# A CATCHMENT STUDY AROUND THE LOCATION OF TVET COLLEGES.



UNIVERSITY of the WESTERN CAPE

PROVINCE: LIMPOPO TVET COLLEGE: Vhembe TVET College 1 CONTENTS

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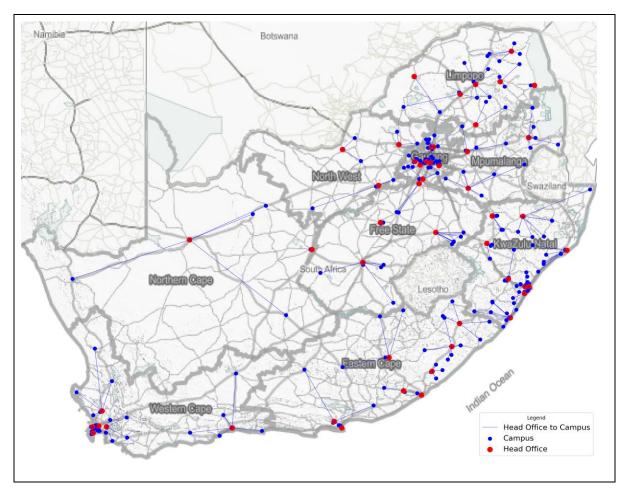
## 2 INTRODUCTION

The University of Western Cape requested a study on the Geographic Profiling of TVET colleges across South Africa. The purpose of this study was to profile each college to identify business and commercial activities within a nearby vicinity. As part of the study, AfriGIS sourced and prepared data in order to understand the economic potential in an area taken the current business footprint into account.

The outcome can be used as basis to improve/adjust course availability at specific study centrums to ensure successful employment after studies have been completed.

The below map shows the geographic distribution of the TVET colleges across South Africa

#### South Africa: TVET Locations

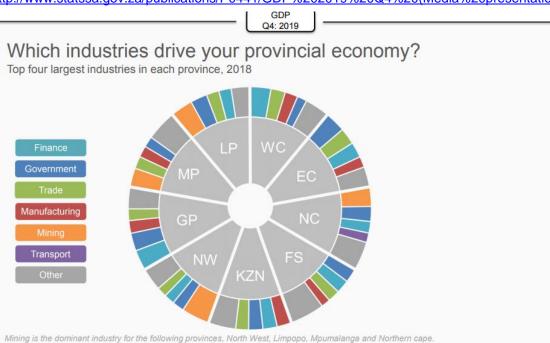


Some of the main industries especially looking at the asd Gross Domestic Product (GDP) are categorized under the following groups:

- Primary Industries
  - o Agriculture, forestry and fishing
  - Mining and quarrying
- Secondary Industries
  - Manufacturing
  - Electricity, gas and water
  - Construction
- Tertiary industries
  - Trade, catering and accommodation
  - Transport, storage and communication
  - Finance, real estate and business services
  - o Personal services
  - General government services
  - All industries at basic prices
  - o Taxes less subsidies on products

Top 4 Industries in each Province: Sourced from StatsSA:

http://www.statssa.gov.za/publications/P0441/GDP%202019%20Q4%20(Media%20presentation).pdf



Finance is the dominant industry for the following provinces, North West, Empopo, inpumalanga and Northern Finance is the dominant industry in Gauteng and Western Cape





# 3 DATA AND METHODOLOGY

## 3.1 DATA

The geographic profiling considers factors such as business descriptions, points of interest and demographic data. The data was mainly sourced from CIPC (Companies and Intellectual Property Commission), StatsSA and AfriGIS.

#### 3.1.1 CIPC

CIPC data was used to profile registered companies in the near vicinity of TVET colleges. The CIPC stores and maintain information of a vast list of registered companies. However, the task falls on the owner of each company to provide relevant information about the company. This includes providing a SIC Code which can be linked to a business category. Unfortunately, most of the SIC Codes provided links to a too broad description to be used in this study. There is however a business description field, which is used to describe what the business does. Therefore, most of the CIPC analysis was based on descriptions, rather than fixed categories.

## 3.1.2 STATISTICS SOUTH AFRICA (STATSSA)

StatsSA conducted a national census back in 2011. During this census StatsSA gathered, stored and processed a large volume of demographic data. The data included both personal and household information such as the total population, age, income, dwelling types, employment status and much more. StatsSA made the data available for public use on different geographical levels, of which the SAL or small area layer was the smallest geographical boundary which was used to convey census data to the public.

The current project therefore uses the SAL geographical boundaries to conduct the relevant census information. The role of demographic data in the current project are to provide economy and general living condition insights of the surrounding TVET college areas.

## 3.1.3 AFRIGIS

AfriGIS has a vast data store of many different types of geographical data such as political boundaries, a routable street central line and points of interest. The current study focusses on activity in an area and therefore obtained most of the information from the points of interest layer.

The points of interest layer have many different categories to describe the type of activity accompanied with geographical location information. The categories are described on 4 levels namely category, type 1, type 2 and type 3 where category is a broad description of the types and type 2 and type 3 are subcategories of the type 1 activity. The following describes the hierarchy of the category and type 1 fields:

# POINTS OF INTEREST CATEGORY: COMMERCIAL

**TYPE 1 : ACCOMMODATION TYPE 1 : AUTOMOTIVE TYPE 1 : COMMERCIAL TYPE 1 : ENTERTAINMENT TYPE 1 : FILLING STATION** TYPE 1 : MINE TYPE 1 : PLANT **TYPE 1 : RECREATION TYPE 1 : SERVICES TYPE 1 : STORES CATEGORY: HUMAN INFRASTRUCTURE TYPE 1 : EDUCATION TYPE 1 : GOVERNMENT TYPE 1 : MEDICAL TYPE 1 : PLACE OF WORSHIP TYPE 1 : RESIDENTIAL TYPE 1 : SOCIAL SERVICES** TYPE 1 : TOURISM ATTRACTION

**TYPE 1 : TRANSPORTATION** 

Type 2 have 401 subcategories of Type 1 such as Fast food outlets, Shopping Centre and Mobile. Type 3 have a further 1322 subcategories of Type 2 such as KFC, Mcdonalds, Hyper Centre, Neighbourhood Centre, Vodacom, MTN etc.

The points of interest layer also contains a spatial confidence level which describes the spatial accuracy of each point. The confidence levels are as follows:

## **Confidence Level Technical Description**

Accurate Erf-Portion Level
 Erf Level
 Street Corner
 Within 5 of Street Number
 Street Name & Suburb
 SG Town
 Suburb
 Town
 Municipality or District
 Province

Due to the nature of the current project it was decided to include points of interests with a

confidence level of 7 and below.

#### 3.2 METHODOLOGY

## 3.2.1 CATCHMENT AREA

A catchment area around each TVET college was created using various straight line distances. The distances included in the current study were:

- 0km to 2km
- 2km to 5km
- 5km to 10km
- 10km to 15km
- 15km to 30km
- 30km to 50km

Note: For display purposes, the 0km to 2km and 2km to 5km were combined in the map legend.

#### 3.2.2 INFOGRAPHICS

The first set of infographics are based on the CIPC data. All registered business within each catchment distance were extracted and analyzed per college. Key words were extracted from the description field within the CIPC data. The key words were then grouped and sorted by the count of times used. Only the top 20 words are presented in the graphs. A word cloud was also generated using the count of each word as a size scale.

The second set of infographics are created from the census data. The demographic data were extracted from all the SAL center points within each distance band from the TVET College. This includes dwelling types, household income bands and employment status.

The third set of infographics are analyzed from the AfriGIS points of interest layer. This includes the top 20 Type 1 and Type 2 categories in points of interest as well as the top 20 Type 2 and Type 3 of the points of interest belonging to the commercial category. Furthermore, the following list of types of points of interest were also excluded from the commercial points. These types were found to be prominent at most colleges but is too general or have no found to be none essential to the current study.

Points of interest types excluded from commercial analysis:

- Stores
- Entertainment
- Clothing
- Restaurant
- Fast Food Outlets
- Supermarket
- Specialty food
- Liquor
- Shoes
- Convenience
- Shopping Centre
- Ticket Station
- Other

# 3.2.3 INFOGRAPHIC VISUALS

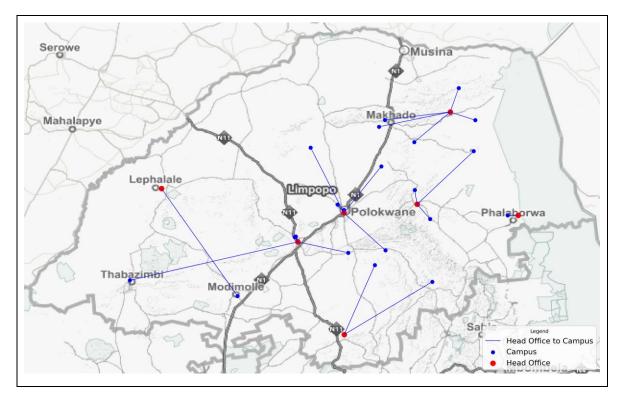
This document contains three main visual infographic types in order to explain and simplify the amount of data to the reader. The visual types of infographics are maps, graphs and word clouds.

The maps display the locations of each of the TVET colleges as well as straight line distances from each college. The distance bands were divided into 2, 5, 10, 15, 30 and 50km bands. The graphs depict counts of CIPC, demographic and points of interest data within each of the latter mentioned bands. Word cloud infographics display and quantify the most frequent used words. The word cloud was generated using business descriptions, demographic types and points of interest categories within 30km in the Gauteng, Western Cape and Kwa-Zulu-Natal Provinces and 50km in the Northern Cape, Eastern Cape, Free State, Limpopo and Mpumalanga Provinces.

# 4 LIMPOPO

# 4.1 PROVINCE OVERVIEW

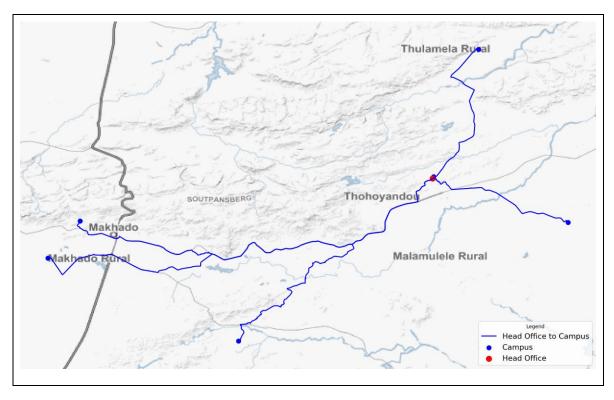
# LIMPOPO: TVET Locations



# 5 VHEMBE TVET COLLEGE

# 5.1 COLLEGE OVERVIEW

# Vhembe TVET College: TVET Locations



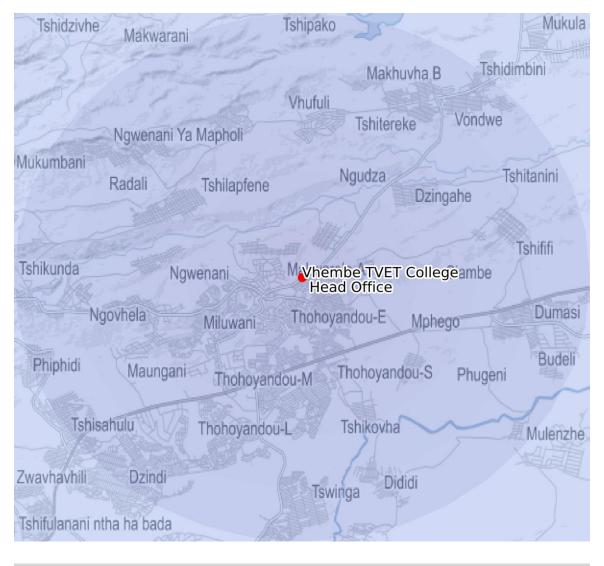
## 5.2 DETAILED OVERVIEW OF EACH CAMPUS

## 5.2.1 VHEMBE TVET COLLEGE : HEAD OFFICE



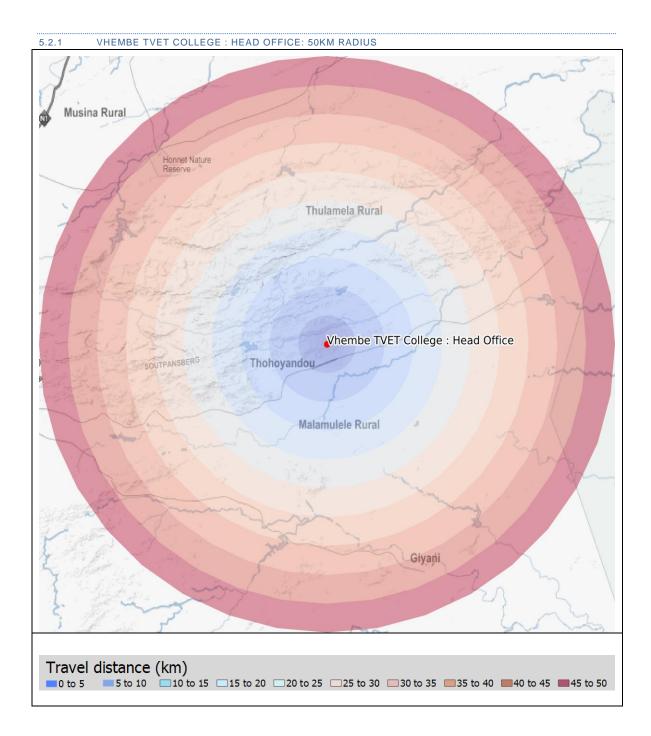
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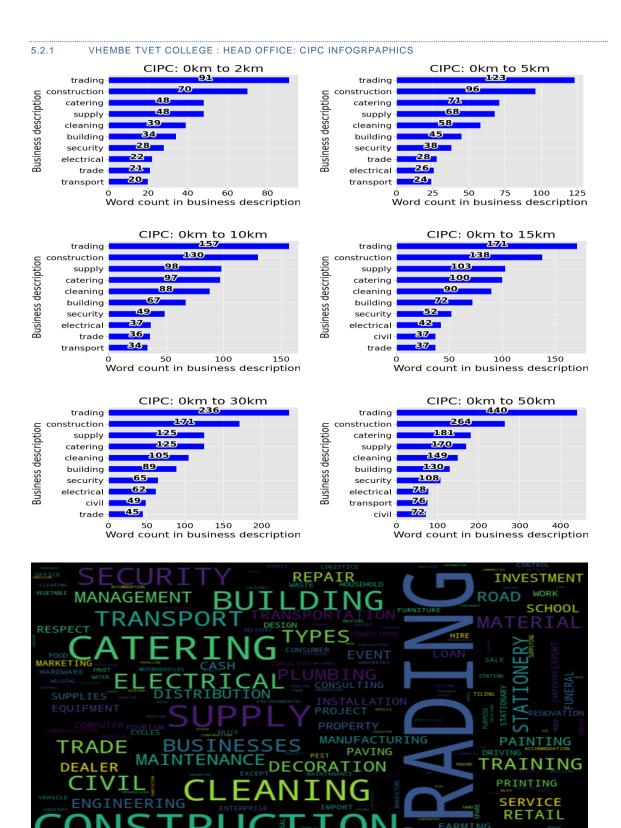
Sub-Classification: B 4 Location Confidence: 1 Province: Limpopo Municipality: Thulamela Local Municipality Town: Thohoyandou Address: Site 203A Sibasa Limpopo 0970 Head Office Travel Distance (km): 0.0 Head Office Travel Time (min): 0.0



 Travel distance (km)

 0 to 5
 5 to 10
 10 to 15
 15 to 20
 20 to 25
 25 to 30
 30 to 35
 35 to 40
 40 to 45
 45 to 50





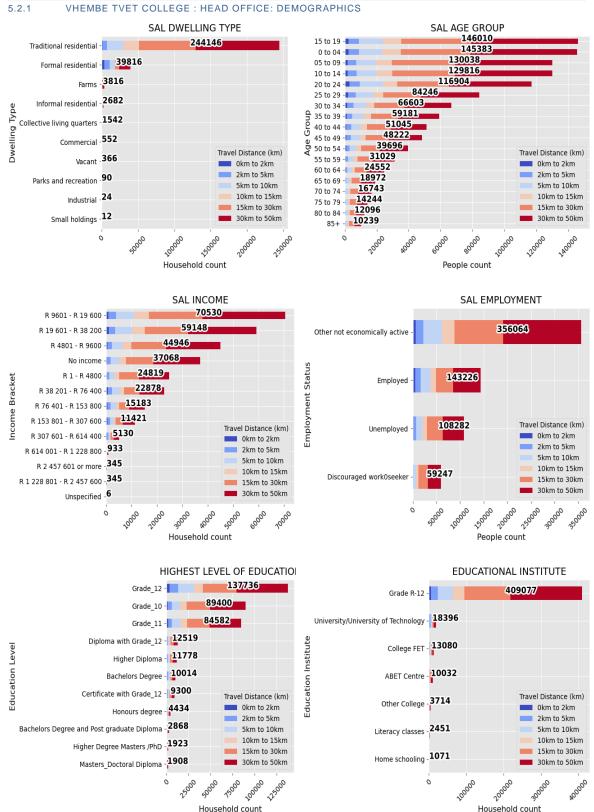
MOTOR

GOODS

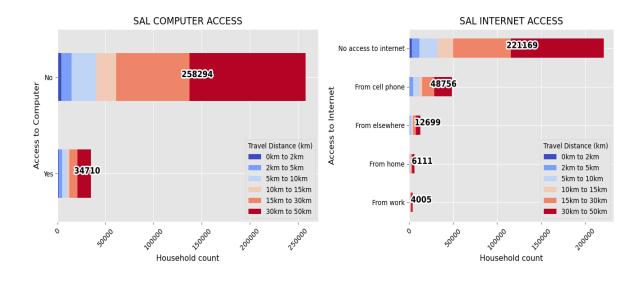
SUPPL

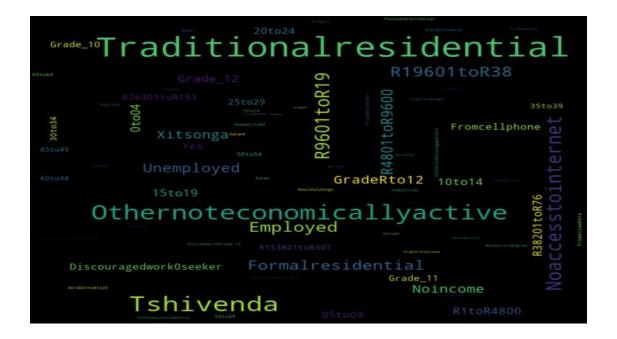
FINANCIAL

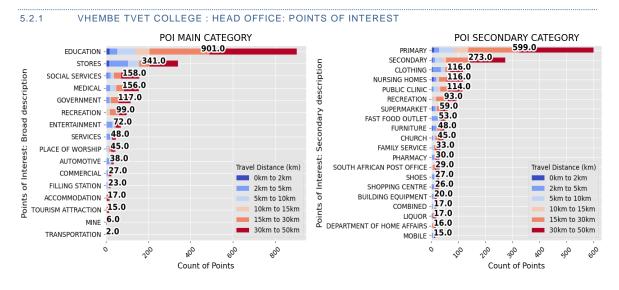
DEVELOPMENT



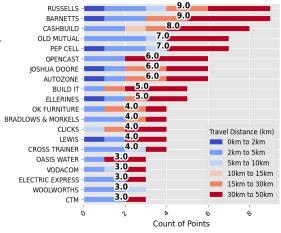
Household count

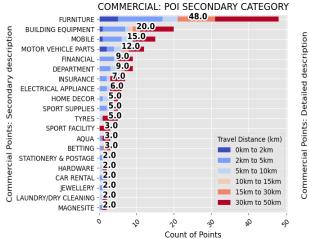






COMMERCIAL: POI DETAILED CATEGORY





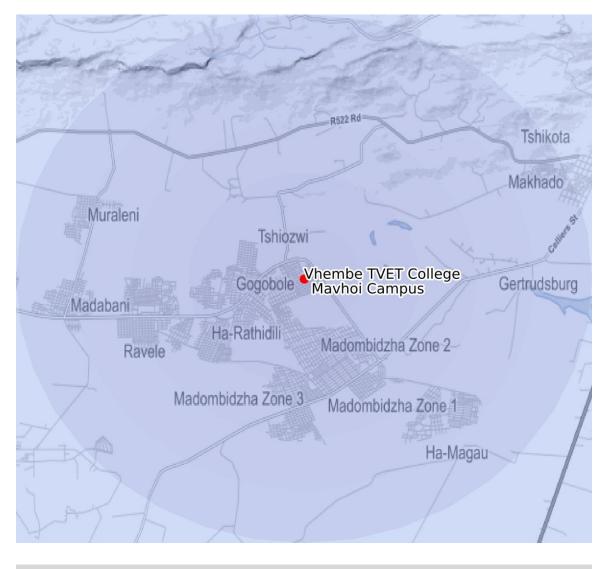


# 5.2.2 VHEMBE TVET COLLEGE : MAVHOI CAMPUS

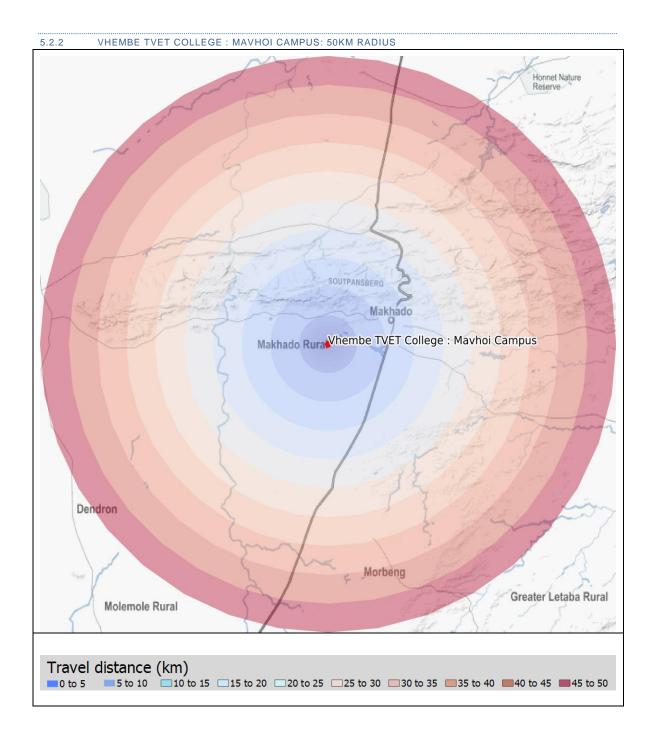


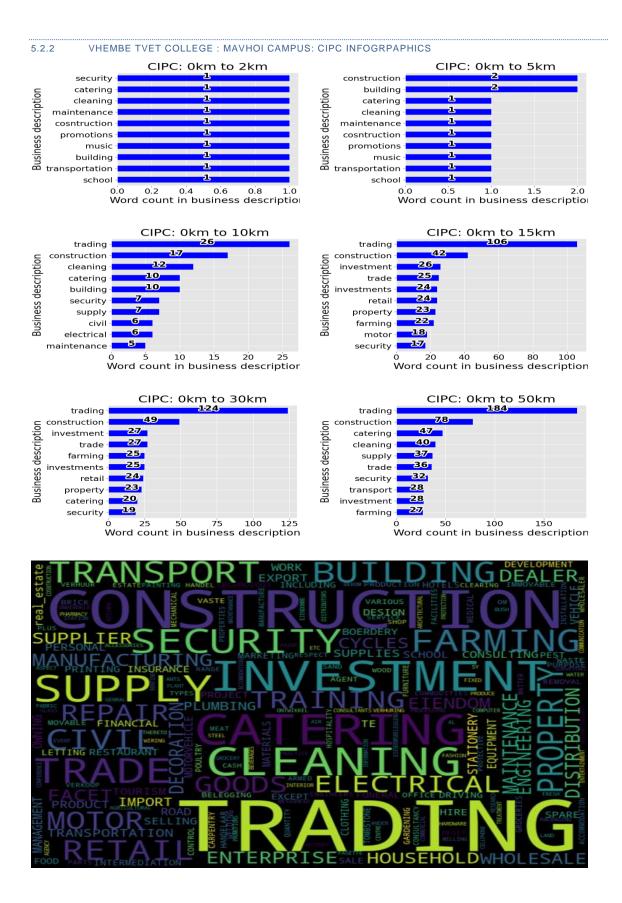
WESTERN CAPE

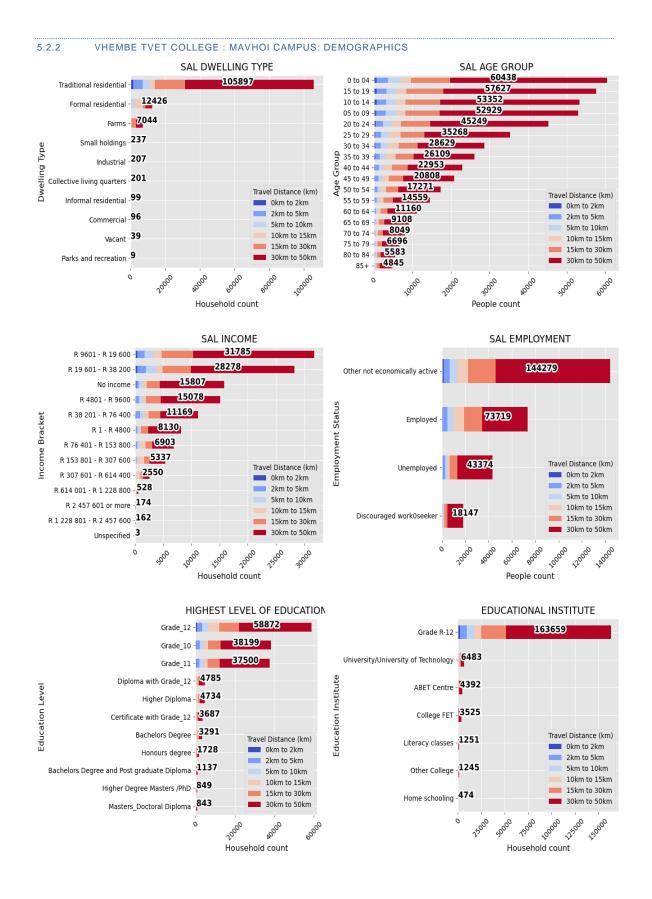
Sub-Classification: B 4 Location Confidence: 8 Province: Limpopo Municipality: Greater Tzaneen Local Municipality Town: Makhado Rural Address: Plot 2769 Makongoza Biaba Dzanini 0920 Head Office Travel Distance (km): 88.61 Head Office Travel Time (min): 93.32

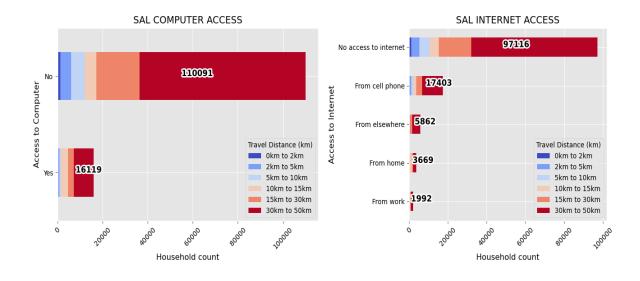


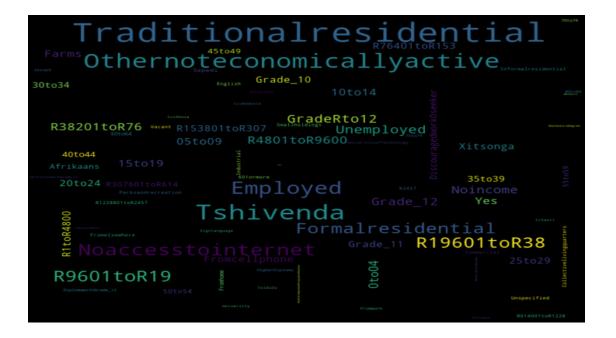
Travel distance (km)												
💶 0 to 5	💻 5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	🔲 30 to 35	35 to 40	<b>40</b> to 45	45 to 50			

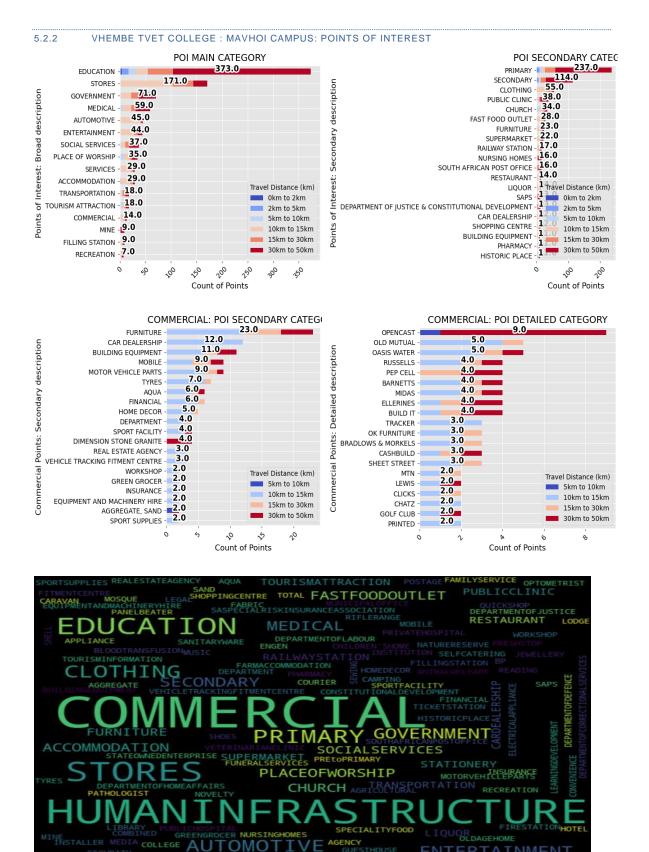












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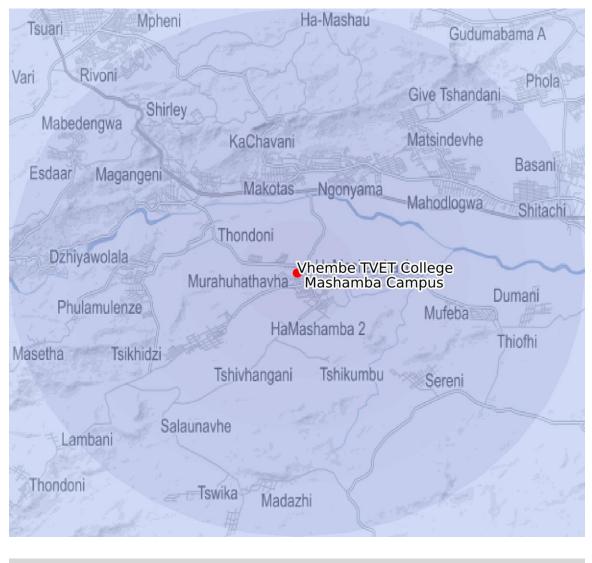
ENTERTAINMENT

# 5.2.3 VHEMBE TVET COLLEGE : MASHAMBA CAMPUS



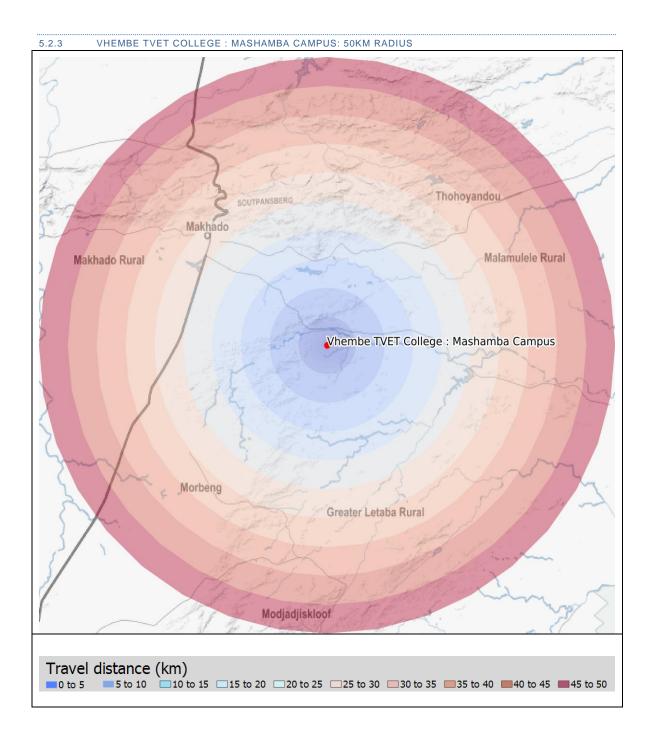
WESTERN CAPE

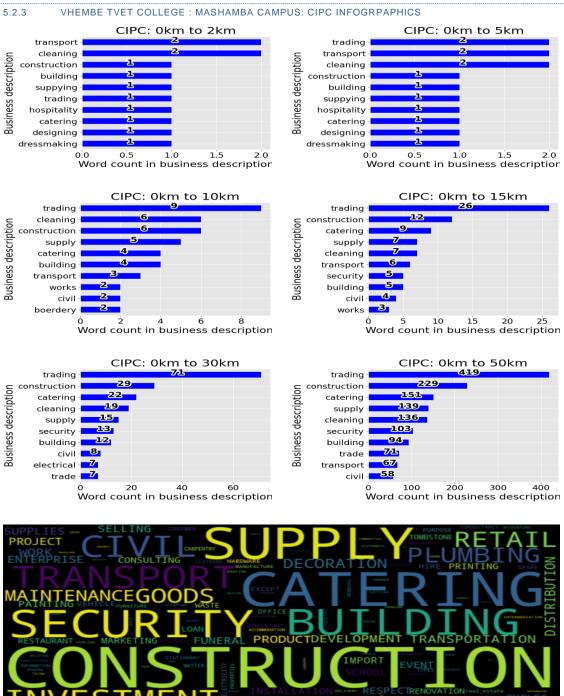
Sub-Classification: B 4 Location Confidence: 8 Province: Limpopo Municipality: Thulamela Local Municipality Town: Makhado Rural Address: Stand 19 Mashamba Village, Sibasa 0920 Head Office Travel Distance (km): 60.3 Head Office Travel Time (min): 82.55



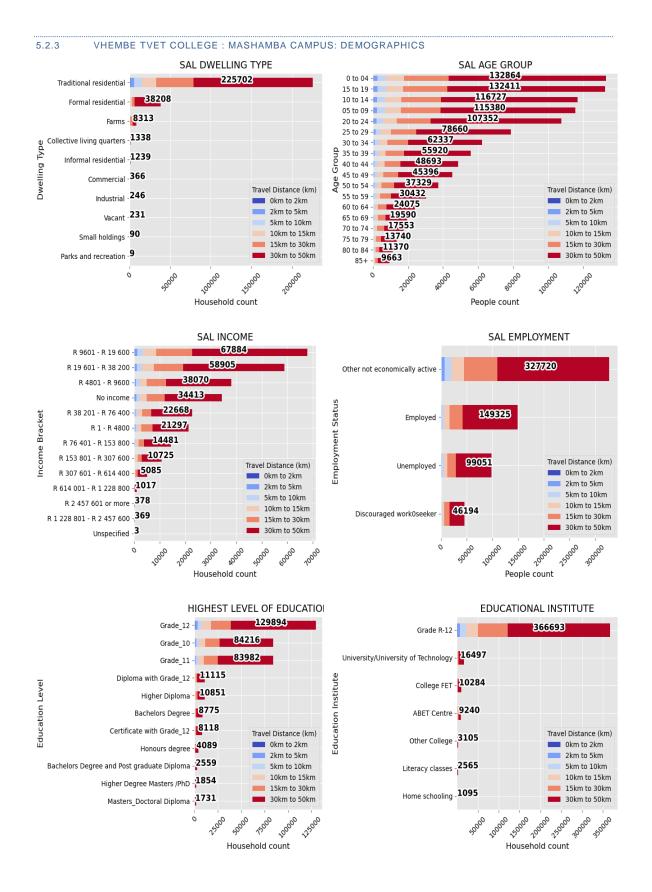
 Travel distance (km)

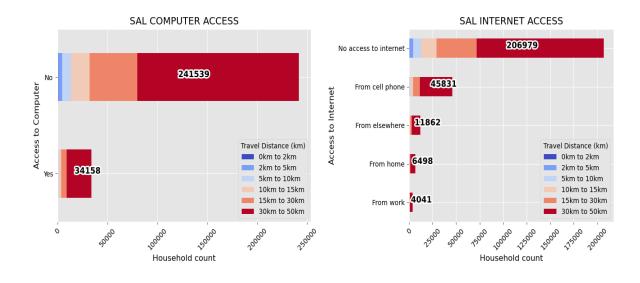
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 30 to 35
 35 to 40
 40 to 45
 45 to 50

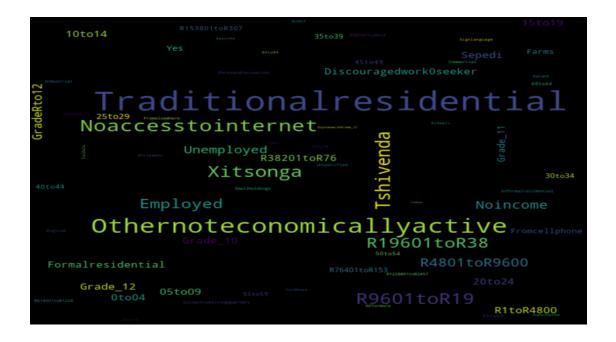


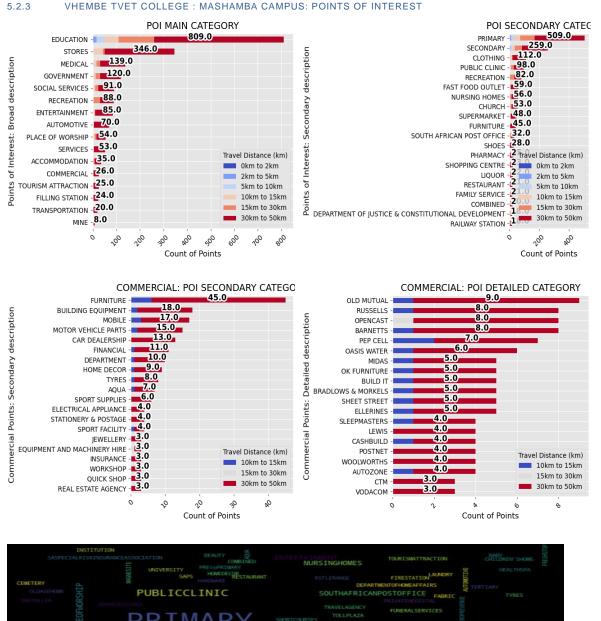


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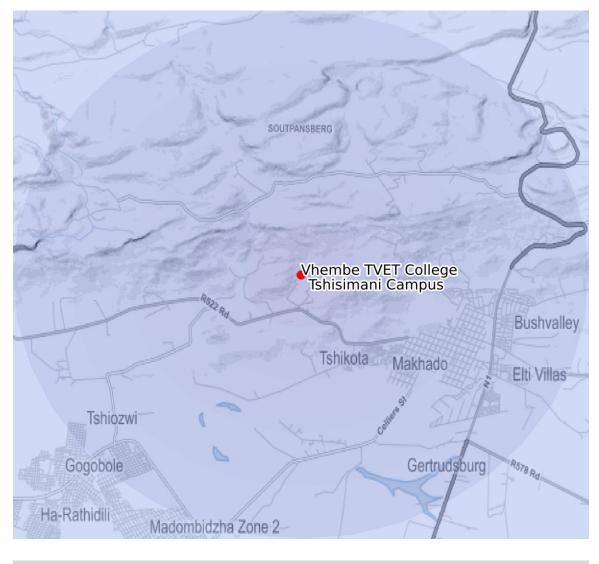


# 5.2.4 VHEMBE TVET COLLEGE : TSHISIMANI CAMPUS



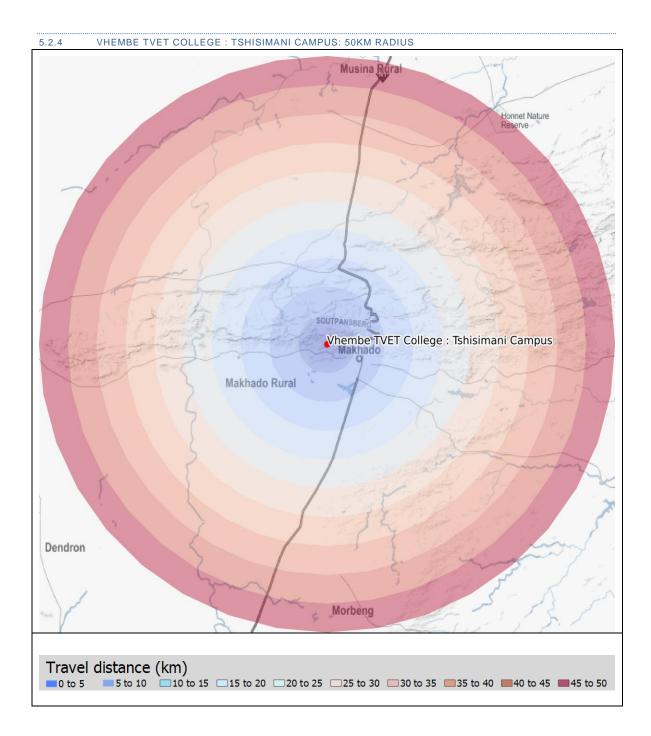
WESTERN CAPE

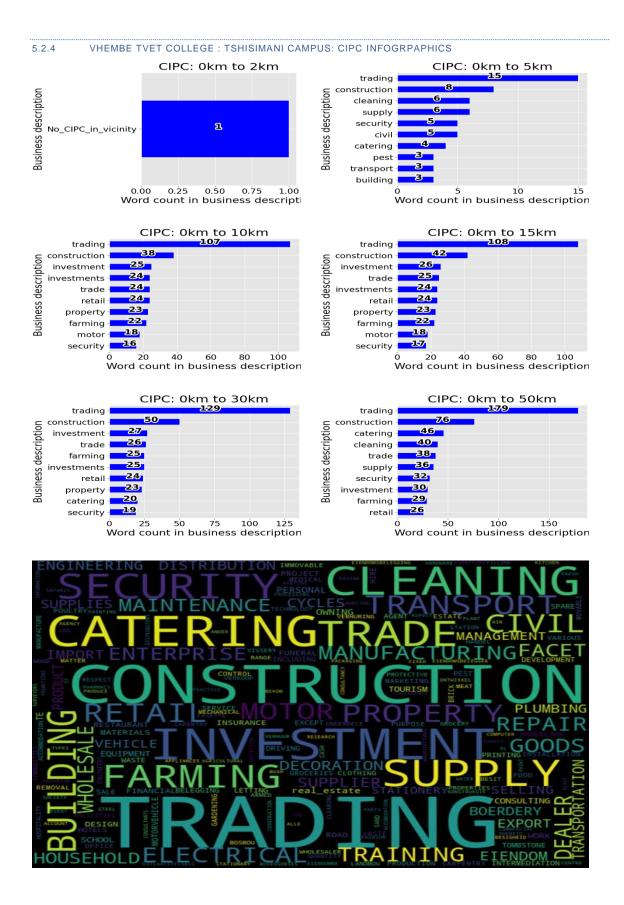
Sub-Classification: B 4 Location Confidence: 7 Province: Limpopo Municipality: Makhado Municipality Town: Makhado Rural Address: Stand 016 Tshakhuma Luvhalani Village, Makhado 0958 Head Office Travel Distance (km): 80.99 Head Office Travel Time (min): 87.03

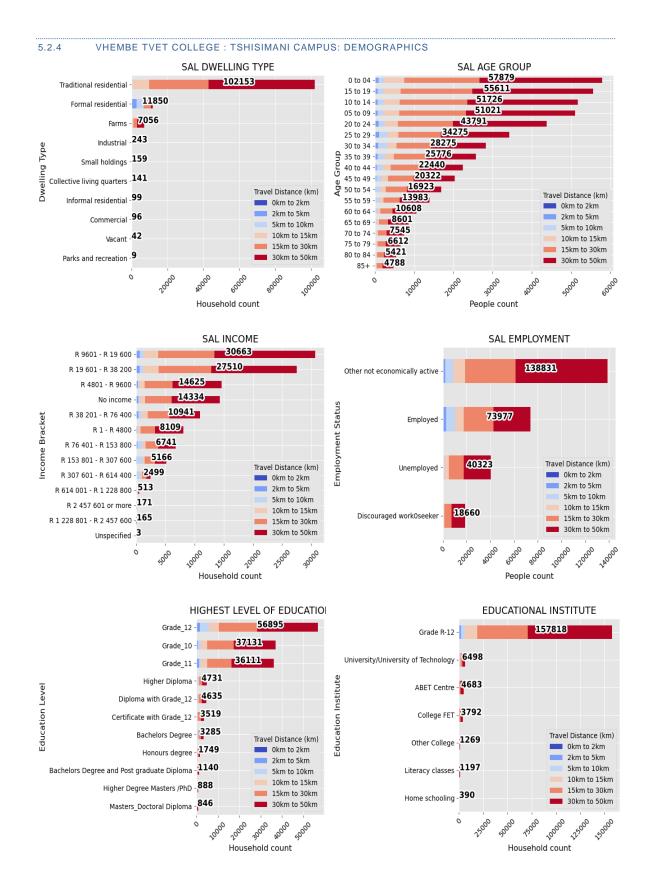


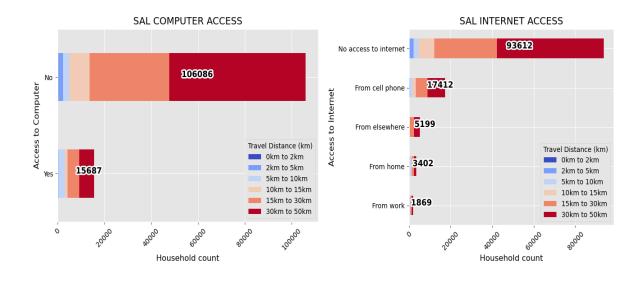
 Travel distance (km)

 0 to 5
 5 to 10
 10 to 15
 15 to 20
 20 to 25
 25 to 30
 30 to 35
 35 to 40
 40 to 45
 45 to 50

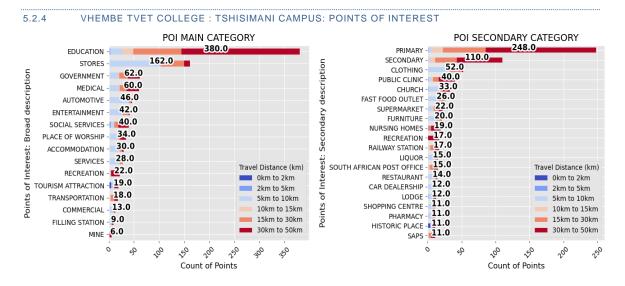




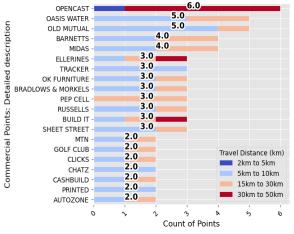


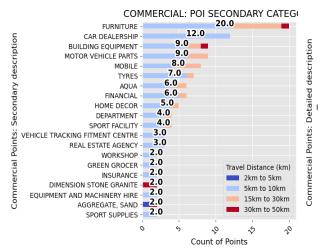






COMMERCIAL: POI DETAILED CATEGORY





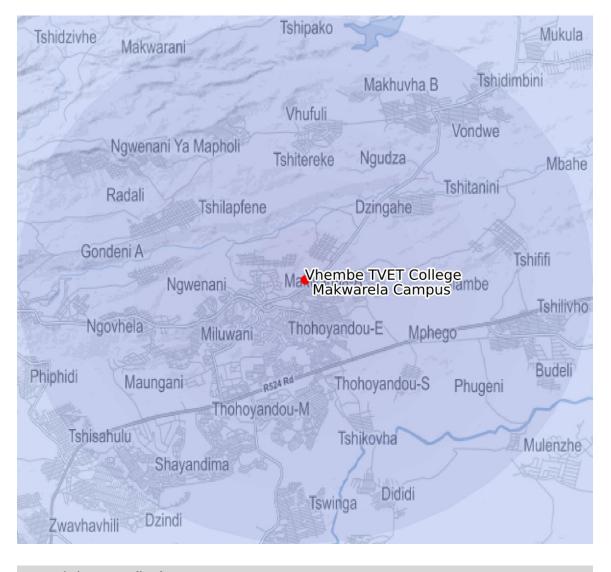


# 5.2.5 VHEMBE TVET COLLEGE : MAKWARELA CAMPUS



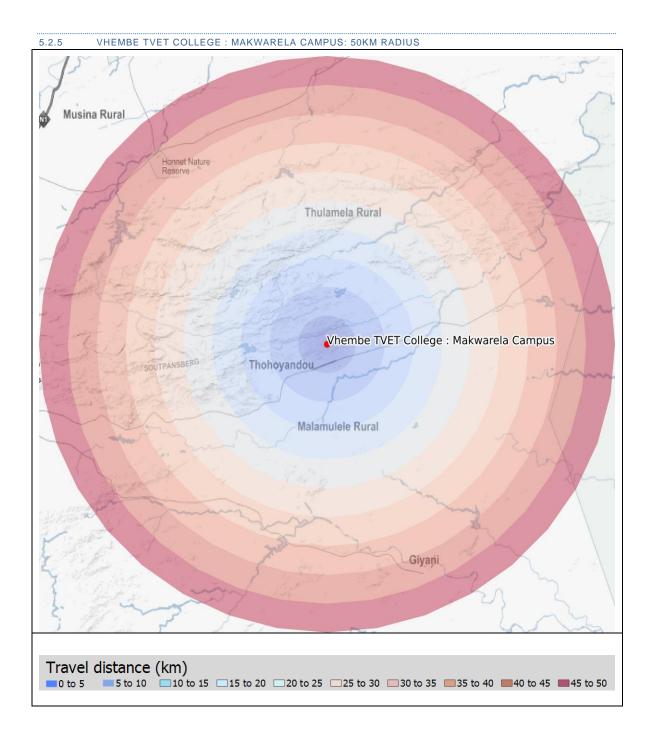
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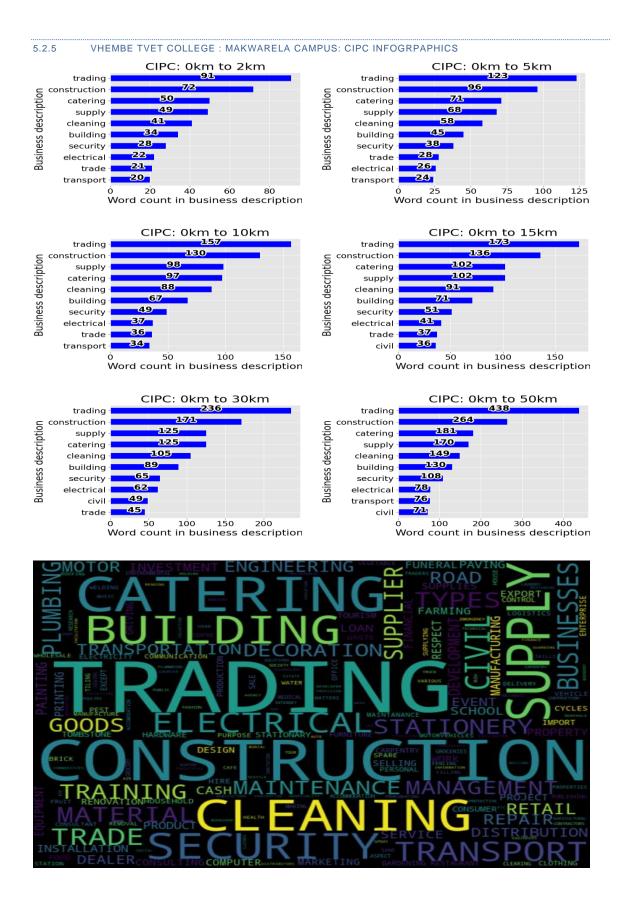
Sub-Classification: B 4 Location Confidence: 1 Province: Limpopo Municipality: Thulamela Local Municipality Town: Thohoyandou Address: Portion 15 OF 278 Mphaphuli Sibasa 0970 Head Office Travel Distance (km): 0.36 Head Office Travel Time (min): 0.43

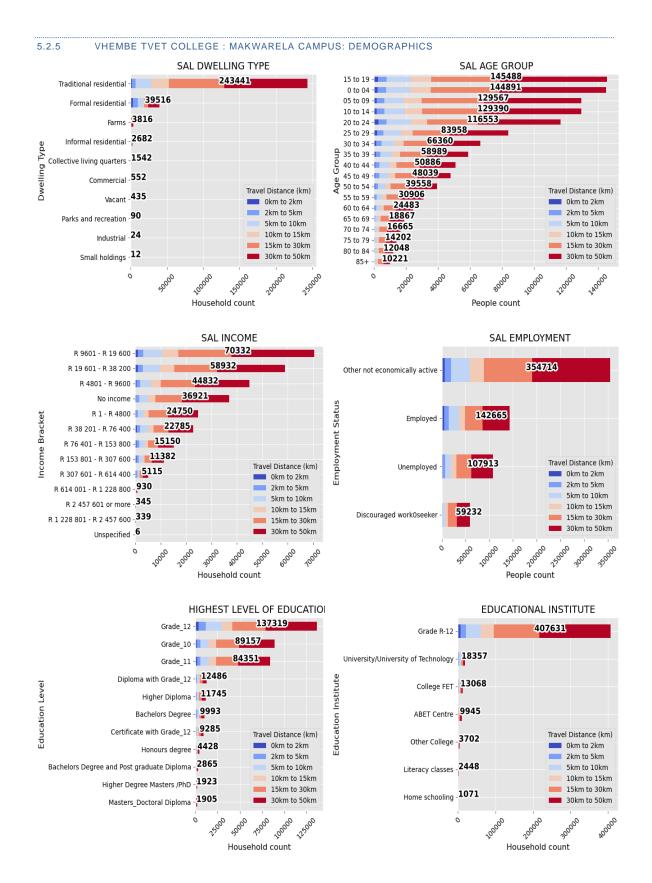


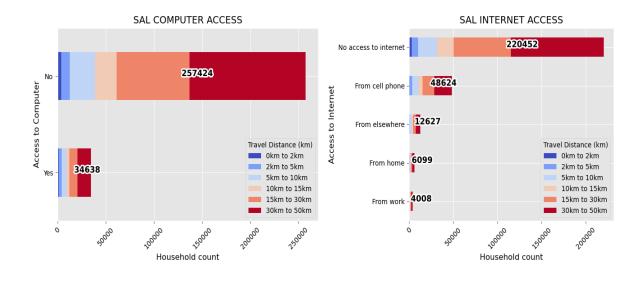
Travel distance (km)

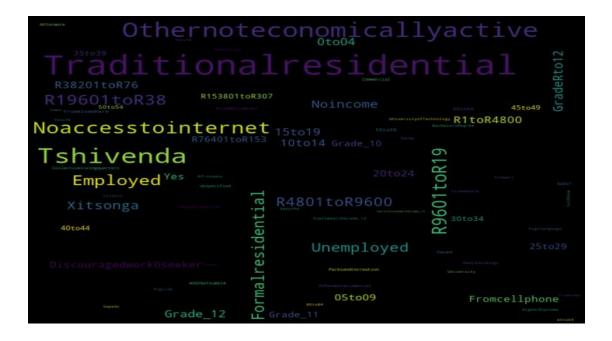
**0** to 5 **5** to 10 **10** to 15 **15** to 20 **20** to 25 **25** to 30 **30** to 35 **35** to 40 **40** to 45 **45** to 50

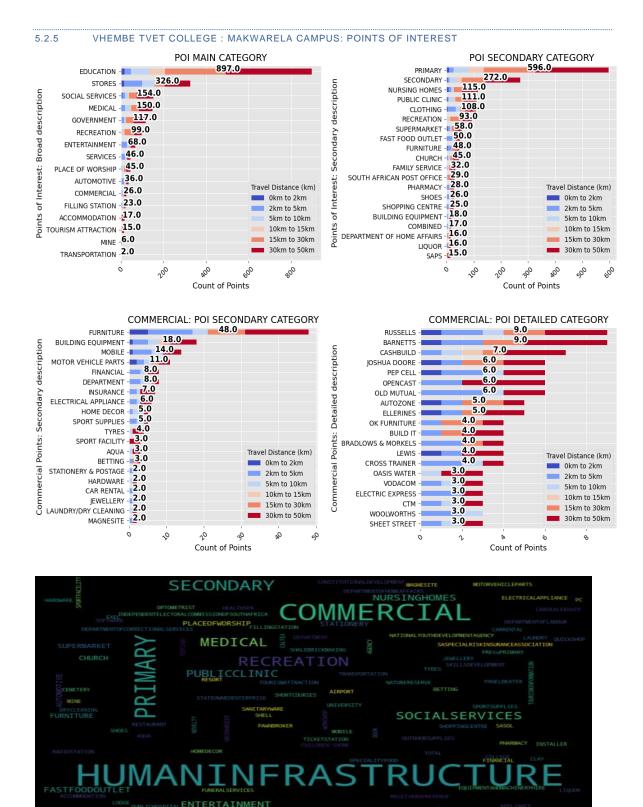












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CLOTHING

FAMILYSERVICE

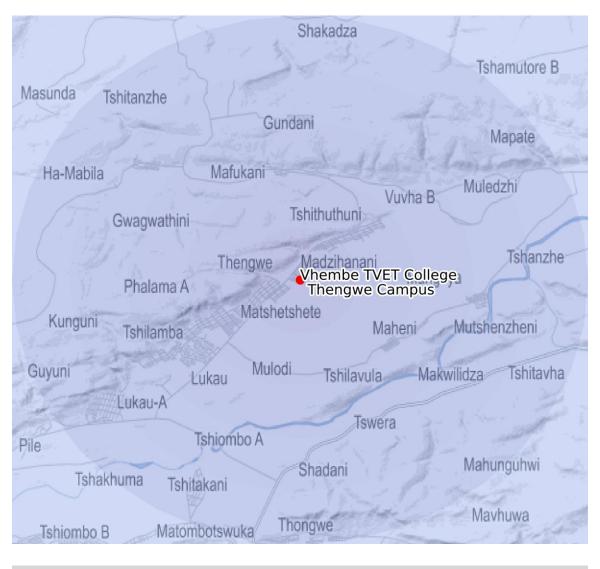
VENTOE RISTICE

## 5.2.6 VHEMBE TVET COLLEGE : THENGWE CAMPUS

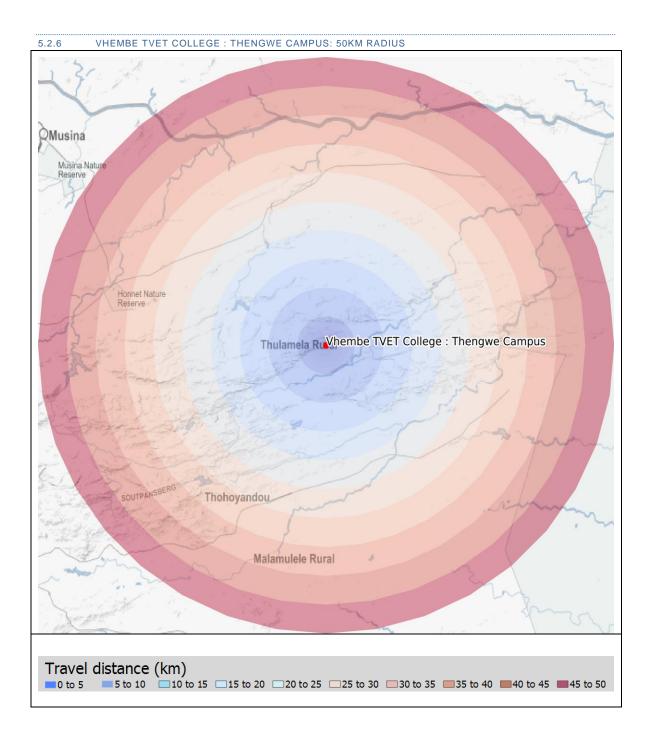


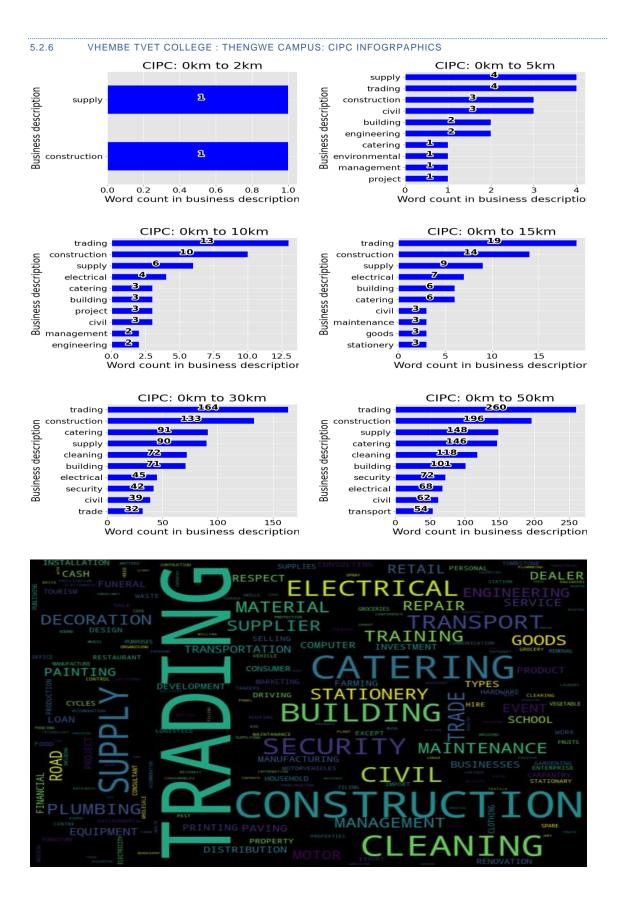
WESTERN CAPE

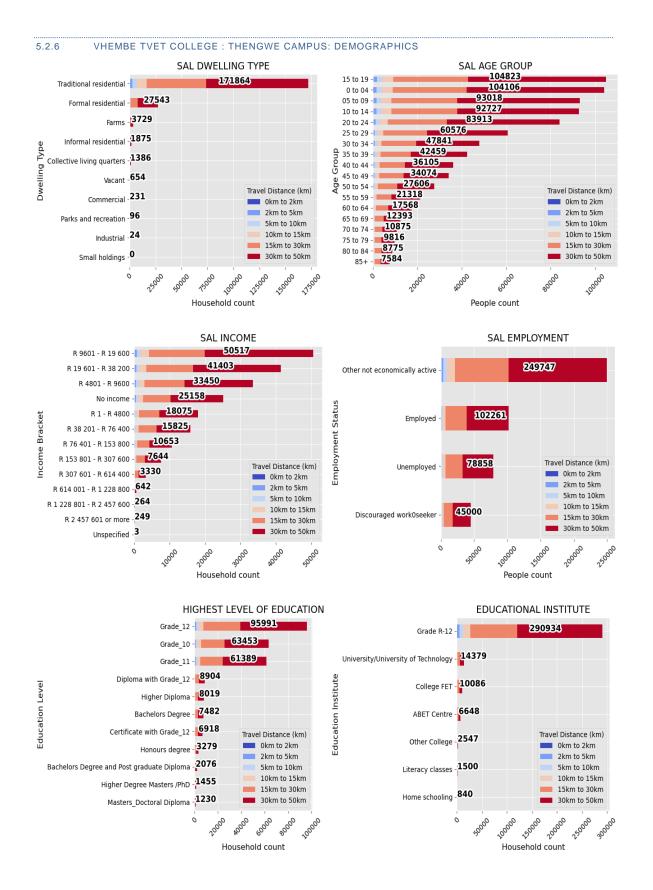
Sub-Classification: B 4 Location Confidence: 8 Province: Limpopo Municipality: Thulamela Local Municipality Town: Thulamela Rural Address: Stand 1000 Tshilamba Village 0970 Head Office Travel Distance (km): 34.23 Head Office Travel Time (min): 56.92

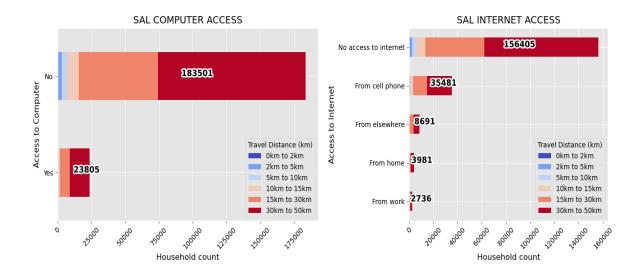


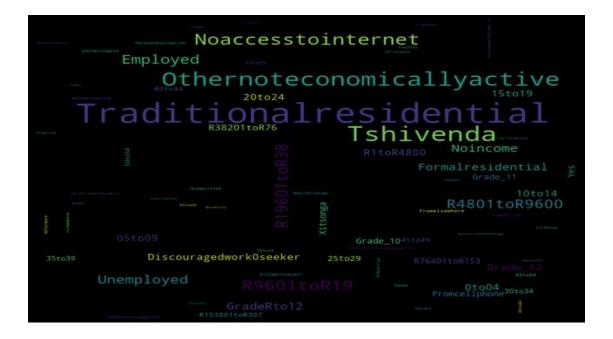
## Travel distance (km) 0 to 5 5 to 10 10 to 15 15 to 20 20 to 25 25 to 30 30 to 35 35 to 40 40 to 45 45 to 50

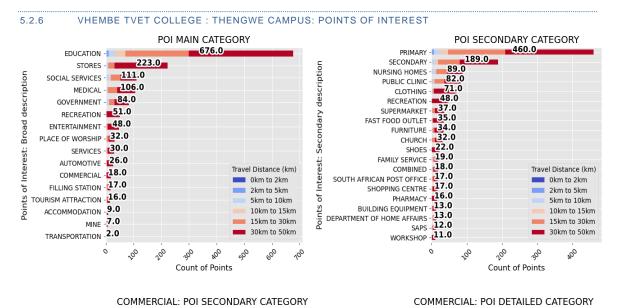












Secondary description

Points:

Commercial

34.0 7.0 FURNITURE BUILDING EQUIPMENT - 9.0 MOBILE - 9.0 MOTOR VEHICLE PARTS - 8.0 DEPARTMENT - 7.0 FURNITURE -RUSSELLS -13.0 6.0 BARNETTS Points: Detailed description 6.0 OPENCAST 5.0 CASHBUILD 4.0 ELLERINES FINANCIAL -4.0 JOSHUA DOORE HOME DECOR -4.0 HOME DECOR - 4.0 SPORT SUPPLIES - 4.0 ELECTRICAL APPLIANCE - 3.0 INSURANCE - 3.0 JEWELLERY - 2.0 AUTOZONE -4.0 OLD MUTUAL -4.0 PEP CELL 3.0 BUILD IT CROSS TRAINER 3.0 JEWELLERY 22.0 BETTING 20 BOOK 20 CAR RENTAL 20 CLAY/SHALE BRICKMAKING 2.0 AGGREGATE, SAND 2.0 PC'S & SOFTWARE 2.0 3.0 OK FURNITURE -WOOLWORTHS -3.0 BRADLOWS & MORKELS -Commercial 2.0 SHEET STREET -ELECTRIC EXPRESS -2.0 Travel Distance (km) Travel Distance (km) 2.0 CLICKS -MAGNESITE - 2.0 STATIONERY & POSTAGE - 2.0 5km to 10km 5km to 10km SLEEPMASTERS 2.0 15km to 30km 15km to 30km СТМ 2.0 COAL BITUMINOUS 30km to 50km 30km to 50km VAN SCHAIK -2.0 0 5 20 2 \$ ŕ 20 3 0 5 6 r З Þ. 1 Count of Points Count of Points

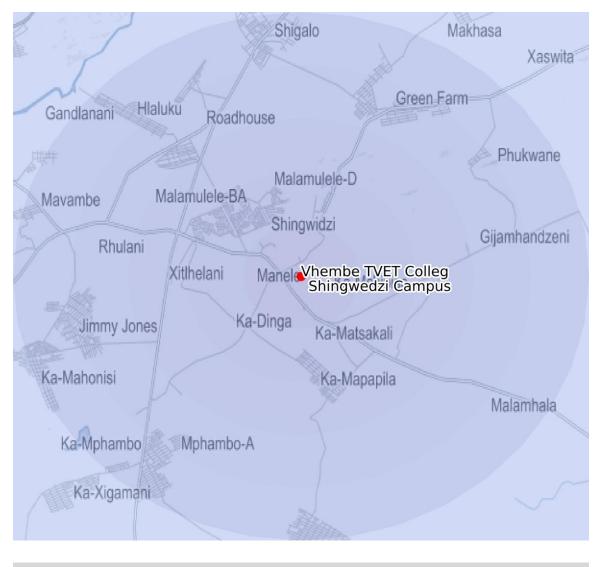
LEGAL	MOBILE	AUNCRY	DEDARTHENTOE HISTICS	RKSHOP JEWELLERY
PC SAPS		RECREATION URISVINFORMATION RVEHICLEPARTS	EDUCAT	
CASINO DUTDOORSUF				ate-NL Y
	JMAN]		ASTRUC	
B POS PATHOLOGIST	TAGE OPTOMETRIST NDEPENDENTPOLICEINVESTIGATI ITYPODO SASOL	PAWNBROKER ICCLINIC TYRES		NATURERESERVE COLLEGE MUTSTICHOP SOUTHAFRICA MITHE ERECTIAL TOURISMATTRACTION FAMILYSERVICE AFFAIRS NELBEATER
	RISKINSURANCEASSOCIATION SHOES ACCOMMISSION TOW MUNICIPALOFFICE SOCIALS		Y CARRENTAL AQUA CEMEJANTURE CEMEJANTURE CES HISTORICPLACE DESIGNATION CONTACTOR EQUIPMENTANOMACHINERWHIRE	RSHIP CLOTHING DESCRIPTION AGGREGATE SCALOPPICE

## 5.2.7 VHEMBE TVET COLLEGE: SHINGWEDZI CAMPUS

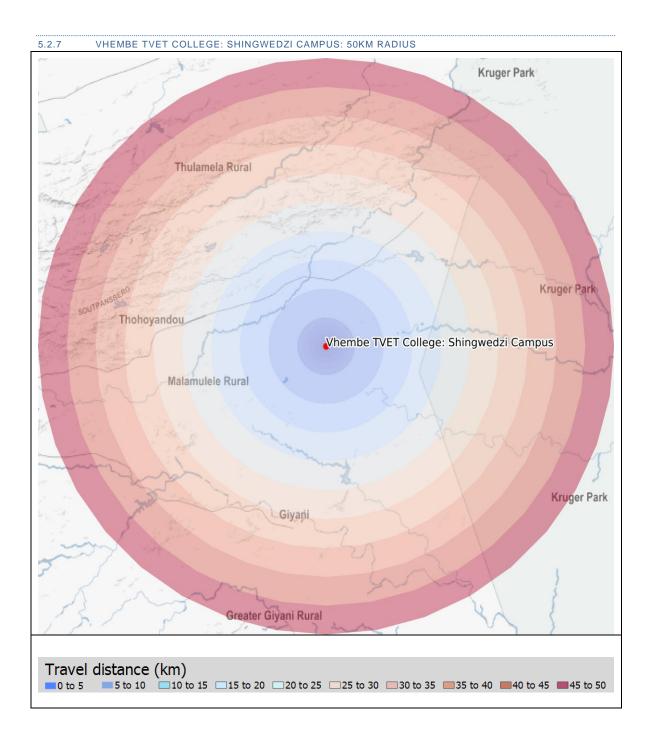


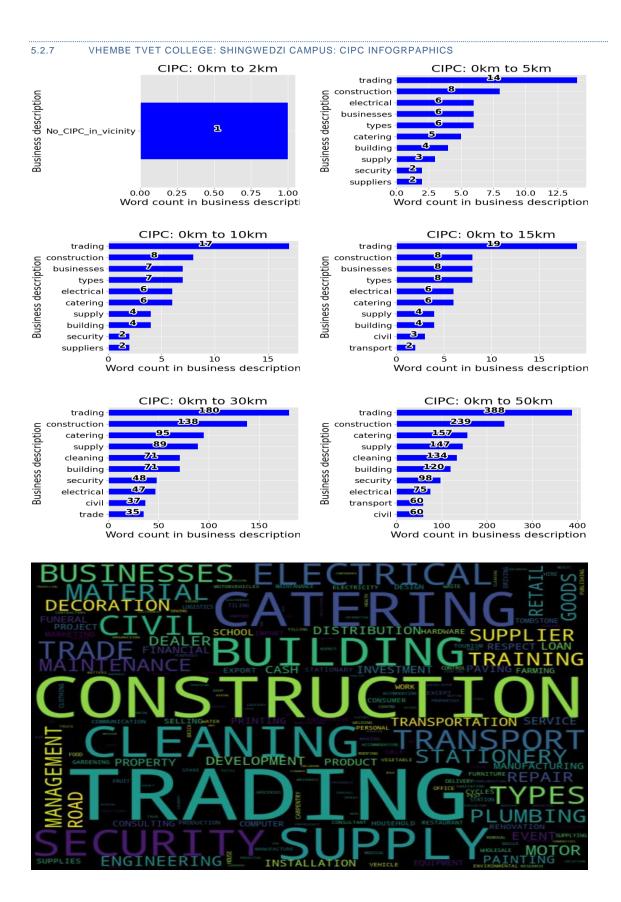
WESTERN CAPE

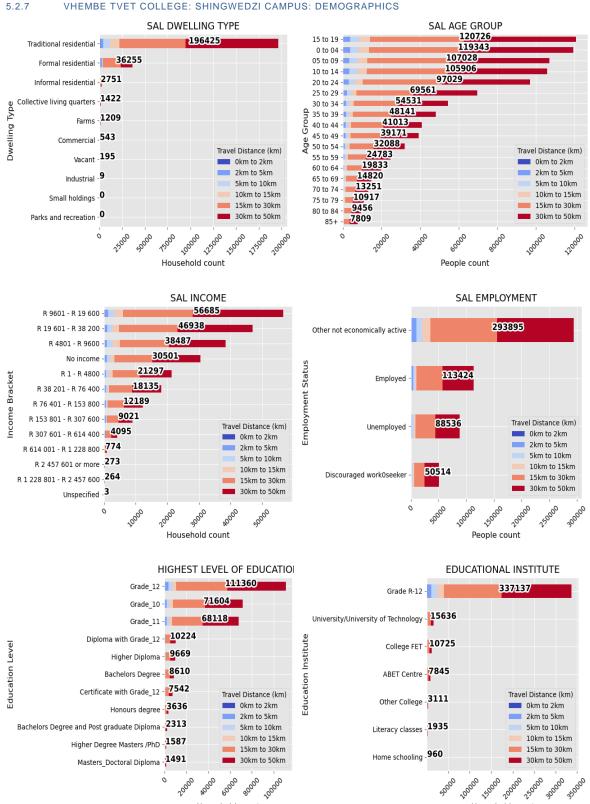
Sub-Classification: B 4 Location Confidence: 8 Province: Limpopo Municipality: Collins Chabane Local Municipality (It was established in 2016 by the merging of portions of two local municipalities: Thulamela and Makhado) Town: Malamulele Rural Address: 520 Madonsi Boltman B Menele Malamulele 0982 Head Office Travel Distance (km): 29.45 Head Office Travel Time (min): 46.32



Travel distance (km)										
💶 0 to 5	= 5 to 10	🔲 10 to 15	15 to 20	🗆 20 to 25	25 to 30	🔲 30 to 35	<b>35</b> to 40	<b>40</b> to 45	<b>45 to 50</b>	

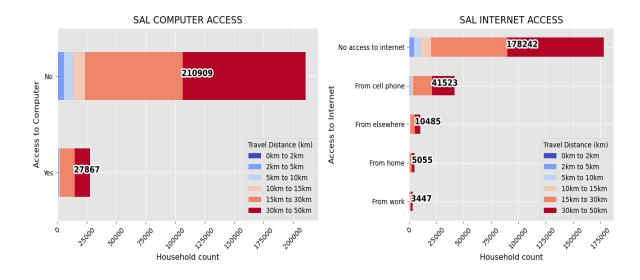


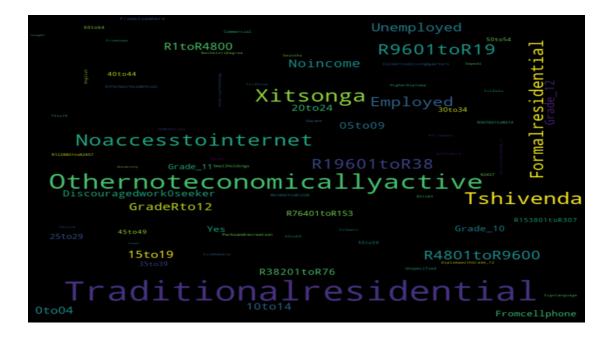


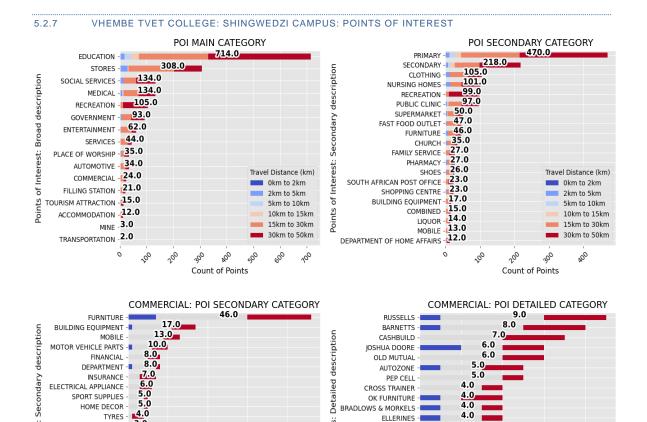


Household count

Household count







Commercial Points:

Travel Distance (km)

15km to 30km

30km to 50km

20

2km to 5km

4.0

4.0

4.0

Travel Distance (km)

2km to 5km

15km to 30km

30km to 50km

ዓ

3.0

3.0

3.0

3.0

3.0

3.0

3.0

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D.

Count of Points

6

ELLERINES

VODACOM

OPENCAST

ELECTRIC EXPRESS

WOOLWORTHS

SHEET STREET

LEWIS

CTM

CLICKS

BUILD IT -

0

5.0

2.0

2.0

2.0

2.0 2.0

0

20

Count of Points

30

0

TYRES - 4.0

BETTING - 3.0

AQUA -

HARDWARE -2.0

CAR RENTAL -

STATIONERY -

JEWELLERY -

HOME DECOR -

PC'S & SOFTWARE -

STATIONERY & POSTAGE - 2.0

LAUNDRY/DRY CLEANING - 2.0

Points:

Commercial

