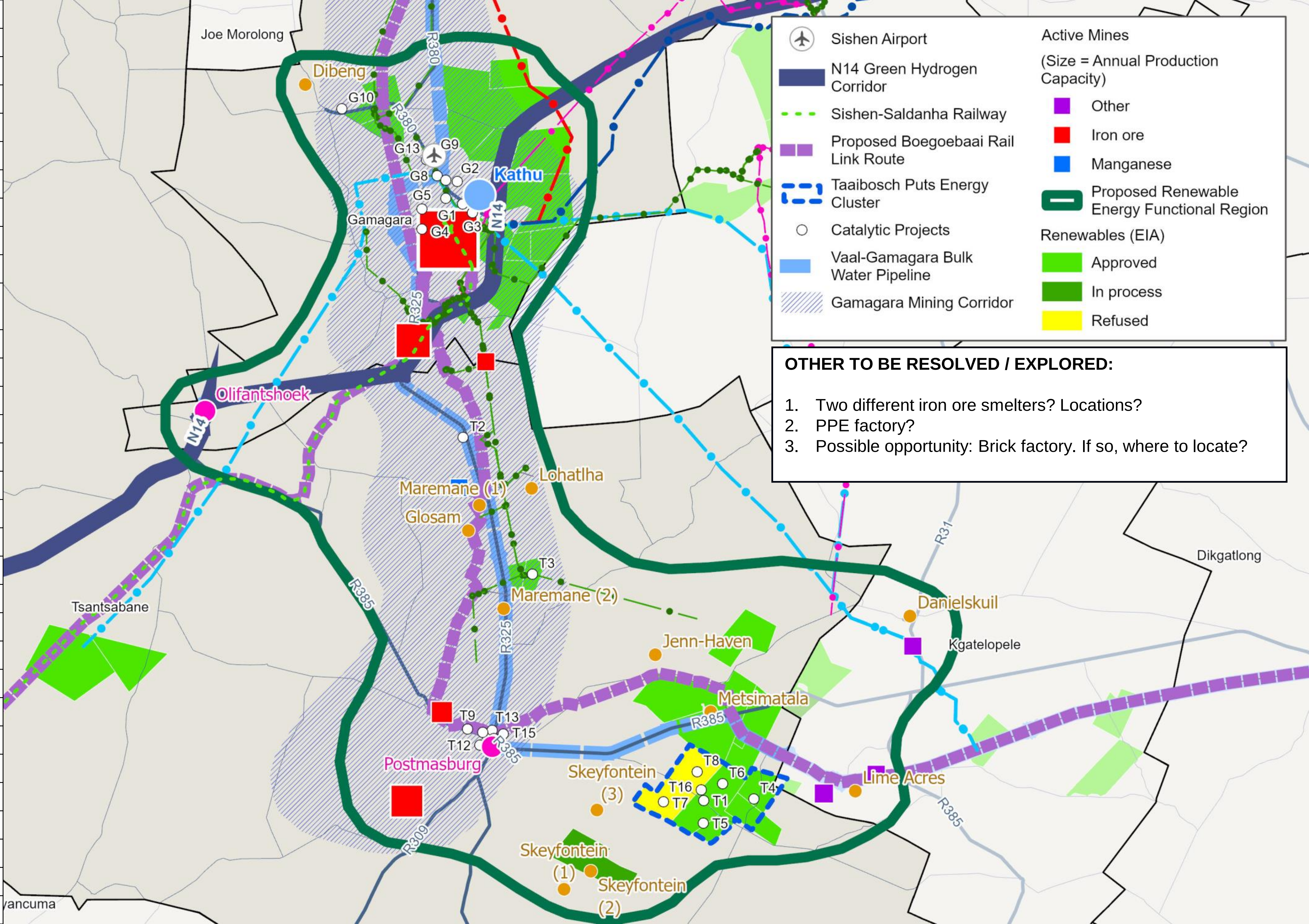
Summary and conclusions

Job Opportunities and Labour Income Potential for Tsantsabane & Gamagara





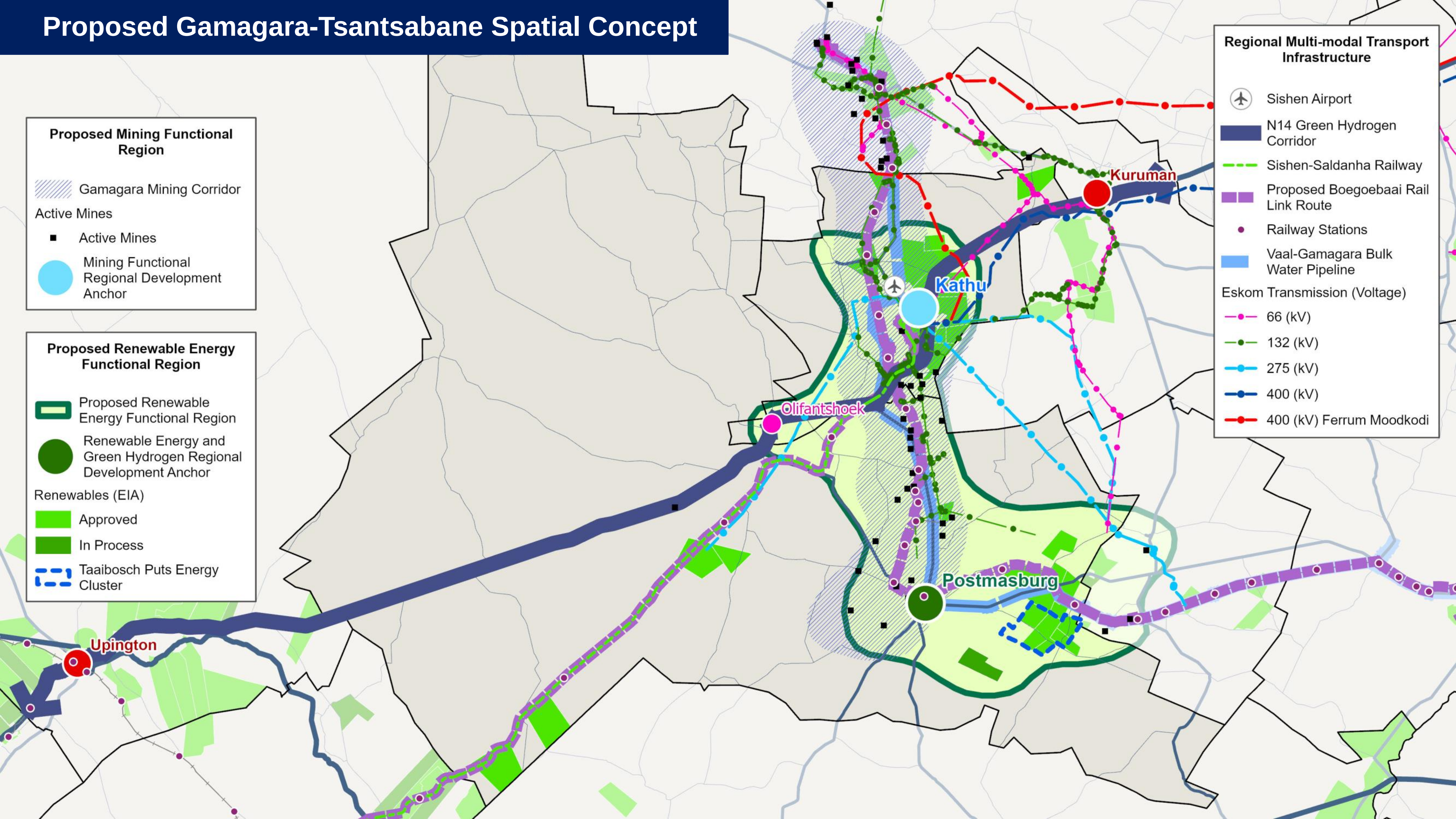
No.	Gamagara catalytic and mega projects
G1	Gamagara Bulk Infrastructure Programme
G2	Kathu 5700
G3	Kathu Industrial Park
G4	Sishen Mine UHDMS Project
G5	Renewable energy
G6	Gamagara Schools Programme
G7	Khai Appel Resort Reinstatement
G8	Iron ore smelter
G9	Sishen airport upgrading
G10	Gamagara Municipal Infrastructure Renewal Programme
G11	Reversing economic leakage
G12	Product space diversification opportunities
G13	Integrated Waste Management Initiative
No.	**Tsantsabane catalytic and mega projects**
T1	Kei Korana Ammonia
T2	PMG Smelter
T3	Postmasburg Solar PV Energy Facility 2
T4	Khoemana Wind Energy Facility (WEF)
T5	Gorachouqua I WEF
T6	Gorachouqua II WEF
T7	Kora Solar PV Cluster
T8	Koraqua Solar PV Cluster
T9	Kalahari Fuel Depot
T10	CBD Revitalisation
T11	Integrated Waste Management Project
T12	Mountainview Mixed Typology Housing
T13	Pensfontein Mixed Typology Housing
T14	Bulk Water & Sanitation
T15	Greenfields Mixed Typology Housing
T16	Korakobab Hydrogen Facility
T17	Reversing Economic Leakages in Tsantsabane



OTHER TO BE RESOLVED / EXPLORED:

1. Two different iron ore smelters? Locations?
2. PPE factory?
3. Possible opportunity: Brick factory. If so, where to locate?

Proposed Gamagara-Tsantsabane Spatial Concept



Critical municipal actions, outputs, enablers, capacities and capabilities to support the preferred scenario

1

A shared evidence base on social, economic and environmental trends and challenges

- Household survey
- Extended social amenity spatial accessibility analyses

2

A broad-based multi-party social and economic development compact

- Development leadership
- Continued functioning and technical support to the Gamagara-Tsantsabane Mine-Municipal Compact
- Extending participation to business groups, NGOs and community for a
- Co-governance structures

3

Integrated strategic planning (across sectors, stakeholders and timeframes), underpinned by:

- Human settlements development plan
- Local area spatial plans / precinct plans
- Updated land use management schemes
- Strategic asset management plan and sectoral asset management plans
- Water and sanitation master plans
- Synchronised disaster and environmental management plan including climate change adaptation plan
- LED strategies and focussed LED sector and programme implementation plan
- Regional planning

4

Municipal revenue enhancement and financial resilience

- Strategic financial planning
- Revenue enhancement strategies
- Financial structuring (municipal fiscal structure and asset portfolios)
- Investment prioritisation system

5

An investor-friendly legal, policy and institutional environment

- Municipal and regional investment atlas & prospectus
- Cost-based and competitive rates and tariff policies
- Customer service charters
- Revised SPLUMA and other by-laws
- Urban design standards aligned with climate resilience requirements
- Development construction standards
- Developer contribution policy
- SMME development programme, coordinated with mines and REPs' supplier and enterprise development programmes, and regionally
- Enhanced land development processing system capabilities
- Municipal readiness as per RBIG requirements

6

Investment sourcing and attraction, and investment partnerships

- Business plan development
- Feasibility studies
- Municipal readiness as per grant requirements
- Investment sourcing through to financial closure.
- Infrastructure delivery and procurement strategies

7

Well-planned and adequately budgeted for infrastructure investments and social and economic development projects and programmes

- Infrastructure delivery and procurement strategies
- Programme and project management
- Predictable and streamlined asset transfer processes

Join Us!

Thank You