Eastern Cape Gambling Board

Limited Pay-Out Machines (LPM) Distribution Study in the Eastern Cape

July 2020 – Final Report

eastern cape GAMBLING BOARD

URBAN-ECON Development Economists

CONTENTS

1. INTRODUCTION

Urban-Econ Development Economists were appointed by the Eastern Cape Gambling Board (ECGB) to undertake an independent desktop study to investigate Limited Pay-out Machine (LPM) Distribution within the Eastern Cape. This study is intended to inform the future allocation of LPM gambling licences in the Province. This will assist the Board to oversee and monitor equitable allocation and distribution of gambling activities in communities across the Province.

1.1. Scope of Work

This scope of work was defined predominantly from the original Terms of Reference (ToR) issued by ECGB, as well as consultation with the ECGB through the inception phase and through the Service Level Agreement (SLA). This study aims to assist the Board in allocating and distributing LPM gambling licences in different areas of the Province in compliance with the regulatory requirements. The study developed a quantitative methodology and approach to assessing existing or potential over-concentration of LPMs in each area within the local municipalities (LMs) and metropolitan municipalities of the Eastern Cape Province, having considered, amongst others, the following factors:
In respect of the decision to permit the roll-out of a further 400 LPMs in the Province for independent site operators:

- assess whether the roll-out of the additional 400 LPMs had led to the over-saturation of LPMs in the Province;
- assess the social, economic, and environmental impact and the impact on problem gambling of the existing 2 000 LPMs and the roll-out of the additional LPMs in the Province; and
- consider any other relevant information on whether the roll-out of the additional LPMs was in the best interest of the Province.

In respect of the allocation of the 2 400 LPMs in specific areas of the Province, the study assessed existing and potential – over-concentration of LPMs in each area within the local and metropolitan municipalities having considered, amongst others, the following:

- the outcomes and recommendations of the 2015 LPM study and any other relevant research;
- the number, geographical location, and proximity to each other of existing gambling modes, particularly LPM sites, casinos and bingo outlets, in various areas within local and metropolitan municipalities across the Province;

- the adequacy of the geographical location and distribution of current licensed gambling activities across the Province, taking into account socio-economic factors and alignment to provincial development outcomes;
- demand-side socio-economic indicators/factors considered include personal income, population, population density, propensity to gamble, participation variances in LPM gambling, urban/rural locality factor, expenditure on gambling;
- supply-side socio-economic indicators/factors considered include: regional outlier factors, i.e. historic gambling trends in each area, the influence of other existing gambling modes in each area (excl. LPMs), realised existing gross gaming revenue (GGR) turnover per area; and
- the potential social, economic, and environmental impact and the impact on problem gambling of the existing allocation of 2 400 LPMs and on the roll-out of the additional LPMs in the Province.

This report also takes into account the 2015 report which recommendations were considered by the ECGB to be flawed. The 2015 study's methodology and analysis were considered to be too broad and could not necessarily support the outcomes and recommendations that were being suggested. Thus, this report attempts to rectify this utilising a "mixed-method" approach in determining the concentration and saturation of LPMs in the Province.

1.2. Spatial Parameters of the Study

In order to perform the modelling at the required spatial dimensions within the Province, it was necessary to define the terms "concentration" and "saturation" for this study. These are as follows:

- **Concentration** - the assessment of the distribution of LPMs at a regional or local level.
- **Saturation** - the assessment of the number of playable LPMs at a provincial level.

These definitions have thus, necessitated the development of two separate segments of the modelling process.

For this study, it was important to consider the spatial parameters where data analysis was performed. The study aimed to examine each metropolitan municipality and LM at a nodal level. Nodes are areas of significant population compared to the surrounding areas. These urban areas are normally classified as towns or large villages. For this analysis, nodes were determined by utilising the Municipal Demarcation Board's 'main place' spatial divisions. Main place spatial divisions can be utilised to obtain personal and household data of residents. Using this definition, nodes were determined for

each LM and metropolitan municipality in the Province. Some LMs (Makana, Ntabankulu, Mbashe)only have a single major node where the population resides with the remainder spread out in the rural periphery. Other LMs and metropolitan municipalities have multiple nodes where the population resides (Kouga, Beyers Naude, Matatiele). For Nelson Mandela Bay, the main place nodes included Port Elizabeth, Uitenhage/Despatch/KwaNobuhle, Motherwell, Bethelsdorp and KwaDwesi / KwaZakele / New Brighton / Zwide. Buffalo City included the areas of East London (including the coastal areas of Gonubie, Kidds Beach), Mdantsane (including Berlin), King William's Town/Bhisho (including Zwelitsha) and Dimbaza (including surrounding villages).

The analysis also included the examination of outlying rural areas beyond the nodal areas which were then classified as the "remainder areas" of the municipality. These are typically described as rural areas, farms, hamlets, and small villages.

1.3. Report Structure

The remainder of the report is structured under the following headings:

2 Methodology	Discussion of the method used to determine concentration and saturation, including the methodology limitations, the methodological approach and processes used.
3 Socio-economic Indicators	Identification of the key economic indicators of the areas where the LPMs are located.
4 Spatial Distribution of LPMs (LPM Supply)	Geographical distribution of LPMs in the Province.
5 Concentration	Determination of the distribution of LPMs at a regional level in the Eastern Cape.
6 Saturation	Determination of the distribution of LPMs at a provincial level in the Eastern Cape.
7 Socio-economic Impacts of LPM Roll-Out	Determination of the socio-economic and environmental impacts of LPM gambling in the Eastern Cape.
8 Conclusion	Consolidation of the findings of the report.

2. METHODOLOGY

This chapter discusses the method used to determine LPM concentration and saturation, including concentration analysis, saturation analysis, methodology limitations, the methodological approach and processes used.

2.1. Concentration Analysis

The concentration analysis involved the assessment in distribution of LPMs at a regional or local level. It comprised the steps highlighted in Figure 1.1 below.

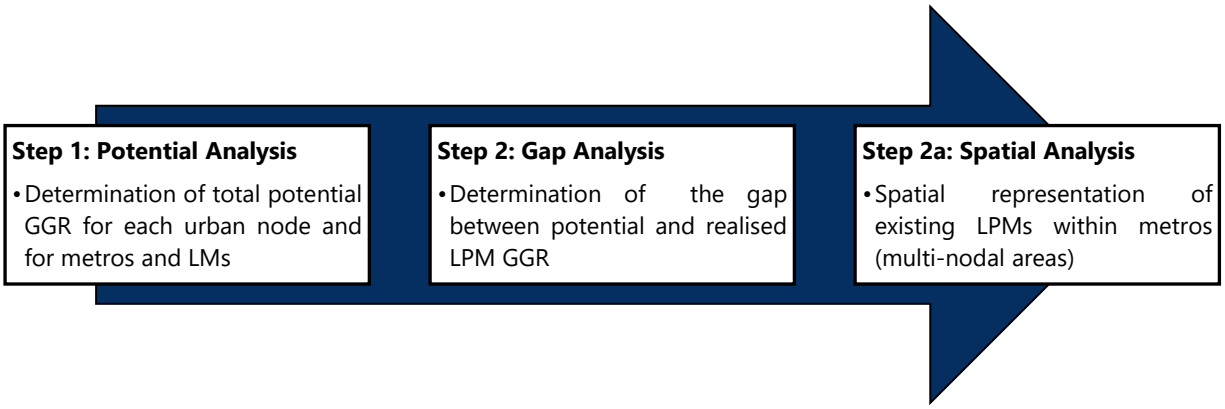


Figure 2.1: Concentration Analysis Steps

Step 1: Involved the determination of the total potential Gross Gambling Revenue (GGR) for each urban node and for the entire metropolitan and LM area.

Step 2: Involved utilising existing realised LPM GGR data supplied by ECGB at a local level to determine if a gap exists between potential and realised GGR.

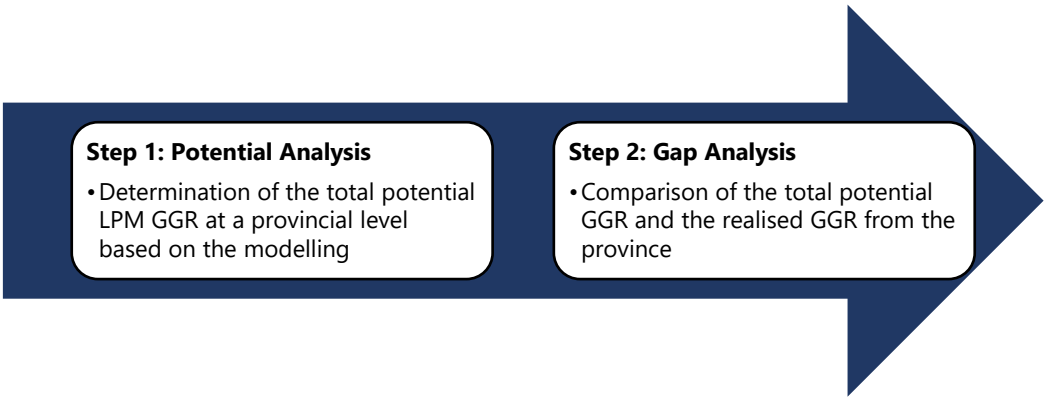
Step 2a: Included a spatial analysis of the locations of LPMs for metropolitan areas.

LPM concentration was analysed based on the total demand for gambling at a nodal level for each metropolitan municipality and LM. Demand was then compared to the current supply of LPMs, and other modes present in each LM and metropolitan municipality.

2.2. Saturation Analysis

The saturation analysis involved assessing the potential gap of LPMs across the Province using the steps in Figure 1.2 below.

Figure 1.2: Saturation Analysis



Step 1: Involved determining of the total potential LPM GGR at a provincial level based on the modelling.

Step 2: Involved the comparison of the total potential GGR and the realised GGR from the Province.

Saturation thus represented the accumulated "gap" between demand versus supply for all municipalities in the Province informing future licence decisions for LPMs at a provincial-wide level.

2.3. Methodological Approach

The methodological approach to this study took the form of a model that quantifies the potential GGR of LPMs in local and metropolitan municipal areas and the Province as a whole. This data was compared to realised GGR figures provided by ECGB at a provincial and municipal level to determine and quantify the gap between potential and realised LPM GGR. A GGR per LPM was determined from supplied data, and the potential number of LPMs in the area could be determined. This was then compared to the existing operational supply of LPMs in the local area and the number of licences granted for the given area. The process of determining the gap of GGR and LPMs can thus be considered balancing the demand of LPMs with the supply. The diagram below indicates the process mentioned above. The diagram thus indicates that a demand for LPMs that is greater than the supply will result in an under-supply of LPMs at the provincial or local municipal level while a supply of LPMs that is greater than the demand will result in an overconcentration or saturation of LPMs in the provincial or local municipal area.

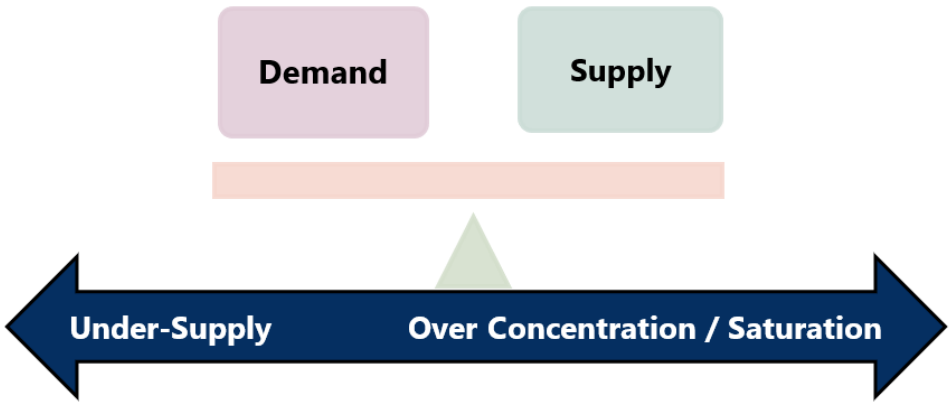


Figure 2.3 Methodological Approach

An illustrative example of the model used in the study is depicted in the figure below. The methodology outlined in this section was used to determine the concentration and saturation of LPMs in each respective study area.

Figure 2.4: Illustrative Example of the Model

Indicator	Inputs	Explanation / Source
Local Municipality	Matatiele	LM of Focus
Town / Urban Area		Town or Urban Area of Focus
Households (2011)	48 370	Census 2011 Household Number
LM Growth	1,47%	Household Growth Rate
Households (Adjusted 2020)	54763	Adjusted Value based on Growth Rate
Propensity (Household Expen	0,97%	NGB 2017
Existing LPM GGR	R -	From Client
Per Machine GGR	R 172 954,25	Bound Average - Based on Provincial A

DEMAND SIDE								
Annual household income	% of Households	Households	Midpoint	Household Income (annum)	Gambling Expenditure / Income Group	Total Potential GGR	2020 Adjusted	Income Group
01: No income	16,44%	9 001	R 1 000,00	R 9 001 235,51	0,89%	R 80 111,00	R 127 706,90	
02: R 1-R 4 800	7,37%	4 036	R 2 400,50	R 9 687 756,08	0,89%	R 86 221,03	R 137 447,05	Low Income
03: R 4 801-R 9 600	13,77%	7 540	R 7 200,50	R 54 295 354,12	0,89%	R 483 228,65	R 770 326,62	
04: R 9 601-R 19 200	28,42%	15 566	R 14 400,50	R 224 155 746,89	0,97%	R 2 174 310,74	R 3 466 121,96	
05: R 19 201-R 38 400	21,56%	11 804	R 28 800,50	R 339 969 929,19	0,97%	R 3 297 708,31	R 5 256 957,51	Lower Middle
06: R 38 401-R 76 800	6,13%	3 358	R 57 600,50	R 193 405 350,87	0,97%	R 1 876 031,90	R 2 990 628,36	
07: R 76 801-R 153 600	3,09%	1 690	R 115 200,50	R 194 696 746,48	1,05%	R 2 044 315,84	R 3 258 893,90	
08: R 153 601-R 307 200	1,94%	1 061	R 230 400,50	R 244 375 474,48	1,05%	R 2 565 942,48	R 4 090 431,70	Upper Middle
09: R 307 201-R 614 400	0,97%	530	R 460 800,50	R 244 088 046,90	1,05%	R 2 562 924,49	R 4 085 620,64	
10: R 614 401-R 1 228 800	0,17%	91	R 921 600,50	R 83 851 377,68	1,07%	R 897 209,74	R 1 430 264,00	
11: R 1 228 801-R 2 457 600	0,09%	51	R 1 843 200,50	R 94 189 193,21	1,07%	R 1 007 824,37	R 1 606 597,48	High Income
12: R 2 457 601 or more	0,06%	35	R 5 000 000,00	R 174 490 857,27	1,07%	R 1 867 052,17	R 2 976 313,55	
Total	**100%**			**R 1 866 207 068,68**		**R 18 942 880,73**	**R 30 197 309,68**	

otal Potential Gambling Demand
R 30 197 309,68

Total Potential LPM Gambling Demand Scenarios		
Low	Medium	High
R 10 271 196,72	R 11 781 062,20	R 13 290 927,68

Total Potential LPM Machine Demand Scenarios		
Low	Medium	High
59	68	77

2.4. Methodology Limitations

As a result of the desktop nature of the study, two primary limitations existed: the examination of leakages and injections.

2.4.1 Leakages

Leakage refers to capital or income that exits a system or economy rather than remaining within it. In this study, leakages represent the expected net outflow of gambling activities from a local economy. In other words, potential gamblers who choose to use gambling facilities/modes outside of their place of residence. This expenditure outside of the boundaries of their local economy contributes towards an expenditure leakage.

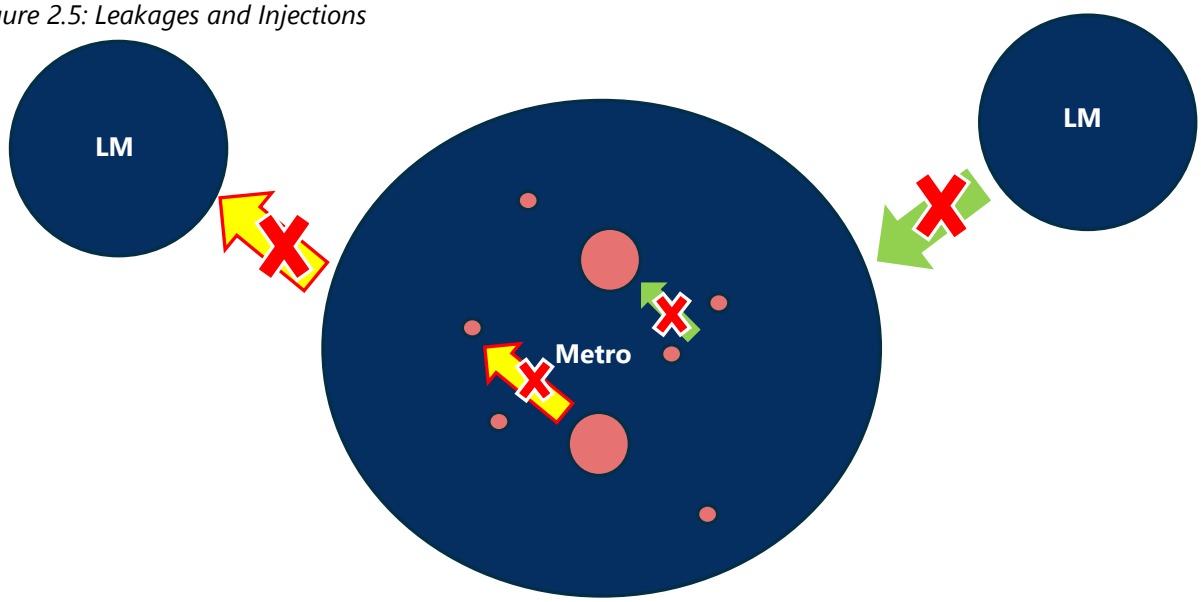
2.4.2 Injections

Injections are variables in a system or economy that add to the flow of capital or income. Injections, in the case of this study, occur when gamblers from outside the boundaries of a defined node partake in gambling in a particular node.

2.4.3 Leakages and Injections in this Study

To ascertain the level of leakages and injections into an area, primary data would need to be collected to understand these movement and expenditure patterns amongst gamblers. The figure below indicates how leakages and injections occur and how they were considered for LMs and metropolitan municipalities.

Figure 2.5: Leakages and Injections



As a desktop study relies on secondary data, there was limited understanding of injections and leakages in certain areas, with specific reference to the metropolitans. Movement and spending

patterns are not limited to the areas within which people reside and are thus not captured in the model. For example, in the Nelson Mandela Bay it is a common phenomenon for residents of Motherwell and KwaDwesi / KwaZakele / New Brighton / Zwide to undertake recreational spend in other areas such as Central and Walmer. In addition, residents of surrounding LMs chose to undertake recreational spend. Hence, it is difficult to allow for injections and leakages. Thus, there is need to be cognisant of this phenomenon when examining the data for the metropolitan areas. It is recommended that primary research be undertaken in the future as this study did not take into account the effects of tourism for business or leisure on gambling activities in Buffalo City and Nelson Mandela Bay.

In the case of LMs, some residents who live in one municipality may not opt to visit the main node in their own municipality and may, in fact, utilise another node in another municipality. An example may be that residents of Libode (Nyandeni LM) may choose to spend their recreation budget on activities in Mthatha (King Sabata Dalindyebo LM) rather than Libode. This may be as a result of the distance to other nodes or the availability of services. These aspects differ from municipality to municipality and are not necessarily captured in the model. An in-depth primary investigation of such a phenomenon would be required to ascertain such local level details.

3. SOCIO-ECONOMIC INDICATORS

The methodology outlined in Section 2 indicated the different approaches used to determine the concentration of LPMs at a local level and saturation of LPMs in the Province. A 'mixed-method' approach, accounting for a **variety of economic and socio-economic indicators, was undertaken** including the number of households in each area, local household growth rate, annual household income bracket, gambling expenditure per income group, existing GGR for the local area, average GGR generated per LPM, number of LPMs per area, and current offering of other gambling modes. It is thus, of great importance to examine and understand the indicators that form the basis of the modelling process. The assumptions are discussed below.

3.1. Number of households in each area and household growth rate

The number of households was utilised to determine the number of households per income group residing in each urban area and the total number of households for each LM. The data was forecast based on growth rate between Census 2001 and 2011 to estimate the current number of households. To ensure reliability, this data was benchmarked with household numbers in the Stats SA Community Survey 2016. The data utilised in these calculations was sourced from Stats SA Census 2001 and 2011.

3.2. Annual household income (inflation-adjusted)

Household income was used to calculate total household disposable expenditure for a given area. The proportion of population in each area was distributed across standardised income brackets (low income, middle income, high income) and adjusted according to income group spending patterns (NGB, 2012). The outcome was used in conjunction with propensity to gamble to determine the GGR for an area (GGR demand). The data utilised in these calculations was sourced from Census 2011(inflation-adjusted, 2020) and the NGB (2012 & 2017).

3.3. Propensity and gambling expenditure per income group

Given the desktop nature of this study, it was necessary to apply a gambling propensity indicator informed through prior studies. "Propensity to gamble is defined as the percentage of household expenditure allocated to gambling" (Ligthelm & Mabaso, 2003). Due to the unavailability of exact data on the propensity, this source has become a widely accepted industry norm of propensity which eliminates the complexity of allocating expenditure between gamblers and non-gamblers, as well as

part-time social gamblers. The propensity value (household spend on gambling activities) of 0,97% (NGB, 2017) chosen falls in line with household recreational spend data (5%) provided by StatsSA (Census, 2011) for the Eastern Cape.

Propensity to gamble accounted for all gambling modes as well as "gamblers" and "non-gamblers". It was applied in conjunction with household disposable income to calculate potential GGR for each study area. Gambling expenditure is the percentage of household income allocated to gambling as per the household's income group. Gambling expenditure is income-sensitive and varies between 0,92% and 1,02%, dependent on what income cohort the household is part of. Generally, more affluent households spend a smaller proportion of their household income on gambling activities than low-income households. The propensity data utilised in these calculations was sourced from the National Gambling Board (NGB, 2017).

3.4. Existing LPM GGR, per LPM GGR, and LPMs per area

The ECGB is the custodian of GGR data at a provincial level. The GGR data is collated and aggregated monthly for each gambling mode (casinos, bingo, LPM, betting). The ECGB also keeps data on the location of these various modes as well as the number of LPMs that operate and are licenced. This data was provided by the ECGB for the modelling process and was a key component in the calculations of concentration and saturation. The number of LPMs was obtained from the supply information received from ECGB (2019/20) for the study.

The LPM GGR data was aggregated for each area and was used to determine the existing supply of LPM GGR per area. This LPM GGR data was then divided by the LPMs in the area to get a "per LPM GGR". This per LPM GGR was utilised to determine the LPM demand per area. Each area's per LPM GGR was analysed based on the provincial LPM GGR. If this value was considered an outlier (if it fell above or below 20% of the provincial per LPM GGR) it was adjusted to the upper or lower bound value of the provincial GGR.

It should be noted that LPM GGR data that was provided by the ECGB was adjusted (average of previous 11 months was utilised) for the month of March 2020 data as a result of the state of disaster caused by COVID-19[1].

[1] COVID-19 is the infectious disease caused by coronavirus (a large family of viruses which may cause illness in animals or humans). This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. COVID-19 is now a pandemic affecting many countries globally (WHO, 2020).

3.5. GGR Distribution across Gambling Modes & LPM GGR Capture Rate

For this study, it was important to differentiate between different gambling modes and the distribution of GGR in different municipal areas. Different municipalities fell largely into two categories; those that had gambling activities present and those that did not.

- For the areas that had **no gambling present,** it was necessary to determine a likely LPM GGR capture rate. This was based on the GGR distribution across gambling modes at a provincial level. Based on the ECGB (2019/20) data, it was determined that LPMs contribute approximately 17% to the total provincial GGR whilst nearly 48% was contributed by casinos. However, in areas without any gambling, the introduction of LPMs would likely capture a higher proportion to the potential GGR than the provincial average. In such instances, the provincial average was adjusted to account for an increased LPM capture rate. The potential LPM capture was then increased to 39% to account for such instances. This value was determined by dividing the casino provincial proportion between LPMs and bingo gambling. This was done because it was considered unlikely that additional casinos would be developed in the Province, especially in smaller rural nodes. Bingo was important to consider as it is most likely to compete with LPMs for households recreational spend where casinos were absent, and it was considered more likely that bingo establishments would be established in smaller rural nodes.

  This value was utilised by areas such as Port St Johns, Mhlontlo, Ntabankulu and Matatiele and other areas that had no gambling.

- For **areas that had gambling present** the current LPM GGR capture rate was utilised. The capture rates varied between 7% and 51%.

  The following table indicates the areas and their respective LPM capture rates.

Table 3.1: Areas and the Corresponding LPM Capture Rates

Areas	LPM Capture Rates

Bhisho/King William's town	30,77%
Butterworth	22,21%
Cradock	24,76%
East London	16,63%
Jeffrey's Bay	29,37%
Lusikisiki	7,73%
Makhanda	45,03%
Mthatha	16,20%
Ngcobo	20,88%
Port Elizabeth	21,79%
Komani	19,74%
Uitenhage/Despatch/KwaNobuhle	51,78%

These values (both when gambling is present and when it is not present) account for other gambling modes in a given area.

Additionally, it was determined that scenarios be developed to account for variations in the data that may occur and natural variations in consumers' demands. The model incorporated a 5% variation in a "low" and "high" scenario on the LPM GGR capture value. This allowed the model to capture the sensitivities of the local areas. The "medium" scenario was the unchanged LPM capture rate that was developed above.

3.6. Socio-Economic Indicator Summary

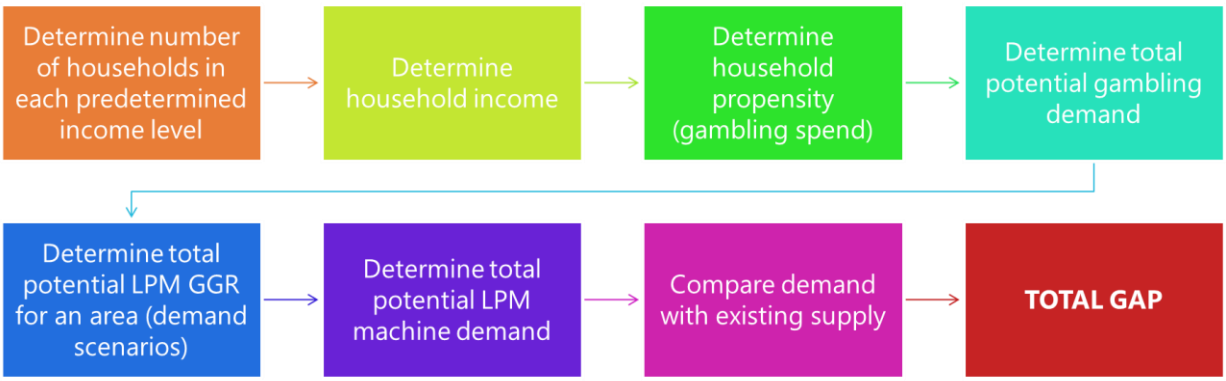
The section covers the socio-economic indicators used in the LPM model. The indicators were key inputs used in developing a model in order to calculate the concentration and saturation of LPM at a regional and provincial level. A summary of the socio-economic indicators discussed in the section is provided in the table below.

Table 3.2: Summary of Socio-Economic Indicators

Indicator	Summary
Number of households in each area	• Utilised to determine the number of households per income group based on Stats SA Census 2001 and 2011.
Local household growth rate (forecast)	• Utilised to estimate the current number of households based on Stats SA Census 2001 and 2011 and Community Survey 2016.
Annual household income	• Used to calculate the total disposable expenditure for a given area based on Stats SA Census 2011 (inflation adjusted, 2020).
Propensity to gamble	• Percentage of household expenditure allocated to gambling sourced from NGB, 2017.
Ga mbling expenditure per income group	• Percentage of household expenditure allocated to gambling as per the household's income group sourced from Quantec.
Existing LPM GGR, per LPM GGR, and LPMs per area	• Used to calculate concentration and saturation and was sourced from ECGB (2019/20) and adjusted to March 2020.
GGR Distribution across Gambling Modes	• Used to inform demand scenarios i.e. proportion of household expenditure on gambling between different modes sourced from ECGB (2019/20).

3.7. Methodological Process Utilising the Indicators

Figure 3.1: Methodological Process which Utilises the Indicators



The socio-economic indicators could thus be utilised to determine the concentration and saturation using an eight-step process. The figure above outlines this process:

(i) The initial step involved forecasting the data obtained from StatsSA Census 2011 based on the household growth rate between 2001 and 2011 to determine the current number of households in each predetermined income level in each local area.

(ii) The second step was to determine household income to calculate the total disposable expenditure for a given area based on Stats SA Census 2011 (inflation-adjusted, 2020).

(iii) Step three was used to determine household propensity (gambling spend), which is the percentage of household expenditure allocated to gambling as per the household's income group.

(iv) Step four was thus to determine total potential gambling demand by finding the sum of the total potential GGR for the different income groups.

(v) Step five was to determine total potential LPM GGR for an area by calculating the total potential LPM GGR for the low, medium, and high demand scenarios.

(vi) Step six was to determine total potential LPM demand for the low, medium, and high demand scenarios.

(vii) Step seven was to compare demand with existing supply.

(viii) The final step was to determine the total gap between supply and demand. This could then be used to determine the concentration at a local level and the saturation at a provincial level.

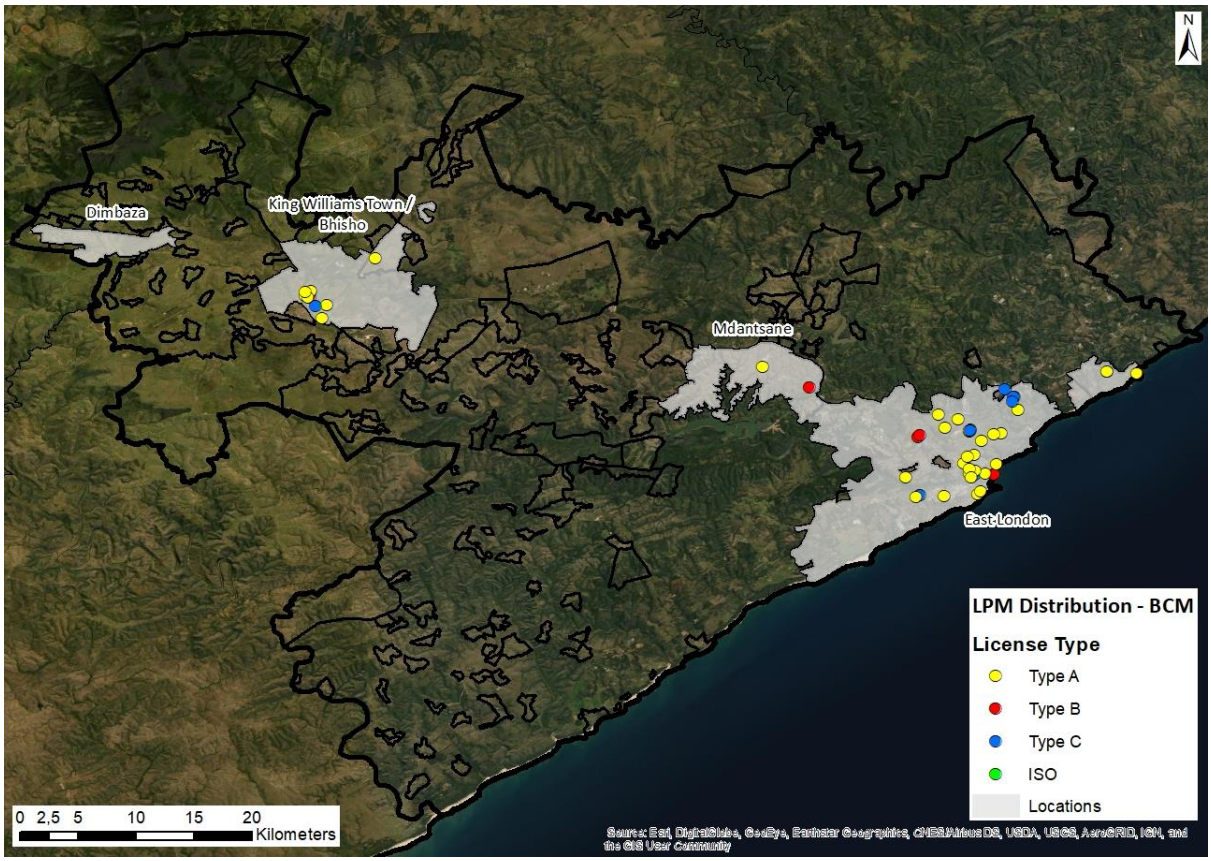
4. SPATIAL DISTRIBUTION OF LPMS (LPM SUPPLY)

This section aims to determine the spatial distribution of existing LPM supply at a provincial and metropolitan level in the Eastern Cape. It provides the spatial representation of existing LPMs of areas that have LPMs in multiple nodes. Most LMs only have one or two nodes that contain LPMs, but the following areas have multiple nodes that contain LPMs.

4.1. Buffalo City Metropolitan Municipality

Buffalo City Metropolitan Municipality consists of the following areas: Bhisho, Dimbaza, East London, Kidds Beach, King William's Town, Mdantsane, Phakamisa and Zwelitsha. Bhisho, the provincial capital of the Eastern Cape, falls under the municipality. The following map outlines the distribution of LPMs at a main place level in Buffalo City.

Figure 4.1: Distribution of LPM Sites in Buffalo City Metropolitan Municipality



Adapted from: (ECGB, 2020)

As depicted in the map above, a large proportion of the LPMs in BCMM are located in the main urban node of East London. With few located in Mdantsane and Bhisho/King William's Town. The Dimbaza and northern areas are devoid of LPMs. Furthermore, the outlying areas of Buffalo City have few LPMs.

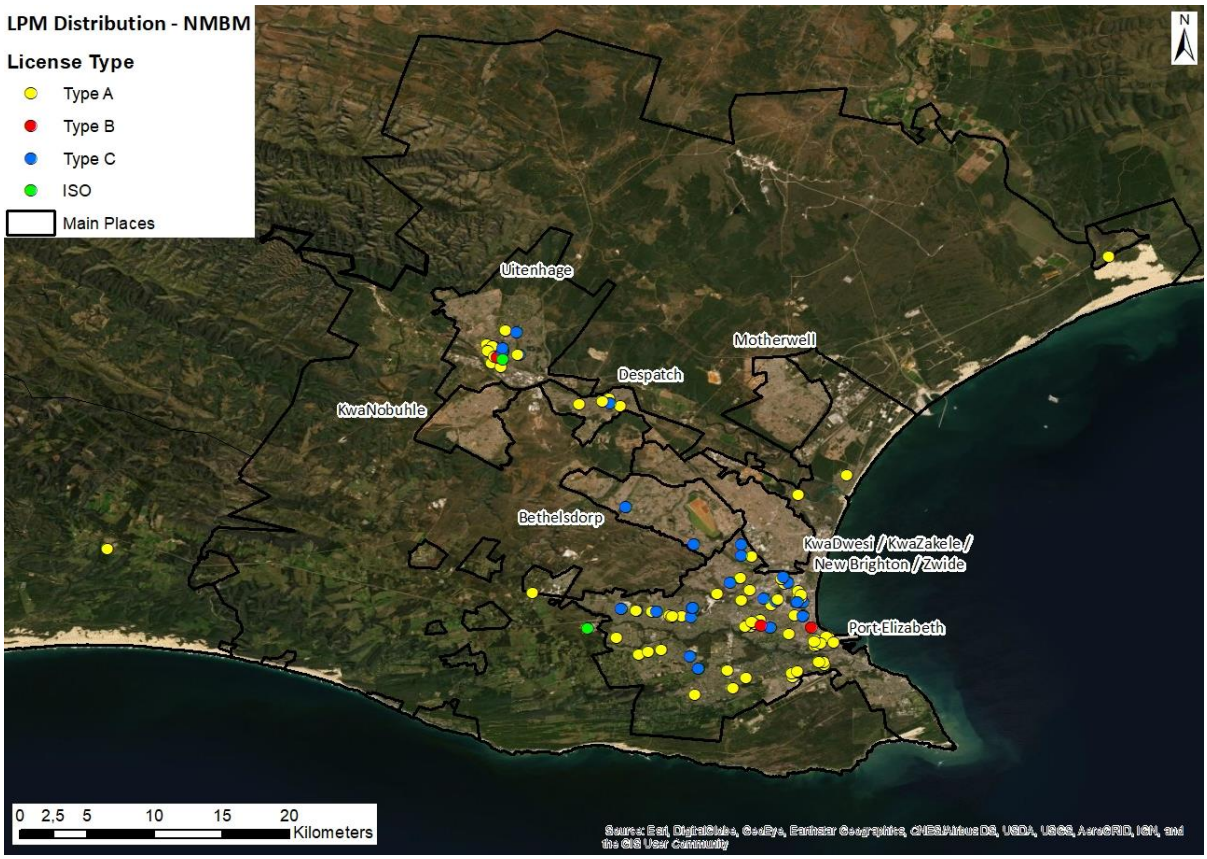
Popular holiday areas along the southern coastal belt are also devoid of LPMs. This indicates that while there is scope for expansion of LPMs in the municipality, it is likely that the large majority of demand emerges from areas that are outside the main node of East London. Areas such as Mdantsane, King William's Town, Bhisho and the surrounding rural hamlets that are part of Buffalo City are underserviced in terms of LPMs. Bingo and other gambling modes follow a similar pattern where the outlying areas are unrepresented.

4.2. Nelson Mandela Bay Metropolitan Municipality

Nelson Mandela Bay Metropolitan Municipality encompasses the nodes of Port Elizabeth, Uitenhage, KwaNobuhle Despatch, Bethelsdorp, KwaDwesi, KwaZakele, New Brighton, Zwide, Motherwell and their surrounding agricultural areas.

The map below illustrates the geographical distribution of LPMs in the Nelson Mandela Bay.

Figure 4.2: Distribution of LPM Sites in Nelson Mandela Bay Metropolitan Municipality



Adapted from: (ECGB, 2020)

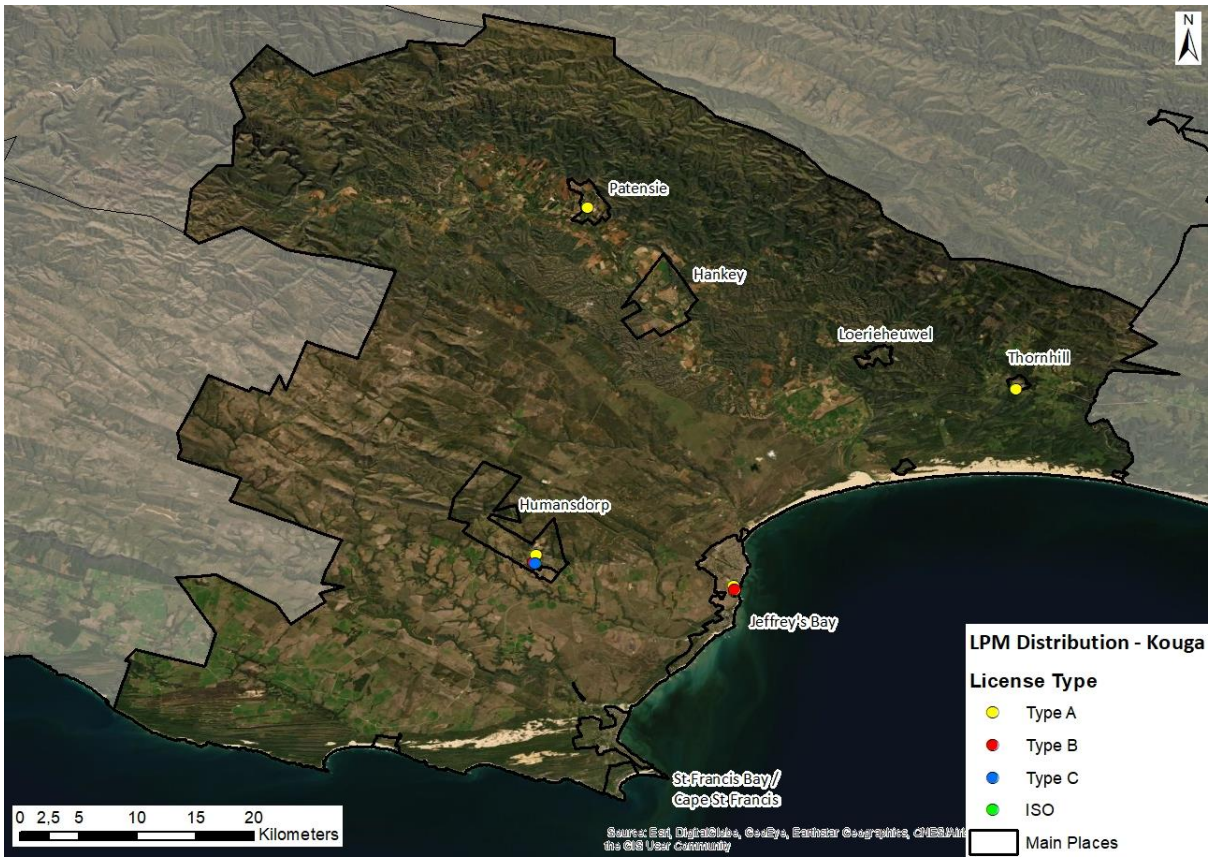
As indicated in the map above, the majority of LPMs are located in the densely populated areas of Port Elizabeth, Uitenhage, and Despatch. Areas such as KwaNobuhle, Motherwell, KwaDwesi,

KwaZakele, New Brighton and Zwide have no LPMs present, while Bethelsdorp has two locations for LPMs. This unequal distribution of LPMs follows a similar pattern for other gambling modes such as bingo and horse/sports betting outlets. This image thus indicates that while there is a large supply of LPMs they are only servicing a limited portion of the total population of Nelson Mandela Bay.

4.3. **Kouga LM**

Kouga LM encompasses the nodes of Jeffrey's Bay, Humansdorp, St Francis Bay, Cape St Francis, Hankey and Patensie as well as smaller hamlets and their surrounding agricultural areas. The map below illustrates the geographical distribution of LPMs in Nelson Mandela Bay.

Figure 4.3: Distribution of LPM Sites in Kouga LM



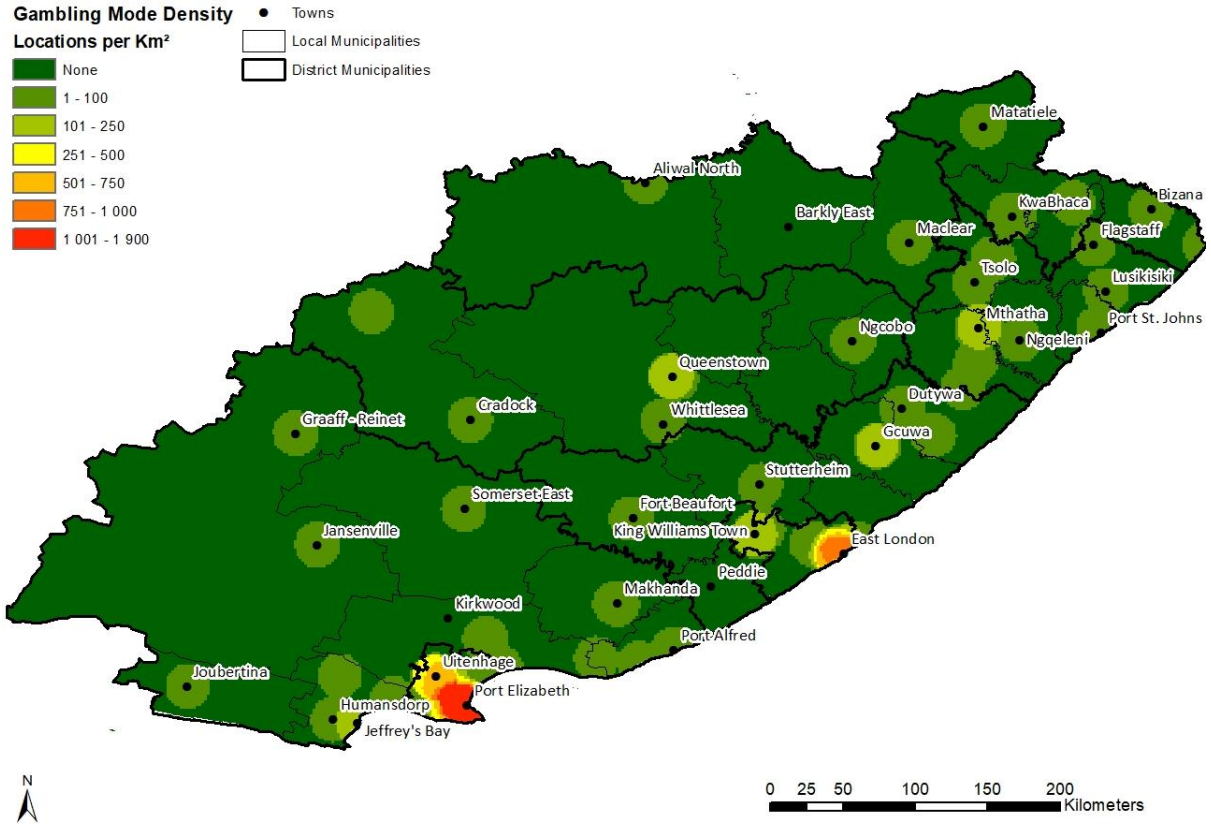
Adapted from: (ECGB, 2020)

As indicated in the above map, the majority of LPMs are located in the more densely populated areas of Jeffrey's Bay and Humansdorp. Areas such as Hankey and St Francis Bay / Cape St Francis have no LPMs present. The areas of Patensie and Thornhill each have one establishment where LPMs are located.

4.4. Gambling Distribution in the Eastern Cape

The map below highlights the distribution of all gambling mode locations (casinos, bingo, LPMs, bookmakers, racecourses, and totalisators) in the different nodes across the Province.

Figure 4.4: Gambling Mode Distribution at a Provincial Level



Source: (Urban-Econ GIS Unit, 2020)

As depicted in the map above, there is a very high density of gambling modes in the metropolitan areas of Buffalo City and Nelson Mandela Bay with the Port Elizabeth node having the highest density of between 1 001 modes per km^2 to 1 900 modes per km^2 followed by Buffalo City where East London has a gambling mode density of between 751 and 1 000 modes/km^2 and 1 000 modes/km^2.

In addition, the nodes of Uitenhage, King William's Town/Bhisho, Humansdorp, Jefferey's Bay, Komani, Gcuwa, and Mthatha have a medium density of gambling modes ranging between 101-250 modes/km^2 concentration of gambling modes whereas the remainder of the nodes in the Province have a low concentration of gambling modes, implying that they have the capacity to accommodate additional modes of gambling.

4.5. LPM Site Closures

For the development of such a study, it is also important to note the number of LPM sites that previously closed around the Province. The table below indicates that 51 site closures have occurred between 2015/16 and 2017/18. The majority of these closures occurred in 2015/16 with only nine closures in 2017/18. The majority of closures occurred in Nelson Mandela bay (24) while nine occurred in Buffalo City. The remainder of the closures occurred in Chris Hani (five), OR Tambo (five), Sarah Baartman (four), Joe Gqabi (three) and Amathole (one). No site closures have occurred in Alfred Nzo.

Table 4.1: Eastern Cape LPM Site Closures between 2015 and 2018

Location	2015/16 Site Closures	2016/17 Site Closures	2017/18 Site Closures	Total
NMBM	15	4	5	**24**
BCM	7	1	1	**9**
Chris Hani	1	2	2	**5**
OR Tambo	2	2	1	**5**
Sarah Baartman	2	2	0	**4**
Joe Gqabi	2	1	0	**3**
Amathole	0	1	0	**1**
Total	**29**	**13**	**9**	**51**

Source: (Adapted from ECGB, Site Closure List, 2020)

Additionally, the major licence types that have closed include:

- 45 type A licences
- 2 type B licences
- 1 type C licence
- 3 unknown licence types

The predominant reasoning for site closures is, as of yet, unknown.

5. LPM CONCENTRATION ANALYSIS

The following section outlines the results of the modelling process that was informed by the socio-economic indicators in the previous section. As previously stated, this was achieved by determining the total potential GGR (demand) in the local areas, then comparing this to the existing GGR and number of LPMs in the areas (supply). This comparison could then determine if a gap existed between the total potential GGR and actual GGR generated in the areas.

The tables below outline the municipal areas and the nodes that were examined. For each node, the total potential GGR demand (low, medium, and high) and potential number of LPM demand (low, medium, and high) are presented. The current supply of LPMs, LPM GGR and total number of licences are presented. When compared to each other, the total gap between the LPMs in play and total licences granted can be determined. In some cases, there exists a difference between the number of LPMs in play and the number of LPM licences granted in a municipality. Only representing the one value does not reflect the reality of the LPMs in the Province. It was thus determined to include the gap between LPM demand and LPMs in play (Operational LPM Gap) and the gap between LPM demand and licences granted in an area (LPM Licensed Gap). The following tables outline the GGR and LPM gap for each LM and metropolitan municipality.

5.1. Alfred Nzo District LPM Concentration Analysis

Table 5.1: Alfred Nzo District's LM and Nodal LPM Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Matatiele	Matatiele Demand	R2 735 791	R3 137 952	R3 540 114	6	7	7
	Maloti Demand	R1 545 715	R1 772 936	R2 000 156	4	4	5
	Matatiele LM Remainder Demand	R9 739 580	R11 171 298	R12 603 016	80	92	104
	Total Potential LPM GGR & LPM Demand	R14 021 087	R16 082 186	R18 143 285	90	103	116
	Total Current LPM GGR & LPM Supply	R0			0		

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total LPM Licences Granted					0	
	Total Current GGR & Operational LPM Gap	**R14 021 087**	**R16 082 186**	**R18 143 285**	**90**	**103**	**116**
	Licensed LPM Gap				**90**	**103**	**116**
Umzimvubu	MaXesibeni Demand	R905 248	R1 038 319	R1 171 391	5	6	7
	KwaBhaca Demand	R968 295	R1 110 634	R1 252 973	6	6	7
	Umzimvubu Remainder Demand	R9 398 616	R10 780 212	R12 161 808	54	62	70
	Total Potential LPM GGR & LPM Demand	R11 272 159	R12 929 165	R14 586 172	65	75	84
	Total Current LPM GGR & LPM Supply		R1 427 816			40	
	Total LPM Licences Granted					40	
	Total Current GGR & Operational LPM Gap	**R9 844 343**	**R11 501 350**	**R13 158 357**	**25**	**35**	**44**
	Licensed LPM Gap				**25**	**35**	**44**
Ntabankulu	Tabankulu Demand	R496 052	R568 971	R641 891	3	3	4
	Ntabankulu Remainder Demand	R4 394 077	R5 040 006	R5 685 936	25	29	33
	Total Potential LPM GGR & LPM Demand	R4 890 129	R5 608 978	R6 327 826	28	32	37
	Total Current LPM GGR & LPM Supply		0			0	
	Total LPM Licences Granted					0	
	Total Current GGR & Operational LPM Gap	**R4 890 129**	**R5 608 978**	**R6 327 826**	**28**	**32**	**37**
	Licensed LPM Gap				**28**	**32**	**37**
Mbizana	Bizana Demand	R1 133 837	R1 300 511	R1 467 185	6	7	8
	Mbizana Remainder Demand	R4 516 782	R6 397 207	R8 277 633	26	37	48
	Total Potential LPM GGR & LPM Demand	R5 650 619	R7 697 718	R9 744 817	32	44	56
	Total Current LPM GGR & LPM Supply		R7 220 650			40	
	Total LPM Licences Granted					40	
	Total Current GGR & Operational LPM Gap	**-R1 570 031**	**R477 068**	**R2 524 168**	**-8**	**4**	**16**

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Licensed LPM Gap				**-8**	**4**	**16**

5.2. Amathole District LPM Concentration Analysis

Table 5.2: Amathole Nzo District's LM and Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Mbashe	Dutywa Demand	R1 180 336	R1 353 845	R1 527 355	5	6	7
	Mbashe LM Remainder Demand	R13 020 805	R14 934 863	R16 848 921	60	69	78
	Total Potential LPM GGR & LPM Demand	R14 201 141	R16 288 708	R18 376 275	66	75	85
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R14 201 141**	**R16 288 708**	**R18 376 275**	**66**	**75**	**85**
	Licensed LPM Gap				**66**	**75**	**85**
Mquma	Gcuwa Demand	R3 338 515	R4 308 726	R5 278 937	15	20	24
	Mnquma Remainder Demand	R10 408 458	R11 938 501	R13 468 544	48	55	62
	Total Potential LPM GGR & LPM Demand	R13 746 973	R16 247 227	R18 747 481	64	75	87
	Total Current LPM GGR & LPM Supply	R4 570 544			43		
	Total LPM Licences Granted				45		
	Total Current GGR & Operational LPM Gap	**R9 176 429**	**R11 676 683**	**R14 176 937**	**21**	**32**	**44**
	Licensed LPM Gap				**19**	**30**	**42**
Great Kei	Qumrha Demand	R610 878	R700 678	R790 477	3	3	4
	Great Kei Remainder Demand	R2 380 472	R2 730 402	R3 080 331	11	13	14

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total Potential LPM GGR & LPM Demand	R2 991 351	R3 431 079	R3 870 808	14	16	18
	Total Current LPM GGR & LPM Supply		R0			0	
	Total LPM Licences Granted					0	
	Total Current GGR & Operational LPM Gap	**R2 991 351**	**R3 431 079**	**R3 870 808**	**14**	**16**	**18**
	Licensed LPM Gap		**R0**		**14**	**16**	**18**
Amahlathi	Stutterheim Demand	R2 975 148	R3 412 494	R3 849 841	14	16	18
	Cathcart Demand	R220 812	R253 271	R285 731	1	1	1
	Amahlathi Remainder Demand	R4 776 739	R5 478 920	R6 181 100	22	25	29
	Total Potential LPM GGR & LPM Demand	R7 972 699	R9 144 685	R10 316 671	23	27	30
	Total Current LPM GGR & LPM Supply		R599 931			5	
	Total LPM Licences Granted		R0			5	
	Total Current GGR & Operational LPM Gap	**R7 372 768**	**R8 544 755**	**R9 716 741**	**18**	**22**	**25**
	Licensed LPM Gap				**18**	**22**	**25**
Raymond Mhlaba	Alice Demand	R1 746 953	R2 003 755	R2 260 557	8	9	10
	Fort Beaufort Demand	R2 798 016	R3 209 324	R3 620 632	13	15	17
	Adelaide Demand	R1 453 115	R1 666 723	R1 880 331	7	8	9
	Bedford Demand	R621 884	R713 301	R804 718	3	3	4
	Raymond Mhlaba LM Remainder Demand	R5 034 222	R5 774 252	R6 514 283	23	27	30
	Total Potential LPM GGR & LPM Demand	R11 654 191	R13 367 356	R15 080 522	54	62	70
	Total Current LPM GGR & LPM Supply		R2 915 228			20	
	Total LPM Licences Granted					40	
	Total Current GGR & Operational LPM Gap	**R11 032 306**	**R12 745 472**	**R14 458 637**	**34**	**42**	**50**
	Licensed LPM Gap				**14**	**22**	**30**
N q	Peddie Demand	R403 280	R462 562	R521 844	2	2	2

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Ngqushwa Remainder Demand	R3 767 202	R4 320 980	R4 874 759	17	20	23
	Total Potential LPM GGR & LPM Demand	R4 170 481	R4 783 542	R5 396 602	19	22	25
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R4 170 481**	**R4 783 542**	**R5 396 602**	**19**	**22**	**25**
	Licensed LPM Gap				**19**	**22**	**25**

5.3. Chris Hani District LPM Concentration Analysis

Table 5.3: Chris Hani District's LM and Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Engcobo	Ngcobo Demand	R716 919	R942 634	R1 168 348	3	4	5
	Engcobo Remainder Demand	R7 199 483	R8 257 807	R9 316 131	33	38	43
	Total Potential LPM GGR & LPM Demand	R7 916 403	R9 200 441	R10 484 479	37	43	48
	Total Current LPM GGR & LPM Supply	R1 476 240			30		
	Total LPM Licences Granted	R0			40		
	Total Current GGR & Operational LPM Gap	**R6 440 162**	**R7 724 201**	**R9 008 239**	**7**	**13**	**18**
	Licensed LPM Gap				**-3**	**3**	**8**
Sakhisizwe	Khowa Demand	R1 583 867	R1 816 695	R2 049 524	7	8	9
	Cala Demand	R1 746 084	R2 002 758	R2 259 432	8	9	10
	Sakhisizwe Remainder Demand	R1 797 999	R2 062 304	R2 326 610	8	10	11
	Total Potential LPM GGR & LPM Demand	R5 127 949	R5 881 758	R6 635 566	24	27	31
	Total Current LPM GGR & LPM Supply	R0			0		

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total LPM Licences Granted					0	
	Total Current GGR & Operational LPM Gap	**R5 127 949**	**R5 881 758**	**R6 635 566**	**24**	**27**	**31**
	Licensed LPM Gap				**24**	**27**	**31**
Intsika Yethu	Cofimvaba Demand	R1 097 339	R1 258 648	R1 419 956	5	6	7
	Tsolo Demand	R417 990	R479 434	R540 878	2	2	3
	Intsika Yethu Remainder Demand	R6 581 541	R7 549 027	R8 516 513	30	35	39
	Total Potential LPM GGR & LPM Demand	R8 096 869	R9 287 109	R10 477 348	37	43	48
	Total Current LPM GGR & LPM Supply		R0			0	
	Total LPM Licences Granted					0	
	Total Current GGR & Operational LPM Gap	**R8 096 869**	**R9 287 109**	**R10 477 348**	**37**	**43**	**48**
	Licensed LPM Gap				**37**	**43**	**48**
Inxuba Yethemba	Cradock Demand	R3 892 308	R4 877 009	R5 861 711	18	23	27
	Middelburg Demand	R1 918 223	R2 200 201	R2 482 180	7	8	9
	Inxuba Yethemba Remainder Demand	R1 674 574	R1 920 736	R2 166 898	8	9	10
	Total Potential LPM GGR & LPM Demand	R7 485 104	R8 997 947	R10 510 789	33	39	46
	Total Current LPM GGR & LPM Supply		R5 691 764			45	
	Total LPM Licences Granted					45	
	Total Current GGR & Operational LPM Gap	**R1 793 340**	**R3 306 182**	**R4 819 025**	**-12**	**-6**	**1**
	Licensed LPM Gap				**-12**	**-6**	**1**
Emalahleni	Dordrecht Demand	R1 260 185	R1 445 432	R1 630 679	6	7	8
	Indwe Demand	R576 422	R661 156	R745 890	3	3	3
	Emalahleni Remainder Demand	R5 436 580	R6 235 757	R7 034 934	25	29	33

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total Potential LPM GGR & LPM Demand	R7 273 187	R8 342 345	R9 411 503	34	39	44
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R7 273 187**	**R8 342 345**	**R9 411 503**	**34**	**39**	**44**
	Licensed LPM Gap				**34**	**39**	**44**
Enoch Mgijima	Komani Demand	R5 296 261	R7 092 237	R8 888 213	24	33	41
	Thornhill Demand	R545 219	R625 366	R705 513	3	3	3
	Tarkastad Demand	R1 051 974	R1 206 614	R1 361 254	5	6	6
	Enoch Mgijima Remainder Demand	R15 978 767	R18 327 645	R20 676 523	74	85	96
	Total Potential LPM GGR & LPM Demand	R22 872 221	R27 251 863	R31 631 504	106	126	146
	Total Current LPM GGR & LPM Supply	R10 397 644			63		
	Total LPM Licences Granted				65		
	Total Current GGR & Operational LPM Gap	**R12 474 578**	**R16 854 219**	**R21 233 861**	**43**	**63**	**83**
	Licensed LPM Gap				**41**	**61**	**81**

5.4. Joe Gqabi District LPM Concentration Analysis

Table 5.4: Joe Gqabi District's LM and Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Walter Sisulu	Maletswai Demand	R3 603 301	R4 132 986	R4 662 671	17	19	22
	Burgersdorp Demand	R1 419 823	R1 628 537	R1 837 250	7	8	8
	Steynsberg Demand	R545 805	R626 038	R706 271	3	3	3
	Walter Sisulu Remainder Demand	R5 640 164	R6 469 268	R7 298 372	26	30	34

	Total Potential LPM GGR & LPM Demand	R11 209 092	R12 856 829	R14 504 565	52	59	67
	Total Current LPM GGR & LPM Supply	R3 448 214			30		
	Total LPM Licences Granted				40		
	Total Current GGR & Operational LPM Gap	**R7 760 878**	**R9 408 615**	**R11 056 351**	**22**	**29**	**37**
	Licensed LPM Gap				**12**	**19**	**27**
Senqu	Sterkspruit Demand	R3 335 409	R3 825 714	R4 316 019	15	18	20
	Lady Grey Demand	R1 594 629	R1 829 039	R2 063 449	7	8	10
	Barkley East Demand	R847 493	R972 075	R1 096 656	4	4	5
	Senqu Remainder Demand	R6 307 357	R7 234 538	R8 161 719	29	33	38
	Total Potential LPM GGR & LPM Demand	R12 084 888	R13 861 367	R15 637 845	56	64	72
	Total Current LPM GGR & LPM Supply	R2 501 780			40		
	Total LPM Licences Granted				40		
	Total Current GGR & Operational LPM Gap	**R9 583 108**	**R11 359 587**	**R13 136 065**	**16**	**24**	**32**
	Licensed LPM Gap				**16**	**24**	**32**
Elundini	Ugie Demand	R1 367 921	R1 569 005	R1 770 090	6	7	8
	Maclear Demand	R1 008 484	R1 156 731	R1 304 978	5	5	6
	Mount Fletcher Demand	R1 642 559	R1 884 015	R2 125 471	8	9	10
	Elundini Remainder Demand	R4 885 722	R5 603 923	R6 322 124	23	26	29
	Total Potential LPM GGR & LPM Demand	R8 904 686	R10 213 674	R11 522 663	41	47	53
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R8 904 686**	**R10 213 674**	**R11 522 663**	**41**	**47**	**53**
	Licensed LPM Gap				**41**	**47**	**53**

5.5. OR Tambo District LPM Concentration Analysis

Table 5.5: OR Tambo District's LM and Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Ngquza Hill	Lusikisiki Demand	R74 413	R210 725	R347 038	0	1	2
	Flagstaff Demand	R586 867	R673 137	R759 406	3	4	4
	Ingquza Hill Remainder Demand	R13 119 686	R15 048 279	R16 976 873	76	87	98
	Total Potential LPM GGR & LPM Demand	R13 780 966	R15 932 141	R18 083 317	80	92	105
	Total Current LPM GGR & LPM Supply	R1 472 475			20		
	Total LPM Licences Granted				60		
	Total Current GGR & Operational LPM Gap	**R12 308 492**	**R14 459 667**	**R16 610 842**	**60**	**72**	**85**
	Licensed LPM Gap				**20**	**32**	**45**
Port St John's	Port St John's Demand	R918 051	R1 053 005	R1 187 958	4	6	6
	Port St John's Remainder Demand	R6 190 536	R7 100 545	R8 010 553	36	41	46
	Total Potential LPM GGR & LPM Demand	R7 108 588	R8 153 550	R9 198 512	40	47	53
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				40		
	Total Current GGR & Operational LPM Gap	**R7 108 588**	**R8 153 550**	**R9 198 512**	**40**	**47**	**53**
	Licensed LPM Gap				**0**	**7**	**13**
M h	Tsolo Demand	R840 511	R964 066	R1 087 621	5	6	6

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Qumbu Demand	R643 603	R738 212	R832 822	4	4	5
	Mhlonthlo Remainder Demand	R7 614 758	R8 734 127	R9 853 496	44	50	57
	Total Potential LPM GGR & LPM Demand	R9 098 872	R10 436 405	R11 773 939	53	60	68
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R9 098 872**	**R10 436 405**	**R11 773 939**	**53**	**60**	**68**
	Licensed LPM Gap				**53**	**60**	**68**
Nyandeni	Libode Demand	R420 303	R482 088	R543 873	2	3	3
	Nyandeni Remainder Demand	R14 113 286	R16 187 938	R18 262 590	82	94	106
	Total Potential LPM GGR & LPM Demand	R14 533 589	R16 670 026	R18 806 463	84	96	109
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R14 533 589**	**R16 670 026**	**R18 806 463**	**84**	**96**	**109**
	Licensed LPM Gap				**84**	**96**	**109**
KSD	Mthatha Demand	R7 401 617	R10 704 966	R14 008 316	43	62	81
	King Sabata Dalindyebo Remainder Demand	R19 541 216	R22 413 773	R25 286 331	113	130	146
	Total Potential LPM GGR & LPM Demand	R26 942 833	R33 118 740	R39 294 647	156	191	227
	Total Current LPM GGR & LPM Supply	R11 988 724			75		
	Total LPM Licences Granted				115		
	Total Current GGR & Operational LPM Gap	**R14 954 109**	**R21 130 016**	**R27 305 923**	**81**	**116**	**152**
	Licensed LPM Gap				**41**	**76**	**112**

5.6. Sarah Baartman District LPM Concentration Analysis

Table 5.6: Sarah Baartman District's LM and Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Kou-Kamma	Joubertina Demand	R1 115 584	R1 279 575	R1 443 566	5	6	7
	Kareedouw Demand	R745 346	R854 911	R964 477	3	4	4
	Kou-Kamma Remainder Demand	R2 677 055	R3 070 581	R3 464 108	12	14	16
	Total Potential LPM GGR & LPM Demand	R4 537 985	R5 205 068	R5 872 152	21	24	27
	Total Current LPM GGR & LPM Supply	R0			0		
	Total LPM Licences Granted				0		
	Total Current GGR & Operational LPM Gap	**R4 537 985**	**R5 205 068**	**R5 872 152**	**21**	**24**	**27**
	Licensed LPM Gap				**21**	**24**	**27**
Kouga	Humansdorp Demand	R5 417 392	R6 213 749	R7 010 105	25	29	32
	Jeffrey's Bay Demand	R6 384 801	R7 694 902	R9 005 002	25	30	35
	Hankey Demand	R1 056 419	R1 211 713	R1 367 006	5	6	6
	Patensie Demand	R706 767	R810 662	R914 556	3	4	4
	St Francis Bay / Cape St Francis Demand	R1 825 131	R2 093 425	R2 361 719	8	10	11
	Kouga Remainder Demand	R2 633 864	R3 021 041	R3 408 219	12	14	16
	Total Potential LPM GGR & LPM Demand	R18 024 374	R21 045 492	R24 066 609	78	91	104
	Total Current LPM GGR & LPM Supply	R27 191 640			110		

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total LPM Licences Granted					110	
	Total Current GGR & Operational LPM Gap	**-R9 167 266**	**-R6 146 149**	**-R3 125 031**	**-32**	**-19**	**-6**
	Licensed LPM Gap				**-32**	**-19**	**-6**
SRV	Kirkwood / Moses Mabida Demand	R4 037 635	R4 631 168	R5 224 700	21	24	27
	Addo / Nomathamasanqa Demand	R1 275 917	R1 463 477	R1 651 037	6	7	8
	SRV Remainder Demand	R2 724 090	R3 124 531	R3 524 972	13	14	16
	Total Potential LPM GGR & LPM Demand	R8 037 642	R9 219 175	R10 400 708	39	45	51
	Total Current LPM GGR & LPM Supply		R962 177			5	
	Total LPM Licences Granted					5	
	Total Current GGR & Operational LPM Gap	**R7 075 465**	**R8 256 998**	**R9 438 531**	**34**	**40**	**46**
	Licensed LPM Gap				**34**	**40**	**46**
Ndlambe	Port Alfred Demand	R8 155 876	R9 354 790	R10 553 703	45	51	58
	Kenton-on-Sea / Bushmans River Mouth Demand	R1 227 321	R1 407 737	R1 588 153	5	6	7
	Alexandria Demand	R646 638	R741 694	R836 750	3	3	4
	Bathurst Demand	R266 812	R306 033	R345 255	1	1	2
	Ndlambe Remainder Demand	R818 113	R938 375	R1 058 638	4	4	5
	Total Potential LPM GGR & LPM Demand	R11 114 760	R12 748 629	R14 382 499	58	66	75
	Total Current LPM GGR & LPM Supply		R11 385 325			60	
	Total LPM Licences Granted					65	
	Total Current GGR & Operational LPM Gap	**-R270 565**	**R1 363 304**	**R2 997 174**	**-2**	**6**	**15**
	Licensed LPM Gap				**-7**	**1**	**10**
Makana	Makhanda Demand	R12 169 548	R13 689 601	R15 209 655	52	59	65
	Makana Remainder Demand	R1 607 295	R1 843 567	R2 079 839	7	9	10
	Total Potential LPM GGR & LPM Demand	R13 776 843	R15 533 168	R17 289 494	60	67	75

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Total Current LPM GGR & LPM Supply	R9 294 362			40		
	Total LPM Licences Granted				40		
	Total Current GGR & Operational LPM Gap	**R4 482 480**	**R6 238 806**	**R7 995 132**	**20**	**27**	**35**
	Licensed LPM Gap				**20**	**27**	**35**
Blue Crane Route	Somerset East Demand	R2 363 637	R2 711 091	R3 058 546	10	11	13
	Cookhouse Demand	R388 212	R445 279	R502 346	2	2	2
	Pearston Demand	R233 443	R267 760	R302 076	1	1	1
	BCR Remainder Demand	R702 795	R806 106	R909 416	3	4	4
	Total Potential LPM GGR & LPM Demand	R3 688 087	R4 230 236	R4 772 384	16	18	21
	Total Current LPM GGR & LPM Supply	R4 795 950			20		
	Total LPM Licences Granted				20		
	Total Current GGR & Operational LPM Gap	**-R1 107 863**	**-R565 714**	**-R23 566**	**-4**	**-2**	**1**
	Licensed LPM Gap				**-4**	**-2**	**1**
Beyers Naude	Graaff-Reinet Demand	R5 502 238	R6 311 066	R7 119 895	25	29	33
	Aberdeen Demand	R686 665	R787 604	R888 544	3	4	4
	Steytlerville Demand	R459 089	R526 575	R594 061	2	2	3
	Willowmore Demand	R459 089	R526 575	R594 061	3	3	4
	Jansenville Demand	R603 033	R691 679	R780 325	3	3	4
	Beyers Naude Remainder Demand	R1 220 131	R1 399 490	R1 578 849	7	8	9
	Total Potential LPM GGR & LPM Demand	R8 930 245	R10 242 990	R11 555 736	43	50	56
	Total Current LPM GGR & LPM Supply	R1 722 812			5		
	Total LPM Licences Granted				5		
	Total Current GGR & Operational LPM Gap	**R7 207 433**	**R8 520 178**	**R9 832 924**	**38**	**45**	**51**

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
	Licensed LPM Gap				**38**	**45**	**51**

5.7. Buffalo City Metropolitan LPM Concentration Analysis

Table 5.7: Buffalo City Metropolitan Nodal Concentration

LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Buffalo City	East London Demand	R25 273 352	R36 135 201	R46 997 051	102	146	190
	Mdantsane Demand	R13 785 272	R15 811 706	R17 838 140	76	87	99
	Bhisho & King William's Town Demand	R11 040 394	R13 181 652	R15 323 339	61	72	84
	Dimbaza Demand	R1 925 667	R9 642 715	R12 477 037	9	10	12
	BCM Remainder Demand	R27 529 009	R31 575 772	R35 622 535	127	146	165
	Total Potential LPM GGR & LPM Demand	R79 553 693	R106 347 046	R128 258 102	376	463	550
	Total Current LPM GGR & LPM Supply	R70 910 203			306		
	Total LPM Licences Granted				445		
	Total Current GGR & Operational LPM Gap	**R8 643 490**	**R106 347 046**	**R128 258 102**	**70**	**157**	**244**
	Licensed LPM Gap				**-69**	**18**	**105**

5.8. Nelson Mandela Bay Metropolitan LPM Concentration Analysis

Table 5.8: Nelson Mandela Bay Metropolitan Nodal Concentration

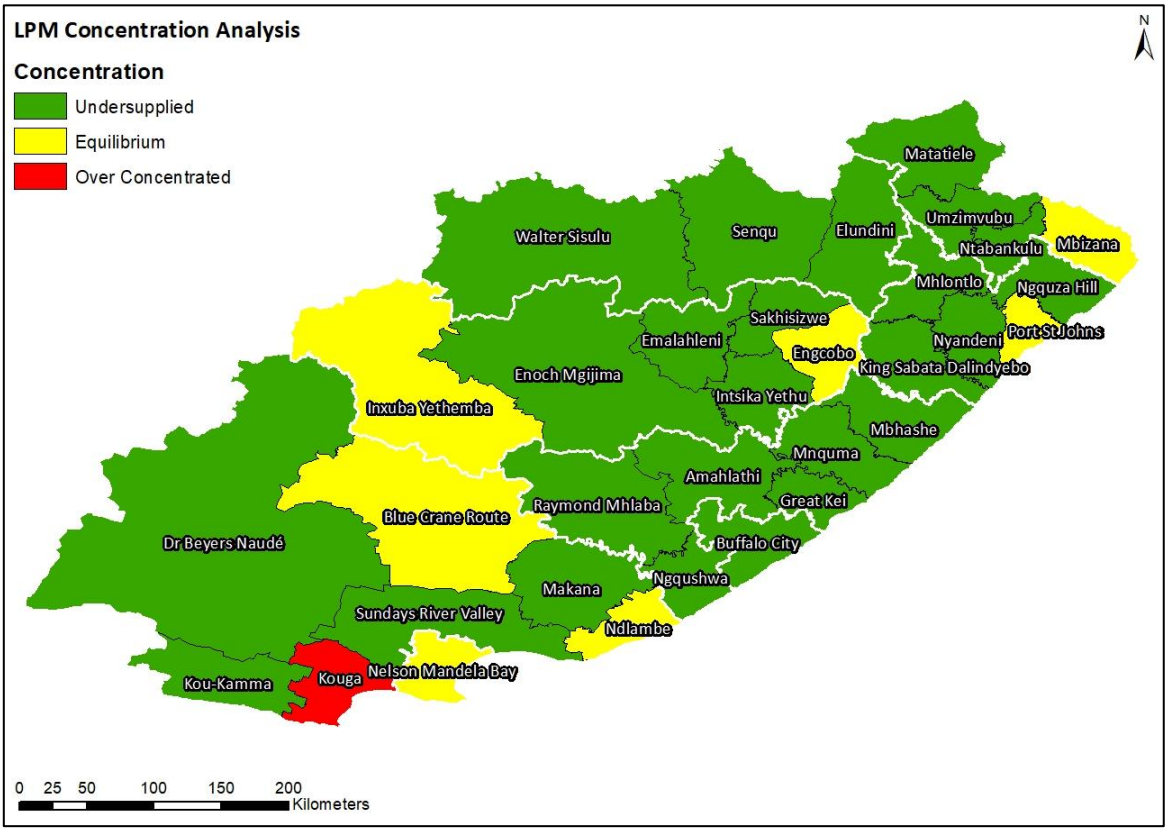
LM	Node	GGR Scenarios			LPM Scenarios		
		Low	Medium	High	Low	Medium	High
Nelson Mandela Bay	Port Elizabeth Main Place Demand	R64 155 523	R83 263 191	R102 370 859	247	321	395
	Uitenhage/Despatch/Kwa-Nobuhle Demand	R47 058 286	R52 087 945	R57 117 603	211	233	256
	Motherwell Demand	R10 674 660	R12 243 834	R13 813 009	49	57	64
	Bethelsdorp Demand	R17 999 919	R20 645 906	R23 291 893	83	95	108
	KwaDwesi/KwaZakele/New Brighton/Zwide Demand	R20 621 690	R23 653 078	R26 684 466	95	109	123
	Nelson Mandela Bay Remainder Demand	R8 319 334	R9 542 276	R10 765 217	38	44	50
	Total Potential LPM GGR & LPM Demand	R168 829 413	R201 436 230	R234 043 047	724	860	995
	Total Current LPM GGR & LPM Supply	R226 232 506			881		
	Total LPM Licences Granted				920		
	Total Current GGR & Operational LPM Gap	**-R57 403 093**	**-R24 796 276**	**R7 810 541**	**-157**	**-21**	**114**
	Licensed LPM Gap				**-196**	**-60**	**75**

5.9. Spatial Analysis of LPM Concentration

The following figure (5.1) indicates the concentration of LPMs per municipality. The municipalities are broken down into three categories that represent the findings in the above table. The first category is that of "undersupplied". This category is where there is a notable positive gap between the supply of LPMs and the demand for LPMs. The next category is that of "equilibrium" this category indicates where there is limited or no scope for additional LPMs (demand is equal to supply). The last category is that of "over concentrated". This category indicates where there is a significantly higher number of LPMs supplied compared to demand.

The LMs of Mbizana, Engcobo (licences allocated), Inxuba Yethemba, Port St John's (licences allocated), Ndlambe, Blue Crane Route and Nelson Mandela Bay all appear as near equilibrium. The areas of Engcobo and Port St John's, while not at equilibrium with the number of operational LPMs, are at equilibrium with the number of licences that have been allocated to the area. The area of Kouga has a significantly higher supply of LPMs than demand for LPMs. As previously mentioned, this demand is not equally distributed through the municipalities as some nodes have no gambling modes or LPMs of any sort within them. These have been outlined in section 4.

Figure 5.1: LPM Concentration Analysis



5.10. Impact of COVID-19 on Gambling Spend

COVID-19 has had a significant impact on the global and national financial system. South Africa's Real Gross Domestic Product (GDP) for the second quarter of 2020 declined by 16,2% between the first and second quarters, giving an annualised growth rate of -51%. This contraction dwarfs the annualised slowdown of 6,1% recorded in the first quarter of 2009 during the global financial crisis. Historical data indicates that this was the biggest contraction since 1960 (Statistics South Africa , 2020). In constant 2010 prices, the country generated almost R654 billion (not annualised) in the second quarter of 2020. This was the lowest level of production since the first quarter of 2009 when the economy generated R649 billion (Statistics South Africa , 2020).

The impacts on the gambling industry as a whole may be worse than suffered between 2008 and 2010 as the period of national lockdown closed places of gambling, including bars and taverns, where LPMs normally operate. This closure was experienced for 145 days as bars and taverns were only allowed to reopen under lockdown level 2.

The impacts on recreational, and specifically gambling spend, by households will likely decrease as households adjust to constraints to income in the short and medium term. The duration of such impacts is likely to be felt for several years to come as the global and local economy comes to terms with COVID-19 and recovers from the economic shock. In the short to medium term it is likely that the recreational spend of households will be exceptionally limited.

While the traditional gambling industry is facing unparalleled losses, online gambling sites have reported a surge in activity since the national lockdown came into effect on 27 March 2020. While online casinos worldwide have reported a sharp increase in gambling, as lockdown periods are extended and financial stresses intensify, analysts say that people may become increasingly hesitant to spend money on non-essential pastimes, such as gambling. Lower recreation and gambling spend will likely mean that LPM gaps depicted in the above analysis will, in the short to medium term, reflect lower ranges than those presented.

Despite the devasting short- and medium -term impact on the local economy, it is likely that spending habits will stabilise from the medium term onwards. Thus, planning needs to account for the fact that recovery is likely to be realised in the foreseeable future. An examination of previous shocks experienced during the GFC indicates that recovery of gambling revenues and taxes took approximately two years. While the shock of COVID-19 is different from that of the GFC, it is likely to

follow a similar trend, albeit with a harsher impact on gambling as a result of the lockdown period. Any planning for future allocation of LPM licences needs to be cognisant of the impact to the short and medium term but, also of the likely recovery beyond the shocks experienced in 2020. It is suggested that no new additional LPM licences be granted in the short term as the economy recovers from the impacts of COVID-19.

The recovery of the economy may occur at differing rates dependant on the course that COVID-19 will take, and the responses taken to the pandemic. Three responses have been developed by industry experts indicated below.

5.10.1 Steep but Short-lived Downturn

In this scenario:

- Only one wave of COVID-19 is experienced.
- Economic activity rebounds in late 2020 as the virus dissipates. The recovery is initially slow but, picks up late in 2020 as consumers become more confident.
- China's relatively quick recovery and stimulus spend has an inflationary impact on commodity prices, supporting commodity-exporting countries like South Africa.
- Spending growth will return in the third and fourth quarter as stores reopen but there is ongoing weakness. This weakness will be driven by a deterioration in household finances.
- Consumers exit the downturn with higher debt burdens and a negative wealth effect from the stock market correction.
- Interest rates are projected to remain at current lows until early 2022 (Deloitte, 2020).

The impact on recreational and gambling spend in this scenario indicates that the economy of South Africa will have a fairly quick recovery period and thus spending is likely to return to pre-COVID-19 levels by the end of the year. This indicates that large losses occur in the gambling industry in 2020, but gambling spend returns in the last quarter of 2020 and into 2021.

5.10.2 Prolonged Pandemic and Delayed Rebound

In this scenario:

- The virus follows a wave pattern, abating and then peaking again in multiple global geographies.
- Economic recovery begins mid to late 2021. Recovery is slow in early 2022 and picks up by the second half of 2022.
- Fiscal stimulus limits business failures but does not boost spending.

- Rising structural unemployment in South Africa increases to 40%.
- The continuance of the virus will result in a large decline in consumer spending due to deteriorating household finances.
- Despite low interest rates, some prices could see a boost in inflation, such as food.
- In this scenario, banks run into rising defaults which place stress on their balance sheets (Deloitte, 2020).

The impact on the gambling industry in this scenario is prolonged and difficult. Numerous bars and taverns are forced to close, but many are able to survive. In this scenario recovery of the gambling industry lags behind the national economic recovery but does improve in mid to late 2021. Consumers and gamblers begin to return to normal activities in mid-2021 which aids in the recovery process.

5.10.3 Worst Case Scenario

In this scenario:

- The pandemic re-emerges with severe infections at the end of 2020 and continues into 2021 until either crowd immunity and/or a vaccine reduces the virality. Economic recovery begins by mid-2022. Significant risk of cascading outbreaks with feedback loops, limiting economic recovery.
- Multiple waves in various countries continue to occur.
- Global depression – major global economies decline by 10% or more in real GDP for two or more years
- Financial system breaks down despite central bank efforts causing banking crises in many economies, in particular emerging markets.
- Inflation is not contained with high volatility in food, fuel, shelter, and discretionary goods inflation.
- Chronic structural unemployment in South Africa increases to 50%.
- Many business failures across the board and household disruptions occur (Deloitte, 2020).

The industry experiences one of the largest downturns in recent history as multiple locations close as a result of new lockdown restrictions. The recovery takes multiple years as consumers tastes and habits have changed as a result of lockdown and the reduction of income. New entrants into the market experience difficulties as consumers fear returning to pre-COVID-19 activities. The limitations placed on the industry have a severe implication in the allocation of new licences for at least the next three to five years.

6. LPM SATURATION ANALYSIS

This section aims at determining the saturation of the of LPMs at a provincial level in the Eastern Cape. It involved determining the total potential LPM GGR gap at a provincial level as well as the gap of current and licensed LPMs as not all licences have been operationalised. Some districts have a large number of licences that have not been operationalised while others have similar numbers of operating LPMs and licences. The tables below outline the GGR gap, current operational LPM and licensed LPM gap.

Table 6.1: Current GGR and LPM Gap at a Provincial Level

Area	Total Gap Scenarios			LPM Gap		
	Low	Medium	High	Low	Medium	High
Alfred Nzo	R28 755 559	R33 669 582	R40 153 636	143	174	213
Amathole	R37 912 171	R44 724 767	R51 537 364	171	209	246
Chris Hani	R41 206 086	R51 395 814	R61 585 542	144	184	226
OR Tambo	R58 003 648	R70 849 664	R83 695 679	317	392	466
Joe Gqabi	R26 248 673	R30 981 875	R35 715 078	79	101	123
Sarah Baartman	R23 303 362	R29 584 355	R36 135 912	114	143	175
Buffalo City Metro	R8 643 490	R106 347 046	R128 258 102	70	157	244
Nelson Mandela Bay Metro	R0	R0	R7 810 541	0	0	114
Eastern Cape Total	**R224 072 989**	**R367 553 102**	**R444 891 853**	**1 038**	**1 360**	**1 807**

As indicated in the table above, it can be concluded that there is currently a gap between the operational LPMs and the demand for LPMs by between 1 038 and 1 807. This is largely contributed from areas such as OR Tambo, Amathole and Chris Hani while areas such as Joe Gqabi and Buffalo City have smaller gaps. Nelson Mandela Bay is currently fairly well supplied with LPMs and has the smallest gap. It is also anticipated that there is LPM GGR gap of between R224 072 989 and R444 891 853 in the Province.

Table 6.2: Licensed LPM Gap at a Provincial Level

Area	LPM Gap		
	Low	Medium	High
Alfred Nzo	143	174	213
Amathole	149	187	224
Chris Hani	136	172	214
OR Tambo	197	272	346
Joe Gqabi	69	91	113
Sarah Baartman	114	138	170

Buffalo City Metro	0	18	105
Nelson Mandela Bay Metro	0	0	75
Eastern Cape Total	808	1 052	1 460

Table 6.2 indicates the gap between the number of licensed LPMs and demand. The largest demand stems from areas such as OR Tambo, Amathole and Chris Hani while Nelson Mandela Bay, Buffalo City and Joe Gqabi contribute far fewer. The gap between the licensed LPMs and demand is between 808 and 1 460.

Overall, it can be determined that there is currently a gap of between 808 and 1 807 LPMs in the Eastern Cape, indicating that the Province is not yet saturated with LPMs.

7.SOCIO-ECONOMIC IMPACTS OF LPM ROLL-OUT

A requirement of the scope of work was to develop and interpret the results so as to provide a narrative as to what the past and future roll-out of additional LPMs might have on the communities of the Eastern Cape. This section outlines the socio-economic impacts of gambling in the Province with a focus on the LPM sector.

7.1. Impact Indicators

In order to determine the impacts that gambling has on society there is a need to determine relevant impact indicators that could be used to qualify and quantify the effects of additional LPM roll-out. For the purposes of this study, the following indicators were chosen and divided between social & environmental impacts and economic impacts as seen in the table below. These were specifically focused on the impacts that additional LPMs may have on society. A number of prior studies and impact analyses were drawn upon in undertaking this assessment. The section is intended to provide interpretive impacts as they pertain to the bounds of this study; this is not considered to be a stand-alone LPM socio-economic impact study.

Table 7.1: Impacts and Descriptions

Indicator	Description
Positive Social & Environmental Impacts	
Reduction in illegal gambling	Areas that are currently not being serviced by licensed gambling operations may have a higher incidence of illegal gambling activities such as illegal casinos, *fafi* and dice. The introduction of LPMs may decrease such activities and lead to an increase in formal economic GGR, reduction in illegal activities, increased job security and increased community safety (ECGB, 2016).
Increase in community socialisation	Research has indicated that a positive impact in gambling is the increase in community socialisation. In some areas there is a lack of leisure activities that can bring adults together at central security-controlled locations. Research has indicated that the introduction of formal gaming activities has increased community socialisation in some areas. This in turn reduces isolation especially amongst older patrons. The feelings of inclusion and community for these patrons have

	been seen as beneficial (Lavala, 2019).
Increased leisure time for adults	As mentioned previously, in certain areas there are limited opportunities for adults to engage in leisure activities in a formal controlled environment. Leisure time has been seen to greatly improve the livelihoods of adults through reduction of stress, hypertension, improve mental functioning and improve well-being. Healthy gambling habits have been observed to fill this roll of leisure activities and can be greatly beneficial to individuals (Lavala, 2019).
Socio-cultural benefits	The socio-cultural benefits of gambling on society are fairly numerous. The introduction of gambling to a community may produce a sense of connectedness, social integration as well as reduced social isolation. In turn this produces more integrated societies and improves social cohesion (Lavala, 2019).
Positive Economic Impacts	
Job creation	The gambling industry contributes to the employment levels of the Province by providing direct employment through the various gambling modes. Direct employment implies the hiring of licensed staff and other employees. The total direct employment offered from all Eastern Cape gambling modes was 1 612 people in the 2017/18 financial year where LPMs had 218 employees (NGB, 2018). The (ECGB, 2016) study found that for every 100 LPMs introduced approximately 34 jobs were created on average.
Skills development	Beyond employment creation gambling also contributes positively towards the development of skills. The introduction of gambling can assist in development of skills especially in areas that lack skills (Lavala, 2019) (Turner, 2008).
Increase in municipal rates and taxes	LPMs require a specific dedicated space (formal property) to be operated in. Existing properties may be too small to accommodate this requirement and may need to expand or relocate in order to be licensed. The increase in space utilised may increase the property taxes that need to be paid to the municipality that the business operates in (ECGB, 2019).
Increase in provincial and national revenue through GGR	The development of LPMs and gambling contributes to an increase in the national and provincial fiscus through the generation of rates and taxes. Currently, LPMs are the third highest contributing mode of GGR in the Eastern Cape gambling sector accounting for 16.1% (or R378 million) of the total GGR in the Province for the 2018/19 period. Overall, LPMs revenue to fiscus grew at 12.1% average annual growth rate. LPMs experienced decelerating growth in revenue contributed to the fiscus, between 2015/16 and 2018/19. With the exception of the growth experienced between 2015/16 and 2016/17 where there was growth in revenue to fiscus resulting from the introduction of new LPMs in Eastern Cape (NGB, 2019).
Potential Negative Social & Environmental Impacts	

Increased criminality	Legal gambling may be responsible for reducing certain crimes such as illegal gambling but, it is also believed to increase rates of crime such as money laundering, loan sharking, extortion, and fraud (Arthur, 2012). In areas where there is an over-concentration of gambling activities, it has been found that crime syndicates have emerged that take advantage of gamblers who suffered with addiction. The oversupply of gambling modes such as LPMs may result in an increase of such activities if left unchecked. This could potentially be mitigated by increasing policing in areas where there is a higher density of LPMs and by offering advertising support services in gambling locations.
Socio-cultural costs	The introduction of gambling to areas that previously did not normally have gambling activities may change the traditional cultural values and beliefs of the area. There may be instances where gambling is not congruent with the existing beliefs in the area. Increases in materialism and social inequality may lead to anger within the community and risk causing fractures within the local society. This could be mitigated by engaging with community leaders prior to the introduction of gambling activities and by avoiding over-concentration of gambling modes (Lavala, 2019).
Increase in social ills	The introduction of gambling activities may lead to the introduction of problem gambling within communities. Issues such as addiction, substance abuse, neglect of family and work and other social ills may either be developed or worsened with the introduction of gambling. Within a community this may be in the form of increased addiction, drug abuse, domestic abuse, and criminal activities. Over supplying a community with gambling options may be seen by a community as negative and may increase distrust of the authorities. This could be mitigated by increasing policing and active promotion of the available support resources (Lavala, 2019).
Absenteeism	As stated above, the introduction of gambling may increase the instances of problem gambling and some social ills. This in turn may lead to increased absenteeism in the workplace and dereliction of duties by employees. This in turn may increase criminal activity as well as cause wider social issues. This could be mitigated by active promotion of the available gambling resources (Lavala, 2019).
Increase in risk taking	The introduction of gambling has been noted to increase risk taking in susceptible gamblers. It is noted that gambling stimulates regions in the brain that encourage risk taking. This behaviour has also been found to increase risk taking outside of gambling activities and in some cases contributed negatively to the individual's life. This could be mitigated by active promotion of the available gambling resources (Lavala, 2019). Additionally, an indirect impact of COVID-19 may be an increase in risk taking among poorer households in order to get out of poverty or reduce the financial burdens. This is noted by the NGB (NGB, 2017) as a phenomenon especially amongst households who are vulnerable to financial pressures.

Increase of traffic in residential areas	Areas that currently do not have a large volume of traffic may experience higher instances of traffic if new gambling modes are introduced. In more residential areas even a small increase in traffic may be far more noticeable than in more commercial areas. While LPMs are unlikely to increase traffic significantly (LPMs will most likely be installed in establishments with established patrons) it could be mitigated by active policing in the affected areas (Lavala, 2019).
Under-aged gambling	Gambling requires an in-depth understanding of probabilities and winning and losing. Gambling activities such as LPMs often occur in places where alcohol is served. There is also a general concern that gambling is a risky behaviour that may lead to gambling related problems in minors. For these reasons it is against the law for under 18s to gamble. If an establishment is developed in an area where previously no gambling, took place then it is a possibility that the youth may be exposed to gambling activities. Unless under-aged gambling is mitigated, the youth may become involved in gambling activities. This could be mitigated by policing and enforcement of regulations, educating the owners and managers of the gambling establishments and by providing support to those who gamble and are under-aged (Dickson, 2002).
Increased household expenditure & indebtedness	Gambling is considered a recreational activity that requires the expenditure of household income. When a household cannot afford to participate in gambling, a household may substitute and reduce expenditure in more critical areas such as food, clothing school fees, transport costs, etc. This may lead to increased household expenditure and wasteful expenditure when a household cannot necessarily afford it. Furthermore, there may be a likelihood for households to take on debt to support the substituted goods and services or to support the gambling activities. This impact is difficult to mitigate but, support and education on the impacts of gambling should be made available to individuals who gamble (Layton, 1999).
Potential Negative Economic Impacts	
Impact on other entertainment industries	The introduction of gambling activities may have a negative economic effect on existing entertainment and recreational activities in an area. This occurs as households have a specific amount that they can allocate to recreation. When a new activity enters an area, a household may choose to forgo another activity for the new activity. This can negatively impact the existing recreational and entertainment activities in an area. This impact is more difficult to mitigate but efforts should be made so that areas do not become over concentrated with gambling activities (Walker, 2016).
Productivity loses for local businesses	If employees become addicted or are negatively impacted by gambling activities, it is likely that this will have a negative impact on the local economy and the local businesses in a given area. This will lead to a decline in economic output. This could be mitigated by active promotion of the available gambling resources to surrounding workplaces and those who

	gamble (NGB, 2017).
Increased policing & regulation costs	With an increase in gambling activities in an area there may be a necessity to increase the amount of policing that occurs in the area. This would increase the costs of policing and reduce their effectiveness in other areas. There may also be additional costs to regulation and policing that may be experienced as a result of increased gambling activities (Lavala, 2019).
Reliance on gambling revenue to stimulate economy	The taxes and revenues collected from gambling contribute significantly to the national and provincial fiscus. The reliance on gambling to stimulate the economy may increase the risk of over saturating the Province with LPMs and bingo establishments. This could be mitigated by utilising the existing gambling revenue to increase economic opportunities in other areas of the economy (Lavala, 2019).

The above table outlined the impacts as well as the details of the impacts. These impacts fell into two categories, namely social and environmental impacts and economic impacts. These impacts are divided between negative and positive impacts. It is noted that there are numerous positive impacts when introducing gambling to previously under-exposed areas which includes a greater economic impact such as job creation, skills development and increased rates and taxes. In areas that have an over-concentration of LPMs, there may be a danger in increasing the negative impacts that are noted in the table above. These can include increased criminal activities, increased social ills and increased potential for under-aged gambling.

7.2. **Impact Summary**

The following table summarises the social & environmental and economic impacts of gambling that have been outlined above. This table indicates if an impact is positive or negative, the probability of the impact occurring with LPM gambling and how easily it is to mitigate, manage or improve the impact.

Table 7.2: Impacts Summary

Impact		Positive or Negative	Probability of occurring	How easily can the impact be managed, increased, or mitigated
Social & Environmental	Reduction in illegal gambling	Positive	Medium	Easily
	Increase in community socialisation	Positive	Medium	Difficult
	Increased leisure time for adults	Positive	High	Moderate
	Socio-cultural benefits	Positive	Medium	Difficult
	Increased criminality	Negative	Medium	Moderate
	Socio-cultural costs	Negative	Low	Difficult
	Increase in social ills	Negative	Likely	Easily
	Absenteeism	Negative	Low	Easily
	Increase in risk taking	Negative	Low	Moderate
	Increase of traffic in residential areas	Negative	Low	Easily
	Under-aged gambling	Negative	Medium	Moderate
	Increased household expenditure & indebtedness	Negative	Medium	Easily
Economic	Job creation	Positive	High	Easily
	Skills development	Positive	High	Easily
	Increase in municipal rates and taxes	Positive	Medium	Difficult
	Increase in provincial and national revenue through GGR	Positive	High	Difficult
	Impact on other entertainment industries	Negative	Low	Difficult
	Productivity loses for local businesses	Negative	Low	Easily
	Increased policing & regulation costs	Negative	Low	Difficult
	Reliance on gambling revenue to stimulate economy	Negative	Medium	Difficult

8. CONCLUSION

This study has highlighted key factors in determining the concentration and saturation of existing LPM supply as well as the demand for LPMs throughout the Eastern Cape. The study outlines the methodological process, the socio-economic indicators, and the spatial distribution of existing LPMs before outlining the concentration and saturation of the LPM supply. Furthermore, it highlights the social and environmental and economic impacts that may occur from gambling.

The table below outlines the scope of work as outlined in section 1 of the report and indicates the results of the analysis and the location in the report where it took place.

Table 8.1: Summary of Scope of Work and Results

Scope of Work	Result	Location in Report
Assess whether the roll-out of the additional 400 LPMs led to the over-saturation of LPMs in the Province.	According to the analysis performed in this report, the roll-out of the additional 400 LPMs has not led to an over-saturation of LPMs in the Eastern Cape. The assessment revealed that there is gap of between 808 and 1 807 LPMs in the Eastern Cape.	Section 6
Assess the social, economic and environmental impact and the impact on problem gambling of the existing 2 000 LPMs and on the roll-out of the additional LPMs in the Province.	Social, economic, and environmental impacts were examined in section 7 of the report. Numerous aspects were considered both positive and negative.	Section 7
Consider any other relevant information on whether the roll-out of the additional LPMs was in the best interest of the Province.	There is currently a GGR gap of between R224 072 989 and R444 891 853 in the Province. This GGR could lead to additional gambling taxes being collected in the Province during a period when additional revenue is greatly needed. Additional LPMs will also add benefit in the creation of jobs and skills development for those employed by LPM operators. The negative impacts that are associated with gambling may be mitigated either through additional policing or through existing programmes on offer.	Section 6 & 7
The outcomes and recommendations of the 2015 LPM study and any other relevant	The outcomes and recommendations of the 2015 report were considered by the	Section 1

research.	ECGB to be flawed. An examination of the 2015 study revealed that the methods utilised in the report were too simplistic to reasonably make the recommendations.	
The number, geographical location, and proximity of existing gambling modes to each other, particularly LPM sites, casinos and bingo outlets, in various areas within local and metropolitan municipalities across the Province.	This study included an analysis of supply of LPMs both at a spatial and GGR level. This study accounted for the existing gambling modes both spatially as well as at a GGR level.	Section 4, 5 & 6
The adequacy of the geographical location and distribution of current licensed gambling activities across the Province, taking into account socio-economic factors and alignment to provincial development outcomes.	The study has indicated that there is currently an oversupply of LPMs in Kouga LM. Any additional gambling activities would likely lead to an overconcentration in those areas. Other areas are currently well balanced and have been highlighted but, the majority of the LMs and nodes within those areas are undersupplied with gambling activities.	Section 4, 5 & 6
Demand side socio-economic indicators / factors which were considered include: personal income, population, population density, propensity to gamble, participation variances in LPM gambling, urban/rural locality factor, expenditure on gambling.	Socio-economic indicators/factors were outlined within the report and a description of each factor and how it was utilised in the modelling process was developed.	Section 3
Supply side socio-economic indicators/factors which were considered include: Regional Outlier Factors i.e. historic gambling trends in each area, influence of other existing gambling modes in each area (excl. LPMs), realised existing GGR turnover per area.	As above.	Section 3
Assessed the potential social, economic, and environmental impact and the impact on problem gambling of the current 2 400 LPM licences and on the roll-out of the additional LPMs in the Province.	Social, economic, and environmental impacts were examined in section 7 of the report. Numerous aspects were considered both positive and negative.	Section 7

Using the results derived from the modelling process and the spatial analysis, it can be concluded that the decision to proceed with the allocation of the additional 400 LPMs was not likely to over-saturate the Province with LPMs. There is currently **a gap of between 1 038 and 1 807** (based on the gap between current playable LPMs and supply) and **808 and 1 460** LPMs (based on the gap between the number of LPMs and supply) in the Province.

It is important to note that these findings stated above are a baseline level that only accounts for the local population spend in an area. The influence of tourism has not been captured in this study. Equilibrium and over-concentration have been determined in areas that are noted to have a large number of tourist visitors each year such as Kouga, Nelson Mandela Bay, Ndlambe and the Wild Coast areas (Port St John's and Mbizana). It is thus, important to note the limitations of the study as per section 2.4.

In terms of concentration, the majority of nodes in the Province are not overconcentrated as many do not have a supply of LPMs. There are, however, a few locations where the LPMs are at or near equilibrium (demand = supply) or where there is an over-concentration of LPMs (demand > supply). One particular area of note was that of Kouga LM.

An analysis of the location of existing LPMs in the metropolitan areas indicates that LPMs are not distributed evenly amongst the nodes examined. This is especially true in the case of Nelson Mandela Bay where the majority of the LPMs are located in the nodes of Port Elizabeth (including CBD, western suburbs, Bluewater Bay), Uitenhage and Despatch. The areas of Motherwell, KwaDwesi / KwaZakele / New Brighton / Zwide, and KwaNobhule do not have LPMs and have limited to no forms of other gambling modes for those areas. Bethelsdorp has access to some LPMs but, the demand for the area greatly outweighs the supply of LPMs.

In the case of Buffalo City, while there is space for additional LPMs, care must be taken to distribute future LPM licences to areas that are outside of East London (including the CBD and Gonubie) and should focus on periphery areas such as the coastal nodes of Kidd's Beach, the large interior areas of Mdantsane and the northern areas of Buffalo City.

Kouga LM has an over-concentration of LPMs, but this is predominantly in the nodes of Jeffrey's Bay and Humansdorp. The nodes of Cape St Francis/St Francis Bay, Hankey and Patensie have limited to no supply of LPMs.

Other LM and metropolitan municipalities that are at or near an equilibrium include:

- Mbizana
- Engcobo (licences allocated)
- Inxuba Yethemba
- Port St John's (licences allocated)
- Ndlambe
- Blue Crane Route
- Nelson Mandela Bay

The remainder of the municipalities in the Province can be considered undersupplied with LPMs.

References

Arthur, J. W. (2012). The Relationship between Legal Gambling and Crime in Alberta. *Canadian Journal of Criminology and Criminal Justice*, 49-83.

Deloitte. (2020). *Recovering from COVID-19Considering economic scenarios for resilient leaders* . Retrieved from Deloitte: https://www2.deloitte.com/content/dam/Deloitte/za/Documents/about-deloitte/za-Deloitte-Scenarios-for-Resilient-Leaders-April-2020-2.pdf

Dickson, L. D. (2002). The Prevention of Gambling Problems in Youth: A Conceptual Framework. *Journal of Gambling Studies*, 97-159.

ECGB. (2016). *Eastern Cape Gambling Board*. Retrieved June 2020

ECGB. (2016). *Eastern Cape Gambling Board*. Retrieved June 2019, from http://www.ecgbb.co.za/ecgb/wp-content/uploads/2016/04/The-Socio-Economic-and-Environmental-Impact-of-the-LPM-Sector-EC-Report-final1-COMPRESSED.pdf

ECGB. (2019). *Eastern Cape Gambling Board*. Retrieved March 2020, from http://www.ecgbb.co.za/ecgb/statistics/

ECGB. (2020, May). Gambling Mode GGR . East London, Eastern Cape: ECGB.

Lavala, T. L. (2019). Public health effects of gambling – debate on a conceptual model. *BMC Public Health (19)*.

Layton, A. &. (1999). The impact of socio-economic factors on gambling expenditure. *International Journal of Social Economics*, 430-440.

Ligthelm & Mabaso. (2003). *Ligthelm, A. A., & Mabaso, L. T.* Retrieved May 2020, from https://www.ngb.org.za/SiteResources/documents/Economic%20impact%20of%20gambling%20in%20South%20Africa%202013.pdf

NGB. (2017). *National Gambling Board*. Retrieved April 2020, from https://www.ngb.org.za/SiteResources/documents/2017/Research/Socio-economic%20impact%20of%20gambling%20in%20SA%202017.pdf

NGB. (2017). *National Gambling Board*. Retrieved April 2020

NGB. (2018). *National Gamblng Board*. Retrieved March 2020

NGB. (2019, March). *National Gambling Board*. Retrieved 2020, from https://www.ngb.org.za/SiteResources/documents/2019-20/Research/Stats%20Presentation%20FY2019.pdf

Quantec. (2020, January). Retrieved from Standardised Regional Database: https://www.easydata.co.za/dataset/RGVA/

Statistics South Africa . (2020). *Steep slump in GDP as COVID-19 takes its toll on the economy.* Pretoria: Statistics South Africa .

Turner, N. M. (2008). Life Skills, Mathematical Reasoning and Critical Thinking: A Curriculum for the Prevention of Problem Gambling. *Journal of Gambling Studies (24)*.

Urban-Econ GIS Unit. (2020).

Walker, D. &. (2016). Social and Economic Impacts of Gambling. *Current Addiction Reports*, 293-298.

WHO. (2020). *World health Organization (WHO)*. Retrieved April 2020, from https://www.who.int/news-room/q-a-detail/q-a-coronaviruses