



Postmasburg Mixed Use Market Study

ECONOMIC IMPACT ASSESSMENT

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CHAPTER 1: ECONOMIC IMPACT ASSESSMENT

1.1 INTRODUCTION

The purpose of this document is to assess the anticipated economic impact that will be generated by the proposed Greenfields and Koppies developments. Capital investment and operational expenditure that will be associated with the proposed developments are used as basis to quantify the potential impact that will result from the proposed Greenfields and Koppies developments on the local, district and provincial economies.

The impact refers to the ripple effect throughout the economy caused by investment in a specific economic sector. This impact stretches beyond the jobs and income generated by the original project. In order to estimate the total economic impact, the input-output model is employed.

The remainder of the report is structured in terms of the following main headings:

- ✓ Greenfield and Koppies Development Concepts
- ✓ Input-output Model
- ✓ Greenfield Economic Impact
- ✓ Koppies Economic Impact
- ✓ Synthesis

1.2 GREENFIELD AND KOPPIES MIXED USE DEVELOPMENT CONCEPTS

Table 1.1 to Table 1.3 summarise the development concepts that are associated with the proposed Greenfield and Koppies mixed use developments, serving as basis for the quantitative assessment of the economic impacts of the proposed project.

Table 1.1: Greenfield Mixed Use Development Concept

Land Use	Greenfield			
	Nr	Size (ha)	Capital Investment	%
Subsidy	2 158	86.5072	R 416 601 900	52.4%
Business	2	2.0129	R 76 645 038	9.6%
Bus stop	2	1.1682	R 301 271 385	37.9%
Secondary School	1	3.9512		
Secondary / Primary School	1	5.5817		
Primary School	1	3.3181		
Creche	3	1.3062		
Community facility	3	1.3184		
Community Facility, Clinic	1	1.2996		
Church	4	1.982		
Municipal Uses	2	1.9783		

Open Space	28	9.6743		
Conservation Area	6	29.7495		
Sport Fields	1	1.5884		
TOTAL		151.436	R 794 518 323	

Table 1.2: Koppies Mixed Use Development Concept

Land Use	Koppies			
	Nr	Size (ha)	Capital Investment	%
Subsidy	2 600	102.5796	R 501 930 000	56.5%
Business	6	3.0404	R 115 769 077	13.0%
Bus stop	3	1.39	R 270 878 596	30.5%
Secondary School				
Secondary / Primary School	2	6.0274		
Primary School	1	3.6637		
Creche	2	0.9773		
Community facility	4	2.0648		
Community Facility, Clinic	2	0.9718		
Church	3	0.7767		
Municipal Uses	4	1.6483		
Open Space	22	24.5676		
Conservation Area				
Sport Fields	2	3.8114		
TOTAL		151.519	R 888 577 673	

Table 1.3: Greenfield and Koppies Mixed Use Development Concept

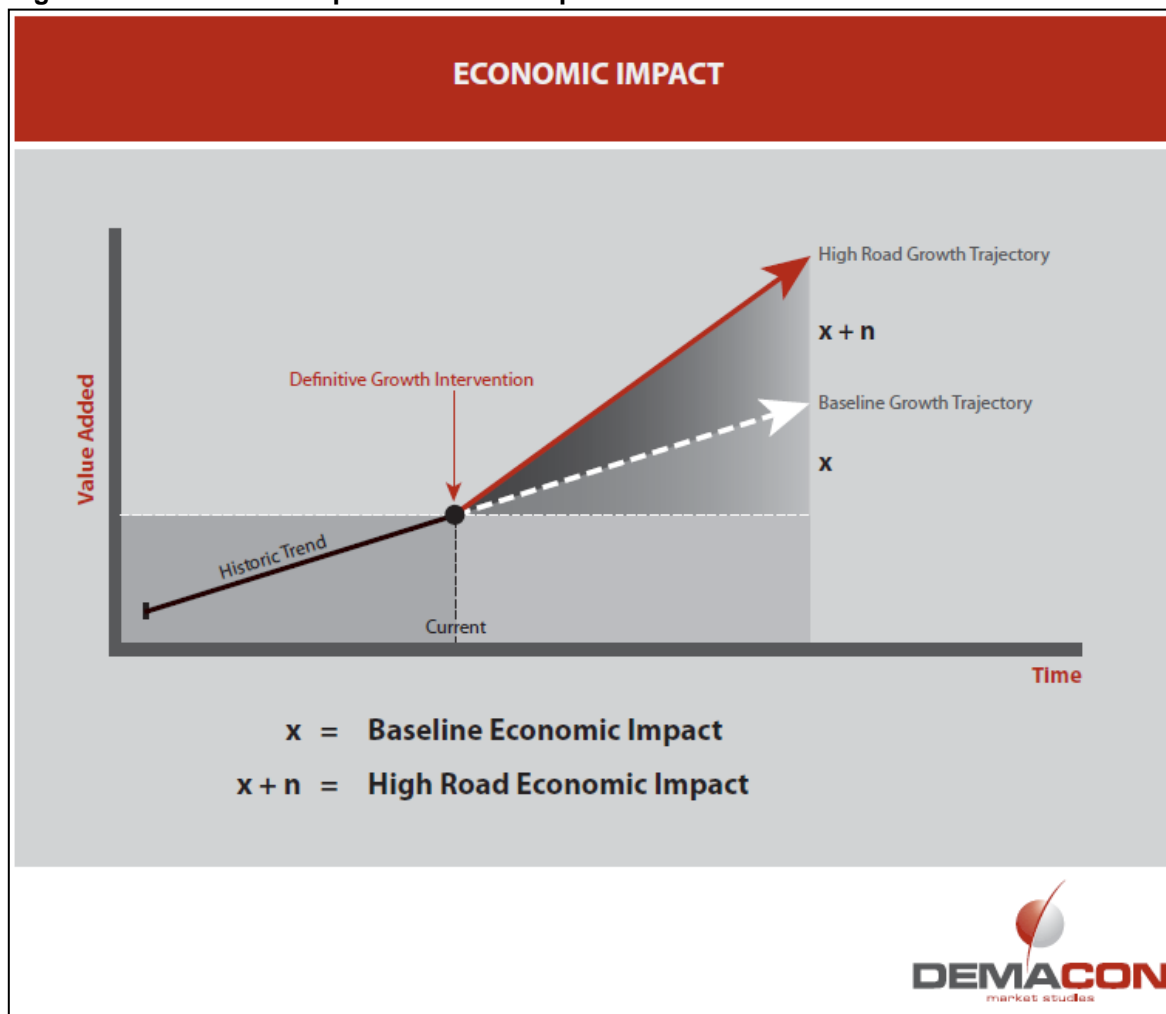
Land Use	Total			
	Number	Size (ha)	Capital Investment	%
Subsidy	4 758	189.0868	R 918 531 900	54.6%
Business	8	5.0533	R 192 414 115	11.4%
Bus stop	5	2.5582	R 572 149 981	34.0%
Secondary School	1	3.9512		
Secondary / Primary School	3	11.6091		
Primary School	2	6.9818		
Creche	5	2.2835		
Community facility	7	3.3832		
Community Facility, Clinic	3	2.2714		
Church	7	2.7587		
Municipal Uses	6	3.6266		
Open Space	50	34.2419		
Conservation Area	6	29.7495		
Sport Fields	3	5.3998		
TOTAL		302.955	R 1 683 095 996	

However, before the findings of the quantitative assessment of the proposed project can be addressed, the model utilised for this purpose is discussed in more depth in the following section.

1.3 INPUT-OUTPUT MODEL

The following figure conceptually illustrates the economic impact that the proposed Greenfield development could have on the local economy in terms of additional GGP.

Diagram 1.1: Economic impact of the development



Before the input-output model is discussed it is necessary to understand the community economic system and underlying interrelationships (Refer to Diagram 1.2).

It is evident that there is a strong interrelationship and interdependence between the three dominant sectors of the local economy: Basic industry, households and services. These interrelationships refer to sectors purchasing from other sectors, sectors selling to other sectors, sectors selling outside of the local economy and sectors buying outside of the local economy.

This results in the flow of labour, inputs, goods and services as well as money within and beyond the local economy. The input output analysis creates a picture of a regional economy

describing the flows to and from industries and institutions. In other words it provides a description of the local economy and predicts the estimated impacts resulting from a change in the local economy.

The Input-Output Model depicts economic relationships between different components of an economy by identifying monetary flows (expenditures, receipts) between various units. The relationship between the initial spending and the total effects generated by the spending is known as the multiplier effect of the sector, or more generally as the impact of the sector on the economy as a whole. The input-output table represents the nucleus of the Inset-Output Model – as reflected in Diagram 1.3.

Diagram 1.2: Community Economic System

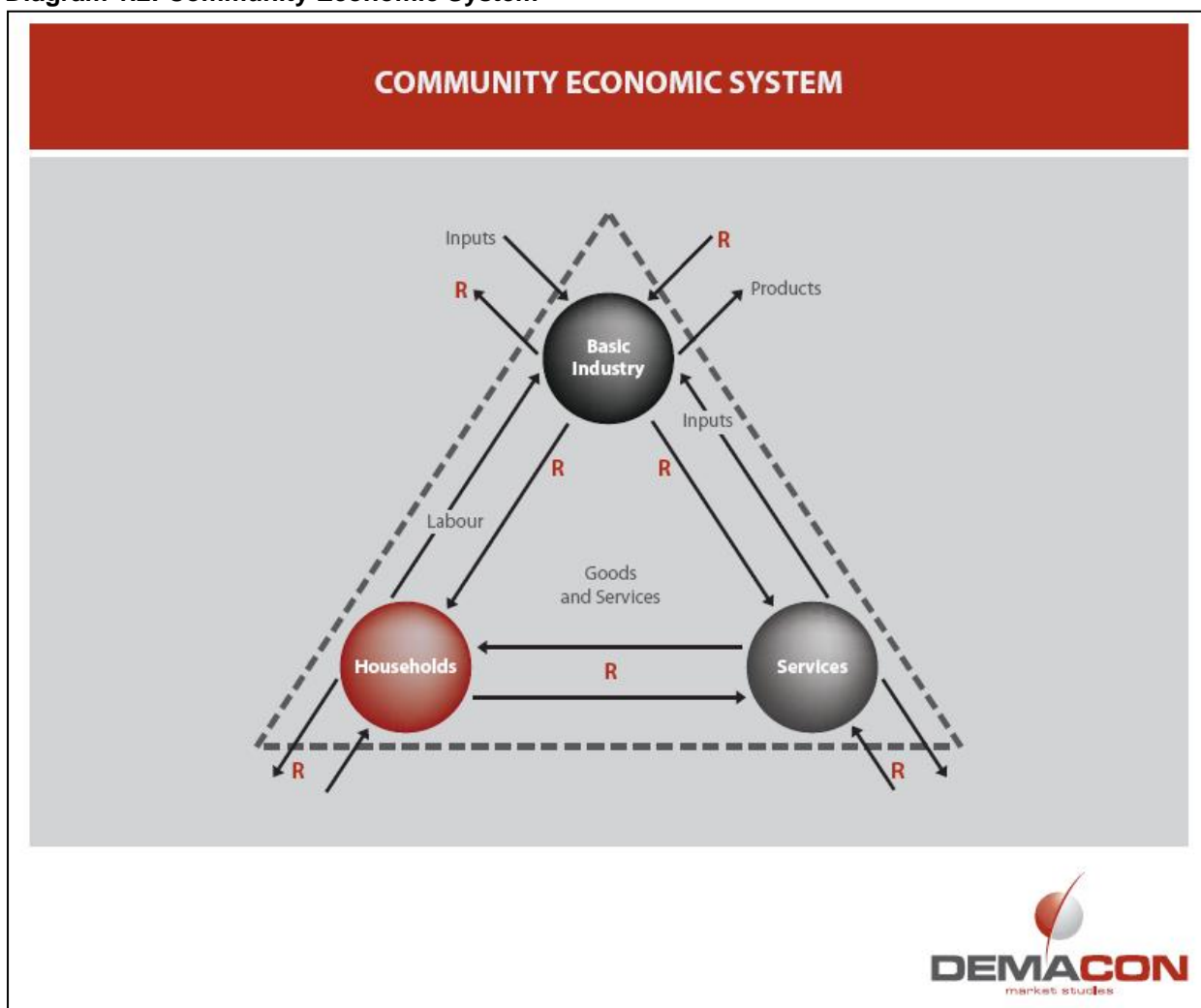


Diagram 1.3: Schematic presentation of the Input-Output table

	Intermediate Outputs	Final Demand	Total Production
Intermediate Inputs	Quadrant I	Quadrant II	X1
	x11x12.....	C1 G1 I1 IC1E1	X2
	x21x22.....	C2 G2 I2 IC2 E2	.Xn
	..	Cn Gn In ICn En	Mn
	xn1xn2	MC MG	
	M11 M12.....		

Primary Inputs	Quadrant III A1A2..... B1B2..... T1T2.....	Quadrant IV VC VG VI vic VE	A B T
Total Production	X1 X2 Xn	C G I IC E	Z

Final demand (Y) can be presented by the following formula:

Y = C + I + G + (X - Z) where:

- C: Private consumption expenditure
- I: Gross domestic fixed investment
- G: Government consumption expenditure
- X: Exports
- Z: Imports

Both the intermediate inputs as well as intermediate outputs for the different production sectors are shown in **Quadrant I**. This quadrant is usually referred to as the transaction table or transaction matrix and is an indication of the transfer of goods and services between the industrial sectors for production purposes.

The different final demand components as applied in the input-output table are shown in **Quadrant II**. Components of final demand are private consumption expenditure (C), government consumption expenditure (G), gross domestic fixed investment (I), change in inventories (IC) and total exports (E).

Quadrant III represents the demand for primary inputs by industrial sector. The elements of primary input, which are referred to are remuneration of employees (A), the gross operating surplus (B) as well as net indirect taxes (T).

Quadrant IV is that portion of primary input, which is part of final demand.

The linkage effects between the various sectors in the transaction matrix can be presented by x_{ij} , which shows the flow of goods from sector i to sector j.

The input-output model consists of three basic components:

- ✓ **Transaction Table:** illustrate the monetary flows of goods and services in a local economy for a given time period.
- ✓ **Direct Requirements Table:** indicates the purchases of resources (inputs) by a sector from all sectors to produce one Rand of output (creating a production recipe).
- ✓ **Total Requirements Table:** indicates the indirect and induced transactions caused by the purchases of resources (inputs) by a sector from all sectors.

The input-output table is also based on certain basic assumptions:

- ✓ It is possible to group the different production activities in homogeneous industries
- ✓ The demand for intermediates by a particular sector will change in direct proportions to the specific sectors change in output
- ✓ No substitution of intermediates is possible due to price changes
- ✓ No technological change takes place

- ✓ Each sector produces only on primary product.

It should be noted that:

- ✓ All the rand values in the report represents 2017 current prices
- ✓ The different measure of economic impact cannot be added together and should be interpreted separately
- ✓ The model quantifies the economic impacts for a specific amount of time and it is not derived gradually over time.

Impacts are traced through the regional economy in terms of the application of a set of multipliers derived from regional economic accounts (only local transactions are used to create the multiplier effect).

A multiplier summarises the total impact that can be expected throughout the economy from one unit change for a given sector.

There are four types of multipliers:

- ✓ **Output multipliers (Business revenue or sales):** it estimates the total change in local sales volume.
- ✓ **Employment multipliers:** measures the total change in employment resulting from an initial change in employment of a specific industry.
- ✓ **Value added multiplier (GDP):** provides an estimate of the additional value added to the products as result of this economic activity. Value added includes employee compensations, indirect business taxes, and proprietary and other property income.
- ✓ **Income multiplier:** measures the total increase in income in the local economy resulting from a 1 Rand increase in income received by workers in the specific industry.

Difference between multipliers and turnover:

Turnover refers to the number of times some of the initial Rand that is received from outside the community, changes hands within the community. Example: 1 Rand received from a new investment changes hands five times within the local economy. The multiplier is 1.66, although some portion of the initial Rand turns over five times. During each exchange of money for goods or services, some of the original Rand leaves the local economy, which reduces the amount spent locally during the next exchange. Multipliers measure the full impact of a Rand on the local economy, whereas turnover merely indicates the number of times some of the initial Rand is spent locally.

The economic impact can be measured in terms of three effects:

- ✓ **Direct effects:** those economic effects caused by the new investment or proposed project.
- ✓ **Indirect effects:** occurs to industries in the backward linked industries that supply goods and services to the proposed development. Economic activity triggered by the purchases made as a result of the initial round of project expenditure.
- ✓ **Induced effects:** result from households spending some of the additional income they receive on goods and services within the local, regional and provincial economies.

There are two types of multipliers:

- ✓ **Type 1 multipliers:** Include direct or initial spending, as well as indirect spending or business buying and selling to each other.
- ✓ **Type 2 multipliers:** Include Type 1 multiplier effects, plus household spending based on the income earned from the direct and indirect effects – the induced effects.

In summary: Economic impacts represent the positive or negative effects caused by the expansion or contraction of an area's economy, resulting from the changes in a facility or project. In the case of the proposed projects, it will represent the impacts caused by the proposed Greenfield and Koppies mixed use developments.

Subsequent sections provide an overview of the estimated economic impacts caused by the implementation of the **Greenfield Development** followed by the **Koppies Development**.

The impact will also be estimated in terms of two project phases – the **construction and the operational phases**, commencing with the construction phase impacts in the following section.

1.4 GREENFIELD ECONOMIC IMPACT

1.4.1 Construction Phase Impacts

This section indicates the anticipated impacts (direct, indirect and induced) that will result from the construction phase of the Greenfield Mixed Use Development. It is important to note that these impacts are **once off and not sustained annual impacts**. The impacts will fade away after the construction of the project.

The following table provides an illustration of the anticipated **additional business sales** generated by each proposed land use during the construction phase of the proposed Greenfield development.

Table 1.4: Construction Phase - Additional Business Sales per Land Use (2017 NPV)

Additional Business Sales	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	685 820 000	228 340 000	138 060 000	1 052 220 000	52.4%
Business	126 175 000	42 009 000	25 400 000	193 584 000	9.6%
Social Facilities	495 960 000	165 127 000	99 840 000	760 927 000	37.9%
TOTAL (RAND)	1 307 955 000	435 476 000	263 300 000	2 006 731 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional GGP** generated by each proposed land use during the construction phase of the proposed Greenfield development.

Table 1.5: Construction Phase - Additional GGP per Land Use (2017 NPV)

Additional GGP	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	182 426 000	98 007 000	61 321 000	341 754 000	52.4%
Business	33 562 000	18 031 000	11 282 000	62 875 000	9.6%
Social Facilities	131 924 000	70 875 000	44 345 000	247 144 000	37.9%
TOTAL (RAND)	347 912 000	186 913 000	116 948 000	651 773 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional employment opportunities** generated by each proposed land use during the construction phase of the proposed Greenfield development.

Table 1.6: Construction Phase - Additional Employment per Land Use (2017 NPV)

Additional Employment	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	1 300	400	300	2 000	51.4%
Business	200	100	100	400	10.3%
Social Facilities	966	289	238	1 493	38.4%
TOTAL (JOBS)	2 466	789	638	3 893	100.0%

Source: Demacon Estimates, 2017

The following table provides a synthesis of the abovementioned impacts, in terms of additional business sales, additional GGP as well as additional employment, with regard to the entire proposed Greenfield development.

Table 1.7: Impact of Proposed Greenfield Development – Construction Phase

Variable	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Additional Business Sales	1 307 955 000	435 476 000	263 300 000	2 006 731 000
Additional GGP	347 912 000	186 913 000	116 948 000	651 773 000
Additional Employment	2 466	789	638	3 893



Variable	Capital Expenditure	Total Impact
Additional Business Sales	R794.5 million	R2.0 billion
Additional GGP		R651.8 million
Additional Employment		3 893 jobs (of which 2 466 direct)

Table 1.7 illustrates that the envisaged total investment in construction costs of approximately R794.5 million, could create an additional R2.0 billion in new business sales, R651.8 million in additional GGP, as well as an additional 3 893 once-off employment opportunities. Total impact includes direct, indirect as well as induced effects.

The following section provides an overview of the anticipated impact of the proposed Greenfield development, during its operational phase.

1.4.2 Operational Phase Impacts

The subsequent paragraphs indicate the anticipated sustained impacts (direct, indirect and induced) that will result during the operational phase of the Greenfield Mixed Use Development, once the project is fully operational (*i.e. sustained annual impacts*).

The following table provides an illustration of the anticipated **additional business sales** generated by each proposed land use during the operational phase of the proposed Greenfield development.

Table 1.8: Operational Phase - Additional Business Sales per Land Use (Sustained Annually)

Additional Business Sales	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	5 849 000	1 448 000	1 579 000	8 876 000	1.2%
Business	156 737 000	31 478 000	49 796 000	238 011 000	31.0%
Social Facilities	309 585 000	19 527 000	191 590 000	520 702 000	67.8%
TOTAL (RAND)	472 171 000	52 453 000	242 965 000	767 589 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional GGP** generated by each proposed land use during the operational phase of the proposed Greenfield development.

Table 1.9: Operational Phase - Additional GGP per Land Use (Sustained Annually)

Additional GGP	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	2 428 000	628 000	701 000	3 757 000	0.8%
Business	83 134 000	13 573 000	22 115 000	118 822 000	26.7%
Social Facilities	228 762 000	8 424 000	85 079 000	322 265 000	72.4%
TOTAL (RAND)	314 324 000	22 625 000	107 895 000	444 844 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional employment opportunities** generated by each proposed land use during the operational phase of the proposed Greenfield development.

Table 1.10: Operational Phase - Additional Employment per Land Use (Sustained Annually)

Additional Employment	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	3	3	4	10	0.7%
Business	150	50	120	320	21.4%
Social Facilities	670	36	456	1 162	77.9%
TOTAL (JOBS)	823	89	580	1 492	100.0%

Source: Demacon Estimates, 2017

The following table provides a synthesis of the abovementioned impacts, in terms of additional business sales, additional GGP as well as additional employment, with regard to the entire proposed Greenfield development.

Table 1.11: Impact of Proposed Greenfield Development – Operational Phase

Variable	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Additional Business Sales	472 171 000	52 453 000	242 965 000	767 589 000
Additional GGP	314 324 000	22 625 000	107 895 000	444 844 000
Additional Employment	823	89	580	1 492



Variable	Operational Expenditure	Total Impact
Additional Business Sales	R399.7 million	R767.6 million
Additional GGP		R444.8 million
Additional Employment		1 492 jobs (of which 823 direct)

Table 1.11 illustrates that the estimated total annual operational expenditure of approximately R399.7 million, could create an additional R767.6 million in new business sales, R444.8 million in additional GGP, as well as 1 492 sustained employment opportunities. Total impact includes direct, indirect as well as induced effects.

The following section provides a concise synthesis of preceding sections, pertaining to the anticipated impact of the proposed Greenfield development during both the construction and operational phases.

1.4.3 Summary

This chapter described the potential economic impact that the proposed Greenfield development could induce on the local, district and provincial economies and communities during both the construction and operational phases.

Table 1.12 summarises the findings of the Economic Impact Assessment as described in preceding sections.

Table 1.12: Synthesis of Impact Modelling Results of Greenfield Development

Variable	Input Value	Total Impact
Construction Phase (Once-off)		
Additional Business Sales	R794.5 million	R2.0 billion
Additional GGP		R651.8 million
Additional Employment		3 893 jobs (of which 2 466 direct)
Operational Phase (Sustained Annually)		
Additional Business Sales	R399.7 million	R767.6 million
Additional GGP		R444.8 million
Additional Employment		1 492 jobs (of which 823 direct)

Source: Demacon Estimates, 2017

The proposed Greenfield development could also contribute the following in terms of payable property rates per annum (refer to Table 1.13 - overleaf). If the **proposed Greenfield Mixed Use Development were not to occur**, the economic **benefits** in terms of additional business sales, GGP, employment, as well as property rates, would be **lost to the local, district and provincial economies**.

Table 1.13: Forecast Future Additional Property Rates Payable per Land Use

Land Use	Size	Capital Investment (Buildings)	Total Capital Investment (incl. Buildings, Land & Infrastructure)	Percentage	Property Rates Per Annum	Property Rates Percentage	Residential Property Rates Percentage	Non-Residential Property Rates Percentage
Residential (Subsidy)	2 158 units	378 729 000	416 601 900	52.4%	-	0.0%	0.0%	0.0%
Business	2.01ha	69 677 308	76 645 038	9.6%	599 922	20.3%	0.0%	20.3%
Social Facilities	18.3ha	273 883 077	301 271 385	37.9%	2 358 133	79.7%	0.0%	79.7%
TOTAL		722 289 385	794 518 323	100.0%	2 958 055	100.0%	0.0%	100.0%

Source: Demacon Estimates, 2017

¹ Note – Social housing is regarded as rateable, although it is often not rated.

1.5 KOPPIES ECONOMIC IMPACT

1.5.1 Construction Phase Impacts

This section indicates the anticipated impacts (direct, indirect and induced) that will result from the construction phase of the Koppies Mixed Use Development. It is important to note that these impacts are **once off and not sustained annual impacts**. The impacts will fade away after the construction of the project.

The following table provides an illustration of the anticipated **additional business sales** generated by each proposed land use during the construction phase of the proposed Koppies development.

Table 1.14: Construction Phase - Additional Business Sales per Land Use (2017 NPV)

Additional Business Sales	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	826 289 000	275 108 000	166 337 000	1 267 734 000	56.5%
Business	190 582 000	63 453 000	38 365 000	292 400 000	13.0%
Social Facilities	445 927 000	148 469 000	89 768 000	684 164 000	30.5%
TOTAL (RAND)	1 462 798 000	487 030 000	294 470 000	2 244 298 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional GGP** generated by each proposed land use during the construction phase of the proposed Koppies development.

Table 1.15: Construction Phase - Additional GGP per Land Use (2017 NPV)

Additional GGP	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	219 790 000	118 081 000	73 880 000	411 751 000	56.5%
Business	50 694 000	27 235 000	17 040 000	94 969 000	13.0%
Social Facilities	118 615 000	63 725 000	39 871 000	222 211 000	30.5%
TOTAL (RAND)	389 099 000	209 041 000	130 791 000	728 931 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional employment opportunities** generated by each proposed land use during the construction phase of the proposed Koppies development.

Table 1.16: Construction Phase - Additional Employment per Land Use (2017 NPV)

Additional Employment	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	1 600	500	400	2 500	56.3%
Business	400	100	100	600	13.5%

Social Facilities	868	259	214	1 341	30.2%
TOTAL (JOBS)	2 868	859	714	4 441	100.0%

Source: Demacon Estimates, 2017

The following table provides a synthesis of the abovementioned impacts, in terms of additional business sales, additional GGP as well as additional employment, with regard to the entire proposed Koppies development.

Table 1.17: Impact of Proposed Koppies Development – Construction Phase

Variable	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Additional Business Sales	1 462 798 000	487 030 000	294 470 000	2 244 298 000
Additional GGP	389 099 000	209 041 000	130 791 000	728 931 000
Additional Employment	2 868	859	714	4 441



Variable	Capital Expenditure	Total Impact
Additional Business Sales	R888.6 million	R2.2 billion
Additional GGP		R728.9 million
Additional Employment		4 441 jobs (of which 2 868 direct)

Table 1.17 illustrates that the envisaged total investment in construction costs of approximately R888.6 million, could create an additional R2.2 billion in new business sales, R728.9 billion in additional GGP, as well as an additional 4 441 once-off employment opportunities. Total impact includes direct, indirect as well as induced effects.

The following section provides an overview of the anticipated impact of the proposed Koppies development, during its operational phase.

1.5.2 Operational Phase Impacts

The subsequent paragraphs indicate the anticipated sustained impacts (direct, indirect and induced) that will result during the operational phase of the Koppies Mixed Use Development, once the project is fully operational (*i.e. sustained annual impacts*).

The following table provides an illustration of the anticipated **additional business sales** generated by each proposed land use during the operational phase of the proposed Koppies development.

Table 1.18: Operational Phase - Additional Business Sales per Land Use (Sustained Annually)

Additional Business Sales	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	7 046 000	1 745 000	1 903 000	10 694 000	1.3%
Business	236 745 000	47 545 000	75 215 000	359 505 000	42.9%
Social Facilities	278 354 000	17 557 000	172 262 000	468 173 000	55.8%

TOTAL (RAND)	522 145 000	66 847 000	249 380 000	838 372 000	100.0%
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Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional GGP** generated by each proposed land use during the operational phase of the proposed Koppies development.

Table 1.19: Operational Phase - Additional GGP per Land Use (Sustained Annually)

Additional GGP	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	2 925 000	757 000	845 000	4 527 000	1.0%
Business	125 571 000	20 501 000	33 403 000	179 475 000	37.9%
Social Facilities	205 684 000	7 574 000	76 496 000	289 754 000	61.2%
TOTAL (RAND)	334 180 000	28 832 000	110 744 000	473 756 000	100.0%

Source: Demacon Estimates, 2017

The following table provides an illustration of the anticipated **additional employment opportunities** generated by each proposed land use during the operational phase of the proposed Koppies development.

Table 1.20: Operational Phase - Additional Employment per Land Use (Sustained Annually)

Additional Employment	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Percentage Share
Residential (Subsidy)	4	3	5	12	0.8%
Business	230	80	180	490	31.5%
Social Facilities	610	32	410	1 052	67.7%
TOTAL (JOBS)	844	115	595	1 554	100.0%

Source: Demacon Estimates, 2017

The following table provides a synthesis of the abovementioned impacts, in terms of additional business sales, additional GGP as well as additional employment, with regard to the entire proposed Koppies development.

Table 1.21: Impact of Proposed Koppies Development – Operational Phase

Variable	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Additional Business Sales	522 145 000	66 847 000	249 380 000	838 372 000
Additional GGP	334 180 000	28 832 000	110 744 000	473 756 000
Additional Employment	844	115	595	1 554



Variable	Operational Expenditure	Total Impact
Additional Business Sales	R431.5 million	R838.4 million
Additional GGP		R473.8 million
Additional Employment		1 554 jobs (of which 844 direct)

Table 1.21 illustrates that the estimated total annual operational expenditure of approximately R431.5 million, could create an additional R838.4million in new business sales, R473.8 million in additional GGP, as well as 1 554 sustained employment opportunities. Total impact includes direct, indirect as well as induced effects.

The following section provides a concise synthesis of preceding sections, pertaining to the anticipated impact of the proposed Koppies development during both the construction and operational phases.

1.5.3 Summary

This chapter described the potential economic impact that the proposed Koppies development could induce on the local, district and provincial economies and communities during both the construction and operational phases.

Table 1.22 summarises the findings of the Economic Impact Assessment as described in preceding sections.

Table 1.22: Synthesis of Impact Modelling Results of Koppies Development

Variable	Input Value	Total Impact
Construction Phase (Once-off)		
Additional Business Sales	R888.6 million	R2.2 billion
Additional GGP		R728.9 million
Additional Employment		4 441 jobs (of which 2 868 direct)
Operational Phase (Sustained Annually)		
Additional Business Sales	R431.5 million	R838.4 million
Additional GGP		R473.8 million
Additional Employment		1 554 jobs (of which 844 direct)

Source: Demacon Estimates, 2017

The proposed Koppies development could also contribute the following in terms of payable property rates per annum (refer to Table 1.23 - overleaf).

If the **proposed Koppies Mixed Use Development were not to occur**, the economic **benefits** in terms of additional business sales, GGP, employment, as well as property rates, would be **lost to the local, district and provincial economies**.

Table 1.23: Forecast Future Additional Property Rates Payable per Land Use

Land Use	Size	Capital Investment (Buildings)	Total Capital Investment (incl. Buildings, Land & Infrastructure)	Percentage	Property Rates Per Annum	Property Rates Percentage	Residential Property Rates Percentage	Non-Residential Property Rates Percentage
Residential (Subsidy)	2 600 units	456 300 000	501 930 000	56.5%	-	0.0%	0.0%	0.0%
Business	3.04ha	105 244 615	115 769 077	13.0%	906 156	29.9%	0.0%	29.9%
Social Facilities	18.3ha	246 253 269	270 878 596	30.5%	2 120 241	70.1%	0.0%	70.1%
TOTAL	-	807 797 885	888 577 673	100.0%	3 026 397	100.0%	0.0%	100.0%

Source: Demacon Estimates, 2017

¹ Note – Social housing is regarded as rateable, although it is often not rated.

1.6 SYNTHESIS

This document described the potential economic impact that the proposed Greenfield and Koppies developments could induce on the local, district and provincial economies and communities during both the construction and operational phases.

Table 1.24 summarises the findings of the combined Economic Impact Assessment as described in preceding sections.

Table 1.24: Synthesis of Impact Modelling Results of Greenfields and Koppies Development

Variable	Input Value	Total Impact
Construction Phase (Once-off)		
Additional Business Sales	R1.7 billion	R4.3 billion
Additional GGP		R1.4 billion
Additional Employment		8 334 jobs (of which 5 3334 direct)
Operational Phase (Sustained Annually)		
Additional Business Sales	R831.2 million	R1.6 billion
Additional GGP		R918.6 million
Additional Employment		3 056 jobs (of which 1 667 direct)

Source: Demacon Estimates, 2017

The proposed Greenfield and Koppies developments could also contribute the following in terms of payable property rates per annum (refer to Table 1.25 - overleaf).

If the **proposed developments were not to occur**, the economic **benefits** in terms of additional business sales, GGP, employment, as well as property rates, would be **lost to the local, district and provincial economies**.

Table 1.25: Forecast Future Additional Property Rates Payable per Land Use

Land Use	Size	Capital Investment (Buildings)	Total Capital Investment (incl. Buildings, Land & Infrastructure)	Percentage	Property Rates Per Annum	Property Rates Percentage	Residential Property Rates Percentage	Non-Residential Property Rates Percentage
Residential (Subsidy)	4 758 units	835 029 000	918 531 900	54.6%	0.0%	-	0.0%	0.0%
Business	5.1ha	174 921 923	192 414 115	11.4%	25.2%	1 506 078	25.2%	0.0%
Social Facilities	38.6ha	520 136 346	572 149 981	34.0%	74.8%	4 478 374	74.8%	0.0%
TOTAL	-	1 530 087 269	1 683 095 996	100.0%	100.0%	5 984 452	100.0%	0.0%

Source: Demacon Estimates, 2017

¹ Note – Social housing is regarded as rateable, although it is often not rated.